

# II. ESTIMATION METHOD

## OFFSHORE FINANCIAL

### ASSETS MODEL

## OFFSHORE FINANCIAL ASSETS - HIGH NET WORTH INDIVIDUALS

|                                       | DECEMBER \$TR |        |        |        |        |        |        |         |
|---------------------------------------|---------------|--------|--------|--------|--------|--------|--------|---------|
|                                       | 2002          | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   | 2010    |
| <b>BIS Non-Bank Offshore Deposits</b> | \$2.98        | \$4.05 | \$4.68 | \$5.97 | \$7.43 | \$6.93 | \$6.59 | \$7.01  |
| <b>Liquidity Ratio<sup>2</sup></b>    |               |        |        |        |        |        |        |         |
| >Minimum <sup>3</sup>                 | 3.5           | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0     |
| >Max (ML/CG Ave) <sup>4</sup>         | 3.0           | 5.0    | 4.9    | 4.6    | 4.5    | 3.6    | 3.8    | 4.5     |
| <b>Total Financial Assets</b>         |               |        |        |        |        |        |        |         |
| >Minimum                              | \$10.4        | \$12.1 | \$14.0 | \$17.9 | \$22.3 | \$20.8 | \$19.8 | \$21.02 |
| >Max (ML/CG Ave)                      | \$8.9         | \$20.2 | \$22.9 | \$27.5 | \$33.4 | \$24.9 | \$24.7 | \$31.53 |
| <b>Est Average</b>                    | \$9.7         | \$16.2 | \$18.5 | \$22.7 | \$27.9 | \$22.9 | \$22.2 | \$26.3  |

Source: BIS('04-'10) data, ML/CapGemini ('04-'10) HNWI asset allocations, our analysis

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<sup>1</sup> BIS Table 1: external deposit liabilities to non-banks

<sup>2</sup> Yearly average portfolio ratio, deposits to total liquid financial assets (including tradeable equities and fixed income)

<sup>3</sup> Using TJN's very conservative assumption for the liquidity ratio, based on the 2004 McKinsey study

<sup>4</sup> Using ML/CapGemini's average portfolio allocation for HNWIs, 2004-2010

# III. ESTIMATION METHOD

## GLOBAL PRIVATE BANK

### AUMS

**TOP 50 GLOBAL PRIVATE BANKS, 2005-2010**  
**(\$Billions, Assets Under Management)**

(1/2)

|             |             | Jun-05                 | Mkt%             | Dec-09       | Mkt%             | Dec-10       | Mkt%               |              |                  |
|-------------|-------------|------------------------|------------------|--------------|------------------|--------------|--------------------|--------------|------------------|
|             |             | <b>Top 10 - Total</b>  | <b>\$2,272.8</b> | <b>42.2%</b> | <b>\$3,660.8</b> | <b>45.5%</b> | <b>\$6,182</b>     | <b>51.2%</b> | <b>20.0%</b>     |
| <b>Rank</b> |             | <b>Next 10 - Total</b> | <b>\$1,412.4</b> | <b>26.2%</b> | <b>\$2,319.9</b> | <b>28.8%</b> |                    |              | <b>2005-2010</b> |
|             |             | <b>Next 30 - Total</b> | <b>\$1,706.0</b> | <b>31.6%</b> | <b>\$2,069.4</b> | <b>25.7%</b> |                    |              | <b>AAGR%</b>     |
| <b>2005</b> | <b>2010</b> | <b>Top 50 - Total</b>  | <b>\$5,391.3</b> | <b>100%</b>  | <b>\$8,050.1</b> | <b>100%</b>  | <b>\$ 12,066.4</b> |              | <b>15.8%</b>     |
| 1           | 1           | UBS                    | \$1,349.2        |              | \$1,627.6        |              | \$1,789.0          |              | 5.8%             |
| 2           | 2           | Credit Suisse          | \$469.2          |              | \$770.1          |              | \$932.9            |              | 14.7%            |
| 7           | 3           | Goldman Sachs          | \$166.0          |              | \$220.5          |              | \$840.0            |              | 38.3%            |
| 19          | 4           | Bank America           | \$108.5          |              | \$433.8          |              | \$643.9            |              | 42.8%            |
| 5           | 5           | HSBC                   | \$183.0          |              | \$250.0          |              | \$390.0            |              | 16.3%            |
| 6           | 6           | Deutsche Bk            | \$180.9          |              | \$464.2          |              | \$367.5            |              | 15.2%            |
| 9           | 7           | BNP Paribas            | \$158.0          |              | \$293.0          |              | \$338.0            |              | 16.4%            |
| 24          | 8           | Wells Fargo            | \$78.0           |              | \$187.3          |              | \$300.0            |              | 30.9%            |
| 8           | 9           | Morgan Stanley/ SSB*   | \$165.0          |              | \$365.0          |              | \$297.0            |              | 12.5%            |
| 4           | 10          | JPMorganChase          | \$187.0          |              | \$266.0          |              | \$284.0            |              | 8.7%             |
| 11          | 11          | Pictet                 | \$150.0          |              | \$236.6          |              | \$270.0            |              | 12.5%            |
| 12          | 12          | Bank Leumi             | \$138.0          |              | \$202.5          |              | \$251.0            |              | 12.7%            |
| 13          | 13          | Barclays               | \$135.3          |              | \$230.0          |              | \$238.3            |              | 12.0%            |
| 38          | 14          | Commerzbank            | \$30.2           |              | \$207.1          |              | \$225.0            |              | 49.4%            |
| 10          | 15          | ABN Amro               | \$150.8          |              | \$199.1          |              | \$218.4            |              | 7.7%             |
| 32          | 16          | TD Canada              | \$49.4           |              | \$65.0           |              | \$183.0            |              | 29.9%            |
| 34          | 17          | Banque Julius Baer     | \$46.8           |              | \$160.2          |              | \$181.0            |              | 31.1%            |
| 16          | 18          | Credit Agricole        | \$114.1          |              | \$215.2          |              | \$171.0            |              | 8.4%             |
| 23          | 19          | Bk of New York         | \$82.6           |              | \$84.0           |              | \$166.0            |              | 15.0%            |
| 17          | 20          | Northern Trust         | \$111.5          |              | \$141.5          |              | \$154.0            |              | 6.7%             |

Source: bank financials, private banking industry interviews, JSH analysis

## TIER TWO: TOP 50 GLOBAL PRIVATE BANKS, 2005-2010

(2/2)

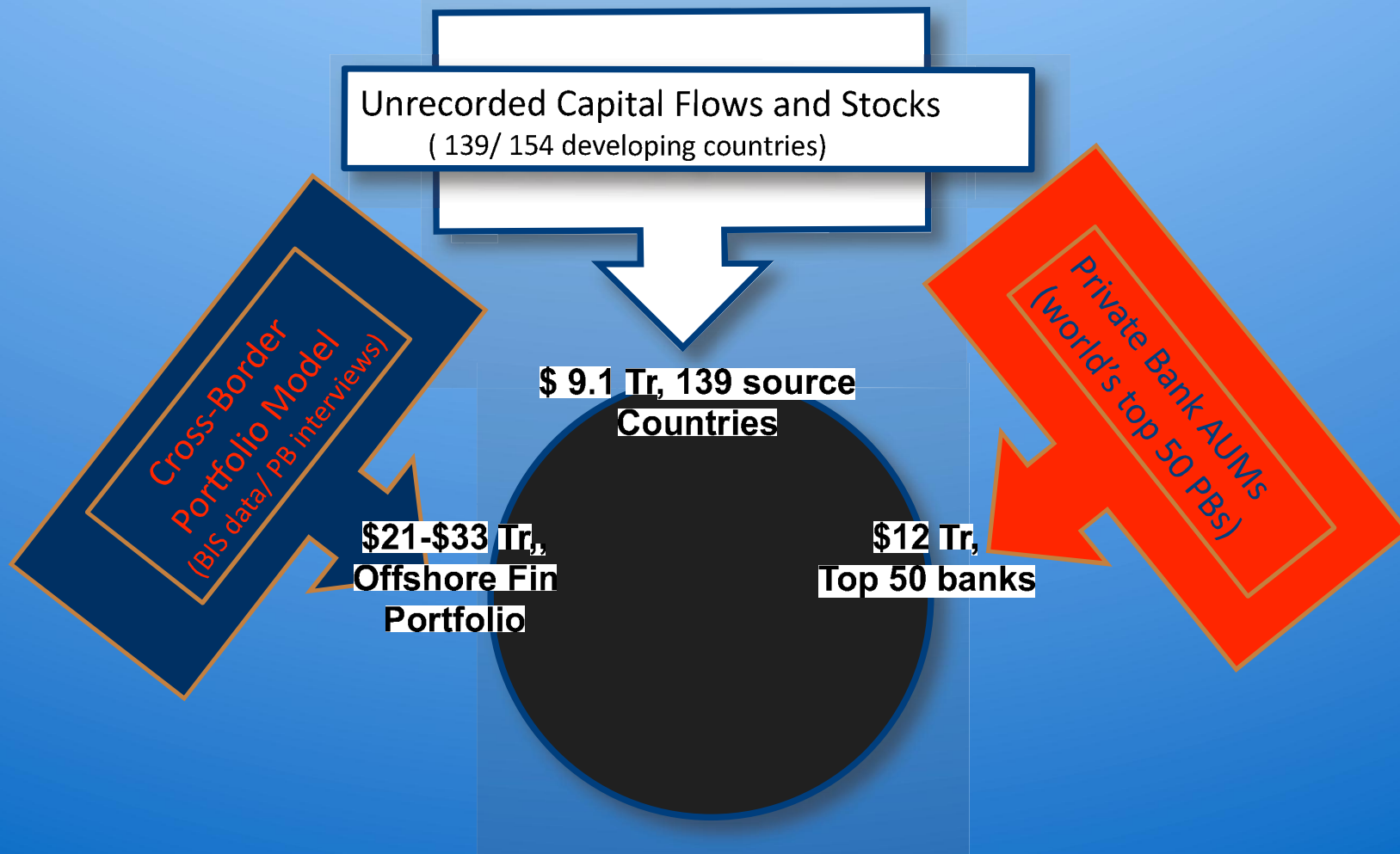
(\$Billions, Assets Under Management)

| Rank |      | Jun-05                  |           | Dec-09    |           | Dec-10  |             | 2005-2010<br>AAGR% |
|------|------|-------------------------|-----------|-----------|-----------|---------|-------------|--------------------|
|      |      | Top 10 - Total          | 42.2%     | \$3,660.8 | 45.5%     | \$6,182 | 51.2%       |                    |
| 2005 | 2010 | Top 50 - Total          | \$5,391.3 | 100%      | \$8,050.1 | 100%    | \$ 12,066.4 | 15.8%              |
| 14   | 21   | Lombard Odier           | \$123.0   |           | \$130.1   |         | \$153.9     | 4.6%               |
| 18   | 22   | Banco Santander         | \$111.4   |           | \$131.8   |         | \$150.0     | 6.1%               |
| 27   | 23   | Societe General         | \$66.3    |           | \$109.1   |         | \$112.5     | 11.1%              |
| 30   | 24   | ING Group               | \$56.8    |           | \$86.5    |         | \$110.0     | 14.1%              |
| 25   | 25   | Bk of Montreal          | \$71.3    |           | \$87.7    |         | \$103.8     | 7.8%               |
| 33   | 26   | BP Edmund de Rothchild  | \$47.1    | ▼         | \$88.9    |         | \$99.1      | 16.0%              |
| 31   | 27   | LGT                     | \$52.8    |           | \$91.2    |         | \$92.0      | 11.7%              |
| 42   | 28   | EFG Intl                | \$26.0    |           | \$93.3    |         | \$91.7      | 28.7%              |
| 35   | 29   | Raiffesen Banking Group | \$46.4    |           | \$68.2    |         | \$85.0      | 12.9%              |
| 37   | 30   | BSI Bank                | \$39.7    | ▼         | \$82.8    |         | \$84.5      | 16.3%              |
| 43   | 31   | RBC                     | \$22.2    |           | \$42.9    |         | \$75.0      | 27.5%              |
| 29   | 32   | UBP                     | \$61.0    |           | \$82.4    |         | \$69.3      | 2.6%               |
| 3    | 33   | Citigroup*              | \$293.7   |           | \$35.0    |         | \$50.0      | -29.8%             |
| 41   | 34   | Bank Sarasin            | \$27.3    |           | \$46.4    |         | \$49.6      | 12.7%              |
| 22   | 35   | KBC/KBL                 | \$83.2    |           | \$69.0    |         | \$48.6      | -10.2%             |
| 40   | 36   | MM Warburg              | \$27.4    |           | \$43.6    |         | \$48.2      | 12.0%              |
| 45   | 37   | Standard Chartered      | \$21.8    |           | \$30.8    |         | \$46.0      | 16.1%              |
| 36   | 38   | RBS/Coutts              | \$41.3    |           | \$51.0    |         | \$44.7      | 1.6%               |
| 47   | 39   | Lloyds TSB              | \$17.9    |           | \$30.1    |         | \$35.0      | 14.4%              |
| 46   | 40   | Berenburg Bank          | \$19.1    | ▼         | \$30.6    |         | \$34.1      | 12.2%              |
| 51   | 41   | Vontobel AG             | \$15.8    |           | \$24.6    |         | \$31.6      | 14.9%              |
| 39   | 42   | SEB                     | \$28.3    |           | \$26.2    |         | \$30.0      | 1.2%               |
| 50   | 43   | Luzerner Cantonal       | \$15.9    |           | \$23.3    |         | \$27.8      | 11.9%              |
| 44   | 44   | Schroders               | \$22.0    |           | \$22.9    |         | \$25.1      | 2.7%               |
| 54   | 45   | OCBC (Sing)             | \$6.0     |           | \$23.0    |         | \$22.4      | 30.1%              |
| 48   | 46   | VP Bank                 | \$16.1    |           | \$18.5    |         | \$22.0      | 6.4%               |
| 52   | 47   | Bankhause Lampe         | \$10.0    |           | \$15.0    |         | \$20.0      | 14.8%              |
| 49   | 48   | Wegelin                 | \$16.0    |           | \$24.1    |         | \$14.0      | -2.6%              |
| 53   | 49   | Reuscheul &Co           | \$8.0     |           | \$10.0    |         | \$11.0      | 6.6%               |
| 55   | 50   | DZ Privatebank          | \$5.3     |           | \$6.7     |         | \$8.0       | 8.6%               |

Source: Bank financial statements, industry interviews, JSH analysis

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# Triangulating on the offshore black hole....



# IV. ESTIMATION METHOD? TRADE MISINVOICING

# Growth Factors – TP Abuse

- Corporate globalization
  - Trade+investment
  - Traded services
  - Financial chicanery
- ‘Abuser’ industry growth
  - Software
  - Big pharma
  - Extraction
  - Finance
- Rise of secrecy jurisdictions
  - “Offshore”
  - “Onshore”
- Rise of “enabling experts”
  - Accounting firms
  - Law firms
  - Major banks
- Official support for “corp-friendly” standards



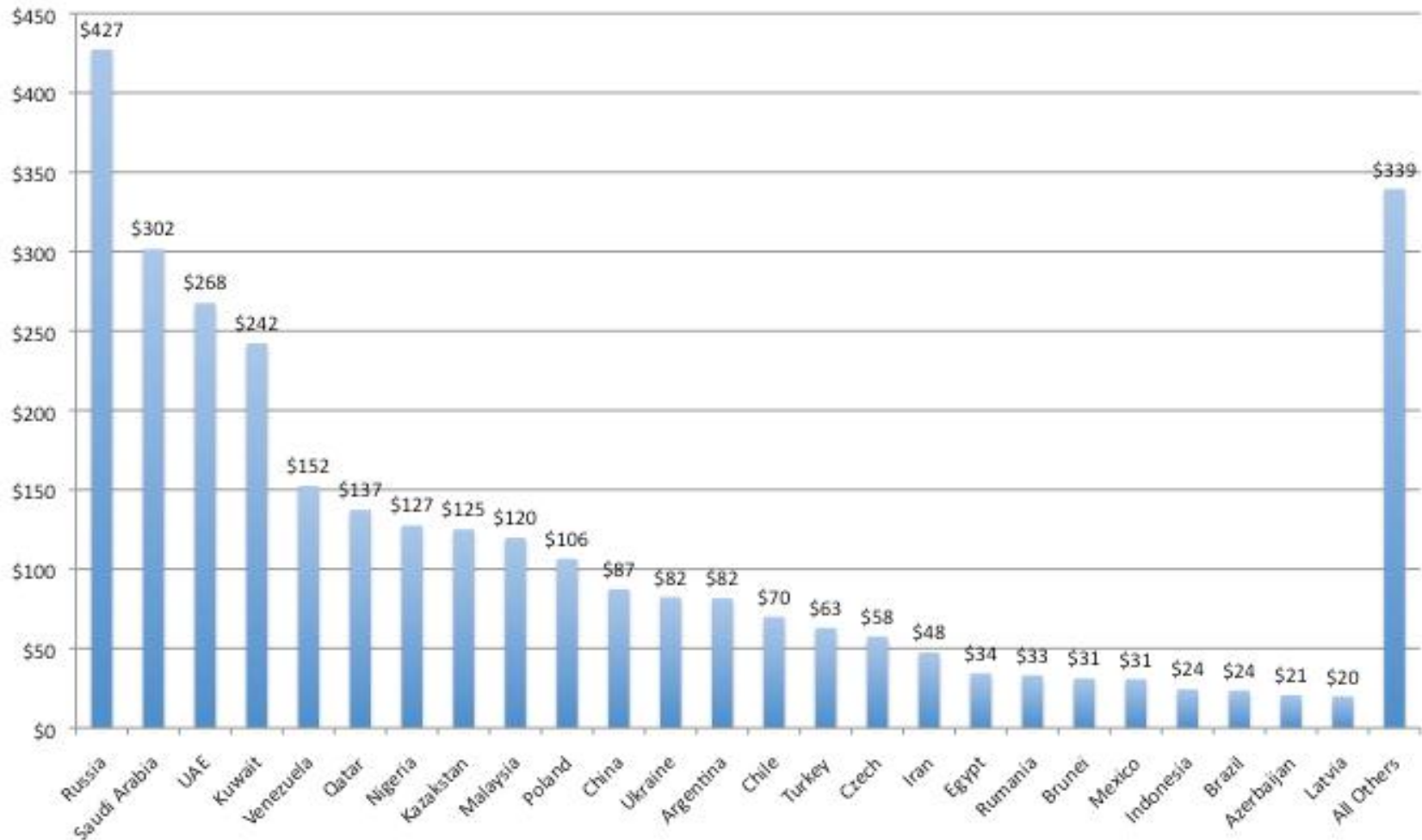
- Limited developing country tax resources and skills
- Balkanized competing jurisdictions (vs. MNC solidarity on this issue)
- Global TJ resources
  - Policy analysis, design, redesign
  - Training, feedback



# Recent Aggregate ITP Cost Estimates

| Study                | Approach   | Estimated Lost Tax Rev                               |
|----------------------|--|--|
| Simon Pak (2003-6)   | • Goods trade misinvoicing -<br>Bilateral Customs data | “+\$200 billion/ yr.”                                |
| GFI (2011-12)        | • Goods trade misinvoicing                             | “\$98-\$106 b./ yr., 2002-06 “                       |
| Christian Aid (2009) | • Goods trade misinvoicing –<br>partner discrepancies  | “+\$160 billion/yr.”                                 |
| TJN (2012)           | • Country studies<br>• `intangibles` abuse             | • Case studies of Mx,<br>Zambia, Swiss, India, China |

### "Capital Flight" by Country, 2000-2008 - GFI Estimates (Cumulative Nominal US \$Billions)



Source: GFI (2011), JSH analysis

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## GFI'S ESTIMATES OF "ILLCIT FINANCIAL FLOWS" FROM DEVELOPING COUNTRIES

( Current US \$Billions Aggregated Across Years)

| Study        | Focus                     | Period    | Trade Misinvoicing |         | + | Capital Flight |         | = Total "Illicit Flows" |         | Yearly Average |         |
|--------------|---------------------------|-----------|--------------------|---------|---|----------------|---------|-------------------------|---------|----------------|---------|
|              |                           |           | 1990-2008          | 2000-08 |   | 1990-2008      | 2000-08 | 1990-2008               | 2000-08 | 1990-2008      | 2000-08 |
| GFI (6/2011) | LDCs (n=44)               | 1990-2008 | \$126.3            | \$33.6  |   | \$160          | \$52    | \$286                   | \$86    | \$15.1         | ↔ \$9.5 |
|              |                           |           |                    |         |   | 15.9*          | na      | 15.9*                   | na      | ‡              |         |
|              |                           |           |                    |         |   | \$176          | na      | \$302                   | na      | \$15.9         | na      |
| GFI (1/2011) | All Dev Countries (n=217) | 2000-2008 | na                 | \$3,477 |   | na             | \$3,053 | na                      | \$6,530 | na             | \$726   |

\* Estimated for 15 countries with missing data

Source: GFI studies, JSH analysis

## Basic Concept -- Adjusted Partner Trade Measure

**Total Misinvoicing = Export Misinvoicing + Import Misinvoicing**

**“Export Misinvoicing”:**  $\sum \sum ((X^*_{ijt} (1 + \text{CIF}_{ijt}) - \sum \sum M^w_{ijt}))$

**“Import Misinvoicing”:**  $\sum \sum (M^*_{ijt} - \sum \sum (X^w_{ijt} (1 + \text{CIF}_{ijt})))$

**Where:**  $X^*$  = Country X’s Reported FOB goods exports per commodity per trading partner at time t, in a common currency\

$M^*$  = Country X’s Reported CIF goods imports per commodity per trading partner at time t, in a common currency

$X^w$  = Sum of world’s reported FOB goods exports per commodity per trading partner at time t, in a common currency

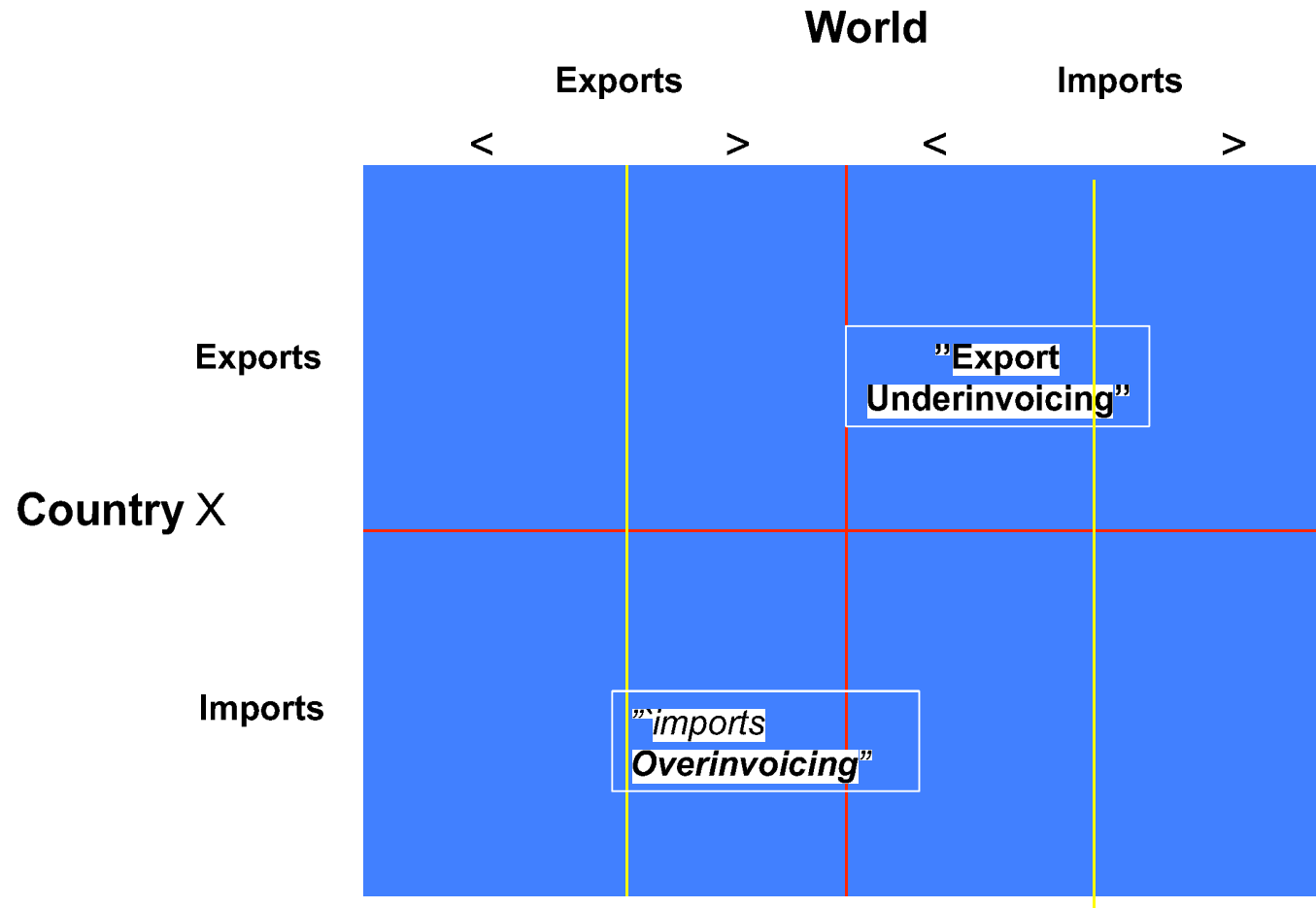
$M^w$  = Country X’s Reported CIF goods imports per commodity per trading partner at time t, in a common currency

$\text{CIF}_{ij1}$  = “normal trade costs,” including customs, insurance and freight, for commodity j and trading partners j at time t

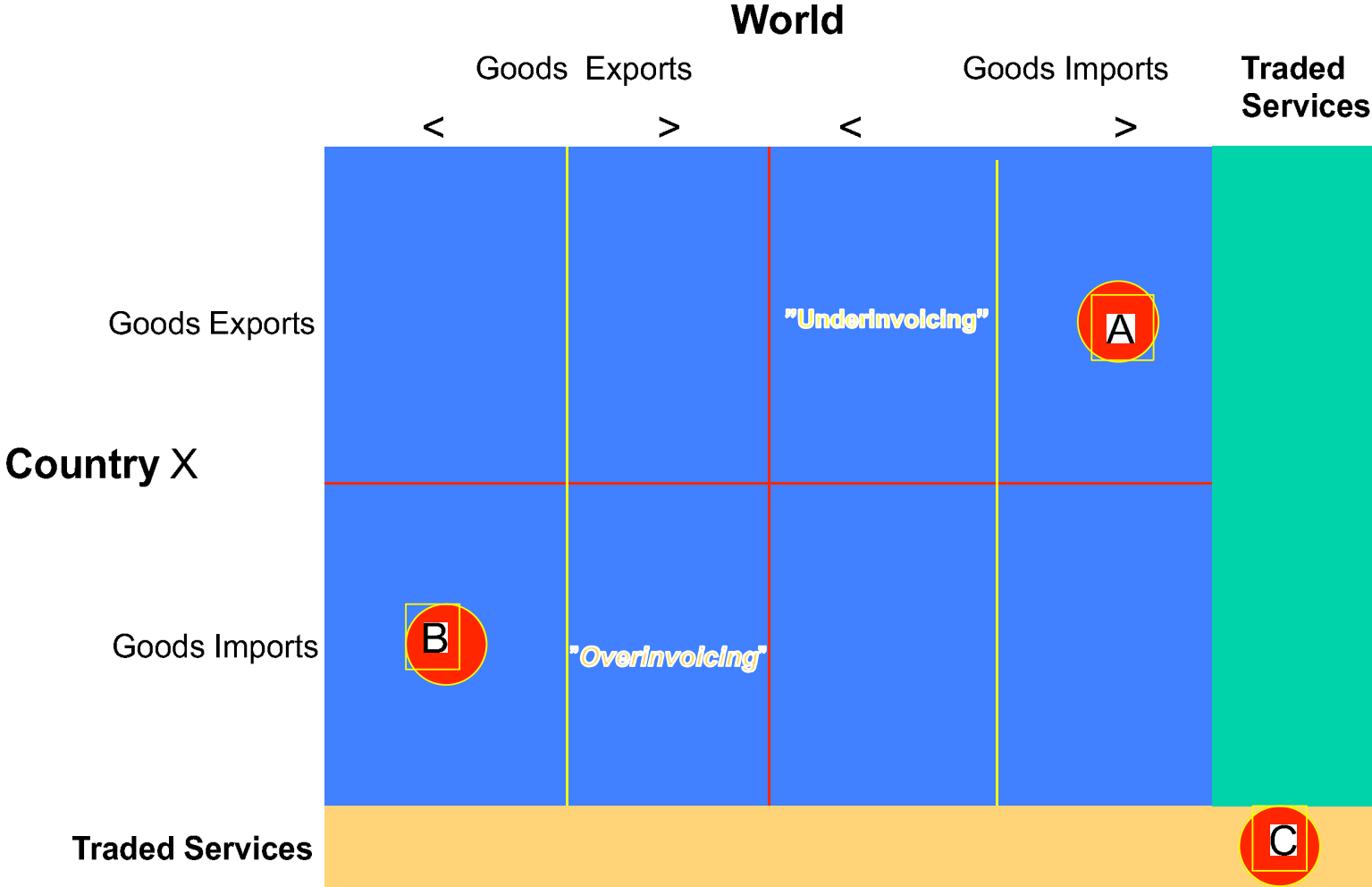
| ALPHABETICALLY | 2010 | ALPHABETICALLY | 2010 | ALPHABETICALLY | 2010 | ALPHABETICALLY | 2010 | ALPHABETICALLY | 2010 |
|----------------|------|----------------|------|----------------|------|----------------|------|----------------|------|
| Alabama        | 01   | Alabama        | 01   | Alabama        | 01   | Alabama        | 01   | Alabama        | 01   |
| Alaska         | 02   | Alaska         | 02   | Alaska         | 02   | Alaska         | 02   | Alaska         | 02   |
| Arizona        | 03   | Arizona        | 03   | Arizona        | 03   | Arizona        | 03   | Arizona        | 03   |
| Arkansas       | 04   | Arkansas       | 04   | Arkansas       | 04   | Arkansas       | 04   | Arkansas       | 04   |
| California     | 05   | California     | 05   | California     | 05   | California     | 05   | California     | 05   |
| Colorado       | 06   | Colorado       | 06   | Colorado       | 06   | Colorado       | 06   | Colorado       | 06   |
| Connecticut    | 07   | Connecticut    | 07   | Connecticut    | 07   | Connecticut    | 07   | Connecticut    | 07   |
| Delaware       | 08   | Delaware       | 08   | Delaware       | 08   | Delaware       | 08   | Delaware       | 08   |
| Florida        | 09   | Florida        | 09   | Florida        | 09   | Florida        | 09   | Florida        | 09   |
| Georgia        | 10   | Georgia        | 10   | Georgia        | 10   | Georgia        | 10   | Georgia        | 10   |
| Hawaii         | 11   | Hawaii         | 11   | Hawaii         | 11   | Hawaii         | 11   | Hawaii         | 11   |
| Idaho          | 12   | Idaho          | 12   | Idaho          | 12   | Idaho          | 12   | Idaho          | 12   |
| Illinois       | 13   | Illinois       | 13   | Illinois       | 13   | Illinois       | 13   | Illinois       | 13   |
| Indiana        | 14   | Indiana        | 14   | Indiana        | 14   | Indiana        | 14   | Indiana        | 14   |
| Iowa           | 15   | Iowa           | 15   | Iowa           | 15   | Iowa           | 15   | Iowa           | 15   |
| Kansas         | 16   | Kansas         | 16   | Kansas         | 16   | Kansas         | 16   | Kansas         | 16   |
| Kentucky       | 17   | Kentucky       | 17   | Kentucky       | 17   | Kentucky       | 17   | Kentucky       | 17   |
| Louisiana      | 18   | Louisiana      | 18   | Louisiana      | 18   | Louisiana      | 18   | Louisiana      | 18   |
| Maine          | 19   | Maine          | 19   | Maine          | 19   | Maine          | 19   | Maine          | 19   |
| Maryland       | 20   | Maryland       | 20   | Maryland       | 20   | Maryland       | 20   | Maryland       | 20   |
| Massachusetts  | 21   | Massachusetts  | 21   | Massachusetts  | 21   | Massachusetts  | 21   | Massachusetts  | 21   |
| Michigan       | 22   | Michigan       | 22   | Michigan       | 22   | Michigan       | 22   | Michigan       | 22   |
| Minnesota      | 23   | Minnesota      | 23   | Minnesota      | 23   | Minnesota      | 23   | Minnesota      | 23   |
| Mississippi    | 24   | Mississippi    | 24   | Mississippi    | 24   | Mississippi    | 24   | Mississippi    | 24   |
| Missouri       | 25   | Missouri       | 25   | Missouri       | 25   | Missouri       | 25   | Missouri       | 25   |
| Montana        | 26   | Montana        | 26   | Montana        | 26   | Montana        | 26   | Montana        | 26   |
| Nebraska       | 27   | Nebraska       | 27   | Nebraska       | 27   | Nebraska       | 27   | Nebraska       | 27   |
| Nevada         | 28   | Nevada         | 28   | Nevada         | 28   | Nevada         | 28   | Nevada         | 28   |
| New Hampshire  | 29   | New Hampshire  | 29   | New Hampshire  | 29   | New Hampshire  | 29   | New Hampshire  | 29   |
| New Jersey     | 30   | New Jersey     | 30   | New Jersey     | 30   | New Jersey     | 30   | New Jersey     | 30   |
| New Mexico     | 31   | New Mexico     | 31   | New Mexico     | 31   | New Mexico     | 31   | New Mexico     | 31   |
| New York       | 32   | New York       | 32   | New York       | 32   | New York       | 32   | New York       | 32   |
| North Carolina | 33   | North Carolina | 33   | North Carolina | 33   | North Carolina | 33   | North Carolina | 33   |
| North Dakota   | 34   | North Dakota   | 34   | North Dakota   | 34   | North Dakota   | 34   | North Dakota   | 34   |
| Ohio           | 35   | Ohio           | 35   | Ohio           | 35   | Ohio           | 35   | Ohio           | 35   |
| Oklahoma       | 36   | Oklahoma       | 36   | Oklahoma       | 36   | Oklahoma       | 36   | Oklahoma       | 36   |
| Oregon         | 37   | Oregon         | 37   | Oregon         | 37   | Oregon         | 37   | Oregon         | 37   |
| Pennsylvania   | 38   | Pennsylvania   | 38   | Pennsylvania   | 38   | Pennsylvania   | 38   | Pennsylvania   | 38   |
| Rhode Island   | 39   | Rhode Island   | 39   | Rhode Island   | 39   | Rhode Island   | 39   | Rhode Island   | 39   |
| South Carolina | 40   | South Carolina | 40   | South Carolina | 40   | South Carolina | 40   | South Carolina | 40   |
| South Dakota   | 41   | South Dakota   | 41   | South Dakota   | 41   | South Dakota   | 41   | South Dakota   | 41   |
| Tennessee      | 42   | Tennessee      | 42   | Tennessee      | 42   | Tennessee      | 42   | Tennessee      | 42   |
| Texas          | 43   | Texas          | 43   | Texas          | 43   | Texas          | 43   | Texas          | 43   |
| Utah           | 44   | Utah           | 44   | Utah           | 44   | Utah           | 44   | Utah           | 44   |
| Vermont        | 45   | Vermont        | 45   | Vermont        | 45   | Vermont        | 45   | Vermont        | 45   |
| Virginia       | 46   | Virginia       | 46   | Virginia       | 46   | Virginia       | 46   | Virginia       | 46   |
| Washington     | 47   | Washington     | 47   | Washington     | 47   | Washington     | 47   | Washington     | 47   |
| West Virginia  | 48   | West Virginia  | 48   | West Virginia  | 48   | West Virginia  | 48   | West Virginia  | 48   |
| Wisconsin      | 49   | Wisconsin      | 49   | Wisconsin      | 49   | Wisconsin      | 49   | Wisconsin      | 49   |
| Wyoming        | 50   | Wyoming        | 50   | Wyoming        | 50   | Wyoming        | 50   | Wyoming        | 50   |

IN PRACTICE...NOT MUCH FUN...!!!

# CONVENTIONAL MISINVOICING



# EXPANDED MISINVOICING FRAMEWORK

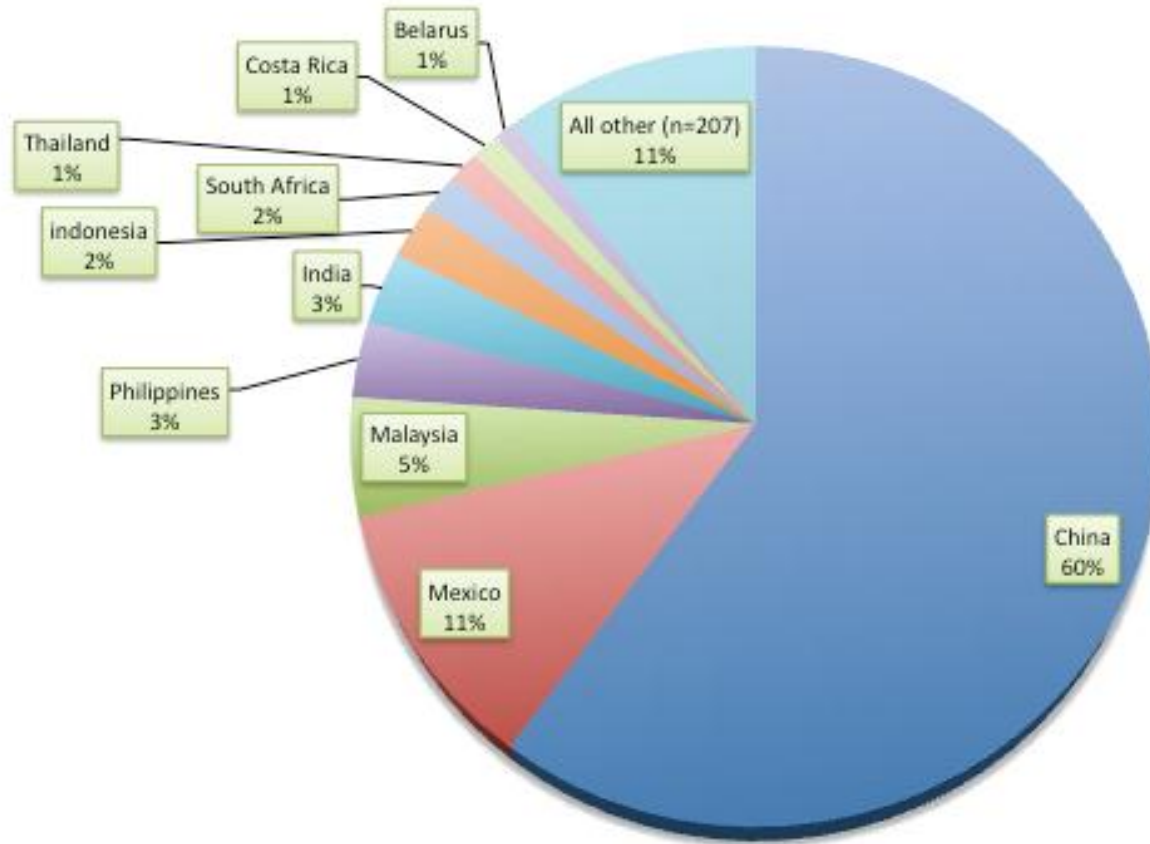


# Key Issues – GFI approach

|   | Trade<br>Misinvoicing          | Capital<br>Flight              | Bias |
|---|--------------------------------|--------------------------------|------|
| ▫ Country concentration                               | ✓✓                             |                                | ⊞⊞   |
| ▫ All negative flows omitted                          | ✓✓                             | ✓✓                             | ⊞⊞   |
| ▫ Data quality (timing, cif costs, aggregation, etc.) | ✓✓                             | ✓                              | ?    |
| ▫ Stocks vs. flows                                    | ✓✓                             | ✓✓                             | -    |
| ▫ Income on offshore stocks                           | ✓✓                             | ✓✓                             | -    |
| ▫ Post-2000 focus                                     | ✓✓                             | ✓✓                             |      |
| ▫ Missing data  | ✓ 53 zeroes + 72 missing / 217 | ✓ 69 zeroes + 72 missing / 217 | -    |
| ▫ Imputed values                                      |                                | ✓ LDCs                         | ⊞    |
| ▫ Mispricing in traded services omitted               | ✓                              |                                | - ?  |



**GFI "Trade Misinvoicing" By Country, 2000-2008**  
**( $\Sigma$  = \$3.48 trillion)**



## Revised Discrepancies, US- China Trade 2000-2009\*\*

| Chinese-U.S. Bilateral Merchandise Trade Statistics 2000, 2004, 2006<br>(Values in Billions of U.S. Dollars) |  |              |   |                                    |                                |              |            |                                  |
|--|--|--------------|---|------------------------------------|--------------------------------|--------------|------------|----------------------------------|
|  | Eastbound<br>(Bound for United States) |              |   |                                    | Westbound<br>(Bound for China) |              |            |                                  |
| Year   | Chinese Exports                        | U.S. Imports | <i>initial</i><br>Difference<br><b><i>Revised</i></b> | Difference<br>as a % of<br>Imports | Chinese Imports                | U.S. Exports | Difference | Difference<br>as % of<br>Imports |
| 2000   | 52.1                                   | 100.0        | 48.0 <b>\$7.5</b>                                     | 47.9                               | 22.4                           | 16.3         | 6.1        | 27.3                             |
| 2004   | 125.0                                  | 196.7        | 71.8 <b>\$23.5</b>                                    | 36.5                               | 44.7                           | 34.7         | 9.9        | 22.3                             |
| 2006   | 203.5                                  | 287.8        | 84.3 <b>\$24.2</b>                                    | 29.3                               | 59.2                           | 55.2         | 4.0        | 6.7                              |

\*\*Source: "Report on the Statistical Discrepancy (10/2009 MOC/PRC, USTR/DOC)

### GFI "CAPITAL FLIGHT" METRICS : FOCUS ON ENDOGENOUS FACTORS

( $\Sigma$  Nominal positive capital flight flows, 2000-2008, \$US Billions)

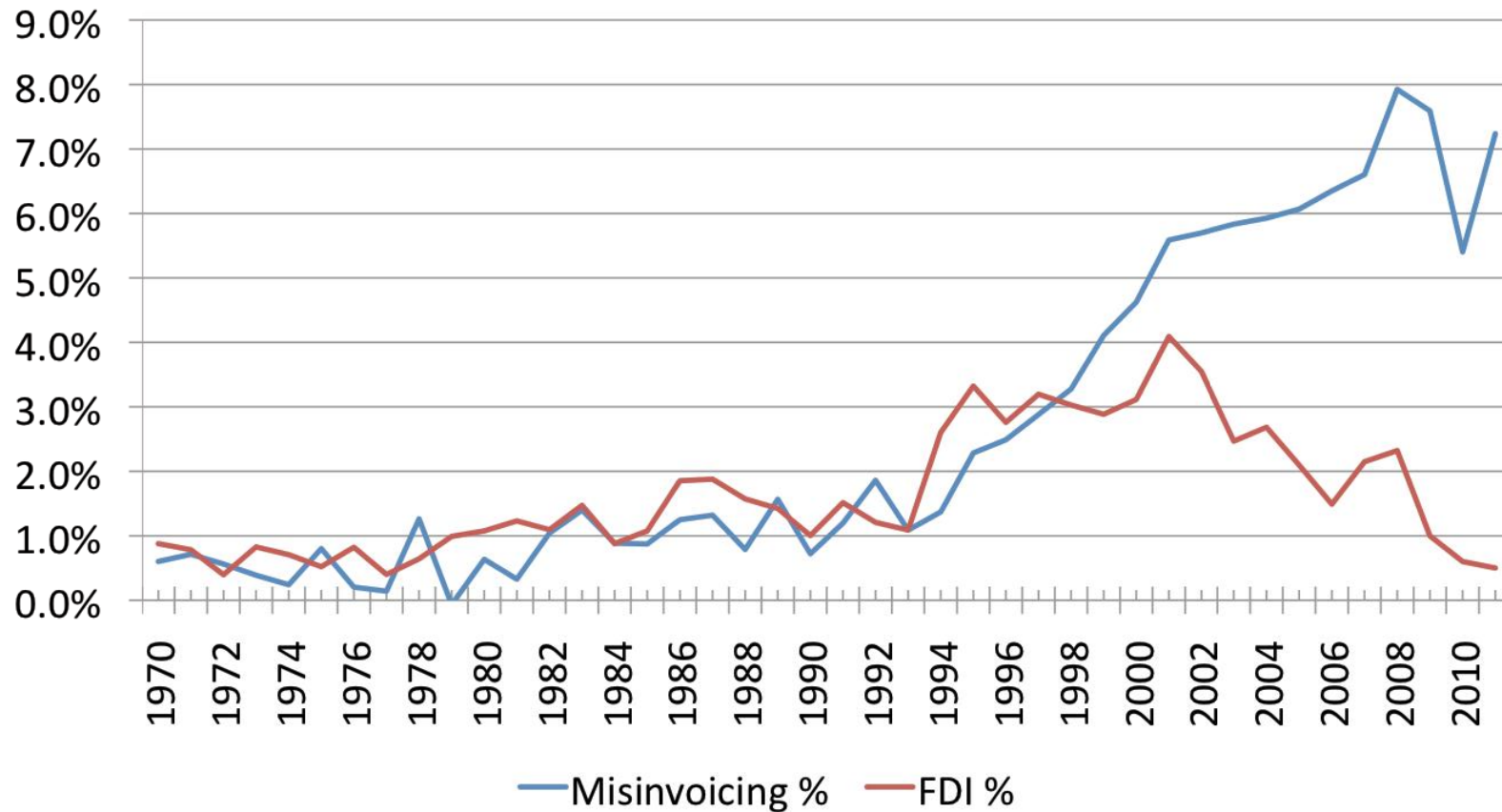
|                         | N          | Democracy" ("Full/Flawed")* | "Authoritarian"/"Hybrid"* | Total      | Dem %            |                  |            |
|-------------------------|------------|-----------------------------|---------------------------|------------|------------------|------------------|------------|
| Top Oil & Gas Exporters | 14         | 3                           | \$174.7                   | 11         | \$1,880.3        | \$2,055          | 9%         |
| Diversified Economies   | 11         | 7                           | \$454.5                   | 4          | \$204.5          | \$659.0          | 69%        |
| Smaller LDCs            | 192        | 69                          | \$166.9                   | 123        | \$172.5          | \$339.4          | 49%        |
| <b>TOTAL</b>            | <b>217</b> | <b>79</b>                   | <b>\$796.1</b>            | <b>138</b> | <b>\$2,257.3</b> | <b>\$3,053.4</b> | <b>26%</b> |

Source: GFI (2011), JSH analysis

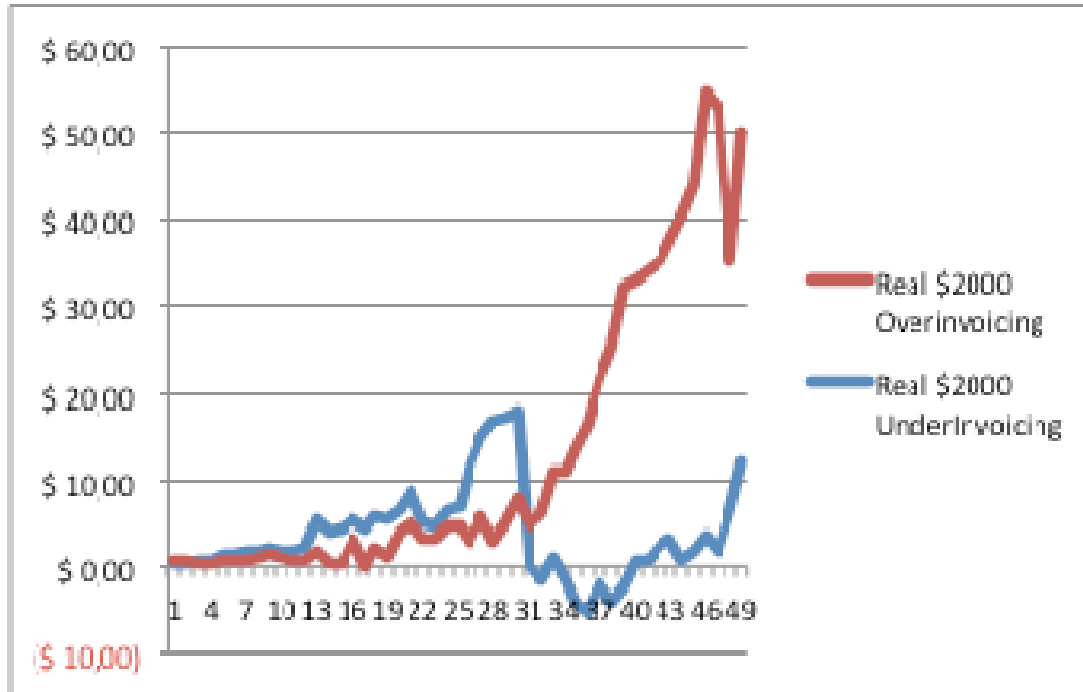
# 1. MEXICO CASE

## Mexico

Misinvoicing Vs. Net FDI as a % of GDP, 1970-2011



## Mexico – Trend in "Real" Mispricing (Real\$2000 \$Billions, 1962-2011)



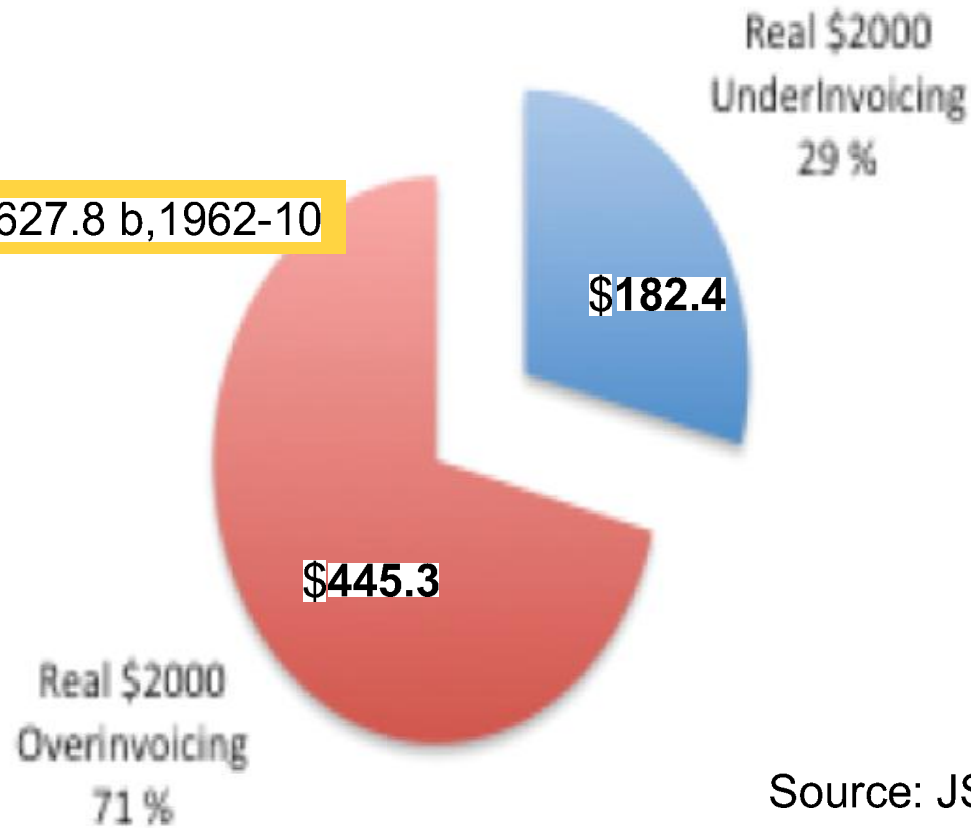
Source: UN Comtrade raw data (2012), JSH analysis

Apparent

# Mexico: Real Misinvoicing

(Cumulative Total, 1962-2010; Real \$2000 Billions)

Total = \$627.8 b, 1962-10



Source: JSH 2012

## MEXICO

### Real MX Export Mis-invoicing, 1962-2010, By Trading Partner

Σ Net = \$182.4 Billion

|                  |           | % of<br>Σ misinvoicing |                      |           | % of<br>Σ misinvoicing |
|------------------|-----------|------------------------|----------------------|-----------|------------------------|
| Canada           | \$ 104,07 | 75 %                   | China - HK           | \$ 0,18   | -2 %                   |
| China - Mainland | \$ 9,79   | 7 %                    | Israel               | \$ -8,91  | 92 %                   |
| Japan            | \$ 26,95  | 39 %                   | Neth Antilles        | \$ -10,98 | 122 %                  |
| Other Asia Nes   | \$ -3,00  | -7 %                   | DRKorea              | \$ -0,68  | 12 %                   |
| Korea            | \$ 5,29   | 14 %                   | Zimbabwe             | \$ -2,05  | 42 %                   |
| Malaysia         | \$ 1,19   | 4 %                    | Cocos Islands (Aust) | \$ -4,91  | 100 %                  |
| US               | \$ 17,72  | 68 %                   | Dom Repub            | \$ -4,92  | 117 %                  |
| Germany          | \$ 9,92   | 40 %                   | Palestine            | \$ -2,02  | 100 %                  |
| Italy            | \$ 5,75   | 46 %                   | Cuba                 | \$ -3,26  | 171 %                  |
| Thailand         | \$ 2,01   | 16 %                   | Cayman Islands       | \$ -1,65  | 107 %                  |
| Brazil           | \$ 3,36   | 35 %                   | Switzerland          | \$ -4,82  | 330 %                  |
| France           | \$ 5,38   | 56 %                   | Panama               | \$ -3,82  | 296 %                  |
| Philippines      | \$ 0,36   | 4 %                    | Gambia               | \$ -0,00  | 0 %                    |
| Singapore        | \$ 2,55   | 29 %                   | Tajikstan            | \$ -0,06  | 6 %                    |
| Spain            | \$ 7,31   | 84 %                   | Bermuda              | \$ -1,17  | 123 %                  |
| Colombia         | \$ 6,69   | 83 %                   | Not specified        | \$ -10,31 | 1214 %                 |
| UK               | \$ 1,36   | 19 %                   | Seychelles           | \$ -0,00  | 0 %                    |
| Costa Rica       | \$ 0,82   | 13 %                   | Belize               | \$ -0,22  | 48 %                   |
| Bahamas          | \$ 5,61   | 91 %                   | Jamaica              | \$ -0,42  | 108 %                  |
| Australia        | \$ 3,68   | 65 %                   | Greenland            | \$ -0,00  | 0 %                    |
| India            | \$ -1,19  | -23 %                  | Uzbekistan           | \$ -0,01  | 4 %                    |
| Chile            | \$ 2,39   | 52 %                   | Haiti                | \$ -0,29  | 132 %                  |
| Saudi Arabia     | \$ 1,98   | 45 %                   | Guinea - Bissau      | \$ -0,19  | 101 %                  |
| Indonesia        | \$ 0,78   | 18 %                   | Fiji                 | \$ 0,00   | -2 %                   |
| Russia           | \$ 0,60   | 16 %                   | Kazakhstan           | \$ 0,07   | -41 %                  |

Source: UN Comtrade data (2012), JSH analysis

(c)JSH/TJN 2012

|                  | <b>WORLD<br/>IMPORTS CIF<br/>HS<br/>2010</b> |     | <b>MEXICAN<br/>EXPORTS FOB<br/>HS<br/>2010</b> |     | <b>"Underinvoicing"<br/>(C-D)<br/>2010</b> |
|------------------|--|-----|--|-----|--|
| Afghanistan      |  | 4   | \$729,819                                      |     | (\$729,819)                                |
| Albania          | \$3,335,152                                  | 8   | \$813,556                                      |     | \$2,521,596                                |
| Algeria          | \$231,727,316                                | 12  | \$99,553,570                                   |     | \$132,173,746                              |
| Andorra          |  | 20  | \$23,464                                       |     | (\$23,464)                                 |
| Angola           |  | 24  | \$17,803,159                                   |     | (\$17,803,159)                             |
| Antigua          | \$3,927,818                                  | 28  | \$1,824,423                                    |     | \$2,103,395                                |
| Azerbaijan       | \$2,929,736                                  | 31  | \$1,538,112                                    |     | \$1,391,624                                |
| Argentina        | \$1,817,114,812                              | 32  | \$1,768,791,072                                | 3%  | \$48,323,740                               |
| Australia        | \$1,261,869,196                              | 36  | \$657,150,492                                  | 48% | \$604,718,704                              |
| Austria          | \$282,864,761                                | 40  | \$39,062,703                                   | 86% | \$243,802,058                              |
| Bahamas          | \$4,727,143                                  | 44  | \$63,012,775                                   |     | (\$58,285,632)                             |
| Bahrain          | \$34,077,875                                 | 48  | \$58,228,352                                   |     | (\$24,150,477)                             |
| Bangladesh       |  | 50  | \$2,066,209                                    |     | (\$2,066,209)                              |
| Armenia          | \$4,367,553                                  | 51  | \$202,621                                      |     | \$4,164,932                                |
| Barbados         | \$21,359,128                                 | 52  | \$19,305,697                                   |     | \$2,053,431                                |
| Belgium          | \$1,441,949,030                              | 56  | \$872,724,177                                  | 39% | \$569,224,853                              |
| Belgium - Lux    |  | 58  |  |     | \$0  |
| Bermuda          | \$2,285,080                                  | 60  | \$2,165,767                                    |     | \$119,313                                  |
| Bhutan           |  | 64  | \$22,206                                       |     | (\$22,206)                                 |
| Bolivia          | \$127,078,643                                | 68  | \$97,214,274                                   | 24% | \$29,864,369                               |
| Bosnia           | \$8,571,480                                  | 70  | \$668,755                                      |     | \$7,902,725                                |
| Botswana         | \$366,204                                    | 72  |  |     | \$366,204                                  |
| Brazil           | \$3,816,138,235                              | 76  | \$3,781,079,743                                | 1%  | \$35,058,492                               |
| Belize           | \$70,199,465                                 | 84  | \$92,150,562                                   |     | (\$21,951,097)                             |
|                  |  | 86  |  |     |  |
| ??               |  | 90  | \$1,646,821                                    |     | (\$1,646,821)                              |
| BVI              |  | 92  |  |     |  |
| Brunei           |  | 96  | \$354,913                                      |     | (\$354,913)                                |
| Bulgaria         | \$3,466,394                                  | 100 | \$1,437,563                                    | 59% | \$2,028,831                                |
| Myanmar          |  | 104 | \$4,500  |     | (\$4,500)                                  |
| Burundi          |  | 108 | \$629,964                                      |     | (\$629,964)                                |
| Belarus          | \$16,856,900                                 | 112 | \$15,517                                       |     | \$16,841,383                               |
| Cambodia         | \$15,156                                     | 116 |  |     | \$15,156                                   |
| Cameroon         | \$5,805,378                                  | 120 | \$4,392,351                                    |     | \$1,413,027                                |
| <b>Canada</b>    | <b>\$21,463,888,323</b>                      | 124 | <b>\$10,663,920,456</b>                        | 50% | <b>\$10,799,967,867</b>                    |
| Carib NEC        |  | 129 |  |     | \$0  |
| Cape Verde       | \$74,772                                     | 132 | \$5,913  |     | \$68,859                                   |
| Cayman Islands   |  | 136 | \$2,464,761                                    |     | (\$2,464,761)                              |
| CAR              |  | 140 | \$123,328                                      |     | (\$123,328)                                |
| Sri Lanka        | \$1,878,936                                  | 144 | \$2,435,078                                    |     | (\$556,142)                                |
| Chad             |  | 148 | \$16,258                                       |     | (\$16,258)                                 |
| Chile            | \$2,115,870,716                              | 152 | \$1,863,450,581                                | 12% | \$252,420,135                              |
| China - Mainland | \$6,875,187,863                              | 156 | \$4,195,900,072                                | 39% | \$2,679,287,791                            |

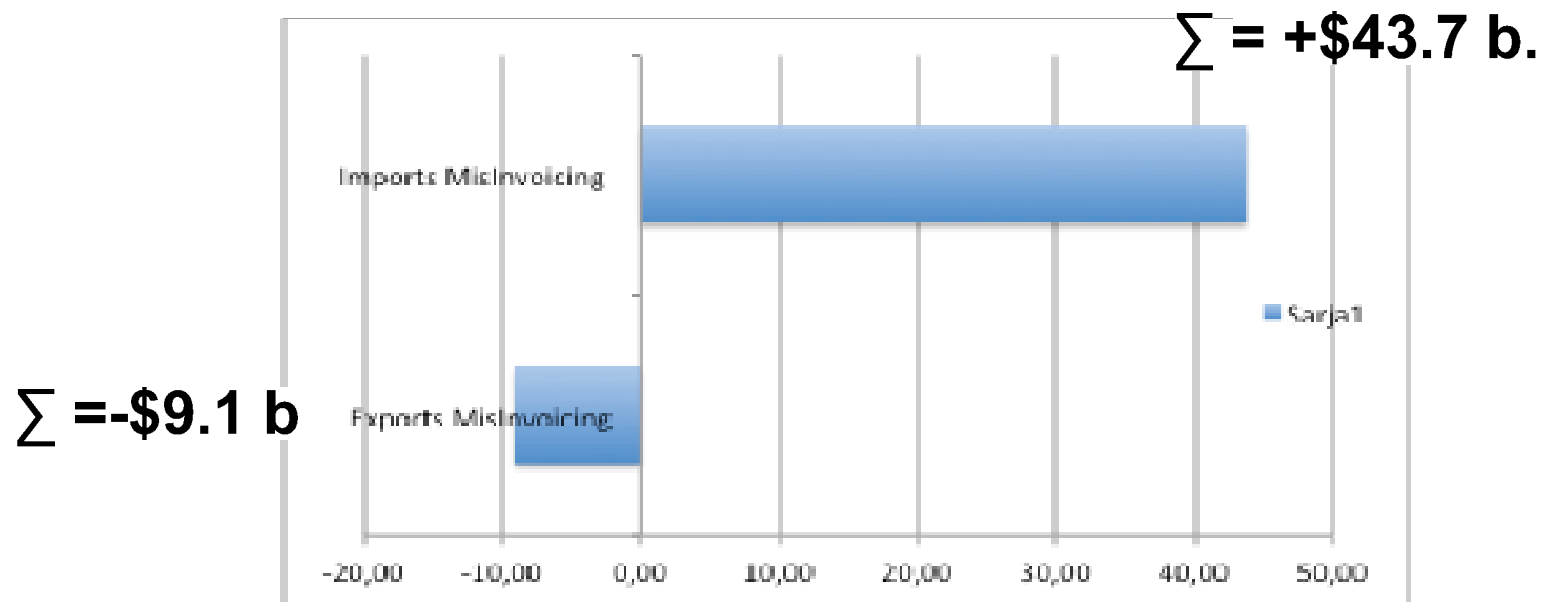


## 2. ZAMBIA

### ZAMBIA – REAL MISINVOICING, 1966-2010

(Real \$2000, \$B.)

Net  $\Sigma\Sigma = \$34.6$  b.



**ZAMBIA - REAL TOTAL MISINVOICING, 1966-2010**

(Real\$2000; Net total = \$34.6 billion)

|                         |    |                  |                       |    |               |
|-------------------------|----|------------------|-----------------------|----|---------------|
| <b>US</b>               | \$ | 7,22             | <b>Switzerland</b>    | \$ | <b>-10,53</b> |
| <b>Canada</b>           | \$ | 7,11             | <b>Iran</b>           | \$ | <b>-2,02</b>  |
| <b>Not specified</b>    | \$ | 5,13             | <b>UK</b>             | \$ | <b>-1,52</b>  |
| <b>China - Mainland</b> | \$ | 3,46             | <b>Singapore</b>      | \$ | <b>-0,90</b>  |
| <b>Korea</b>            | \$ | 3,21             | <b>Neth Antilles</b>  | \$ | <b>-0,82</b>  |
| <b>Saudi Arabia</b>     | \$ | 2,90             | <b>China HK</b>       | \$ | <b>-0,71</b>  |
| <b>Japan</b>            | \$ | 2,88             | <b>Dom Repub</b>      | \$ | <b>-0,41</b>  |
| <b>Other Asia Nes</b>   | \$ | 1,75             | <b>Panama</b>         | \$ | <b>-0,35</b>  |
| <b>UAE</b>              | \$ | 1,35             | <b>Tanzania</b>       | \$ | <b>-0,31</b>  |
| <b>Kuwait</b>           | \$ | 1,30             | <b>El Salvador</b>    | \$ | <b>-0,29</b>  |
| <b>Top 10</b>           | \$ | <b>36,32</b>     | <b>Top 10</b>         | \$ | <b>-17,86</b> |
| <b>All Other Pos</b>    | \$ | <b>18,15</b>     | <b>All Other Neg</b>  | \$ | <b>-1,94</b>  |
| <b>TOTAL GROSS</b>      | \$ | <b>54,47</b>     | <b>TOTAL GROSS</b>    | \$ | <b>-19,80</b> |
|                         |    | <b>TOTAL NET</b> | <b>\$34.6 billion</b> |    |               |

Source: UN Comtrade data (2012), JSH analysis

### 3. SWITZERLAND CASE

#### SWITZERLAND -- REAL GOODS MISINVOICING BY TRADING PARTNER

(1962-2011, Real \$Billions)

|              |        |                 |          |
|--------------|--------|-----------------|----------|
| India        | \$69,5 | Romania         | (\$3,1)  |
| China        | \$68,9 | Bolivia         | (\$3,1)  |
| Israel       | \$31,0 | Ghana           | (\$3,6)  |
| Germany      | \$19,4 | Denmark         | (\$3,7)  |
| Palestine    | \$18,3 | Greece          | (\$3,8)  |
| Libya        | \$13,4 | Canada          | (\$4,4)  |
| Netherlands  | \$12,8 | Portugal        | (\$4,4)  |
| Malaysia     | \$11,1 | Iraq            | (\$4,7)  |
| Japan        | \$10,8 | Poland          | (\$4,9)  |
| Italy        | \$9,9  | Austria         | (\$8,7)  |
| Ireland      | \$7,6  | Zambia          | (\$10,5) |
| Saudi Arabia | \$7,3  | Mexico          | (\$11,6) |
| Turkey       | \$6,7  | "Not Specified" | (\$13,1) |
| Nigeria      | \$6,6  | Spain           | (\$14,1) |
| Singapore    | \$5,9  | South Africa    | (\$21,1) |
| Vietnam      | \$5,5  | Peru            | (\$21,2) |
| Finland      | \$5,4  | Kazakhstan      | (\$32,0) |
| Thailand     | \$5,4  | USA             | (\$52,8) |
| Czech        | \$4,9  | France          | (\$53,1) |
| Algeria      | \$4,9  | Russia          | (\$81,3) |

|                        |                |                       |                  |
|------------------------|----------------|-----------------------|------------------|
| <b>TOTAL -- TOP 20</b> | <b>\$325,1</b> | <b>TOTAL - TOP 20</b> | <b>(\$355,2)</b> |
|------------------------|----------------|-----------------------|------------------|

|                            |               |                            |                 |
|----------------------------|---------------|----------------------------|-----------------|
| <b>ALL OTHER POSITIVES</b> | <b>\$56,3</b> | <b>ALL OTHER NEGATIVES</b> | <b>(\$48,7)</b> |
|----------------------------|---------------|----------------------------|-----------------|

|                    |                |  |                  |
|--------------------|----------------|--|------------------|
| <b>TOTAL GROSS</b> | <b>\$381,5</b> |  | <b>(\$403,9)</b> |
|--------------------|----------------|--|------------------|

|                  |                  |
|------------------|------------------|
| <b>TOTAL NET</b> | <b>(\$22,45)</b> |
|------------------|------------------|

Source: UN Comtrade data (2012), JSH analysis

(c)JSH/TJN 2012

#### 4. "TRADE" IN INTELLECTUAL PROPERTY

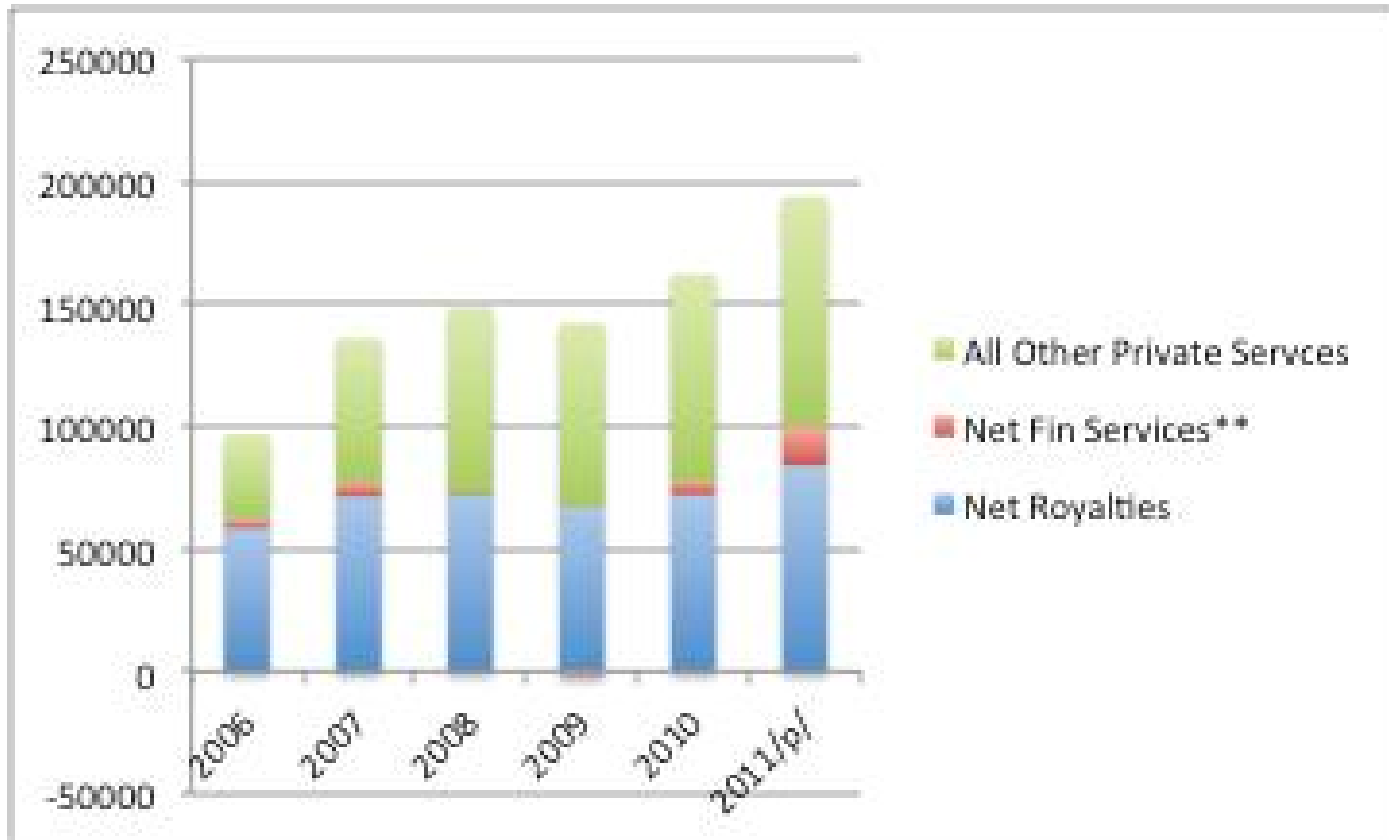
"The invisible hand  
is nowhere to be seen."

-- Indian economist

(c)JSH/TJN 2012

37

## COMPOSITION – US NET SERVICE EXPORTS (2006-11, \$mm)



**EXAMPLE: PROFITABILITY OF FOREIGN AFFILIATES, US MNCS  
(2007 \$Billions)**

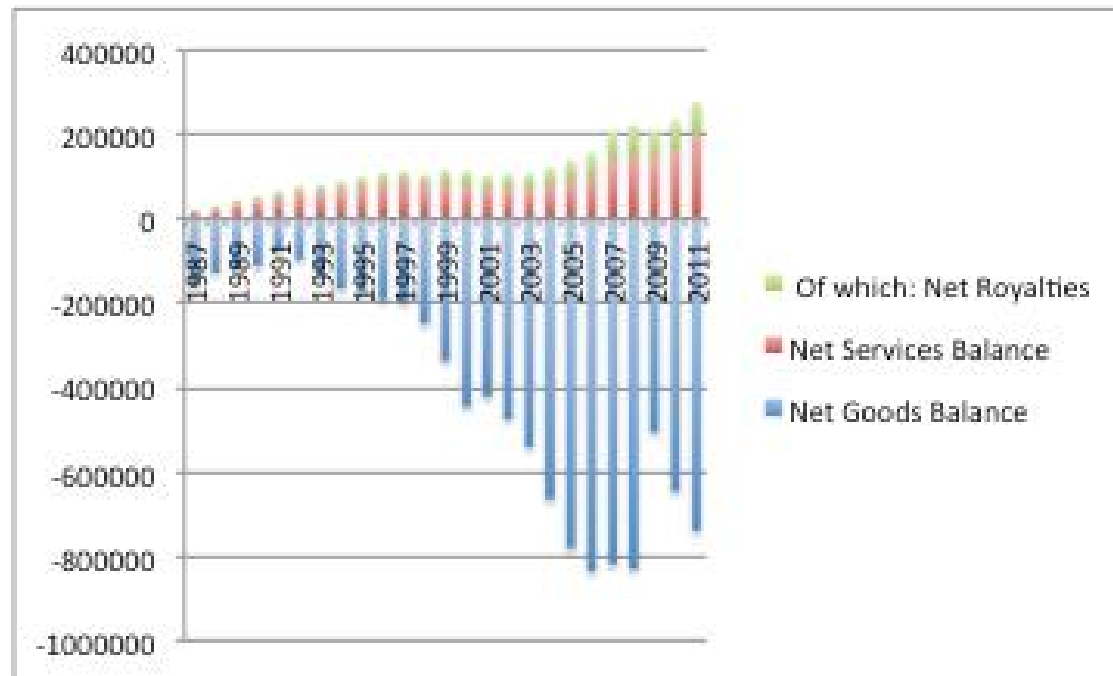
|                       | <b>Before-tax Profits</b> | <b>Effective Tax Rate</b> | <b>Profit per Employee (\$MM)</b> |
|-----------------------|---------------------------|---------------------------|-----------------------------------|
| <b>Bermuda</b>        | \$16.2                    | <b>.026</b>               | \$5.4                             |
| <b>Singapore</b>      | \$14.6                    | <b>.074</b>               | \$.115                            |
| <b>Ireland</b>        | \$45.4                    | <b>.077</b>               | \$.488                            |
| <b>Switzerland</b>    | \$18.2                    | <b>.091</b>               | \$.219                            |
| <b>Cayman Islands</b> | \$7.4                     | <b>.094</b>               | \$1.123                           |
| <b>5 Haven Total</b>  | <b>\$101.8</b>            | <b>.072</b>               | <b>\$.326</b>                     |
| <b>Global Total</b>   | <b>\$430.2</b>            | <b>.296</b>               | <b>\$.043</b>                     |

Source: M. Sullivan, Tax Analysts, July 2010 testimony, US House +Ways Committee

## Many recent TP abuses involving leading MNCs..

- Banana exporters cases (2006-)
- SABMiller (2008-): South Africa, 4 other countries
- Glencore (2011-): Zambia
- Grain exporters (2011-): Argentina
- Intellectual property abuses: Google, Pfizer, GE, Cisco, Forest Labs, etc. (2009-)
- Big bank tax evasion

## Growth of MNC Traded Services (US Example, 1986-2011)





## Apple – China “value chain”

- 20 mm Ipad/yr @ \$500 retail = \$10 b.
- 65k US workers (35k in retail stores)
- 1.2 mm Chinese workers (Foxconn)
- \$40/Ipad = \$800 mm to China
- \$2.2 b royalties for IP, brand to offshore jurisdictions w 3% tax rate
- Total non-China gross margin = \$9.2 b – sales and marketing – royalties = \$6 b
- Total effective tax on non-COGS margin = <10%, mainly to US IRS

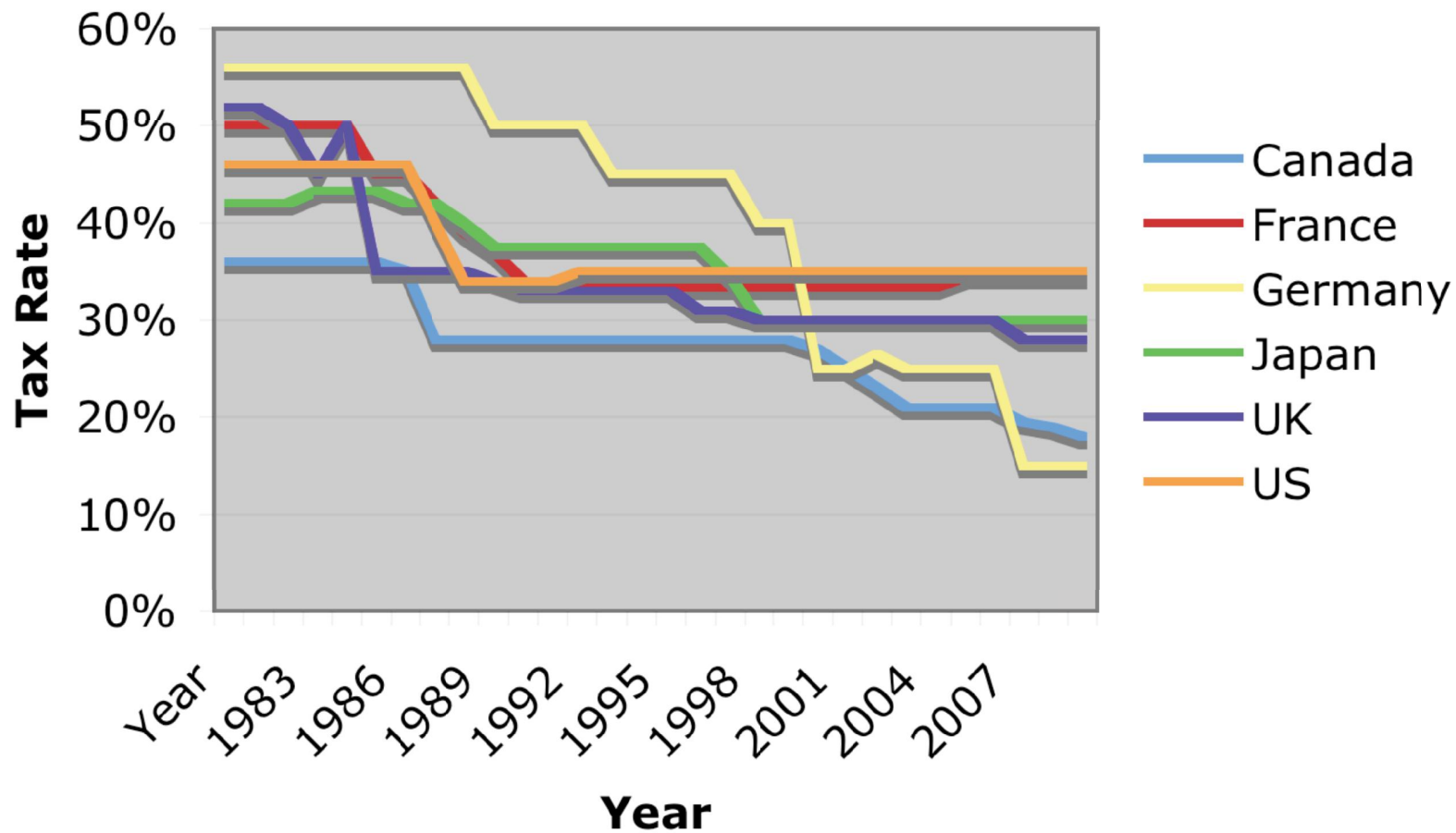
## **Summary -- ITP**

- **Measuring ITP abuse: a critical part of ‘The Price of Offshore’ policy agenda**
- **We can’t rely only on existing (aggregate) estimates**
- **Examples – Mexico, Zambia, Switzerland, etc. – show that disaggregating has many advantages**
  - Reveals new forms of ITP abuse
  - Highlights growing role of of secrecy jurisdictions in ITP abuse
  - Highlights MNC abuse of traded service
- **This needs to be a TJN research priority**

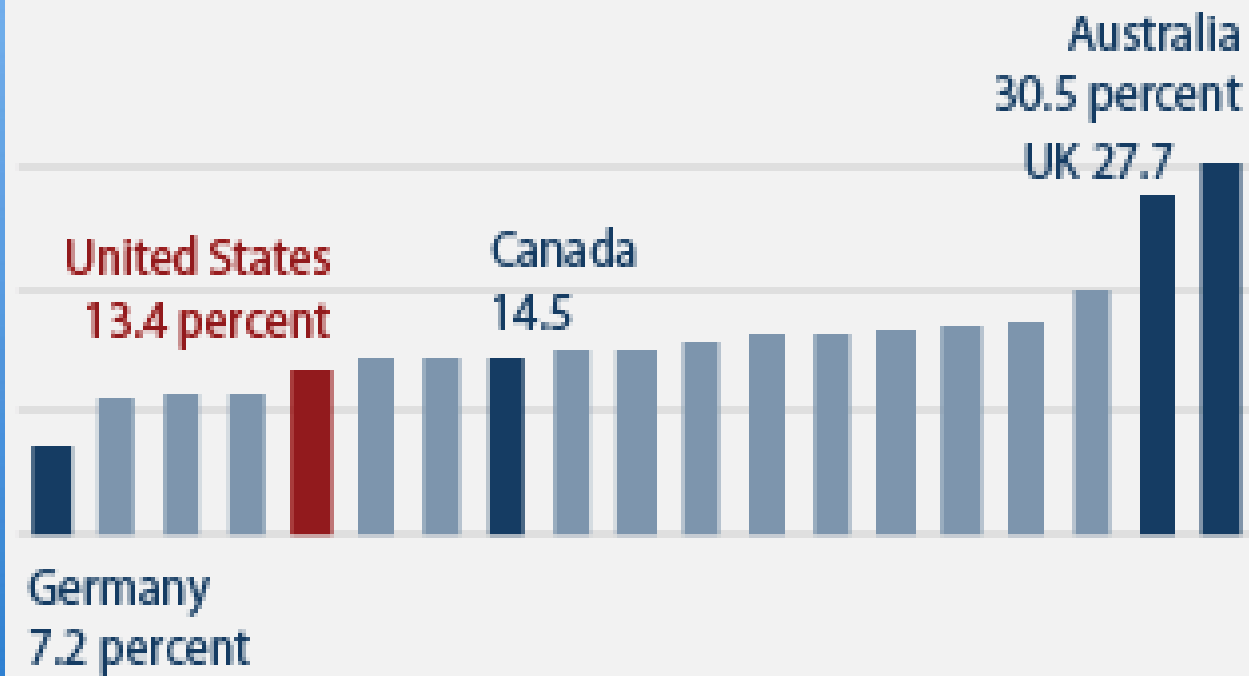
# V. IMPLICATIONS FOR POLICY

## **The Global “Tax Race”**

## Top Marginal Corporate Income Tax Rate 1981-2010 (Tax Policy Center)



Effective corporate tax rate, OECD countries, 2000-2005 average



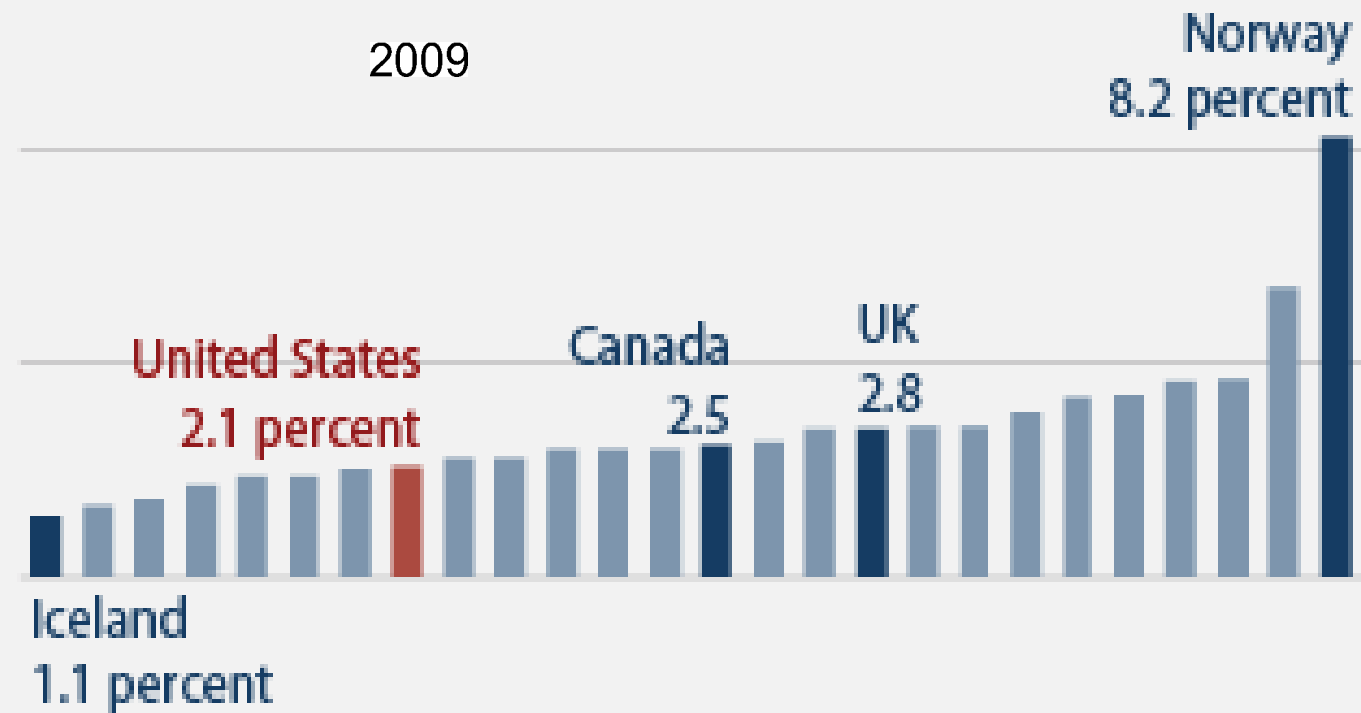
## Corporate tax revenue, as a share of GDP

7.2 percent  
1945



1.3 percent  
2011

## Corporate tax revenue as a share of GDP, OECD countries



# THE US AS A TAX HAVEN

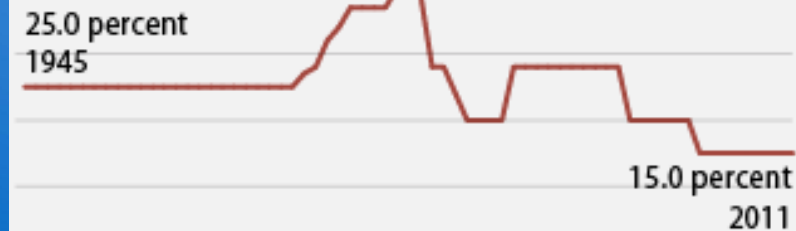
Total percent of all estates subject to federal estate tax



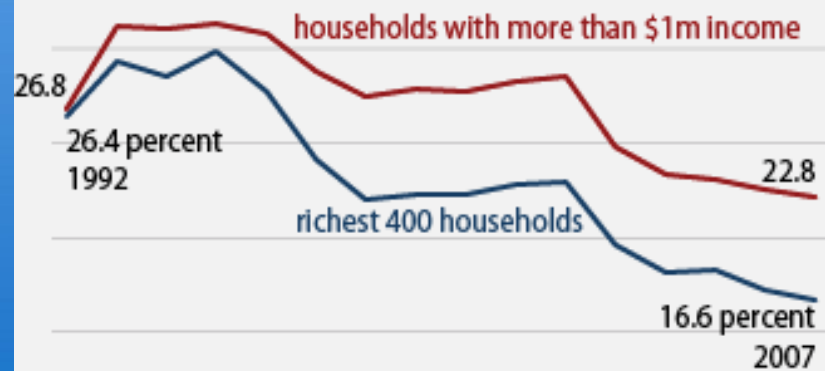
Top marginal income tax rates on ordinary income (wages, salaries, etc.)



Top capital gains tax rates



Income tax paid, as a share of total income, in the U.S.





# Perspective

## Government revenue + taxes by country/ group (Median % of official GDP, 2000-09)

| Country Group       | Population (2009) (Billions) | Per Capita Income (PPP-Adjusted' 09) | Gov Revenue X Grants | Income Taxes | Sales Taxes | Payroll Taxes | Taxes on Intl Trade | Other Taxes | Other Gov Revenue | Grants |
|---------------------|------------------------------|--------------------------------------|----------------------|--------------|-------------|---------------|---------------------|-------------|-------------------|--------|
| OECD                | 1.22                         | \$33153                              | 26.1%                | 6.6%         | 7.3%        | 8.9%          | .1%                 | 1.0%        | 2.2%              | 0%     |
| EU                  | .500                         | \$31384                              | 35.2%                | 7.4%         | 11.3%       | 12.2%         | .02%                | 1.2%        | 3.1%              | 0%     |
| US                  | .310                         | \$45989                              | 17.9%                | 9.5%         | .6%         | 6.8%          | .2%                 | .3%         | .5%               | 0%     |
| China               | 1.331                        | \$6828                               | 9.5%                 | 2.1%         | 6.2%        | 0%            | .3%                 | .1%         | .8%               | .1%    |
| Other Middle Income | 3.481                        | \$6245                               | 21.6%                | 4.6%         | 6.1%        | 4.5%          | 1.3%                | .4%         | 3.2%              | .8%    |
| Low Income          | .846                         | \$1205                               | 11.5%                | .1%          | 2.3%        | 0%            | 7.0%                | 1.5%        | .6%               | 9.6%   |
| World               | 6.775                        | \$10686                              | 25.0%                | 5.1%         | 8.1%        | 7.1%          | 1.31%               | .59%        | 2.57%             | .23%   |

Source: World Bank data (2011) , JSH analysis

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# Summary

- Metrics really matter...lots of work required
- Going to the front (vs. “abstract empiricism”) has paid off...
- Bank’s role in the haven story is crucial
- Stocks, not just flows
- Need to demand the data
- It’s not 1986
  - Huge offshore private untaxed wealth stock
  - Need to be creative about taxing it now, + bringing the money back
  - “Offshore” moving “onshore” for heavily indebted rich countries
  - Third World private banking

## Global Distribution, Net Financial Assets

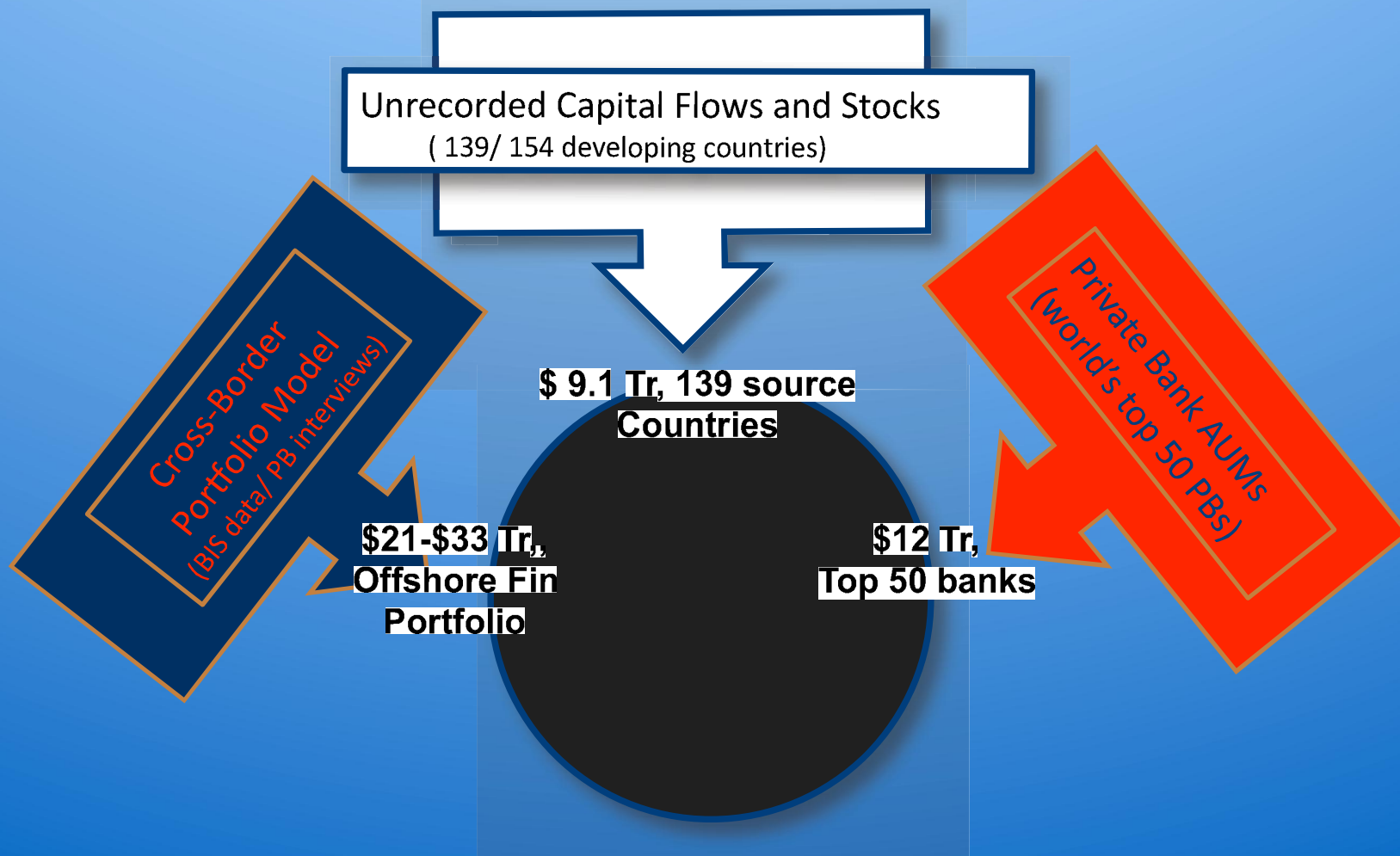
|                      |                       | Total Number         | Ave. Net Financial<br>Worth Per Capita<br>(\$MM) | Total Liquid<br>Net Worth<br>(\$Tr.) | Of Which:<br>"Offshore"<br>(\$Tr.) | % of All<br>Global Net<br>Financial | % of All<br>People |
|----------------------|-----------------------|----------------------|--|--------------------------------------|------------------------------------|-------------------------------------|--------------------|
| "Happy Few"          | >\$30 MM              | 91,186               | \$183.1  | \$16.7                               | \$9.8                              | 30.3%                               | 0.001%             |
| "Just Rich"          | >\$5-\$30 MM          | 839,020              | \$12.8   | \$10.7                               | \$5.1                              | 19.4%                               | 0.01%              |
| "Barely Rich"        | >\$1-\$5 MM           | 8,419,794            | \$2.1  | \$17.4                               | \$4.7                              | 31.6%                               | 0.13%              |
| <b>GLOBAL ELITE</b>  | <b>All &gt;\$1 MM</b> | <b>9,350,000</b>     | <b>\$4.4</b>                                     | <b>\$44.8</b>                        | <b>\$19.6</b>                      | <b>81.3%</b>                        | <b>0.14%</b>       |
| <b>EVERYONE ELSE</b> |                       | 6,643,863,592        | \$0.0016   | \$10.3                               | \$1.0**                            |                                     | 99.86%             |
| <b>TOTAL</b>         |                       | <b>6,653,213,592</b> | <b>\$0.01</b>                                    | <b>\$55.1</b>                        | <b>\$20.6</b>                      | <b>100%</b>                         | <b>100%</b>        |

\*\* Foreign currency (mainly dollars and euros)

Source: ML/Cap Gemini (2001-09); World Bank data; UN Wider (07); US Treasury (09); our analysis

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# Triangulating on the offshore black hole....



**“It is capitalism that  
is truly radical.”  
-- Brecht**