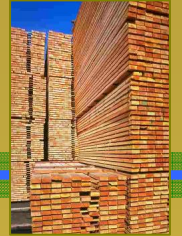




*An Economic Perspective on the
Determination of Dumping in the US-Canada
Softwood Lumber Trade*

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Outline



- Introduction
- Objective
- Legal Background for Antidumping Cases
- US Determination of Dumping
- Economic Perspective on the Determination of Dumping
- Methodology
- Data
- Results
- Discussion
- Conclusion and Policy Implications

Introduction



Softwood Lumber Trade Dispute

- US Claim - artificially low stumpage fees in provinces of Canada
- **Softwood Lumber I: 1982**
 - US authorities decided no subsidy
- **Softwood Lumber II: 1986**
 - USDOC found countervailable subsidy
 - MOU (1986-1991): - 15% export tax by Canada
- **Softwood Lumber III: 1991**
 - **Import Tariff (1992 – 1996) - 6.51% CVD by US**
 - **SLA (April 1996 – March 2001)**

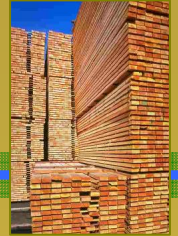
Introduction



- **SLA (1996 – 2001)**
 - Tariff-regulated quota system
 - 14.7 bbf annual fee free from covered provinces (B.C., Alberta, Ontario and Quebec)
 - Next 650 mmbf with a fee of \$50/mbf
 - Subsequent imports with a fee of \$100/mbf

- **Softwood lumber IV: 2001**
 - Following the expiration of the SLA, on April 2, 2001, the U.S. Coalition for Fair Lumber Imports filed a CVD petition and its first anti-dumping (ADD) petition against Canadian softwood lumber.

Introduction



- The USDOC established a combined duty of 27.22% (18.79% for CVD and 8.43% ADD) on Canadian softwood lumber in April 2002.
- The duties were imposed on the import of softwood lumber from Canada starting from May 22, 2002.
- In July 2003, the USDOC initiated the first annual administrative review of the CVD and ADD orders for the periods May 2002 to March 2003 and May 2002 to April 2003, respectively and lowered the combined duty rate to 21% (17.18% for CVD and 4.03% for ADD, and these results were later amended to 16.37% for CVD and 3.78% for ADD).
- A second administrative review was undertaken for the period 2003-2004 and results showed a much lowered combined duty rate of nearly 11% (8.18% for CVD and 2.44% for ADD).

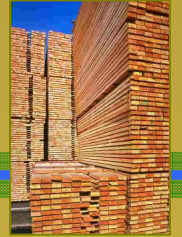
Introduction



In response to US actions:

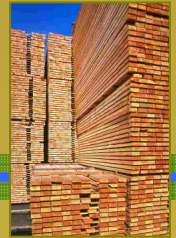
- The federal government, the provinces and industry have launched a number of challenges to the WTO and NAFTA on:
 - the legitimacy of the imposition of the US CVD and ADD, and
 - the US claim that the US softwood lumber industry is injured by softwood lumber imports from Canada.
- The results of these challenges have been mixed:
 - In the case of CVD, the WTO and NAFTA panels found that the Canadian stumpage program does provide a financial contribution to its softwood lumber industry, but ruled that the United States is illegal to use the stumpage prices in the U.S. states as a benchmark to compute the amount of benefit of the stumpage programs.
 - In terms of ADD, the WTO and NAFTA agree with Canada that the Department erred in its method for computing the ADD by using a zeroing method.

Objective



to examine whether the softwood lumber producers in Ontario have dumped softwood lumber to their major market in the US?

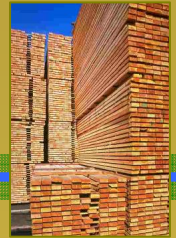
Legal Background for AD cases



- Dumping is defined as:
 - the introduction of a product into the commerce of another country at less than its normal value

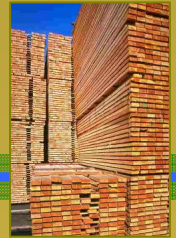
- Dumping occurs when the export price is:
 - (a) **less than the comparative domestic price**, in the ordinary course of trade, for the like product when destined for consumption in the exporting country, or,
 - (b) **in the absence of such domestic price, is less than either:**
 - (i) the highest comparable price for the like product for export to any third country in the ordinary course of trade, or
 - (ii) the constructed value of the product, which is the aggregation of the cost of production of the product in the country of origin plus a reasonable amount for selling, administrative and other costs, and for profit.

Legal Background for AD cases



- Dumping margin = normal value – export price
- It is crucial to determine what the normal value is.
- By definition, home market price should be used as the normal value when it is available. But it can be disregarded, when it is not in the ordinary course of trade.
- It may be treated as not being in the ordinary course of trade when it is below the cost of production and therefore be ignored in the determination of normal value **if certain criteria are met:**
 1. such sales are made within an extended period of time
 2. in substantial quantities, and
 3. do not provide for the recovery of all costs within a reasonable period of time.

Legal Background for AD cases

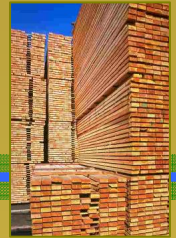


- WTO system allows “protection” in specific cases by means of trade remedy measures
 - In case of dumping which has caused materially injury to a domestic industry or retarded the establishment of a domestic industry, an ADD at a level less than or equal to the margin of dumping may be levied on imports from the particular source.

US Antidumping Law:

- Dumping is defined by the US antidumping law as import sales at “less than fair value”, where the primary meaning of fair value is the price in the home market of the exporter.
- However, sales below the cost of production may also be considered dumping.

Legal Background for AD cases



- If a U.S. industry believes that it is being injured by unfair competition through dumping of a foreign product, it may request the imposition of antidumping by filing a petition with USDOC.
 - The USDOC determines the presence and margin of dumping and
 - ITC is responsible for finding whether the dumping has caused, or threatens to cause, material injury.

US Determination of Dumping



In the case of softwood lumber

● Cost of Production

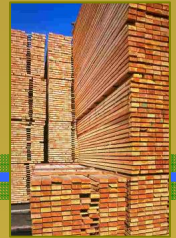
- USDOC used a value-based weighted average for different grades, but used a volume-based weighted average for different sizes

● Normal Value

- Home market price when it was higher than the cost of production;
- Below cost sales were treated as not being in the ordinary course of trade, thus were disregarded for determining the normal value.

● Export Price or Constructed Export Price – US sale

US Determination of Dumping



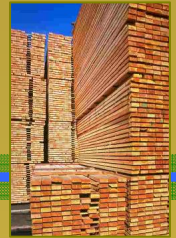
- Zeroing method for calculating the dumping margin
 - set the dumping margin at zero for each sale in the US markets that has export price exceeded normal values for certain products in investigation because they demonstrate negative dumping margins, which could offset positive dumping margins.

An example of zeroing method:

Normal value	Export price	Dumping margin
300	350	-50
300	400	-100
300	200	100
300	250	50

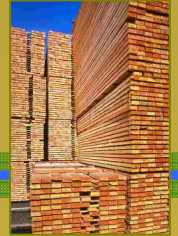
With the zeroing method, the top two negative dumping margins are set zero. The total dumping margin is 150. Without zeroing, the dumping margin is zero.

Economic Perspective on the Determination of Dumping



- In terms of sales below cost, standard economic theory suggests: firms may incur economic losses in short-run, but they will continue in business as long as they are able to recover the variable cost, and they are able to have at least normal profit in the long-run.
- Hence standard economic theory suggests that **home market prices** should be used for determination of normal value, as long as home market prices are equal or higher than the variable cost.
- In addition, the margin of dumping should be determined on the basis of **long-term behavior** of markets and not the short-term behavior, and the export prices both above and below the normal value should be included in the calculation of margins.

Economic Perspective on the Determination of Dumping



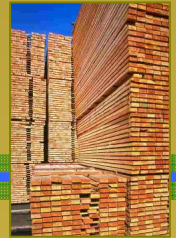
In view of these theoretical economic rational

- we consider a longer time span ranging from four to five years,
- the delivered price in Toronto is used as normal value; and
- the export price is represented by the weighted average delivered price in the US.

- Joint production of SPF softwood lumber products
 - It is difficult to distinguish the average cost for individual product
 - Average product cost is recorded in the accounting books of softwood lumber companies

- These softwood lumber products are sold in two major markets - Toronto and the Great Lakes
 - These products are shipped from mills to the two markets directly.
 - Producers charge delivered prices to the customers in the two markets.

Economic Perspective on the Determination of Dumping



- If the two markets have equivalent prices, the price differential should equal the difference in the transaction costs from mills to the two markets.
- If all these data are available, we can simply compare them and determine the margin of dumping;
- However, we don't have the accurate time series data on the transaction costs from mills to the two markets, only some estimates are available and so the difference in the transaction costs (termed as extra transaction costs from Toronto to the Great Lakes).
- In this case, parity bounds model can be used to estimate the 95% confidence interval of the difference in the transaction costs.

Methodology



Specification of the EPBM

- P_{GLt} - adjusted delivered price in the Great Lakes
- P_{TORt} - the delivered price in Toronto
- ETC_t - the extra transaction cost from Toronto to the Great Lakes
- **Regime 1:** $P_{GLt} - P_{TORt} = ETC_t + e$;
assumed to occur with probability λ_1 , $e \sim N(0, \sigma_e^2)$
- **Regime 2:** $P_{GLt} - P_{TORt} = ETC_t + e - U + \varepsilon_u$;
with probability λ_2 , $\varepsilon_u \sim N(0, \sigma_{\varepsilon_u}^2)$
- **Regime 3:** $P_{GLt} - P_{TORt} = ETC_t + e + V + \varepsilon_v$;
with probability λ_3 , $\varepsilon_v \sim N(0, \sigma_{\varepsilon_v}^2)$

Methodology



- Regime 1 indicates that the price differentials were equal to the extra transaction costs (ETC); - **the prices in the two market are equivalent**
- Regime 2 indicates that the price differentials were less than the ETC; - **the price in in the Great Lakes is less than the price in Toronto**
- Regime 3 indicates that the price differentials were more than the ETC. – **the price in the Great Lakes is more than the price in Toronto**
- If regime 2 lasted for long-period of time, and the loss was not recovered within reasonable period of time, then dumping has occurred; otherwise, not dumping.

Methodology



The likelihood function for the EPBM:

$$L = \prod_{t=1}^n (\lambda_1 f_t^1 + \lambda_2 f_t^2 + \lambda_3 f_t^3)$$

Where

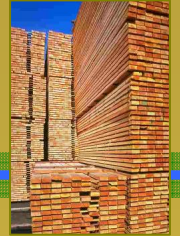
$$f_t^1 = \frac{1}{\sigma_e} \phi \left(\frac{y_t - ETC_t}{\sigma_e} \right)$$

$$f_t^2 = \frac{1}{\sqrt{(\sigma_e^2 + \sigma_{\varepsilon_u}^2)}} \phi \left(\frac{y_t - ETC_t + U}{\sqrt{(\sigma_e^2 + \sigma_{\varepsilon_u}^2)}} \right)$$

$$f_t^3 = \frac{1}{\sqrt{(\sigma_e^2 + \sigma_{\varepsilon_v}^2)}} \phi \left(\frac{y_t - ETC_t - V}{\sqrt{(\sigma_e^2 + \sigma_{\varepsilon_v}^2)}} \right)$$

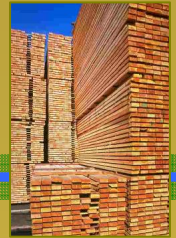
$$y_t = \text{price diff} = P_{\text{GLt}} - P_{\text{TORt}}$$

Data

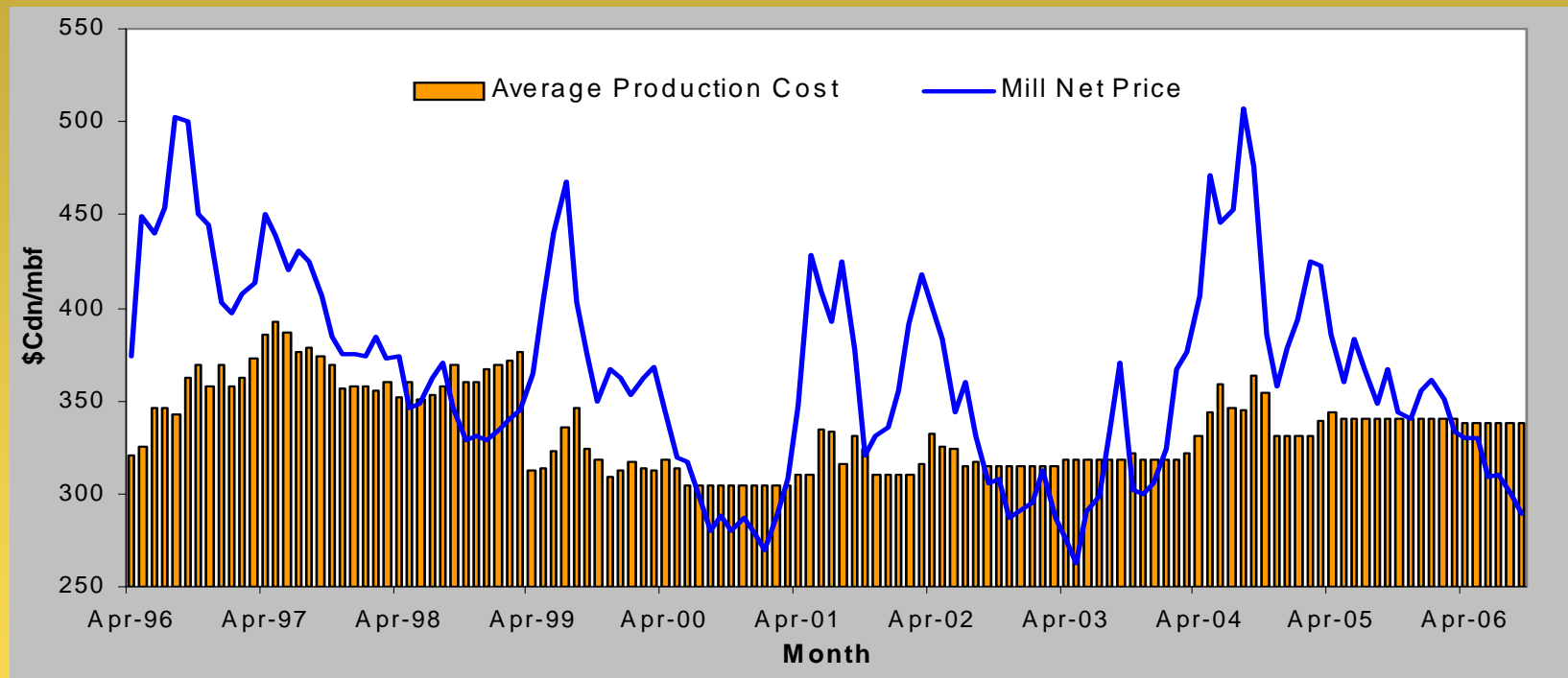


- Delivered price in Toronto: weighted average price of the SPF softwood lumber products sold in Toronto market
- Delivered price in the Great Lakes: weighted average price of the SPF softwood lumber products sold in the Great Lakes (deducting the CVD and ADD paid by the exporters)
- Extra transaction costs = the transaction costs from mills to the Great Lakes – the transaction costs from mills to Toronto
- Period covered: April 1996 to September 2006

Data

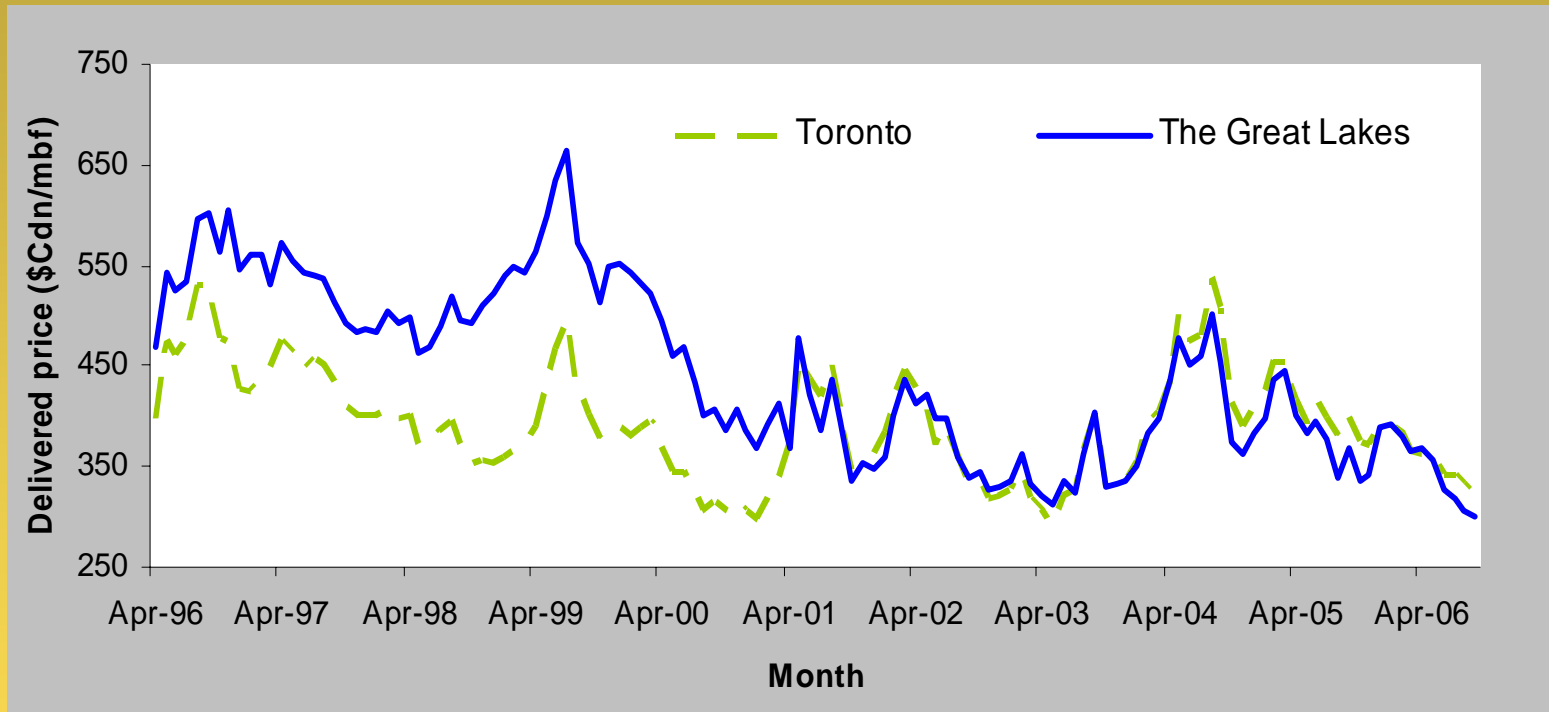
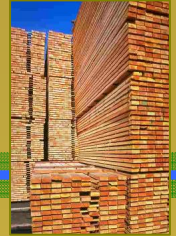


Toronto market



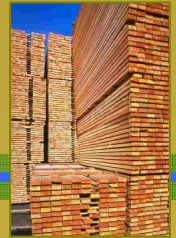
It shows that the mill net price was normally higher than the average production cost and the producers only lost from Toronto market temporarily (for a few months). Hence, it provides further evidence that it is reasonable for us to use the market price in Toronto as the normal value.

Data



The delivered price in Toronto and the adjusted delivered prices in the Great Lakes (CVD, ADD and ETC were subtracted from the delivered price). It shows during the SLA, the price in the Great Lakes was also greater than the price in Toronto; therefore, no dumping occurred during the SLA. However, during the post-SLA, the two prices were closely the same with one price being above the other, on occasions. So the answer to the dumping issue is not clear.

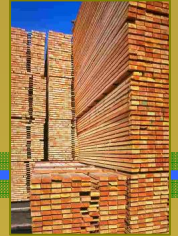
Results



Parameter	Toronto		
	Estimate	SE	t-statistic
λ_1 (Regime 1)	0.543	0.13	4.11^{***}
λ_2 (Regime 2)	0.244	0.07	3.30^{***}
λ_3 (Regime 3)	0.213	0.10	2.14^{**}
U	30.00	3.47	8.64^{***}
V	65.00	23.01	2.82^{***}
σ_e	10.00	1.97	5.07^{***}
σ_{eu}	2.00	6.70	0.30
σ_{ev}	40.00	10.03	3.99^{***}
n		66	
Log likelihood	-316.46		

Note: SE: Standard error; ^{***}, ^{**} and ^{*} indicate significant at the 1%, 5% and 10% levels, respectively.

Results



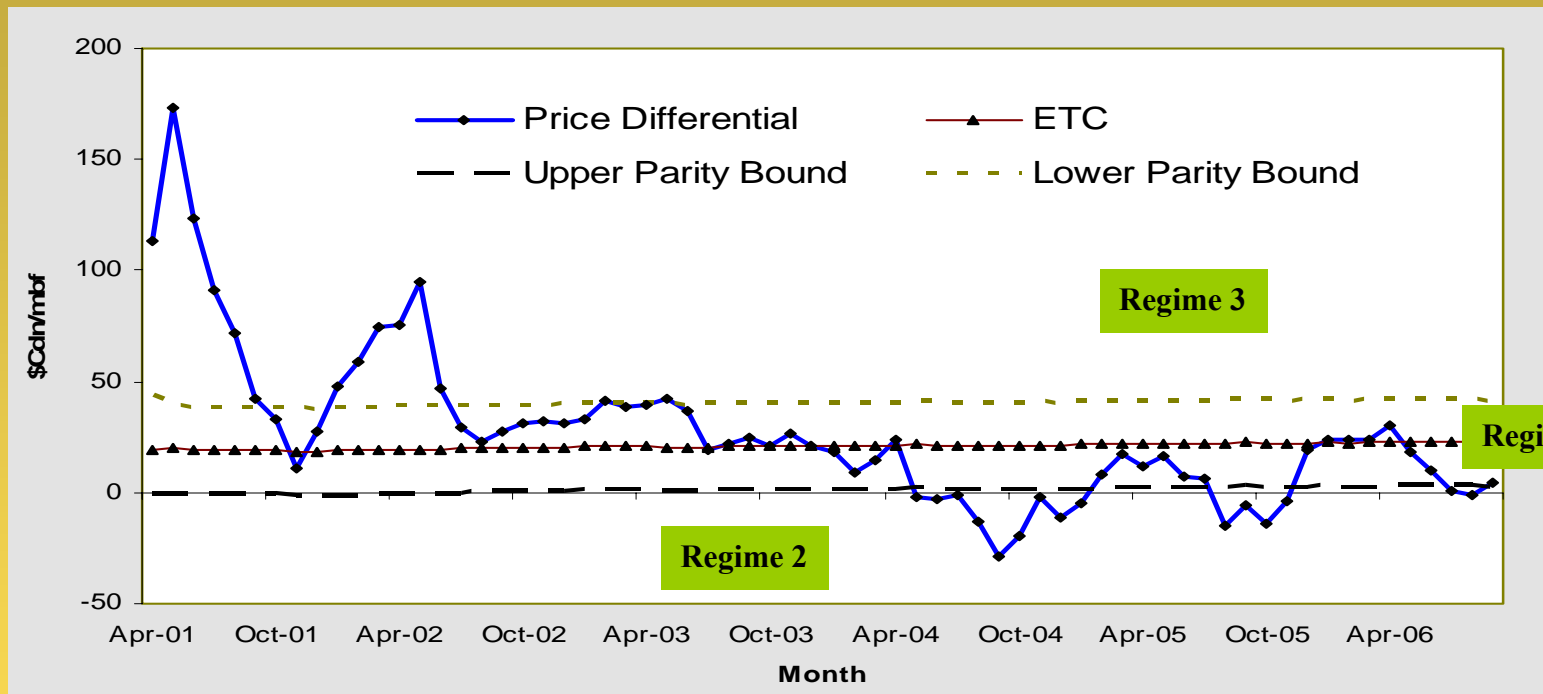
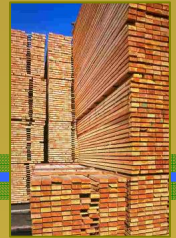
- During the post-SLA, after considering the ETC, $P_{GL} = P_{TOR}$ in 36 months, $P_{GL} < P_{TOR}$ in about 16 months, $P_{GL} > P_{TOR}$ in about 14 months;
- When $P_{GL} < P_{TOR}$, the average difference between the price differential and the ETC is \$Cdn30/mbf,
- when $P_{GL} > P_{TOR}$, the average difference between the price differential and the ETC is \$Cdn60/mbf.
- The estimate for σ_e is \$Cdn10/mbf which indicates that there had been a substantial fluctuation in the ETC.

Results



- Using the monthly export data, and average difference between the price differential and the ETC when the difference is positive, we calculated that the softwood lumber industry **obtained \$Cdn153.19 million more from the US market than they would have obtained from Toronto during the post SLA period.**
- When the difference between the price differential and the ETC is negative, the industry gained **73.08 million less or lost more** by exporting the products to the Great Lakes than if they could have sold in Toronto.
- Therefore, in overall, they **gained \$Cdn80 million more** from the Great Lakes market, and the average dumping margin should be negative even after deducting the CVD and ADD from the delivered price in the Great Lakes.

Results



The three regimes of the EPBM: Regime 1 indicating that the price differentials were equal to the extra transaction costs (ETC); Regime 2 indicating that the price differentials were less than the ETC; and Regime 3 showing that the price differentials were more than the ETC.

Discussion

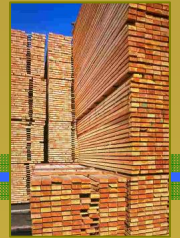


- Why do our results differ from the US calculation?
 - **Upward biases** results from the US calculation of dumping, and the most significant ones come from
 - ◆ disregarding below-cost sales for normal value determination – normal value was inflated
 - ◆ the use of zeroing method – negative dumping margin could have offset the positive dumping margin
 - ◆ the choice of timing and short-term (one year) period of the antidumping investigation and the administrative reviews
 - Softwood lumber market has business cycles – normally lasts for two to three years
 - the dumping investigation covered the year when the market was at the low point and so did the administrative reviews. If USDOC has chosen different timing, there would be no dumping. It simply because the one year period chosen by the USDOC was too short to give a long-term picture of the industry.

Conclusion and Policy Implications



- Our analysis shows that the Ontario softwood lumber industry did NOT dumped softwood lumber into the US market during both SLA and post-SLA!
- Policy implications of our analysis:
 - The below-cost sales should be treated as normal values as long as they are above the variable cost.
 - The “extended period of time” of the WTO Antidumping Agreement should should be interpreted according to the business cycle of the respective product.
 - The zeroing method should be prohibited by the WTO rules for any country and for any circumstances as it does not allow the fair comparison between the normal value and the export prices.



Questions and comments?