## U.S. TRADE WITH THE WORLD

AN ESTIMATE OF 2001 LOST U.S. FEDERAL INCOME TAX REVENUES
DUE TO

OVER-INVOICED IMPORTS AND UNDER-INVOICED EXPORTS

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## Objective

The objective of this research is to estimate the impact of over-invoiced imports and underinvoiced exports on U.S. federal income tax revenues during 2001. The inclusion of overinvoiced imports and under-invoiced exports in business tax returns artificially lowers taxable income and federal income tax liability. This research determines the estimate of lost tax revenue due to abnormal international trade pricing and is based on pricing norms, (interquartile range), as specified in the section 482 regulations of the Internal Revenue Service tax code.

## Data

This research is based on the U.S. import and export data produced by the U.S. Department of Commerce, Bureau of Census, and contained in the U.S. Merchandise trade database. This is the same database used to determine the U.S. balance of trade. We assume that the U.S. Treasury, U.S. Customs Bureau, and the U.S. Department of Commerce maintain a quality control system to minimize errors and produce and sell accurate data.

## Methodology - Summary

1. We determined the median price, lower quartile export price and the upper quartile import price for every commodity exported and imported to and from every country. (There are 16,390 import commodity codes and 8,568 export commodity codes in 2001. There are 230 countries that trade with the United States in the same year.)
2. We evaluated every import record and compared it to the country specific import upper quartile price to determine if it was over-valued.. We determined the dollar value of over- valuation for every import transaction.
3. We evaluated every export record and compared it to the country specific export lower quartile price to determine if it was under-valued. We determined the dollar value of under-valuation for every export transaction.
4. We determined the dollar value impact on the cost of goods sold due to the overvaluation for every import transaction. We determined the dollar value impact on sales revenue due to under-valuation for every export transaction.
5. We determined the dollar value impact of over-stated cost of goods sold and under-stated sales revenues on taxable income.
6. We calculated the tax loss for every transaction assuming a $34 \%$ tax rate.
7. The total estimated tax loss for 2001 is $\$ 53.1$ Billion. (See Charts A, B, C)

## Examples of Abnormal Transactions

In Charts D and E we give some examples of abnormally priced transactions that are contained in the U.S. Merchandise Trade Database. We have observed thousands of abnormally priced transactions in all U.S. Customs Districts and with all countries in the world.

## Discussion

We believe this is a conservative estimate for the following reasons:

1. We only analyze quantifiable commodities that have units of measure such as kilograms, tons, units, etc. If we assume the same proportion of over and under invoicing for the commodities that do not specify quantities, our estimated tax loss would be significantly higher.
2. We use the interquartile range as specified by the IRS 482 regulations to determine abnormality. However, we determine the magnitude of over or under pricing by comparing the stated prices to the interquartile prices. According to IRS code, abnormal prices would be adjusted back to the median price.

CHART A: TOP 25 SOURCES OF LOST U.S. TAXES DUE TO ABNORMAL TRADE PRICING - U.S. TOTAL TRADE (Export \& Import)

2001 Income Shifted and Federal Income Tax Losses

| 2001 TOTAL TRADE | Tax Loss @34\% <br> (\$ millions) | Income Shifted <br> (\$ millions) |
| :--- | ---: | ---: |
| All Countries | $\mathbf{\$ 5 3 , 1 1 7}$ | $\mathbf{\$ 1 5 6 , 2 2 5}$ |
| Top 25 Ctys | $\$ 49,073$ | $\mathbf{\$ 1 4 4 , 3 3 2}$ |
| JAPAN | $\$ 12,225$ | $\$ 35,957$ |
| CANADA | $\$ 4,967$ | $\$ 14,608$ |
| FR GERM | $\$ 4,640$ | $\$ 13,646$ |
| MEXICO | $\$ 3,459$ | $\$ 10,175$ |
| U KING | $\$ 3,003$ | $\$ 8,833$ |
| NETHLDS | $\$ 2,628$ | $\$ 7,731$ |
| CHINA | $\$ 2,416$ | $\$ 7,107$ |
| FRANCE | $\$ 1,753$ | $\$ 5,157$ |
| PHIL R | $\$ 1,691$ | $\$ 4,973$ |
| TAIWAN | $\$ 1,507$ | $\$ 4,431$ |
| KOR REP | $\$ 1,504$ | $\$ 4,423$ |
| SINGAPR | $\$ 1,057$ | $\$ 3,108$ |
| HG KONG | $\$ 1,010$ | $\$ 2,969$ |
| ITALY | $\$ 952$ | $\$ 2,800$ |
| IRELAND | $\$ 904$ | $\$ 2,660$ |
| MALAYSA | $\$ 755$ | $\$ 2,221$ |
| AUSTRAL | $\$ 626$ | $\$ 1,840$ |
| BRAZIL | $\$ 609$ | $\$ 1,792$ |
| INDIA | $\$ 606$ | $\$ 1,781$ |
| BELGIUM | $\$ 593$ | $\$ 1,745$ |
| SWEDEN | $\$ 589$ | $\$ 1,732$ |
| SWITZLD | $\$ 487$ | $\$ 1,433$ |
| THAILND | $\$ 456$ | $\$ 1,342$ |
| ISRAEL | $\$ 360$ | $\$ 1,057$ |
| VENEZ | $\$ 275$ | $\$ 809$ |

DAILY LOST U.S. INCOME TAX REVENUES
\$53,116,638,061/365 = \$145,525,036 PER DAY

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## CHART B: TOP 25 SOURCES OF LOST U.S. TAXES DUE TO

 ABNORMAL TRADE PRICING - U.S. EXPORT
## 2001 Income Shifted and Federal Income Tax Losses

| 2001 U.S. EXPORT | TaxLoss @34\% <br> (\$ millions) <br> All CountriesIncome Shifted <br> (\$ millions) |  |
| :--- | ---: | ---: |
| Top 25 Countries | $\$ 37,832$ | $\mathbf{\$ 1 1 1 , 2 7 2}$ |
| JAPAN | $\$ 10,154$ | $\$ 103,591$ |
| FR GERM | $\$ 3,475$ | $\$ 29,864$ |
| NETHLDS | $\$ 2,482$ | $\$ 10,221$ |
| CANADA | $\$ 2,375$ | $\$ 7,299$ |
| MEXICO | $\$ 2,365$ | $\$ 6,987$ |
| U KING | $\$ 2,237$ | $\$ 6,954$ |
| PHIL R | $\$ 1,451$ | $\$ 6,578$ |
| FRANCE | $\$ 1,217$ | $\$ 4,269$ |
| KOR REP | $\$ 1,039$ | $\$ 3,579$ |
| CHINA | $\$ 970$ | $\$ 3,055$ |
| HG KONG | $\$ 864$ | $\$ 2,853$ |
| TAIWAN | $\$ 854$ | $\$ 2,541$ |
| SINGAPR | $\$ 836$ | $\$ 2,510$ |
| AUSTRAL | $\$ 555$ | $\$ 2,459$ |
| ITALY | $\$ 503$ | $\$ 1,632$ |
| BELGIUM | $\$ 501$ | $\$ 1,478$ |
| INDIA | $\$ 488$ | $\$ 1,474$ |
| SWEDEN | $\$ 484$ | $\$ 1,435$ |
| BRAZIL | $\$ 483$ | $\$ 1,424$ |
| IRELAND | $\$ 468$ | $\$ 1,420$ |
| MALAYSA | $\$ 419$ | $\$ 1,377$ |
| SWITZLD | $\$ 272$ | $\$ 1,233$ |
| THAILND | $\$ 271$ | $\$ 801$ |
| ISRAEL | $\$ 245$ | $\$ 796$ |
| NORWAY | $\$ 214$ | $\$ 722$ |

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CHART C: TOP 25 SOURCES OF LOST U.S. TAXES DUE TO ABNORMAL TRADE PRICING - U.S. IMPORT

2001 Income Shifted and Federal Income Tax Losses

| 2001 U.S. IMPORT | Tax Loss @34\% <br> (\$ millions) | Income Shifted <br> (\$ millions) |
| :--- | ---: | ---: |
| All Countries | $\mathbf{\$ 1 5 , 2 8 4}$ | $\mathbf{\$ 4 4 , 9 5 4}$ |
| Top 25 Countries | $\$ 13,965$ | $\$ 41,072$ |
| JAPAN | $\$ 2,591$ | $\$ 7,622$ |
| FR GERM | $\$ 2,072$ | $\$ 6,093$ |
| NETHLDS | $\$ 1,446$ | $\$ 4,254$ |
| CANADA | $\$ 1,164$ | $\$ 3,425$ |
| MEXICO | $\$ 1,095$ | $\$ 3,220$ |
| U KING | $\$ 767$ | $\$ 2,255$ |
| PHIL R | $\$ 653$ | $\$ 1,921$ |
| FRANCE | $\$ 537$ | $\$ 1,578$ |
| KOR REP | $\$ 465$ | $\$ 1,368$ |
| CHINA | $\$ 449$ | $\$ 1,322$ |
| HG KONG | $\$ 436$ | $\$ 1,283$ |
| TAIWAN | $\$ 336$ | $\$ 988$ |
| SINGAPR | $\$ 239$ | $\$ 704$ |
| AUSTRAL | $\$ 221$ | $\$ 649$ |
| ITALY | $\$ 215$ | $\$ 632$ |
| BELGIUM | $\$ 186$ | $\$ 546$ |
| INDIA | $\$ 147$ | $\$ 432$ |
| SWEDEN | $\$ 146$ | $\$ 428$ |
| BRAZIL | $\$ 126$ | $\$ 372$ |
| IRELAND | $\$ 120$ | $\$ 353$ |
| MALAYSA | $\$ 118$ | $\$ 346$ |
| SWITZLD | $\$ 116$ | $\$ 340$ |
| THAILND | $\$ 114$ | $\$ 336$ |
| ISRAEL | $\$ 105$ | $\$ 308$ |
| NORWAY | $\$ 101$ | $\$ 296$ |

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## CHART D: ABNORMALLY HIGH U.S. IMPORT PRICES

| Multiple Vitamins | China | $\$ 1,868.77 / \mathrm{kg}$ |
| :--- | :--- | :--- |
| Plastic Buckets | Czech | $\$ 972.98 / \mathrm{unit}$ |
| Fence Posts - Treated | Canada | $\$ 1,853.50 / \mathrm{meter}$ |
| Wood Moldings | Bolivia | $\$ 1,124.17 / \mathrm{meter}$ |
| Toilet/Facial Tissue | China | $\$ 4,121.81 / \mathrm{kg}$ |
| Briefs and Panties | Hungary | $\$ 739.25 / \mathrm{doz}$ |
| Dishtowels of Cotton | Pakistan | $\$ 153.72 / \mathrm{unit}$ |
| Other Made-Up Articles | Arab Em | $\$ 106.73 / \mathrm{unit}$ |
| Unglazed Tiles - Ceramic | Italy | $\$ 4,480.00 / \mathrm{sqmatr}$ |
| Rubies - Cut, Not Set | Burma | $\$ 38,192.30 / \mathrm{carat}$ |
| Bolts - Iron or Steel | France | $\$ 3,067.17 / \mathrm{kg}$ |
| Threaded Nuts | Belgium | $\$ 2,426.70 / \mathrm{kg}$ |
| Tweezers - Base Metal | Japan | $\$ 4,896.00 / \mathrm{unit}$ |
| Lawnmower Blades | Australia | $\$ 2,326.75 / \mathrm{unit}$ |
| Razors | UK | $\$ 113.20 / \mathrm{unit}$ |
| Air Pumps - Hand/Foot Operated | Malaysia | $\$ 5,000.00 / \mathrm{unit}$ |
| Camshafts and Crankshafts | Saudi Arabia | $\$ 15,200.00 / \mathrm{unit}$ |
| Telephone Sets - One Line | Japan | $\$ 2,728.00 / \mathrm{unit}$ |
| Unrecorded Magnetic Disks | Denmark | $\$ 164.19 / \mathrm{unit}$ |
| Smoke Detectors - Battery Powered | Germany | $\$ 3,500.00 / \mathrm{unit}$ |
| Industrial Hand Trucks | Spain | $\$ 3,800.86 / \mathrm{unit}$ |
| Hypodermic Syringes | Switzerland | $\$ 142.78 / \mathrm{unit}$ |

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## CHART E: ABNORMALLY LOW U.S. EXPORT PRICES

| Bovine Animals - Live | Mexico | \$ | 20.65/unit |
| :---: | :---: | :---: | :---: |
| Multiple Vitamins | Finland | \$ | 1.34/kg |
| Dynamite | Canada | \$ | $1.24 / \mathrm{kg}$ |
| Radial Tires - Bus/Truck | UK | \$ | 11.74/unit |
| Diamonds - Not Industrial | India | \$ | 13.45/carat |
| Toilets - Bowls with Tanks, one piece | Hong Kong | \$ | 1.75/unit |
| Aluminum Ladders | Japan | \$ | 4.40/unit |
| Fork-Lifts, Self Propelled | Jamaica | \$ | 384.14/unit |
| Industrial Robots | Ireland | \$ | 324.37/unit |
| Bulldozers - Self-Propelled | Colombia | \$ | ,741.92/unit |
| Automatic Teller Machines | France | \$ | 97.00/unit |
| Trash Compactors | UK | \$ | 54.82/unit |
| Video Monitors - Color | Pakistan | \$ | 21.90/unit |
| Video Projectors - Color | Brazil | \$ | 33.95/unit |
| Road Tractors - For Semi-Trailers | Nigeria | \$ | ,750.00/unit |
| Truck Caps | Mexico | \$ | 10.77/unit |
| Cameras - SLR, 35mm | Colombia | \$ | 7.44/unit |
| Clinical Thermometers | Germany | \$ | .06/unit |
| Wrist Watches - Cases of Precious Metal | Colombia | \$ | 8.68/unit |
| Missile and Rocket Launchers | Israel | \$ | 52.03/unit |
| Prefabricated Buildings | Trinidad | \$ | 1.20/unit |
| Seats - For Motor Vehicles | Belgium | \$ | 1.66/unit |

