

**Production-Side Purchasing Power Parity and Labor Productivity Comparison
for Japan, Korea and the US in 1935**

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Following the methodology of de Jong and Woltjer (2007), we estimate the PPP-adjusted labor productivity of Japan, Korea and the US in 1935. On this methodology, also see Broadberry and Burhop (2007) and Fremdling, de Jong and Timmer (2007). Several preceding studies, such as Pilat (1994), Choi (2006) and Kim, Duol and Park (2007) compared the labor productivity levels of the Japanese and the Korean manufacturing sector in the pre-war period. Their analysis is based on gross output per worker estimation.

Data

We obtained data from the following sources.

Gross output, number of workers, unit producer prices:

The Ministry of Commerce and Manufacturing (No Shomu-sho), *Census of Factories* (Kojo Tokei Hyo), 1935

Chosen Government-General (Chosen Sotoku-fu), *Statistics on Manufactured Products* (Kosan Tokei), 1935

US Department of Commerce, *Biennial Census of Manufactures*, 1935

Working hours:

Statistical Division of the Commerce and Manufacturing Minister's Office (Sho Ko Daijin Kanbo Tokei-ka), *Wage Statistics* (Chingin Tokei-hyo)

Chosen Government-General (Chosen Sotoku-fu), *Statistics on Manufactured Products* (Kosan Tokei), 1939

de Jong and Woltjer (2007) (sorry for quoting the preliminary result)

Value added/gross output ratio:

Nishikawa and Koshihara (1981)

Kim, Nak Nyeon (2006)

US Department of Commerce, *Biennial Census of Manufactures*, 1935

Major Results

Table 4. Relative labor productivity, based on market exchange rates (Japan=1)

| | Labor productivity | | | Relative labor productivity | |
|--------------------------------------------|--------------------|----------|-------|-----------------------------|------|
| | Japanese ¥ | Korean ¥ | US\$ | Exchange rate=3.42 yen/US\$ | |
| | Japan | Korea | US | Korean | US |
| Total | 4581 | 3607 | 5469 | 0.79 | 4.08 |
| Textiles and their products | 3330 | 2293 | 3356 | 0.69 | 3.45 |
| Metal industries | 8647 | 2985 | 5294 | 0.35 | 2.09 |
| Machinery | 3982 | 1238 | 5445 | 0.31 | 4.68 |
| Stone, clay, and glass products | 3055 | 1500 | 3605 | 0.49 | 4.04 |
| Chemicals and allied products | 7933 | 2734 | 7165 | 0.34 | 3.09 |
| Wood products | 2922 | 2283 | 2630 | 0.78 | 3.08 |
| Printing, publishing and allied industries | 3681 | 1700 | 4557 | 0.46 | 4.23 |
| Food and kindred products | 7390 | 6781 | 10237 | 0.92 | 4.74 |
| Miscellaneous industries | 2648 | 1750 | 6238 | 0.66 | 8.06 |

Table 5. Relative labor productivity, adjusted by PPP (Japan=1)

| | Relative price level | | Relative productivity | |
|--------------------------------------------|----------------------|-------------|-----------------------|------|
| | Japan=1 | | Adjusted by PPP | |
| | Korea | US | Korea | US |
| Total | 1.07 | 1.88 | 0.73 | 2.17 |
| Textiles and their products | 1.23 | 2.76 | 0.56 | 1.25 |
| Metal industries | 0.77 | 1.45 | 0.45 | 1.44 |
| Machinery | 0.53 | 1.69 | 0.59 | 2.76 |
| Stone, clay, and glass products | 0.98 | 2.42 | 0.50 | 1.67 |
| Chemicals and allied products | 0.95 | 2.52 | 0.36 | 1.23 |
| Wood products | <i>1.07</i> | <i>1.88</i> | 0.73 | 1.63 |
| Printing, publishing and allied industries | <i>1.07</i> | <i>1.88</i> | 0.43 | 2.25 |
| Food and kindred products | 0.84 | 1.22 | 1.09 | 3.88 |
| Miscellaneous industries | 1.51 | 5.46 | 0.44 | 1.47 |

Table 6. Relative productivity (man-hour basis), adjusted by PPP (Japan=1)

| | Annual hours worked | | | Relative productivity | |
|--------------------------------------------|---------------------|-------|------|-----------------------|------|
| | Adjusted by PPP | | | (man-hour basis) | |
| | Japan | Korea | US | Korea | US |
| Total | 3132 | 2431 | 1817 | 0.95 | 3.74 |
| Textiles and their products | 3209 | 2551 | 1774 | 0.71 | 2.26 |
| Metal industries | 3081 | 2696 | 1813 | 0.51 | 2.45 |
| Machinery | 3158 | 2758 | 1809 | 0.67 | 4.82 |
| Stone, clay, and glass products | 3003 | 2573 | 1812 | 0.58 | 2.77 |
| Chemicals and allied products | 3133 | 1930 | 1892 | 0.59 | 2.03 |
| Wood products | 2975 | 3690 | 1958 | 0.59 | 2.48 |
| Printing, publishing and allied industries | 3256 | 3097 | 1896 | 0.45 | 3.86 |
| Food and kindred products | 2958 | 2209 | 1962 | 1.46 | 5.84 |
| Miscellaneous industries | 3075 | 2380 | 1682 | 0.57 | 2.69 |

Table 7. Relative productivity (value-added basis), adjusted by PPP (Japan=1)

| | Single deflation | | | | |
|--------------------------------------|------------------|-------|-------|----------------------------------------------|------|
| | Value-add rate | | | Relative Productivity (value-added basis) | |
| | Japan | Korea | US | Adjusted by PPP | |
| | | | | Korea | US |
| Total | 0.249 | 0.328 | 0.418 | 0.97 | 3.64 |
| Textiles and their products | 0.117 | 0.289 | 0.423 | 1.39 | 4.52 |
| Metal industries | 0.231 | 0.197 | 0.416 | 0.38 | 2.60 |
| Machinery | 0.510 | 0.279 | 0.445 | 0.32 | 2.41 |
| Stone, clay, and glass products | 0.663 | 0.453 | 0.628 | 0.34 | 1.58 |
| Chemicals and allied products | 0.262 | 0.353 | 0.405 | 0.49 | 1.89 |
| Wood products | 0.652 | 0.250 | 0.533 | 0.28 | 1.34 |
| Printing, publishing and allied indu | 0.409 | 0.335 | 0.594 | 0.35 | 3.26 |
| Food and kindred products | 0.141 | 0.344 | 0.293 | 2.65 | 8.03 |
| Miscellaneous industries | 0.368 | 0.339 | 0.399 | 0.40 | 1.60 |

Table 8. Relative productivity (value-added/man-hour basis), adjusted by PPP (Japan=1)

| | Single deflation | | | | |
|-------------------------------------------|------------------|--------------|-------|-------------------------------------------------------|-------|
| | Value-add rate | | | Relative Productivity (value-added/man-hour basis) | |
| | Japan | Korea | US | Adjusted by PPP | |
| | | | | Korea | US |
| Total | 0.249 | 0.328 | 0.418 | 1.25 | 6.28 |
| Textiles and their products | 0.117 | 0.289 | 0.423 | 1.75 | 8.18 |
| Metal industries | 0.231 | 0.197 | 0.416 | 0.43 | 4.41 |
| Machinery | 0.510 | 0.279 | 0.445 | 0.37 | 4.21 |
| Stone, clay, and glass products | 0.663 | 0.453 | 0.628 | 0.40 | 2.62 |
| Chemicals and allied products | 0.262 | 0.353 | 0.405 | 0.80 | 3.13 |
| Wood products | 0.652 | 0.250 | 0.533 | 0.23 | 2.03 |
| Printing, publishing and allied industrie | 0.409 | 0.335 | 0.594 | 0.37 | 5.60 |
| Food and kindred products | 0.141 | 0.344 | 0.293 | 3.55 | 12.11 |
| Miscellaneous industries | 0.368 | 0.339 | 0.399 | 0.52 | 2.92 |

For more detail, please see the tables at the end of this handout.

Implications

TABLE 7
EAST ASIAN PRICE LEVELS RELATIVE TO THE U.S. (1934-36)

| | Expenditure Weight | | | | Relative Price Level (Fisher average, U.S. = 1) | | |
|------------------------|--------------------|-------|-------|------|----------------------------------------------------|-------|-------|
| | Taiwan | Korea | Japan | U.S. | Taiwan | Korea | Japan |
| Consumption | 0.73 | 0.84 | 0.70 | 0.77 | 0.39 | 0.43 | 0.45 |
| Private investment | 0.20 | 0.11 | 0.18 | 0.08 | 0.47 | 0.49 | 0.50 |
| Government expenditure | 0.07 | 0.05 | 0.12 | 0.15 | 0.24 | 0.25 | 0.28 |
| GDP | 1.00 | 1.00 | 1.00 | 1.00 | 0.38 | 0.41 | 0.43 |

Source: Price levels and weights for Korea and Taiwan are based on Fukao *et al.* (2006). U.S. weights are based on U.S. Department of Commerce (1998, p. 147).

Source: Fukao, Ma and Yuan (2007).

TABLE 8
1934–36 EAST ASIAN PER CAPITA GDPs IN 1934–36 U.S. DOLLARS AND RELATIVE TO THE U.S.

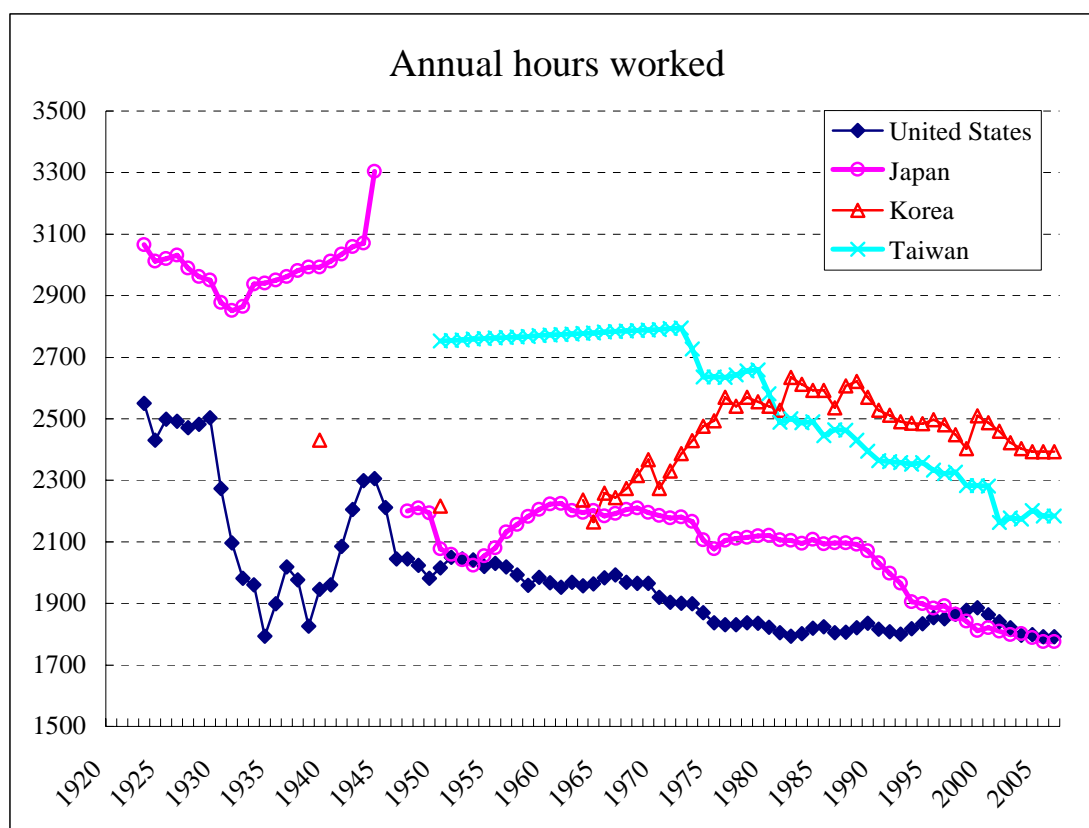
| | U.S. | Japan | Taiwan | Korea | China |
|-------------------------------------|-------|-------|--------|-------|-------|
| 1. Exchange rate converted estimate | 574.7 | 77.1 | 49.2 | 29.1 | 20.1 |
| | 100% | 13.4% | 8.6% | 5.1% | 3.5% |
| 2. Relative GDP price levels | 1 | 0.43 | 0.38 | 0.41 | 0.32 |
| 3. PPP adjusted estimate = 1 ÷ 2 | 574.7 | 180.8 | 129.6 | 70.9 | 63.6 |
| | 100% | 31.5% | 22.6% | 12.3% | 11.1% |

Source:

1. GDP for China from Liu and Yeh (1965, p. 68, table 10); for Japan from Ohkawa and Shinohara (1979), for Taiwan and Korea from Mizoguchi and Umemura (1988); for the U.S. from the *Historical Statistics of the U.S.* (the Bicentennial Edition, 1975).

2. 1934–36 exchanges rates: 1 U.S. dollar = 3.43 Japanese yen = 3.01 Chinese yuan (Hsiao, 1974, p. 192). Taiwanese and Korean currencies are fixed at 1:1 to the Japanese currency.

Source: Fukao, Ma and Yuan (2007).



Sources: After 1950, Groningen Growth and Development Centre and the Conference Board, Total Economy Database, January 2007, <http://www.ggd.net>

For Japan, before 1950, Showa Kokusei Soran (Statistics on the State of Japan in Showa Period). The data is on manufacturing factories.

For U.S., before 1950, Ethel B. Jones New (1963) 'Estimates of Hours of Work Per Week and Hourly Earnings, 1900-1957', *The Review of Economics and Statistics*, Vol. 45, No. 4. pp. 374-385.

For Korea, 1939, Chosen Government-General (Chosen Sotoku-fu), *Statistics on Manufactured Products* (Kosan Tokei), 1939. After the War, the data is on South Korea.

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- Pilat, Dirk (1994) *The Economics of Rapid Growth: The Experience of Japan and Korea*, Edward Elgar, Aldershot, U.K., and Brookfield, U.S.

**Table 1. Summary statistics of manufacturing data
Japan 1935**

| | Number of establishments | Number of employees (thousands) | Value of products (million Japanese Yen) | Average productivity |
|--------------------------------------|--------------------------|---------------------------------|------------------------------------------|----------------------|
| Total | 84625 | 2361 | 10816 | 4581 |
| Textiles and their products | 25562 | 1007 | 3353 | 3330 |
| Metal industries | 7318 | 218 | 1882 | 8647 |
| Machinery | 10352 | 367 | 1463 | 3982 |
| Stone, clay, and glass products | 3896 | 93 | 283 | 3055 |
| Chemicals and allied products | 4644 | 229 | 1814 | 7933 |
| Wood products | 7267 | 85 | 249 | 2922 |
| Printing, publishing and allied indu | 3358 | 61 | 223 | 3681 |
| Food and kindred products | 13684 | 158 | 1168 | 7390 |
| Miscellaneous industries | 8544 | 144 | 382 | 2648 |

Korea 1935

| | Number of establishments | Number of employees | Value of products (million Korean Yen) | Average productivity |
|--------------------------------------|--------------------------|---------------------|----------------------------------------|----------------------|
| Total | 5584 | 167 | 604 | 3607 |
| Textiles and their products | 377 | 31 | 72 | 2293 |
| Metal industries | 239 | 7 | 21 | 2985 |
| Machinery | 324 | 7 | 9 | 1238 |
| Stone, clay, and glass products | 336 | 10 | 15 | 1500 |
| Chemicals and allied products | 1161 | 43 | 118 | 2734 |
| Wood products | 240 | 6 | 15 | 2283 |
| Printing, publishing and allied indu | 285 | 7 | 12 | 1700 |
| Food and kindred products | 2326 | 49 | 331 | 6781 |
| Miscellaneous industries | 296 | 6 | 10 | 1750 |

US 1935

| | Number of establishments | Number of employees | Value of products (million US\$) | Average productivity |
|--------------------------------------|--------------------------|---------------------|----------------------------------|----------------------|
| Total | 168436 | 8290 | 45340 | 5469 |
| Textiles and their products | 22847 | 1806 | 6061 | 3356 |
| Metal industries | 11852 | 1121 | 5934 | 5294 |
| Machinery | 13646 | 1492 | 8122 | 5445 |
| Stone, clay, and glass products | 5722 | 263 | 946 | 3605 |
| Chemicals and allied products | 15544 | 1218 | 8727 | 7165 |
| Wood products | 16127 | 632 | 1662 | 2630 |
| Printing, publishing and allied indu | 22606 | 475 | 2165 | 4557 |
| Food and kindred products | 48936 | 929 | 9511 | 10237 |
| Miscellaneous industries | 11156 | 355 | 2212 | 6238 |

Table 2. Japan's price level (1935, US=1)

| | Japanese weight | | | US weight | | | Japanese | | US | | Japanese/ US | Japanese price level | | |
|--------------------------------------------------------------|-----------------|----|--------------|--------------|----|-------------|------------------|----------------|----------------|-----------------|-----------------|----------------------|---------------------|-------------------|
| | I | II | III | I | II | III | Prices | Units | Prices | Units | | US weight | Japanes e weight | Fisher average |
| All industries | | | | | | | | | | | 0.673 | 0.419 | 0.531 | |
| <i>Steam turbines and steam locomotives are not included</i> | | | | | | | | | | | <i>0.882</i> | <i>0.421</i> | <i>0.609</i> | |
| Textiles and their products | 0.309 | | | 0.170 | | | | | | | | 0.385 | 0.341 | 0.362 |
| Silk and yarn | 0.545 | | | 0.216 | | | | | | | | 0.476 | 0.533 | 0.504 |
| Raw silk | | | 0.335 | | | 0.01 | 11.352 | kg | 2.09 | pounds | 0.71760328 | | | |
| Cotton yarn | | | 0.603 | | | 0.86 | 1.247 | kg | 0.34 | pounds | 0.48180474 | | | |
| Spun silk for sale | | | 0.047 | | | 0.09 | 5.847 | kg | 2.23 | pounds | 0.34746225 | | | |
| Twisted silk yarn | | | 0.015 | | | 0.03 | 10.558 | kg | 2.22 | pounds | 0.62923447 | | | |
| Fabrics | 0.431 | | | 0.757 | | | | | | | | 0.351 | 0.234 | 0.287 |
| Jeans | | | 0.041 | | | 0.03 | 0.132 | m | 0.12 | sq. yards | 0.28747594 | | | |
| Drills | | | 0.070 | | | 0.13 | 0.195 | m | 0.10 | sq. yards | 0.49603484 | | | |
| Other wide cotton fabrics | | | 0.775 | | | 0.28 | 0.168 | m | 0.21 | sq. yards | 0.20965829 | | | |
| All silk fabrics | | | 0.065 | | | 0.56 | 0.425 | m | 0.29 | sq. yards | 0.38924499 | | | |
| Jute bagging | | | 0.002 | | | 0.00 | 0.282 | m | 0.07 | sq. yards | 1.06743986 | | | |
| Rayon fabrics | | | 0.046 | | | 0.00 | 0.269 | m | 0.19 | sq. yards | 0.37102009 | | | |
| Rayon and cotton mixed fabrics | | | 0.000 | | | 0.00 | 0.227 | m | 0.20 | sq. yards | 0.31066081 | | | |
| Hosiery | 0.024 | | | 0.027 | | | | | | | | 0.586 | 0.380 | 0.472 |
| Underwear | | | 0.074 | | | 0.64 | 13.925 | doz. | 5.71 | doz. | 0.71090644 | | | |
| Total gloves | | | 0.926 | | | 0.36 | 2.330 | doz. | 1.85 | doz. | 0.36628887 | | | |
| Metals and metal products | 0.182 | | | 0.167 | | | | | | | | 0.732 | 0.648 | 0.689 |
| Metals | 0.714 | | | 0.506 | | | | | | | | 0.644 | 0.624 | 0.634 |
| Pig iron | | | 0.229 | | | 0.62 | 35.956 | tons | 16.95 | tons (2240 poui | 0.61833294 | | | |
| Ferro-alloys | | | 0.065 | | | 0.08 | 0.221 | kg | 73.67 | tons (2240 poui | 0.87586739 | | | |
| Steel plains | | | 0.173 | | | 0.09 | 0.093 | kg | 70.92 | tons (2240 poui | 0.38149155 | | | |
| Copper casting, rough | | | 0.076 | | | 0.01 | 738.087 | tons | 168.91 | tons | 1.27398808 | | | |
| Copper plate | | | 0.042 | | | 0.04 | 0.816 | kg | 281.07 | tons | 0.84621103 | | | |
| Copper wire | | | 0.165 | | | 0.03 | 0.783 | kg | 0.14 | pounds | 0.76319025 | | | |
| Copper tubing, seamless, and pipe | | | 0.021 | | | 0.02 | 1.006 | kg | 354.19 | tons | 0.82824559 | | | |
| Other copper metals | | | 0.004 | | | 0.00 | 0.756 | kg | 0.21 | pounds | 0.47267637 | | | |
| Zinc casting, rough | | | 0.035 | | | 0.01 | 0.303 | kg | 98.02 | tons | 0.90255767 | | | |
| Zinc plates and sheets | | | 0.011 | | | 0.01 | 0.259 | kg | 162.84 | tons | 0.46458196 | | | |
| Lead | | | 0.001 | | | 0.02 | 0.253 | kg | 88.24 | tons | 0.83678428 | | | |
| Lead plates | | | 0.022 | | | 0.00 | 0.265 | kg | 133.20 | tons | 0.57923749 | | | |
| Lead tubing | | | 0.021 | | | 0.00 | 0.273 | kg | 145.91 | tons | 0.54490934 | | | |
| Aluminum products | | | 0.098 | | | 0.05 | 1.507 | kg | 0.35 | pounds | 0.57296858 | | | |
| Tin | | | 0.038 | | | 0.00 | 3.617 | kg | 987.77 | tons | 1.06761142 | | | |
| Metal products | 0.286 | | | 0.494 | | | | | | | | 0.821 | 0.717 | 0.767 |
| Cast-iron pipe fitting | | | 0.241 | | | 0.14 | 0.089 | kg | 47.53 | 2000 pounds | 0.5441018 | | | |
| Nails, brads, and spikes | | | 0.248 | | | 0.12 | 7.097 | casks | 3.20 | kegs | 0.64739371 | | | |
| Tinplate | | | 0.511 | | | 0.74 | 0.310 | kg | 0.05 | pounds | 0.89957585 | | | |
| Machinery, including transportation equipment | 0.138 | | | 0.228 | | | | | | | | 0.963 | 0.363 | 0.591 |
| Engines and turbines | 0.148 | | | 0.042 | | | | | | | | 0.777 | 0.560 | 0.660 |
| Steam engines | | | 0.056 | | | 0.08 | 7774.674 | numbers | 3117.31 | numbers | 0.72712331 | | | |
| Steam turbines | | | 0.532 | | | 0.65 | 56423.080 | numbers | 5178.39 | numbers | 1 | | | |
| Internal combustion engines (General gasoline) | | | 0.334 | | | 0.06 | 186.070 | numbers | 137.29 | numbers | 0.39512973 | | | |

Table 2. Japan's price level (1935, US=1)

| | Japanese weight | | | US weight | | | Japanese | | US | | Japanese/ US | Japanese price level | | |
|--------------------------------------------|-----------------|--------------|-------|-----------|--------------|------|------------|---------|----------|-------------|-----------------|----------------------|---------------------|-------------------|
| | I | II | III | I | II | III | Prices | Units | Prices | Units | | US weight | Japanes e weight | Fisher average |
| Water wheels and water turbines | | | 0.078 | | | 0.22 | 12431.677 | numbers | 15466.29 | numbers | 0.23434158 | | | |
| Electric Machinery | | 0.412 | | | 0.404 | | | | | | | 0.872 | 0.206 | 0.424 |
| Power transformers | | | 0.612 | | | 0.14 | 68.758 | numbers | 144.10 | numbers | 0.13911373 | | | |
| Fans | | | 0.028 | | | 0.06 | 20.111 | numbers | 4.83 | numbers | 1.21348509 | | | |
| Storage batteries | | | 0.046 | | | 0.58 | 14.572 | numbers | 4.09 | numbers | 1.03924895 | | | |
| Dry batteries | | | 0.257 | | | 0.14 | 0.120 | numbers | 0.03 | numbers | 1.05337318 | | | |
| Elevators, winding machines | | | 0.057 | | | 0.08 | 2913.606 | numbers | 2034.48 | numbers | 0.41752641 | | | |
| Transportation equipment | | 0.440 | | | 0.554 | | | | | | | 1.043 | 0.891 | 0.964 |
| Steam-railroad cars | | | 0.121 | | | 0.28 | 63050.548 | numbers | 2828.70 | numbers | 1 | | | |
| Electric-railroad cars | | | 0.005 | | | 0.04 | 16588.294 | numbers | 14119.41 | numbers | 0.34252392 | | | |
| Motor vehicles | | | 0.386 | | | 0.15 | 2587.950 | numbers | 331.38 | numbers | 2.27683369 | | | |
| Bicycles | | | 0.012 | | | 0.13 | 24.768 | numbers | 18.36 | numbers | 0.39327695 | | | |
| Steel ships | | | 0.451 | | | 0.26 | 249186.677 | numbers | ##### | numbers | 0.5862028 | | | |
| Wooden ships, etc | | | 0.025 | | | 0.14 | 2018.251 | numbers | 402.33 | numbers | 1.46250537 | | | |
| Stone, clay, and glass products | | 0.028 | | | 0.027 | | | | | | | 0.373 | 0.459 | 0.414 |
| Cement | | 0.500 | | | 0.030 | | | | | | | 0.619 | 0.618 | 0.618 |
| Portland cement | | | 0.985 | | | 0.99 | 3.213 | casks | 1.51 | barrels | 0.62148187 | | | |
| Natural, puzzolan, and masonry cement | | | 0.015 | | | 0.01 | 2.136 | casks | 1.42 | barrels | 0.43811532 | | | |
| Lime | | 0.029 | | | 0.057 | | | | | | | 0.276 | 0.276 | 0.276 |
| Lime | | | 1.000 | | | 1.00 | 6.997 | tons | 7.39 | tons | 0.27608544 | | | |
| Glass | | 0.338 | | | 0.693 | | | | | | | 0.361 | 0.361 | 0.361 |
| Shade Globes | | | 1.000 | | | 1.00 | 0.061 | numbers | 0.59 | doz. | 0.36077978 | | | |
| Clay products | | 0.132 | | | 0.220 | | | | | | | 0.405 | 0.405 | 0.405 |
| Common brick, Building brick | | | 1.000 | | | 1.00 | 0.014 | numbers | 10.07 | thousands | 0.40488385 | | | |
| Chemicals and allied products | | 0.188 | | | 0.080 | | | | | | | 0.317 | 0.497 | 0.397 |
| Chemicals not else where classified | | 0.254 | | | 0.029 | | | | | | | 0.904 | 0.854 | 0.878 |
| Sulfuric acid | | | 0.411 | | | 0.39 | 14.232 | tons | 7.11 | tons | 0.5836347 | | | |
| Nitric acid | | | 0.013 | | | 0.03 | 142.928 | tons | 87.46 | tons | 0.47643696 | | | |
| Soda ash | | | 0.522 | | | 0.35 | 74.998 | tons | 15.19 | tons | 1.43972563 | | | |
| Iodine | | | 0.005 | | | 0.00 | 8.887 | kg | 1.19 | pounds | 0.98608483 | | | |
| Chlorine | | | 0.025 | | | 0.10 | 0.102 | kg | 38.39 | tons | 0.77582156 | | | |
| Carbon dioxide | | | 0.007 | | | 0.06 | 0.145 | kg | 0.05 | pounds | 0.37084232 | | | |
| Alcohols | | | 0.017 | | | 0.08 | 0.756 | kg | 0.12 | pounds | 0.80286039 | | | |
| Ink, printing and writing | | 0.095 | | | 0.013 | | | | | | | 0.416 | 0.416 | 0.416 |
| Printing and lithographing inks | | | 1.000 | | | 1.00 | 0.680 | kg | 0.22 | pounds | 0.41640654 | | | |
| Soap | | 0.078 | | | 0.085 | | | | | | | 0.618 | 0.553 | 0.585 |
| Laundry soap (bar) | | | 0.793 | | | 0.39 | 0.189 | kg | 0.05 | pounds | 0.52815795 | | | |
| Laundry soap (powder) | | | 0.207 | | | 0.61 | 0.225 | kg | 0.04 | pounds | 0.67545208 | | | |
| Oil | | 0.217 | | | 0.205 | | | | | | | 0.320 | 0.318 | 0.319 |
| Fuel oil | | | 0.235 | | | 0.62 | 61.487 | tons | 0.23 | gallons | 0.12280569 | | | |
| Paraffin wax | | | 0.177 | | | 0.02 | 294.822 | tons | 0.19 | gallons | 0.70459417 | | | |
| Asphalt | | | 0.090 | | | 0.04 | 27.636 | tons | 10.79 | 2000 pounds | 0.74689383 | | | |
| Cotton seed oil | | | 0.301 | | | 0.16 | 0.339 | kg | 0.08 | pounds | 0.54194271 | | | |
| Linseed Oil | | | 0.158 | | | 0.07 | 0.410 | kg | 0.09 | pounds | 0.60649259 | | | |
| Miscellaneous animal oils and fats | | | 0.039 | | | 0.08 | 0.351 | kg | 0.06 | pounds | 0.78944071 | | | |
| Fertilizers | | 0.220 | | | 0.137 | | | | | | | 0.363 | 0.799 | 0.539 |
| Chemicals fertilizers | | | 0.835 | | | 0.01 | 55.206 | tons | 14.75 | tons | 1.0915278 | | | |

Table 2. Japan's price level (1935, US=1)

| | Japanese weight | | | US weight | | | Japanese | | US | | Japanese/ US | Japanese price level | | |
|---------------------------------------|------------------------------------|--------------|-------|-----------|--------------|------|----------|------------|--------|----------------|-----------------|----------------------|---------------------|-------------------|
| | I | II | III | I | II | III | Prices | Units | Prices | Units | | US weight | Japanes e weight | Fisher average |
| | | | 0.012 | | | 0.05 | 0.083 | kg | 25.52 | tons | 0.94285268 | | | |
| | | | 0.009 | | | 0.02 | 75.087 | tons | 25.11 | tons | 0.87175831 | | | |
| | | | 0.144 | | | 0.92 | 78.517 | tons | 33.46 | 2000 pounds | 0.31055949 | | | |
| Leather | | 0.028 | | | 0.433 | | | | | | | 0.141 | 0.144 | 0.142 |
| | Cattle leather | | 0.971 | | | 1.00 | 7.660 | pieces | 15.93 | sides | 0.14016582 | | | |
| | Horse, | | 0.029 | | | 0.00 | 5.912 | pieces | 1.74 | half and whole | 0.99022622 | | | |
| Gelatin and glue | | 0.006 | | | 0.010 | | | | | | | 0.669 | 0.622 | 0.645 |
| | Gelatin | | 0.670 | | | 0.68 | 0.428 | kg | 0.07 | pounds | 0.77685464 | | | |
| | Glue | | 0.330 | | | 0.32 | 1.149 | kg | 0.34 | pounds | 0.4421252 | | | |
| Coke-oven | | 0.101 | | | 0.084 | | | | | | | 0.567 | 0.567 | 0.567 |
| | Cokes | | 1.000 | | | 1.00 | 14.995 | tons | 6.99 | short tons | 0.56700493 | | | |
| Wood distillation and Charcoal | | 0.000 | | | 0.003 | | | | | | | 0.815 | 0.815 | 0.815 |
| | Charcoal | | 1.000 | | | 1.00 | 36.487 | tons | 0.12 | bushels | 0.81529908 | | | |
| Food and kindred products | | 0.116 | | | 0.267 | | | | | | | 0.817 | 0.819 | 0.818 |
| Grain-mill and products | | 0.223 | | | 0.282 | | | | | | | 0.540 | 0.569 | 0.555 |
| | Wheat flour | | 0.966 | | | 0.84 | 0.152 | kg | 6.67 | barrels | 0.58965857 | | | |
| | Noodles, macaroni, spaghetti, etc | | 0.034 | | | 0.16 | 0.162 | kg | 0.07 | pounds | 0.28621065 | | | |
| Liquors | | 0.490 | | | 0.222 | | | | | | | 2.023 | 2.075 | 2.049 |
| | Wines | | 0.020 | | | 0.09 | 42.540 | 100 liters | 0.42 | gallons | 1.12902508 | | | |
| | Beer | | 0.980 | | | 0.91 | 46.599 | 100 liters | 8.76 | barrels | 2.11128101 | | | |
| Sugar | | 0.172 | | | 0.156 | | | | | | | 0.726 | 0.736 | 0.731 |
| | Sugar cane | | 0.130 | | | 0.06 | 0.230 | kg | 65.85 | 2000 pounds | 0.92634892 | | | |
| | Refined sugar | | 0.870 | | | 0.94 | 0.239 | kg | 88.53 | 2000 pounds | 0.71380652 | | | |
| Cooking oils | | 0.044 | | | 0.067 | | | | | | | 0.625 | 0.534 | 0.578 |
| | Vegetable cooking oils | | 0.959 | | | 0.62 | 0.385 | kg | 0.10 | pounds | 0.52636644 | | | |
| | Miscellaneous animal oils and fats | | 0.041 | | | 0.38 | 0.351 | kg | 0.06 | pounds | 0.78944071 | | | |
| Other products | | 0.071 | | | 0.272 | | | | | | | 0.220 | 0.257 | 0.238 |
| | Canned Vegetables | | | | | | 0.771 | kg | | case | | | | |
| | Salt | | 0.262 | | | 0.01 | 0.046 | kg | 0.01 | pounds | 0.56576603 | | | |
| | Ice | | 0.738 | | | 0.99 | 6.306 | tons | 3.88 | 2000 pounds | 0.21529682 | | | |
| Miscellaneous industries | | 0.038 | | | 0.062 | | | | | | | 0.210 | 0.159 | 0.183 |
| Hats | | 0.732 | | | 0.711 | | | | | | | 0.151 | 0.149 | 0.150 |
| | Felt hats | | 0.893 | | | 0.81 | 6.418 | doz. | 12.76 | doz. | 0.1466624 | | | |
| | Straw hats | | 0.107 | | | 0.19 | 3.634 | doz. | 6.22 | doz. | 0.17035231 | | | |
| Pens and pencils | | 0.268 | | | 0.289 | | | | | | | 0.356 | 0.198 | 0.265 |
| | Pens | | 0.341 | | | 0.51 | 12.247 | doz. | 77.70 | gross | 0.55140883 | | | |
| | Pencils | | 0.659 | | | 0.49 | 0.071 | doz. | 1.67 | gross | 0.1485276 | | | |

Table 3. Korea's price level (1935: Japan=1)

| | Korean weight | | | Japanese weight | | | Korea | Japan | Units | Korean/ Japanese | Korean price level | | |
|------------------------------------------------|---------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|------------|---------------------|--------------------|---------------|----------------|
| | I | II | III | I | II | III | Prices | Prices | | | Japanese weight | Korean weight | Fisher average |
| All industries | | | | | | | | | | | 1.169 | 0.983 | 1.072 |
| Including Boilers, elevators, winding machines | | | | | | | | | | | <i>1.137</i> | <i>0.973</i> | <i>1.052</i> |
| Textile and their products | 0.125 | | | 0.309 | | | | | | | 1.360 | 1.104 | 1.225 |
| Yarn | | 0.192 | | | 0.225 | | | | | | 0.930 | 0.931 | 0.931 |
| Raw silk | | | 0.964 | | | 0.946 | 10.453 | 11.352 | kg | 0.921 | | | |
| Doupion raw silk | | | 0.001 | | | 0.023 | 5.488 | 7.423 | kg | 0.739 | | | |
| Frison | | | 0.035 | | | 0.030 | 3.269 | 2.409 | kg | 1.357 | | | |
| Spun silk | | 0.212 | | | 0.098 | | | | | | 0.800 | 0.814 | 0.807 |
| Cotton yarn | | | 0.998 | | | 0.873 | 1.015 | 1.247 | kg | 0.815 | | | |
| Flax yarn | | | 0.002 | | | 0.010 | 0.534 | 1.093 | kg | 0.489 | | | |
| Miscellaneous flax yarn | | | 0.000 | | | 0.016 | 0.114 | 0.998 | kg | 0.114 | | | |
| | | 0.009 | | | 0.025 | | | | | | 2.721 | 3.752 | 3.195 |
| Cotton (for fishing nets) | | | 0.049 | | | 0.490 | 1.304 | 1.275 | kg | 1.023 | | | |
| Cotton (miscellaneous) | | | 0.951 | | | 0.510 | 5.506 | 1.265 | kg | 4.353 | | | |
| Fabrics | | 0.331 | | | 0.605 | | | | | | 1.437 | 1.313 | 1.374 |
| Cotton Shirting | | | 0.095 | | | 0.400 | 0.178 | 0.158 | m | 1.125 | | | |
| Sheeting | | | 0.848 | | | 0.089 | 0.210 | 0.161 | m | 1.309 | | | |
| Ogura sheeting | | | 0.000 | | | 0.039 | 0.526 | 0.283 | m | 1.857 | | | |
| Miscellaneous wide cotton fab | | | 0.004 | | | 0.068 | 0.421 | 0.145 | m | 2.910 | | | |
| Canvas | | | 0.006 | | | 0.029 | 0.517 | 0.432 | m | 1.197 | | | |
| White cotton cloth | | | 0.000 | | | 0.043 | 1.351 | 0.526 | tan | 2.568 | | | |
| Stripe cotton cloth | | | 0.000 | | | 0.023 | 1.361 | 0.953 | tan | 1.429 | | | |
| Woven color cotton | | | 0.004 | | | 0.006 | 1.153 | 0.948 | tan | 1.216 | | | |
| Towels | | | 0.000 | | | 0.025 | 0.800 | 1.071 | dozen | 0.747 | | | |
| Spun silk fabrics | | | 0.002 | | | 0.011 | 0.363 | 0.300 | m | 1.211 | | | |
| Miscellaneous silk fabrics | | | 0.000 | | | 0.001 | 0.259 | 0.221 | m | 1.168 | | | |
| Narrow silk crepes | | | 0.000 | | | 0.113 | 9.000 | 7.418 | tan | 1.213 | | | |
| Habutae silk | | | 0.001 | | | 0.023 | 4.615 | 5.183 | tan | 0.890 | | | |
| Raw woven silk gauze and gos | | | 0.001 | | | 0.007 | 3.061 | 6.230 | tan | 0.491 | | | |
| Meisen fabric | | | 0.000 | | | 0.036 | 8.333 | 4.462 | tan | 1.868 | | | |
| Shaku miscellaneous Japanese | | | 0.000 | | | 0.013 | 2.449 | 8.390 | tan | 0.292 | | | |
| Hakama | | | 0.000 | | | 0.005 | 2.809 | 7.760 | tan | 0.362 | | | |
| Flat silk | | | 0.001 | | | 0.000 | 3.727 | 3.339 | tan | 1.116 | | | |
| Miscellaneous narrow raw silk | | | 0.003 | | | 0.007 | 3.424 | 2.991 | tan | 1.145 | | | |
| Silk-cotton mixed fabrics | | | 0.002 | | | 0.004 | 2.059 | 2.610 | tan | 0.789 | | | |
| Hard and bast fiber fabrics | | | 0.001 | | | 0.002 | 4.476 | 2.142 | tan | 2.090 | | | |
| Stripe flax fabrics | | | 0.000 | | | 0.001 | 4.000 | 2.965 | tan | 1.349 | | | |
| Rayon fabrics | | | 0.014 | | | 0.040 | 0.327 | 0.153 | m | 2.133 | | | |
| Shaku | | | 0.000 | | | 0.014 | 4.000 | 1.895 | tan | 2.111 | | | |
| Rayon filament mixed fabrics | | | 0.011 | | | 0.001 | 1.916 | 0.175 | m | 10.933 | | | |
| Hosiery | | 0.043 | | | 0.033 | | | | | | 3.369 | 0.848 | 1.690 |
| Cotton textile underwear | | | 0.024 | | | 0.364 | 8.554 | 1.195 | dozen | 7.157 | | | |
| Woolen, woolen-cotton mixed underwe | | | 0.007 | | | 0.193 | 24.443 | 15.619 | dozen | 1.565 | | | |
| Cotton socks | | | 0.906 | | | 0.268 | 1.203 | 1.463 | dozen | 0.822 | | | |
| Woolen, woolen-cotton mixed socks | | | 0.001 | | | 0.092 | 3.704 | 3.566 | dozen | 1.039 | | | |
| Cotton gloves | | | 0.063 | | | 0.041 | 1.000 | 1.088 | dozen | 0.919 | | | |
| Woolen, woolen-cotton mixed gloves | | | 0.000 | | | 0.042 | 6.000 | 2.326 | dozen | 2.579 | | | |
| Floss silks | | 0.000 | 1.000 | | 0.000 | 1.000 | 4.403 | 1.150 | kg | 3.828 | 3.828 | 3.828 | 3.828 |
| Wadding | | 0.213 | 1.000 | | 0.014 | 1.000 | 0.942 | 0.592 | kg | 1.592 | 1.592 | 1.592 | 1.592 |

Table 3. Korea's price level (1935: Japan=1)

| | Korean weight | | | Japanese weight | | | Korea | Japan | Units | Korean/ Japanese | Korean price level | | |
|------------------------------------------|---------------|--------------|--------------|-----------------|--------------|--------------|----------------|-----------------|---------|---------------------|--------------------|---------------|----------------|
| | I | II | III | I | II | III | Prices | Prices | | | Japanese weight | Korean weight | Fisher average |
| Metal and metal products | 0.038 | | | 0.182 | | | | | | | 0.783 | 0.760 | 0.771 |
| Metals | | 1.000 | | | 1.000 | | | | | | 0.783 | 0.760 | 0.771 |
| Pig Iron | | | 0.415 | | | 0.076 | 27.389 | 35.956 | ton | 0.762 | | | |
| Steel (cast) | | | 0.348 | | | 0.295 | 51.182 | 57.939 | ton | 0.883 | | | |
| Steel (miscellaneous sheets) | | | 0.167 | | | 0.163 | 0.063 | 0.108 | ton | 0.579 | | | |
| Steel (miscellaneous) | | | 0.069 | | | 0.466 | 0.073 | 0.092 | ton | 0.794 | | | |
| Machinery, including transportati | 0.012 | | | 0.138 | | | | | | | 0.648 | 0.433 | 0.530 |
| Boilers | | 0.005 | | | 0.108 | | | | | | 0.058 | 0.041 | 0.048 |
| Water tube boilers | | | 0.368 | | | 0.797 | 928.571 | 55025.596 | numbers | 0.017 | | | |
| Miscellaneous tube boilers | | | 0.632 | | | 0.203 | 447.200 | 2047.217 | numbers | 0.218 | | | |
| Engines and turbines | | 0.063 | | | 0.216 | | | | | | 0.983 | 0.750 | 0.858 |
| Steam engines | | | 0.019 | | | 0.045 | 666.667 | 7774.674 | numbers | 0.086 | | | |
| Internal combustion engines | | | | | | | | | | | | | |
| General gas engines | | | 0.007 | | | 0.002 | 1500.000 | 3090.000 | numbers | 0.485 | | | |
| General gasoline | | | 0.904 | | | 0.266 | 529.308 | 186.070 | numbers | 2.845 | | | |
| General oil engines | | | 0.067 | | | 0.626 | 1286.364 | 3623.782 | numbers | 0.355 | | | |
| Water turbines | | | 0.002 | | | 0.062 | 50.000 | 12431.677 | numbers | 0.004 | | | |
| Elevators | | 0.000 | 1.000 | | 0.006 | 1.000 | 40.000 | 2913.606 | numbers | 0.014 | 0.014 | 0.014 | 0.014 |
| Winding machines | | 0.019 | | | 0.078 | | | | | | 0.031 | 0.031 | 0.031 |
| Winding machines | | | 1.000 | | | 1.000 | 293.423 | 9607.574 | numbers | 0.031 | | | |
| Pumps | | 0.006 | 1.000 | | 0.004 | 1.000 | 40.828 | 1121.285 | numbers | 0.036 | 0.036 | 0.036 | 0.036 |
| Blowers | | 0.001 | 1.000 | | 0.012 | 1.000 | 2.618 | 316.427 | numbers | 0.008 | 0.008 | 0.008 | 0.008 |
| Measures | | 0.105 | | | 0.033 | | | | | | 1.019 | 1.077 | 1.048 |
| Universal measures | | | 0.063 | | | 0.181 | 0.103 | 0.123 | numbers | 0.837 | | | |
| Voltmeters | | | 0.285 | | | 0.099 | 1.128 | 0.852 | numbers | 1.324 | | | |
| Balances and scales | | | 0.652 | | | 0.720 | 2.718 | 2.658 | numbers | 1.023 | | | |
| General lighting bulbs | | | | | | | | | | | 0.155 | 0.155 | 0.155 |
| General lighting bulbs | | 0.004 | 1.000 | | 0.063 | 1.000 | 0.010 | 0.065 | numbers | 0.155 | | | |
| Railroad cars and locomotives | | 0.487 | | | 0.159 | 1.000 | | | | | 0.794 | 0.823 | 0.808 |
| Steam locomotives | | | 0.023 | | | 0.509 | 43640.000 | 63050.548 | numbers | 0.692 | | | |
| Gasoline cars | | | 0.040 | | | 0.050 | 13333.333 | 6346.336 | numbers | 2.101 | | | |
| Parts, attachments and accessories | | | | | | | | | | | | | |
| Passenger cars and freight cars | | | 0.890 | | | 0.442 | 3023.548 | 3952.248 | numbers | 0.765 | | | |
| Electric cars | | | | | | | | | | | | | |
| Motor vehicles | | 0.128 | 1.000 | | 0.023 | 1.000 | 452.912 | 829.996 | numbers | 0.546 | 0.546 | 0.546 | 0.546 |
| Bicycles | | 0.006 | 1.000 | | 0.007 | 1.000 | 19.764 | 24.768 | numbers | 0.798 | 0.798 | 0.798 | 0.798 |
| Miscellaneous cars | | 0.021 | | | 0.016 | | | | | | 1.514 | 1.514 | 1.514 |
| Carts | | | 1.000 | | | 1.000 | 31.131 | 20.566 | numbers | 1.514 | | | |
| Ships | | 0.154 | | | 0.273 | | | | | | 0.817 | 0.817 | 0.817 |
| Miscellaneous (except steel ships) | | | 1.000 | | | 1.000 | 1648.333 | 2018.251 | numbers | 0.817 | | | |
| Stone, clay and glass products | 0.026 | | | 0.028 | | | | | | | 1.151 | 0.841 | 0.984 |
| Clay | | 0.065 | | | 0.237 | | | | | | 1.385 | 1.385 | 1.385 |
| Clay pipes | | | 1.000 | | | 1.000 | 0.258 | 0.186 | numbers | 1.385 | | | |
| Glass | | 0.033 | | | 0.046 | | | | | | 1.104 | 1.104 | 1.104 |
| Shade, globes | | | 1.000 | | | 1.000 | 0.067 | 0.061 | dozen | 1.104 | | | |
| Bricks | | 0.083 | | | 0.065 | | | | | | 0.913 | 1.036 | 0.972 |
| Building bricks | | | 0.822 | | | 0.250 | 0.015 | 0.014 | numbers | 1.085 | | | |
| Fire bricks | | | 0.178 | | | 0.750 | 0.060 | 0.071 | numbers | 0.856 | | | |
| Tiles | | 0.016 | | | 0.023 | | | | | | 0.766 | 0.760 | 0.763 |
| Smoked roofing tiles | | | 0.992 | | | 0.790 | 0.033 | 0.043 | numbers | 0.759 | | | |
| Miscellaneous roofing tiles | | | 0.008 | | | 0.210 | 0.040 | 0.051 | numbers | 0.791 | | | |

Table 3. Korea's price level (1935: Japan=1)

| | Korean weight | | | Japanese weight | | | Korea | Japan | Units | Korean/ Japanese | Korean price level | | |
|-------------------------------------------|---------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|-------|---------------------|--------------------|---------------|----------------|
| | I | II | III | I | II | III | Prices | Prices | | | Japanese weight | Korean weight | Fisher average |
| Cement (including Portland cement) | | 0.637 | 1.000 | | 0.479 | 1.000 | 3.493 | 3.213 | casks | 1.087 | 1.087 | 1.087 | 1.087 |
| Cement products | | 0.057 | | | 0.046 | | | | | | 0.354 | 0.161 | 0.239 |
| Cement tiles | | | 0.513 | | | 0.142 | 0.057 | 0.047 | | 1.207 | | | |
| Cement pipes | | | 0.198 | | | 0.576 | 0.430 | 1.481 | | 0.290 | | | |
| Cement slates | | | 0.289 | | | 0.282 | 0.080 | 1.419 | | 0.056 | | | |
| Lime | | 0.020 | 1.000 | | 0.028 | 1.000 | 8.285 | 6.997 | | 1.184 | 1.184 | 1.184 | 1.184 |
| Enameled iron | | 0.089 | | | 0.077 | | | | | | 1.630 | 1.630 | 1.630 |
| Tableware | | | 1.000 | | | 1.000 | 0.134 | 0.082 | | 1.630 | | | |
| Chemicals and allied products | 0.208 | | | 0.188 | | | | | | | 1.271 | 0.704 | 0.946 |
| Chemicals | | 0.135 | | | 0.212 | | | | | | 0.374 | 0.277 | 0.322 |
| Sulfate | | | 0.288 | | | 0.107 | 14.157 | 14.952 | ton | 0.947 | | | |
| Caustic soda | | | 0.001 | | | 0.161 | 34.719 | 149.906 | ton | 0.232 | | | |
| Iodine | | | 0.001 | | | 0.001 | 7.229 | 8.887 | kg | 0.813 | | | |
| Oxygen gas | | | 0.019 | | | 0.042 | 0.003 | 0.221 | m3 | 0.013 | | | |
| Hydrogen gas | | | 0.015 | | | 0.006 | 0.080 | 0.336 | kg | 0.238 | | | |
| Ammonium chloride | | | 0.482 | | | 0.154 | 0.069 | 0.223 | kg | 0.308 | | | |
| Methanol | | | 0.040 | | | 0.006 | 0.273 | 0.360 | ton | 0.757 | | | |
| Naphthalene | | | 0.002 | | | 0.005 | 0.028 | 0.085 | ton | 0.331 | | | |
| Alcohol | | | 0.002 | | | 0.004 | 1.050 | 0.756 | kg | 1.388 | | | |
| Glycerin | | | 0.141 | | | 0.039 | 1.295 | 0.991 | kg | 1.308 | | | |
| Chloridation kalium | | | 0.000 | | | 0.001 | 80.000 | 81.551 | ton | 0.981 | | | |
| Miscellaneous | | | 0.028 | | | 0.474 | 0.417 | 1.626 | kg | 0.256 | | | |
| Synthetic dyes | | 0.001 | | | 0.023 | | | | | | 0.579 | 0.579 | 0.579 |
| Miscellaneous synthetic dyes | | | 1.000 | | | 1.000 | 2.067 | 3.567 | kg | 0.579 | | | |
| Paints | | 0.000 | | | 0.023 | | | | | | 0.880 | 0.922 | 0.901 |
| Chinese ink | | | 0.278 | | | 0.017 | 0.833 | 0.783 | kg | 1.065 | | | |
| Miscellaneous ink | | | 0.722 | | | 0.983 | 1.083 | 1.236 | dozen | 0.877 | | | |
| Soap | | 0.009 | | | 0.037 | | | | | | 0.787 | 0.820 | 0.803 |
| Bath soap | | | 0.036 | | | 0.459 | 0.769 | 0.837 | dozen | 0.920 | | | |
| Industrial detergents | | | 0.005 | | | 0.070 | 0.170 | 0.242 | kg | 0.703 | | | |
| Laundry soap (bar) | | | 0.958 | | | 0.373 | 0.157 | 0.189 | kg | 0.831 | | | |
| Laundry soap (powder) | | | 0.001 | | | 0.097 | 0.012 | 0.225 | kg | 0.051 | | | |
| Oil | | 0.023 | | | 0.083 | | | | | | 0.890 | 0.997 | 0.942 |
| Coal-tar | | | 0.147 | | | 0.067 | 19.567 | 25.184 | ton | 0.777 | | | |
| Benzol | | | 0.136 | | | 0.060 | 173.509 | 234.376 | ton | 0.740 | | | |
| Toluol | | | 0.000 | | | 0.005 | 299.250 | 349.728 | ton | 0.856 | | | |
| Creosote | | | 0.003 | | | 0.030 | 49.914 | 50.867 | ton | 0.981 | | | |
| Volatile oil | | | 0.008 | | | 0.481 | 79.414 | 113.223 | ton | 0.701 | | | |
| Light oil | | | 0.054 | | | 0.072 | 84.009 | 59.976 | ton | 1.401 | | | |
| Machine oil | | | 0.191 | | | 0.132 | 110.240 | 91.928 | ton | 1.199 | | | |
| Heavy oil | | | 0.058 | | | 0.068 | 34.999 | 29.044 | ton | 1.205 | | | |
| Paraffin | | | 0.050 | | | 0.038 | 141.370 | 294.822 | ton | 0.480 | | | |
| Pitch | | | 0.080 | | | 0.022 | 20.986 | 15.878 | ton | 1.322 | | | |
| Miscellaneous | | | 0.274 | | | 0.026 | 64.780 | 48.741 | ton | 1.329 | | | |
| Vegetable oils | | 0.016 | | | 0.052 | | | | | | 0.930 | 0.978 | 0.954 |
| Sesame oil | | | 0.060 | | | 0.080 | 0.663 | 0.508 | kg | 1.304 | | | |
| Cotton seed oil | | | 0.603 | | | 0.186 | 0.324 | 0.339 | kg | 0.955 | | | |
| Soybean oil | | | 0.336 | | | 0.439 | 0.348 | 0.356 | kg | 0.978 | | | |
| Miscellaneous | | | 0.001 | | | 0.295 | 0.372 | 0.503 | kg | 0.740 | | | |
| Animal oils and fats | | 0.103 | | | 0.009 | | | | | | 1.076 | 1.293 | 1.179 |
| Sardine oil | | | 0.992 | | | 0.085 | 0.172 | 0.133 | kg | 1.294 | | | |

Table 3. Korea's price level (1935: Japan=1)

| | Korean weight | | | Japanese weight | | | Korea | Japan | Units | Korean/ Japanese | Korean price level | | |
|----------------------------------|------------------------------------------|--------------|-------|-----------------|--------------|-------|--------|--------|--------|---------------------|--------------------|---------------|----------------|
| | I | II | III | I | II | III | Prices | Prices | | | Japanese weight | Korean weight | Fisher average |
| | | | 0.001 | | | 0.093 | 0.090 | 0.159 | kg | 0.566 | | | |
| | | | 0.007 | | | 0.530 | 0.259 | 0.185 | kg | 1.404 | | | |
| | | | 0.000 | | | 0.018 | 0.153 | 0.194 | kg | 0.789 | | | |
| | | | 0.000 | | | 0.273 | 0.229 | 0.406 | kg | 0.565 | | | |
| Candles | | 0.002 | 1.000 | | 0.003 | 1.000 | 0.562 | 0.466 | kg | 1.207 | 1.207 | 1.207 | 1.207 |
| Processed oil | | 0.116 | | | 0.023 | | | | | 0.946 | 0.950 | 0.948 | 0.948 |
| Hydrogenated oils | | | 0.806 | | | 0.770 | 0.233 | 0.234 | ton | 0.996 | | | |
| Hydrogenated wax | | | 0.071 | | | 0.010 | 0.240 | 0.287 | kg | 0.835 | | | |
| Stearin | | | 0.123 | | | 0.220 | 0.235 | 0.302 | kg | 0.777 | | | |
| Rubbers | | 0.091 | | | 0.087 | | | | | 0.614 | 0.614 | 0.614 | 0.614 |
| | Miscellaneous rubber shoes | | 1.000 | | | 1.000 | 0.322 | 0.525 | | 0.614 | | | |
| Papers | | 0.041 | | | 0.164 | | | | | 4.002 | 1.235 | 2.223 | 2.223 |
| | Printing paper | | 0.001 | | | 0.887 | 0.903 | 0.207 | kg | 4.354 | | | |
| | Wrapping paper | | 0.999 | | | 0.113 | 0.271 | 0.220 | kg | 1.234 | | | |
| Fertilizers | | 0.401 | | | 0.183 | | | | | 0.918 | 0.970 | 0.943 | 0.943 |
| | Soybean cakes | | 0.021 | | | 0.140 | 75.817 | 80.573 | ton | 0.941 | | | |
| | Miscellaneous Vegetable oil cakes | | | | | | | | | | | | |
| | Fish scraps | | 0.160 | | | 0.015 | 0.069 | 0.083 | ton | 0.838 | | | |
| | Pupa cakes | | 0.001 | | | 0.004 | 0.053 | 0.076 | ton | 0.699 | | | |
| | Bone meal | | 0.001 | | | 0.012 | 71.143 | 75.087 | ton | 0.947 | | | |
| | Super-phosphate | | 0.028 | | | 0.348 | 30.581 | 31.212 | ton | 0.980 | | | |
| | Ammonium phosphate | | 0.164 | | | 0.000 | 98.835 | 41.036 | ton | 2.409 | | | |
| | Ammonium sulfate | | 0.625 | | | 0.481 | 81.304 | 93.520 | ton | 0.869 | | | |
| Leather | | 0.011 | | | 0.023 | | | | | 1.643 | 1.421 | 1.528 | 1.528 |
| | Cattle leather | | 0.365 | | | 0.523 | 15.598 | 7.660 | sheets | 2.036 | | | |
| | Sole leather | | 0.635 | | | 0.477 | 30.071 | 24.828 | sheets | 1.211 | | | |
| Gelatin and glue | | 0.000 | | | 0.005 | | | | | 1.060 | 1.060 | 1.060 | 1.060 |
| | Gelatin and glue | | 1.000 | | | 1.000 | 0.453 | 0.428 | kg | 1.060 | | | |
| Others | | 0.049 | | | 0.073 | | | | | 0.673 | 0.671 | 0.672 | 0.672 |
| | Cokes | | | | | | | | | | | | |
| | Miscellaneous | | 0.673 | | | 0.672 | 12.163 | 17.417 | ton | 0.698 | | | |
| | Briquettes and briquette balls | | 0.327 | | | 0.328 | 12.912 | 20.753 | ton | 0.622 | | | |
| Food and kindred products | | 0.573 | | | 0.116 | | | | | 0.959 | 0.737 | 0.841 | 0.841 |
| Liquors | | 0.615 | | | 0.436 | | | | | 0.996 | 0.707 | 0.839 | 0.839 |
| | Rice wine sake | | 0.234 | | | 0.653 | 39.768 | 38.658 | 100l | 1.029 | | | |
| | Sweet rice wine mirin, including mirin v | | 0.000 | | | 0.022 | 37.161 | 56.290 | 100l | 0.660 | | | |
| | Low-class distilled spirits | | 0.628 | | | 0.085 | 23.811 | 40.057 | 100l | 0.594 | | | |
| | Beers | | 0.131 | | | 0.235 | 50.555 | 46.599 | 100l | 1.085 | | | |
| | Wines | | 0.006 | | | 0.005 | 34.766 | 42.540 | 100l | 0.817 | | | |
| Soy sauce | | 0.003 | 1.000 | | 0.070 | 1.000 | 1.125 | 13.815 | 100l | 0.081 | 0.081 | 0.081 | 0.081 |
| Miso (bean paste) | | 0.015 | 1.000 | | 0.021 | 1.000 | 0.141 | 0.103 | kg | 1.368 | 1.368 | 1.368 | 1.368 |
| Vinegar | | 0.001 | 1.000 | | 0.002 | 1.000 | 18.622 | 7.596 | 100l | 2.452 | 2.452 | 2.452 | 2.452 |
| Sake lees | | 0.009 | 1.000 | | 0.007 | 1.000 | 0.012 | 0.087 | kg | 0.136 | 0.136 | 0.136 | 0.136 |
| Flours | | 0.110 | | | 0.178 | | | | | 1.035 | 1.035 | 1.035 | 1.035 |
| | Wheat flour | | 1.000 | | | 1.000 | 0.157 | 0.152 | kg | 1.035 | | | |
| Starch | | 0.030 | | | 0.014 | | | | | 1.637 | 1.637 | 1.637 | 1.637 |
| | Miscellaneous starch | | 1.000 | | | 1.000 | 0.240 | 0.147 | kg | 1.637 | | | |
| Sugar | | 0.135 | | | 0.153 | | | | | 0.858 | 0.858 | 0.858 | 0.858 |
| | Refined sugar | | 1.000 | | | 1.000 | 0.205 | 0.239 | kg | 0.858 | | | |
| Food cans | | 0.038 | | | 0.050 | | | | | 1.571 | 1.099 | 1.314 | 1.314 |
| | Canned beef | | 0.032 | | | 0.104 | 1.557 | 0.903 | kg | 1.723 | | | |
| | Canned, bottled and potted meat | | 0.005 | | | 0.001 | 1.181 | 0.331 | kg | 3.568 | | | |

Table 3. Korea's price level (1935: Japan=1)

| | Korean weight | | | Japanese weight | | | Korea | Japan | Units | Korean/ Japanese | Korean price level | | |
|---------------------------------|----------------------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|---------|---------------------|--------------------|---------------|----------------|
| | I | II | III | I | II | III | Prices | Prices | | | Japanese weight | Korean weight | Fisher average |
| | | | 0.094 | | | 0.059 | 0.275 | 0.363 | kg | 0.759 | | | |
| | | | 0.001 | | | 0.045 | 0.556 | 0.349 | kg | 1.591 | | | |
| | | | 0.226 | | | 0.208 | 0.835 | 0.203 | kg | 4.123 | | | |
| | | | 0.066 | | | 0.009 | 2.045 | 0.635 | kg | 3.220 | | | |
| | | | 0.482 | | | 0.278 | 0.993 | 1.113 | kg | 0.892 | | | |
| | | | 0.001 | | | 0.148 | 0.104 | 0.379 | kg | 0.275 | | | |
| | | | 0.094 | | | 0.146 | 0.208 | 0.327 | kg | 0.635 | | | |
| Seafood | | 0.028 | | | 0.033 | | | | | | 0.733 | 0.633 | 0.681 |
| | Salt | | 0.900 | | | 0.401 | 0.028 | 0.046 | kg | 0.619 | | | |
| | Agar | | 0.071 | | | 0.426 | 2.280 | 2.592 | kg | 0.879 | | | |
| | Dried bonito (katsuobushi) | | 0.029 | | | 0.172 | 0.704 | 1.109 | kg | 0.634 | | | |
| Tea | | 0.000 | | | 0.018 | | | | | | 1.305 | 1.211 | 1.257 |
| | Green tea 1 | | 0.828 | | | 0.897 | 0.585 | 0.524 | kg | 1.117 | | | |
| | Green tea 2 | | 0.074 | | | 0.055 | 0.368 | 0.322 | kg | 1.140 | | | |
| | Brown tea | | 0.098 | | | 0.049 | 2.636 | 0.533 | kg | 4.942 | | | |
| Ice made | | 0.008 | 1.000 | | 0.013 | 1.000 | 6.913 | 6.306 | ton | 1.096 | 1.096 | 1.096 | 1.096 |
| Noodles | | 0.009 | 1.000 | | 0.006 | 1.000 | 0.175 | 0.162 | kg | 1.080 | 1.080 | 1.080 | 1.080 |
| Miscellaneous industries | | 0.018 | | | 0.038 | | | | | | 1.536 | 1.484 | 1.510 |
| Tatami matting | | 0.001 | 1.000 | | 0.002 | 1.000 | 0.800 | 0.676 | sheets | 1.183 | 1.183 | 1.183 | 1.183 |
| Straw products | | 0.101 | | | 0.064 | | | | | | 3.336 | 3.336 | 3.336 |
| | Straw-mats and mat bases | | 1.000 | | | 1.000 | 2.283 | 0.684 | sheets | 3.336 | | | |
| Leather products | | 0.707 | | | 0.437 | | | | | | 2.296 | 2.290 | 2.293 |
| | Leather footwear | | 0.926 | | | 0.916 | 6.348 | 2.800 | numbers | 2.267 | | | |
| | Leather bags | | 0.074 | | | 0.084 | 7.263 | 2.776 | numbers | 2.616 | | | |
| Brushes | | 0.022 | | | 0.063 | | | | | | 0.872 | 0.872 | 0.872 |
| | Miscellaneous brushes | | 1.000 | | | 1.000 | 0.988 | 1.132 | dozen | 0.872 | | | |
| Hats | | 0.168 | | | 0.414 | | | | | | 0.548 | 0.545 | 0.546 |
| | Textile hats | | 0.216 | | | 0.357 | 1.476 | 2.624 | dozen | 0.562 | | | |
| | Straws | | 0.784 | | | 0.643 | 1.962 | 3.634 | dozen | 0.540 | | | |
| Japanese-style umbrellas | | 0.001 | 1.000 | | 0.020 | 1.000 | 0.680 | 0.400 | | 1.701 | 1.701 | 1.701 | 1.701 |

Table 4. Relative labor productivity, based on market exchange rates (Japan=1)

| | Labor productivity | | | Relative labor productivity | |
|--------------------------------------------|--------------------|----------|-------|------------------------------|------|
| | Japanese ¥ | Korean ¥ | US\$ | Exchange rate=3.42 yen/ US\$ | |
| | Japan | Korea | US | Korean | US |
| Total | 4581 | 3607 | 5469 | 0.79 | 4.08 |
| Textiles and their products | 3330 | 2293 | 3356 | 0.69 | 3.45 |
| Metal industries | 8647 | 2985 | 5294 | 0.35 | 2.09 |
| Machinery | 3982 | 1238 | 5445 | 0.31 | 4.68 |
| Stone, clay, and glass products | 3055 | 1500 | 3605 | 0.49 | 4.04 |
| Chemicals and allied products | 7933 | 2734 | 7165 | 0.34 | 3.09 |
| Wood products | 2922 | 2283 | 2630 | 0.78 | 3.08 |
| Printing, publishing and allied industries | 3681 | 1700 | 4557 | 0.46 | 4.23 |
| Food and kindred products | 7390 | 6781 | 10237 | 0.92 | 4.74 |
| Miscellaneous industries | 2648 | 1750 | 6238 | 0.66 | 8.06 |

Table 6. Relative productivity (man-hour basis), adjusted by PPP (Japan=1)

| | Annual hours worked | | | Relative productivity (man-hour basis) | |
|--------------------------------------------|---------------------|-------|------|----------------------------------------|------|
| | Japan | Korea | US | Adjusted by PPP | |
| | | | | Korea | US |
| Total | 3132 | 2431 | 1817 | 0.95 | 3.74 |
| Textiles and their products | 3209 | 2551 | 1774 | 0.71 | 2.26 |
| Metal industries | 3081 | 2696 | 1813 | 0.51 | 2.45 |
| Machinery | 3158 | 2758 | 1809 | 0.67 | 4.82 |
| Stone, clay, and glass products | 3003 | 2573 | 1812 | 0.58 | 2.77 |
| Chemicals and allied products | 3133 | 1930 | 1892 | 0.59 | 2.03 |
| Wood products | 2975 | 3690 | 1958 | 0.59 | 2.48 |
| Printing, publishing and allied industries | 3256 | 3097 | 1896 | 0.45 | 3.86 |
| Food and kindred products | 2958 | 2209 | 1962 | 1.46 | 5.84 |
| Miscellaneous industries | 3075 | 2380 | 1682 | 0.57 | 2.69 |

Table 8. Relative productivity (value-added/man-hour basis), adjusted by PPP (Japan=1)

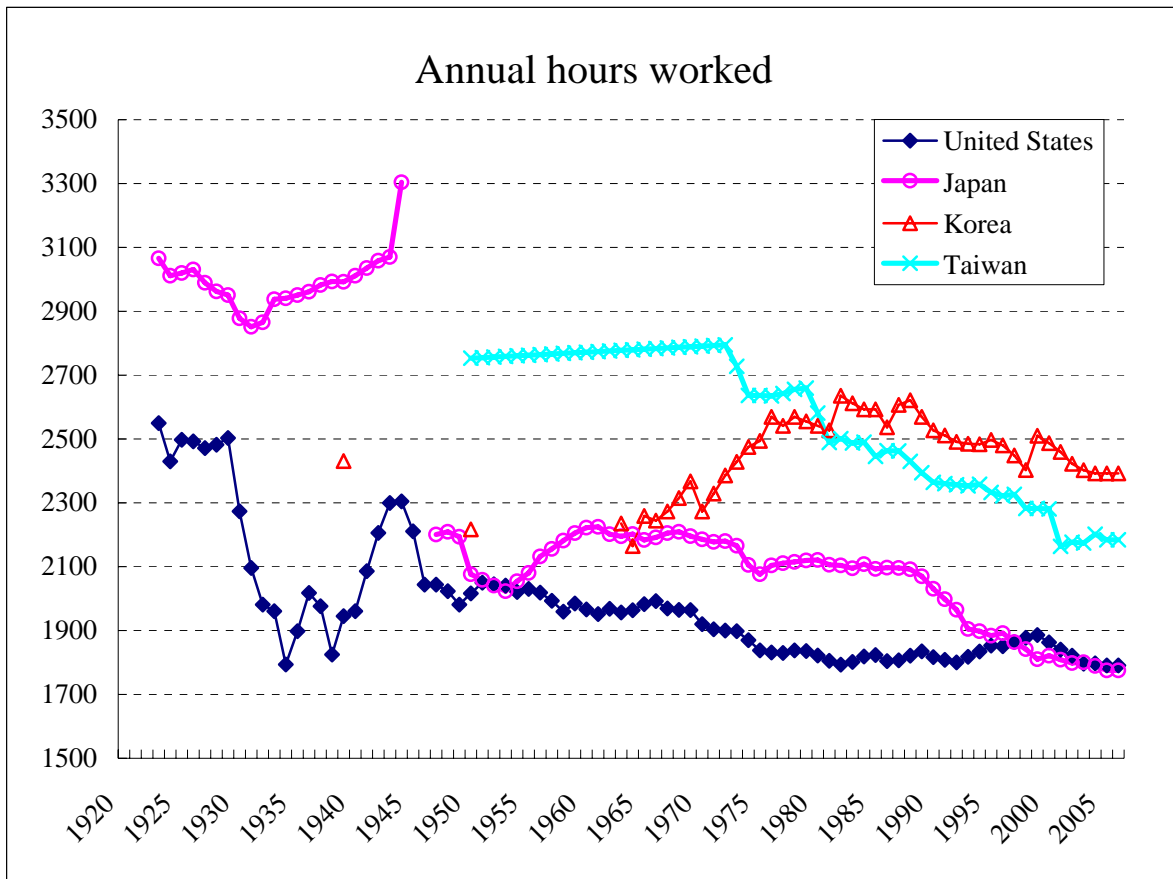
| | Value-add rate | | | Relative Productivity (value-added/man-hour basis) | |
|--------------------------------------------|----------------|-------|-------|----------------------------------------------------|-------|
| | Japan | Korea | US | Adjusted by PPP | |
| | | | | Korea | US |
| Total | 0.249 | 0.328 | 0.418 | 1.25 | 6.28 |
| Textiles and their products | 0.117 | 0.289 | 0.423 | 1.75 | 8.18 |
| Metal industries | 0.231 | 0.197 | 0.416 | 0.43 | 4.41 |
| Machinery | 0.510 | 0.279 | 0.445 | 0.37 | 4.21 |
| Stone, clay, and glass products | 0.663 | 0.453 | 0.628 | 0.40 | 2.62 |
| Chemicals and allied products | 0.262 | 0.353 | 0.405 | 0.80 | 3.13 |
| Wood products | 0.652 | 0.250 | 0.533 | 0.23 | 2.03 |
| Printing, publishing and allied industries | 0.409 | 0.335 | 0.594 | 0.37 | 5.60 |
| Food and kindred products | 0.141 | 0.344 | 0.293 | 3.55 | 12.11 |
| Miscellaneous industries | 0.368 | 0.339 | 0.399 | 0.52 | 2.92 |

Table 5. Relative labor productivity, adjusted by PPP (Japan=1)

| | Relative price level | | Relative productivity | |
|--------------------------------------------|----------------------|-------------|-----------------------|------|
| | Japan=1 | | Adjusted by PPP | |
| | Korea | US | Korea | US |
| Total | 1.07 | 1.88 | 0.73 | 2.17 |
| Textiles and their products | 1.23 | 2.76 | 0.56 | 1.25 |
| Metal industries | 0.77 | 1.45 | 0.45 | 1.44 |
| Machinery | 0.53 | 1.69 | 0.59 | 2.76 |
| Stone, clay, and glass products | 0.98 | 2.42 | 0.50 | 1.67 |
| Chemicals and allied products | 0.95 | 2.52 | 0.36 | 1.23 |
| Wood products | 1.07 | 1.88 | 0.73 | 1.63 |
| Printing, publishing and allied industries | 1.07 | 1.88 | 0.43 | 2.25 |
| Food and kindred products | 0.84 | 1.22 | 1.09 | 3.88 |
| Miscellaneous industries | 1.51 | 5.46 | 0.44 | 1.47 |

Table 7. Relative productivity (value-added basis), adjusted by PPP (Japan=1)

| | Value-add rate | | | Relative Productivity (value-added basis) | |
|--------------------------------------------|----------------|-------|-------|-------------------------------------------|------|
| | Japan | Korea | US | Adjusted by PPP | |
| | | | | Korea | US |
| Total | 0.249 | 0.328 | 0.418 | 0.97 | 3.64 |
| Textiles and their products | 0.117 | 0.289 | 0.423 | 1.39 | 4.52 |
| Metal industries | 0.231 | 0.197 | 0.416 | 0.38 | 2.60 |
| Machinery | 0.510 | 0.279 | 0.445 | 0.32 | 2.41 |
| Stone, clay, and glass products | 0.663 | 0.453 | 0.628 | 0.34 | 1.58 |
| Chemicals and allied products | 0.262 | 0.353 | 0.405 | 0.49 | 1.89 |
| Wood products | 0.652 | 0.250 | 0.533 | 0.28 | 1.34 |
| Printing, publishing and allied industries | 0.409 | 0.335 | 0.594 | 0.35 | 3.26 |
| Food and kindred products | 0.141 | 0.344 | 0.293 | 2.65 | 8.03 |
| Miscellaneous industries | 0.368 | 0.339 | 0.399 | 0.40 | 1.60 |



Sources: After 1950, Groningen Growth and Development Centre and the Conference Board, Total Economy Database, January 2007, <http://www.ggdc.net>

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