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## Who's watching our back door?

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# Who's watching our back door?

The idea came to him one Sunday afternoon at the movies.

While watching *The Sum of All Fears*, in which an atomic bomb is smuggled into the U.S. inside a vending machine, College Finance Professor John Zdanowicz thought to himself, "That vending machine must have weighed considerably more than a regular vending machine. Why didn't anyone at the port notice that?"

**R**easoning that imported or exported goods of abnormal weight could be carrying concealed money, explosives, drugs, or other contraband, Zdanowicz and his colleague Donald Chambers of Lafayette College launched a project focused on detecting abnormal weights in U.S. international trade.

It isn't the first research project Zdanowicz has conducted using import and export data released monthly by the U.S. Department of Commerce. With another colleague, Simon Pak (now at Penn State), he has spent more than ten years analyzing this Merchandise Trade database to identify abnormal pricing schemes used by tax avoiders and money launderers. Zdanowicz' current research focuses on detecting terrorist financing.

"Since 9/11, the U.S. government has done a great job shutting down what I call the 'front door,'" Zdanowicz said. "Thanks to the U.S. Patriot Act, it has intensified its monitoring of financial transactions for possible instances of money laundering."

Banks, credit unions, insurance companies, brokerage firms, currency exchangers, check cashers and so on must adhere to strict and closely-watched reporting regulations.

"But the 'back door'—international trade—is not being monitored very carefully," Zdanowicz said. "The U.S. government collects weight and pricing data on goods entering and exiting our air and seaports, but doesn't systematically analyze or use it to guard our borders."

He added that the government does not publish weight data on goods crossing its borders on trains and trucks.

While Washington has spent billions of dollars on airport security since 9/11, it has done little to monitor the more than six million shipping containers arriving at U.S. seaports every year.

An article on just this issue, "On the Waterfront," (*CBSNews.com*, August 3, 2003) quotes Stephen Flynn, a former Coast Guard Commander and senior fellow at the Council of Foreign Relations, as saying "It is physically impossible to check every container without essentially stopping global commerce."

Typically, shipping containers are quickly loaded onto trains and trucks which deliver them throughout the country. Flynn said his biggest fear is that terrorists could use such containers to smuggle in weapons of mass destruction (WMDs).

While customs agents have been armed with radiation detectors, they can physically inspect only about 2% of the cargo entering the U.S.

Zdanowicz's research provides some valuable tools for watching this back door.

"He's helping the government do its job," said Charles Intriago, publisher of *Money Laundering Alert*.

## THE BACK DOOR: ABNORMAL WEIGHTS

In his analysis of weight data, Zdanowicz relies on the U.S. Department of Commerce's international trade data, which contains detailed information on every product imported into and exported out of the U.S. from and to every country in the world—for all U.S. Customs Districts.

"Chambers and I developed a computer analysis that allows us to determine the normal weight characteristics for every product imported into the U.S.," he said. "Once we determined relevant normal weight ranges, we compared the weight of every imported product to the range and filtered out all transactions with abnormal weights."

The duo initiated their research looking at imports to the U.S. from the U.S. State Department's 25 al Qaeda "Watch List" countries. Sample results from two U.S. Customs Districts are reflected in Chart 1. "There are thousands of similar transactions every month across all Districts," Chambers said.

While not able to identify individual names or firms because

Chart 1: Abnormal Import Weights at San Francisco and Los Angeles Customs Districts from al Qaeda "Watch List" Countries - 2001

Port	Product	Country	Weight
San Fran.	Coffee	Indonesia	1.26 kilograms per kilogram
San Fran.	Briefcases	Malaysia	98 kilograms per unit
San Fran.	Carpet	Iran	63 kilograms per square meter
LA	Pens	Malaysia	8.7 kilograms per unit
LA	Televisions	Malaysia	202 kilograms per unit
LA	Carpet	Pakistan	62 kilograms per square meter

that data is not available for the research, Zdanowicz said the Homeland Security Office does have the ability to do that.

"Our research data could be coupled with real time import data to determine which items a Homeland Security official should inspect," he said.

## THE BACK DOOR: ABNORMAL PRICING

Since 1991, Zdanowicz and Pak have been examining this international trade data to isolate instances of abnormal pricing—an indication of tax avoidance and/or money laundering schemes.

### Tax Avoidance

In 2002, for example, they reported that the United States government lost more than \$53 billion in tax revenues in 2001—more than \$145.5 million per day—due to artificial over-pricing and under-pricing of products entering and leaving the country. Because it allows them to shift profits abroad, a number of individuals and firms engage in abnormal international trade pricing to avoid or reduce their U.S. tax liability.

Japan tops the list of countries with the highest amount of estimated U.S. tax losses due to abnormal trade pricing in 2001 (see Chart 2). Trade with other countries that resulted in large U.S. tax losses include Canada, Germany, and Mexico. Charts 3 and 4 show some examples of the abnormally-priced transactions they uncovered.

Through his research, Zdanowicz has found that U.S. tax revenue lost through abnormal pricing in international trade has been increasing steadily over the past decade. Using the same kind



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of analysis, they estimated in 2001 that lost tax revenue in 2000 was \$44.55 billion.

"Initially, I was looking at international price discrimination to try to assess the efficiency of international trade markets," Zdanowicz said. "I assumed there would be some difference in price for the same product from market to market, but what I discovered was some bizarre pricing—what's called 'statistical noise.'"

If you're shopping for a new television and checking prices for the model you want at a number of different stores, you'll discover some price variation, he said. But the prices will fall within a range—a range that's typical for your market. If that range is \$180 to \$225, but you suddenly find one selling for \$800, it raises a red flag. That

is the kind of "statistical noise" that was uncovered, he said.

Zdanowicz assumes that import and export prices are suspicious if they deviate above or below the interquartile range of all prices, as defined in the 1994 "Intercompany Transfer Pricing Regulations Under Section 482" of the Internal Revenue Service tax code. He also assumes that every dollar of taxable income shifted out of the United States would have been taxed at 34 percent.

Senator Byron L. Dorgan (D-North Dakota) included \$2 million in the 2002 Treasury-General Government Appropriations bill to expand the study to help determine policies that will allow the Internal Revenue Service to collect taxes due but avoided under abnormal pricing schemes. The legislation was signed into law by President Bush.

The research grant was awarded to Florida International University (FIU), with Zdanowicz designated as FIU's principal investigator. Senator Dorgan and others in Washington are concerned that foreign multinationals with U.S. subsidiaries shift their income tax liability to lower-tax countries. Typically the money they move out of the U.S. to avoid tax liability was lawfully gained—hence the descriptor, "tax avoidance."

"Multinationals hire 'transfer pricing' staffs whose job it is to justify pricing among their subsidiaries," Zdanowicz said.

Some multinationals either overvalue imports or undervalue exports to avoid paying taxes. The goal is to move money from high-tax jurisdictions to low-tax jurisdictions.

"Let's say a foreign company manufactures automobile radios at a cost of \$100 each," Zdanowicz said. "It sells them to its U.S. subsidiary for \$100 each, and the subsidiary sells them for \$200—a \$100 profit on which they would pay a tax of \$34 per radio."

To shift the tax liability, he said, the foreign firm would sell the \$100 radio to its U.S. subsidiary for \$199 and the U.S. subsidiary would sell it for \$200, earning \$1 profit per radio. The tax liability is now down to 34 cents per radio. In other words, higher import prices, lower U.S. profits, and lower U.S. income tax liability. Although import duties on overvalued imports might be higher due to these inflated prices, they're much lower than income taxes, the liability for which are often further reduced by inflating costs of shipping, insurance, freight, and so on.

This research is expected to help the U.S. Internal Revenue Service collect some of the unpaid taxes. In fact, Zdanowicz has provided expert analysis in a number of tax cases. The same kind of analysis also can help developing countries collect taxes and import duty revenues currently being lost thanks to abnormal pricing practices.

### Money Laundering and Terrorist Financing

Multinationals aren't the only entities moving money from country to country using overvalued imports and undervalued exports. Money launderers and terrorists are doing it as well.

"Money laundering describes movement of money out of the country that was illegally gained, say through extortion, drugs, crime, prostitution, and terrorism, for example," Zdanowicz said. "Money laundering also results in tax evasion."

Zdanowicz has helped uncover money laundering and terrorist financing schemes over the years and continues to furnish expertise to the Department of Justice, U.S. Customs, and others in law enforcement. He also has provided training on financial crime at the U.S. Treasury Department's Federal Law Enforcement Training Center.

"If I want to move \$1 million in cash to, say, Panama, I can go and buy \$1 million worth of gold watches, say 200 of them at \$5,000 apiece," Zdanowicz said. "I can sell them to my partner company in Panama for \$5 apiece, so my friend there pays \$1,000 for the lot. He then sells the watches at \$5,000 apiece, and now, my \$1 million is in Panama. I've moved the money."

Moreover, his firm has cheated Panama of import duties because the importer is only paying \$1,000 for the goods, which also enables him to compete and make money against legitimate importers and competitors.

Money can be moved from other countries to the U.S. as easily as from the U.S. to other countries. The former is typical "capital flight," Zdanowicz said. "I could buy emeralds in Brazil at their real value, export them to the U.S. at 1/100 of this value, then resell them in Miami at their real value."

The same practices are used to move money for the purpose of financing terrorist activities.

"In the future, I hope to establish a multi-agency task force including analysts from U.S. Customs, the Internal Revenue Service, the Department of Commerce, and the Department of Justice," Zdanowicz said. He added that he hoped these analysts would provide insight into some of the mysteries uncovered by his research and that the work will lead to changes in U.S. policies with respect to monitoring trade statistics.

And that monitoring could help close the "back door." ■

Chart 2: 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% (\$ millions)	Income Shifted (\$ millions)
All Countries	\$53,117	\$156,225
Top 25 Countries	\$49,073	\$144,332
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
NETHLD	\$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
MALAYSIA	\$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  
\$3,116,638,061/365 = \$145,525,036 PER DAY

Chart 3: Abnormally High U.S. Import Prices

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

Chart 4: Abnormally Low U.S. Export Prices

Bovine Animals - Live	Mexico	\$20.65/unit
Multiple Vitamins	Finland	\$1.34/kg
Dynamite	Canada	\$1.24/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	\$1,741.92/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	\$3,750.00/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