



CATPRN

Canadian Agricultural Trade Policy Research Network

The Losses From BSE in Canada

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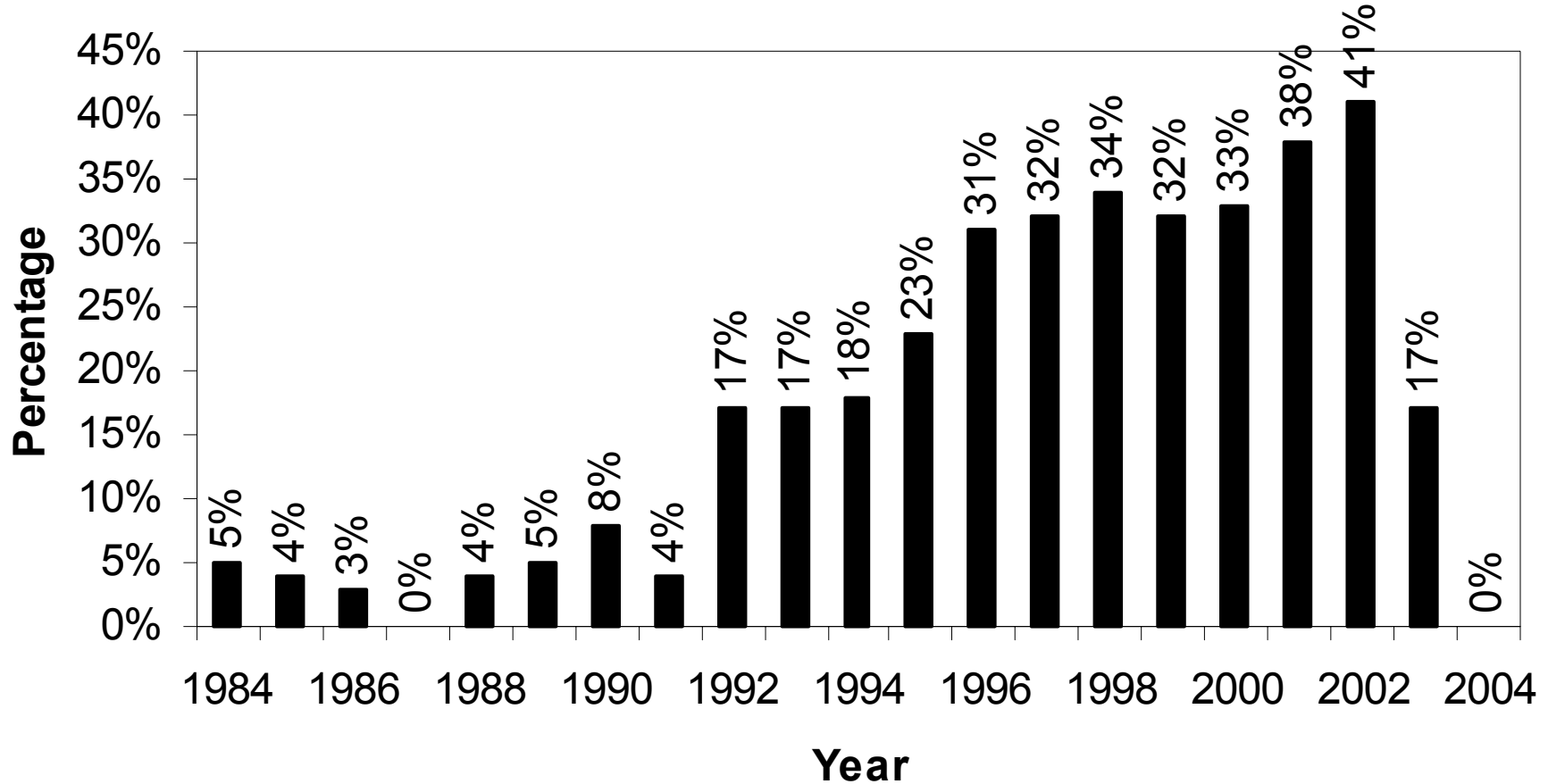
Overview

1. Brief history of BSE in Canada.
2. Characterization of losses from May 20, 2003 to May 20, 2005.
3. Summary

BSE In Canada – 1

Date	Where	Details
12/8/93	Red Deer, AB	Purebred beef cow imported from UK
5/20/03	Wanham, AB	Angus, born, fed and raised in Canada
12/23/03	Yakima, WA	Holstein, born, fed and raised in Canada, shipped to the US
1/2/05	Barrhead, AB	Holstein, born, fed and raised in Canada
1/11/05	Innisfail, AB	Charolais, born, fed and raised in Canada
1/23/06	North Central AB	Holstein cross, born, fed and raised in Canada.

BSE In Canada – 2



- Beef and veal exports ↑ as % of production
- 2002: live cattle exports as % of inventory ~ 12.5%

BSE In Canada – 3

- Border closures May 20, 2003 created a problematic situation:
 - Foreign consumers were denied access to beef and cattle produced in Canada.
 - Lines of production geared toward satisfying foreign consumers became uneconomic.

Losses – 1

- Losses of \$11 million a day because of the beef bans and the resulting collapse in domestic prices
 - Dorosh, 2003; St. Germain, 2003
- Between May 2003, and November 2004, farm cash receipts for cattle plunged by \$5 billion from what they otherwise would have been
 - Tim O’Neill, chief economist of the Bank of Montreal, 2004
- Losses of \$7 Billion
 - CBEF, 2006

Losses – 2

- **What are the losses, really??**

Losses – 3

- **Consequences of border closures:**
 - **Increased costs**
 - Clear loss – where resources had to be withdrawn from more productive uses.
 - **Redistribution** of production and consumption activities
 - Losses are not as easily quantifiable.
 - Effects manifested *within* and *beyond* the beef marketing chain.

Losses – 4

■ Increased costs:

- Processors must now follow specialized procedures
 - Segregation (age) → dentition
 - Head separation
 - Removal of brain, nerve ganglia, eyes, tonsils etc.
 - Carcass splitting
 - Handling of knives
 - Packaging and labeling
 - Handling and disposing of SRMs.
- Cost ↑ estimated by AB Auditor General to be \$25 to \$35 per head.

Losses From BSE

	May- Dec 2003	2004	Jan-May 2005	TOTAL
Extra processing costs (@\$30/head)	\$45M	\$120M	\$75M	\$240M
Number of Head	1.5M	4M	1.9M	

Losses – 5

■ Increased costs:

- Designing, implementing and transferring BSE assistance to industry stakeholders.
 - i.e., What additional costs were incurred?
- Other:
 - Legal fees
 - Monitoring and enforcement costs
 - etc.
- Total not known, *but not insignificant.*

Taxpayer Transfers

■ Federal Transfers

- March 22, 2004: \$680 million
- September 10, 2004: \$488 million
- March 29, 2005: \$321 million

■ Federal-Provincial Transfers

- To June 18, 2004: \$460 million

■ Provincial Transfers

- ALBERTA ONLY PROGRAMS – To June 24, 2004: \$258 million
- OTHER PROVINCIAL PROGRAMS - \$\$\$ millions

■ TOTAL more than **\$2 BILLION**

Losses From BSE

	May- Dec 2003	2004	Jan-May 2005	TOTAL
Extra processing costs	\$45M	\$120M	\$75M	\$240M
Redistribution Costs (C\$0.20/\$1 transferred)		\$400M		\$400M

Losses – 6

- **Effects of redistribution:**
 - In markets for cattle, beef and byproducts
 - Exports, imports, domestic disappearance
 - Within the domestic beef marketing channel
 - Producers, processors, distributors, wholesalers, retailers.
 - Across commodity markets
 - hogs/pork, poultry
 - From taxpayers to beef industry stakeholders

Live Animal Trade

- No live cattle exports between May 2003 and July 2005

Live Animal Exports - 1

HS:0102	RETURNS ('000 \$)			
Month	2002	2003	2004	2005-Nov
Jan	\$128,151	\$135,932	0	0
Feb	\$165,285	\$122,796	0	0
Mar	\$162,418	\$139,668	0	0
Apr	\$164,856	\$136,720	0	0
May	\$123,711	\$55,865	0	0
Jun	\$114,830	0	0	0
Jul	\$116,780	0	0	\$16,549
Aug	\$162,637	0	0	\$87,440
Sep	\$183,229	0	0	\$126,447
Oct	\$186,622	0	0	\$150,195
Nov	\$186,698	0	0	\$135,401
Dec	\$133,397	0	0	
TOTAL	\$1,828,614	\$590,990	\$0	\$516,033

Live Animal Exports- 2

Average Returns, \$ per Head				
Month	2002	2003	2004	2005-Nov
Jan	\$1,123.69	\$1,150.62	\$0.00	\$0.00
Feb	\$1,154.12	\$1,160.72	\$0.00	\$0.00
Mar	\$1,200.13	\$1,181.78	\$0.00	\$0.00
Apr	\$1,223.70	\$1,197.45	\$0.00	\$0.00
May	\$1,169.58	\$1,131.15	\$0.00	\$0.00
Jun	\$1,118.92	\$0.00	\$0.00	\$0.00
Jul	\$1,030.45	\$0.00	\$0.00	\$1,057.88
Aug	\$1,057.11	\$0.00	\$0.00	\$1,093.45
Sep	\$994.52	\$0.00	\$0.00	\$1,085.08
Oct	\$948.90	\$0.00	\$0.00	\$1,127.83
Nov	\$1,015.49	\$0.00	\$0.00	\$1,148.23
Dec	\$1,109.89	\$0.00	\$0.00	
TOTAL	\$1,083.40	\$1,168.68	\$0.00	\$1,113.97

Losses From BSE

	May- Dec 2003	2004	Jan-May 2005	TOTAL
Extra processing costs	\$45M	\$120M	\$75M	\$240M
Redistribution Costs	\$400M			\$400M
Reduced Exports Live Animals (@\$1100/head) Number of head	\$1,210M (1.1M)	\$1,650M (1.5M)	\$1,210 (1.1M)	\$4,070M

Total Beef & Veal Exports - 1

- Beef and veal exports
 - ↓ from May 20 to Sept 10, 2003
 - Then returned to previous levels

Total Beef & Veal Exports - 2

HS:Various	RETURNS ('000 \$)			
Month	2002	2003	2004	2005-Nov
Jan	\$172,755	\$199,894	\$142,107	\$141,390
Feb	\$179,839	\$184,684	\$154,912	\$152,111
Mar	\$199,003	\$195,617	\$171,799	\$189,240
Apr	\$185,304	\$181,757	\$177,350	\$201,056
May	\$188,547	\$115,729	\$157,471	\$185,384
Jun	\$208,901	\$506	\$171,145	\$184,482
Jul	\$181,794	\$868	\$161,221	\$142,416
Aug	\$203,795	\$741	\$157,933	\$139,577
Sep	\$176,786	\$78,364	\$150,380	\$146,241
Oct	\$183,440	\$168,971	\$171,579	\$112,877
Nov	\$178,677	\$178,444	\$160,674	\$119,985
Dec	\$162,085	\$156,863	\$145,090	
TOTAL	\$2,220,927	\$1,462,440	\$1,921,662	\$1,714,758

Total Beef and Veal Exports - 3

Average Returns in \$/kg				
Month	2002	2003	2004	2005-Nov
Jan	\$4.36	\$4.52	\$4.23	\$4.22
Feb	\$4.60	\$4.48	\$4.20	\$4.38
Mar	\$4.57	\$4.35	\$4.22	\$4.32
Apr	\$4.50	\$4.35	\$4.52	\$4.36
May	\$4.22	\$4.11	\$4.88	\$4.20
Jun	\$4.08	\$3.17	\$4.17	\$4.07
Jul	\$3.93	\$1.93	\$4.41	\$3.86
Aug	\$4.10	\$1.60	\$4.31	\$3.50
Sep	\$4.08	\$5.63	\$4.06	\$3.65
Oct	\$4.13	\$4.83	\$4.04	\$3.78
Nov	\$4.38	\$4.69	\$3.85	\$4.04
Dec	\$4.32	\$4.32	\$3.95	
Year	\$4.26	\$4.50	\$4.22	\$4.04

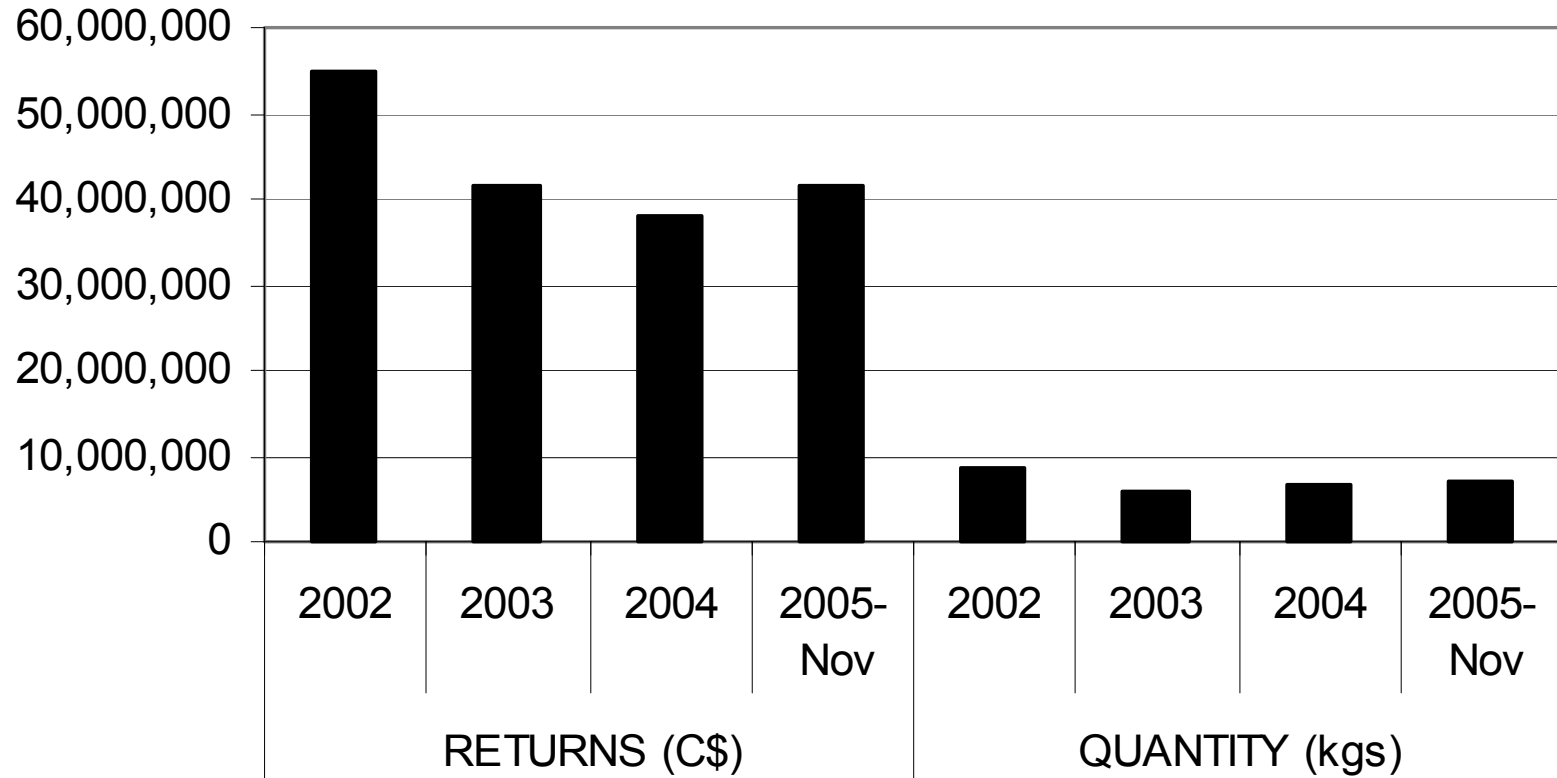
Losses From BSE

	May- Dec 2003	2004	Jan-May 2005	TOTAL
Extra processing costs	\$45M	\$120M	\$75M	\$240M
Redistribution Costs	\$400M			\$400M
Reduced Exports				
Live Animals	\$1,210M	\$1,650M	\$1,210M	\$4,070M
Beef (@\$4.50/kg)	\$540M (120M kg)			\$540M

Byproducts

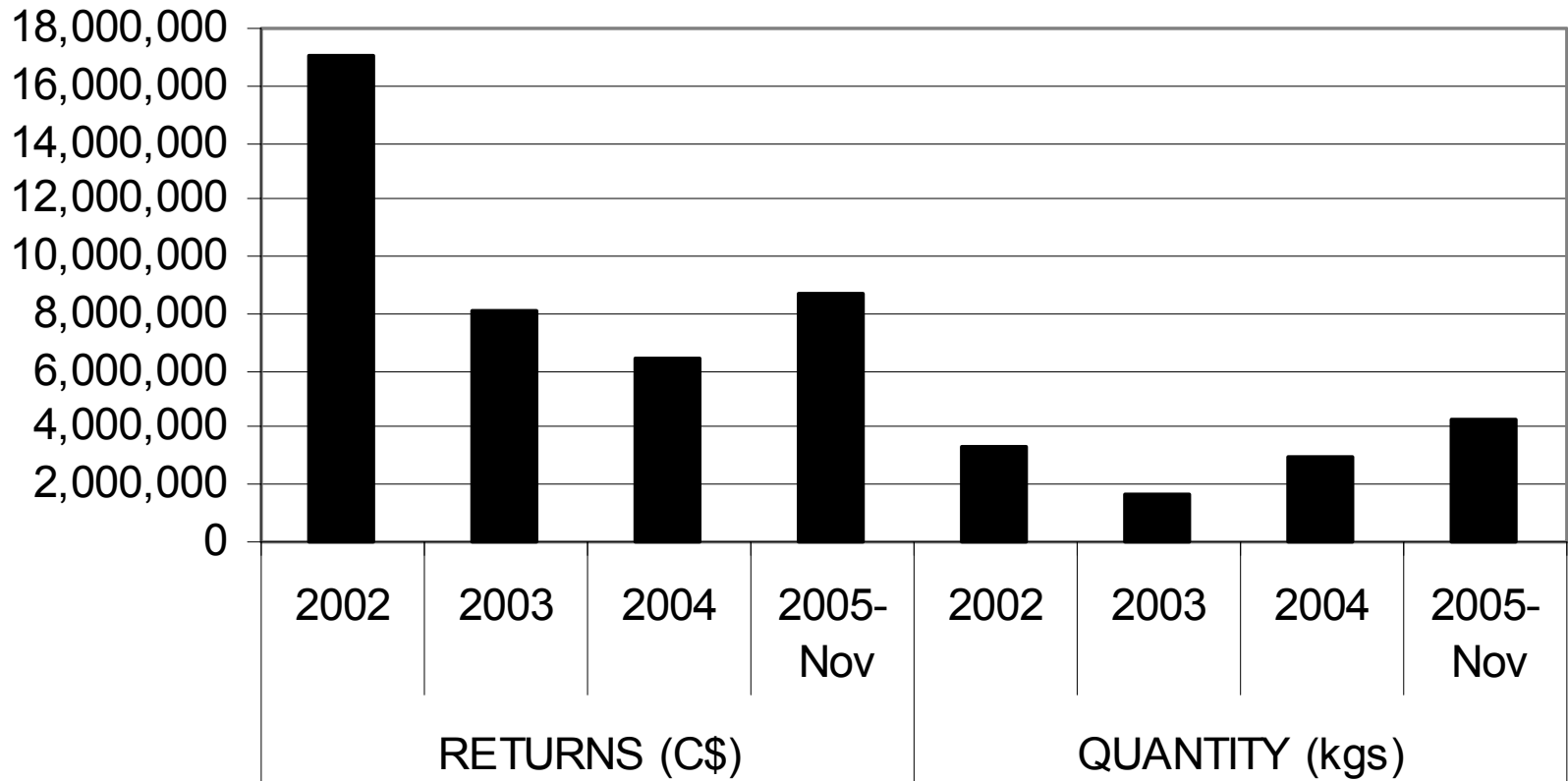
- By product earnings have not returned to 2002 levels ***EXCEPT*** embryos.

Bovine Edible Offal, F/C



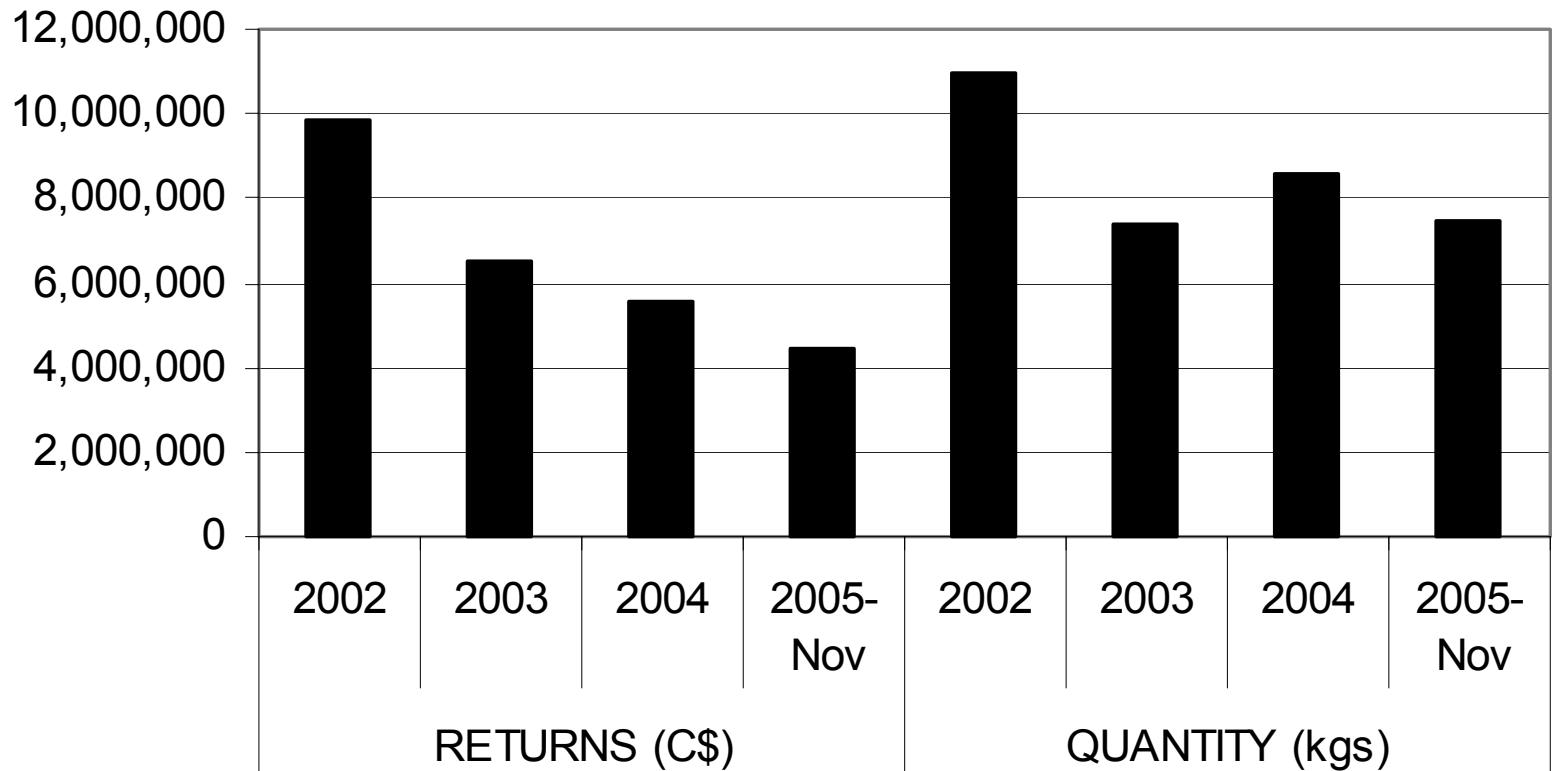
Average Returns C\$/kg			
2002	2003	2004	2005-Nov
\$6.30	\$7.07	\$5.84	\$5.78

Bovine Tongues, Frozen



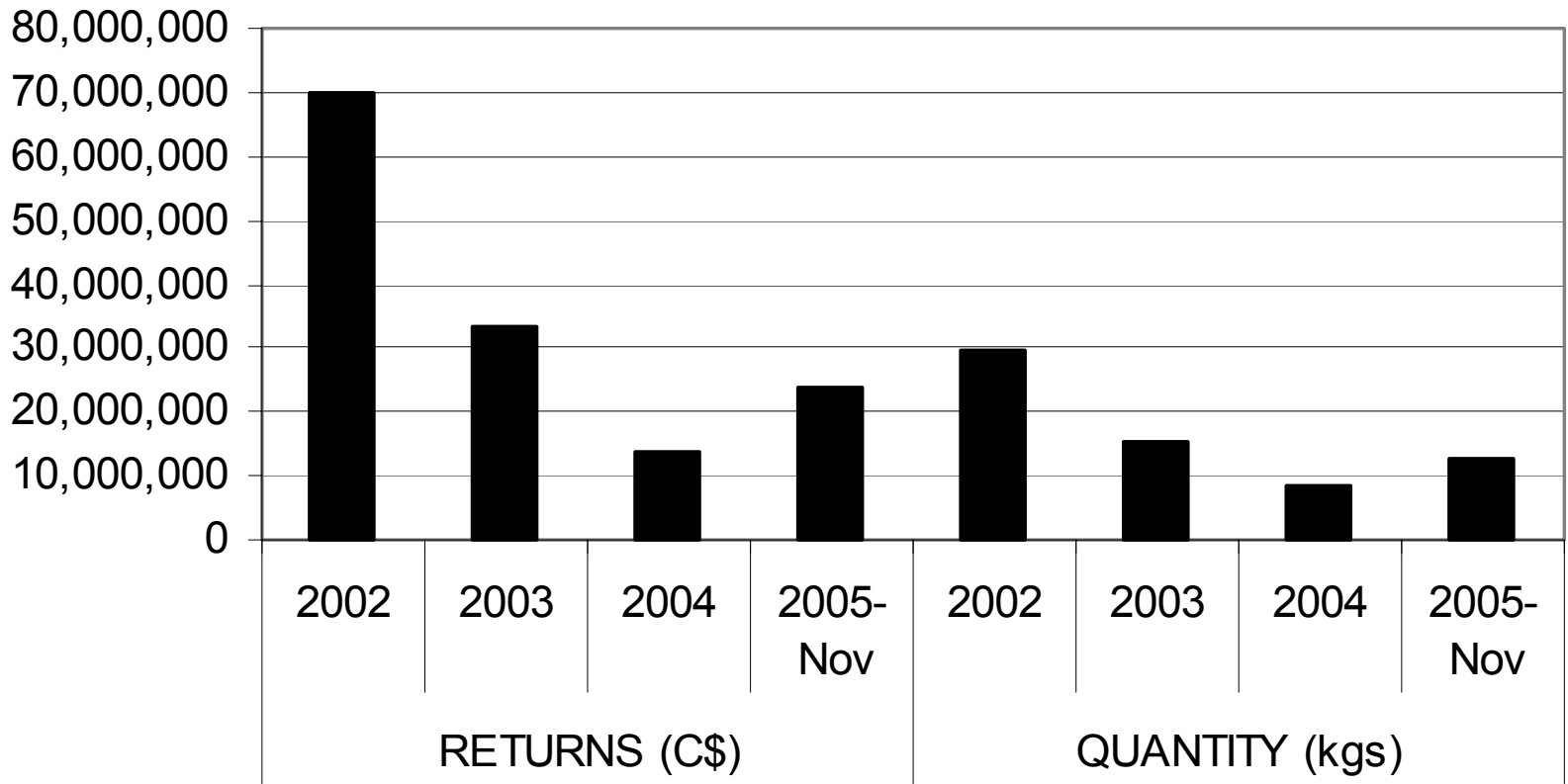
Average Returns C\$/kg			
2002	2003	2004	2005-Nov
\$5.04	\$4.87	\$2.16	\$2.03

Bovine Livers, Frozen



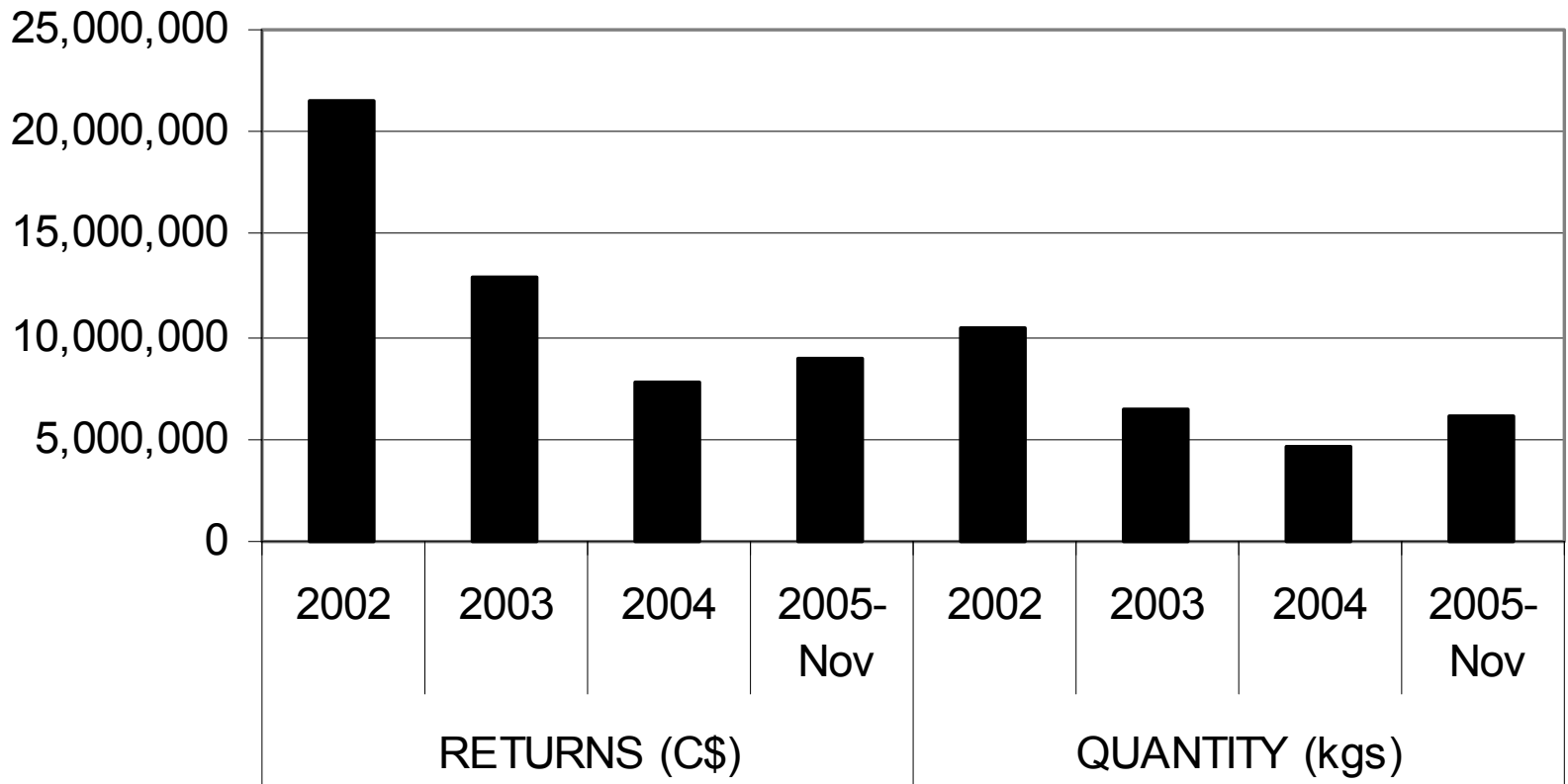
Average Returns C\$/kg			
2002	2003	2004	2005-Nov
\$0.90	\$0.89	\$0.65	\$0.59

Bovine Offal, Frozen



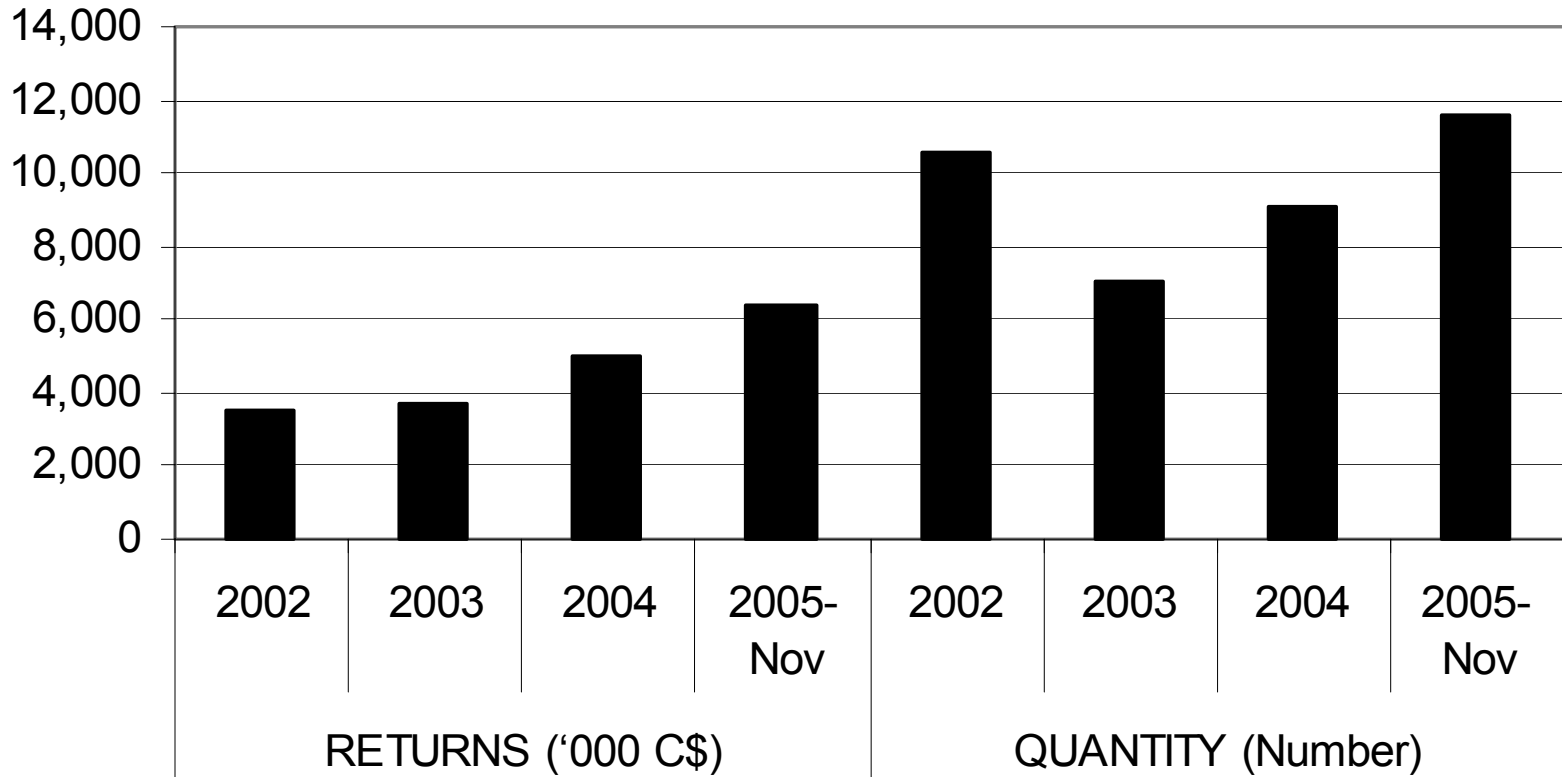
Average Returns C\$/kg			
2002	2003	2004	2005-Nov
\$2.37	\$2.13	\$1.62	\$1.89

Guts, Bladders, Stomachs - 1



Average Returns C\$/kg			
2002	2003	2004	2005-Nov
\$2.06	\$2.03	\$1.66	\$1.47

Embryos



Average Returns C\$/unit			
2002	2003	2004	2005-Nov
\$329.20	\$528.84	\$552.66	\$552.05

Losses From BSE

	May- Dec 2003	2004	Jan-May 2005	TOTAL
Extra processing costs	\$45M	\$120M	\$75M	\$240M
Redistribution Costs	\$400M			\$400M
Reduced Exports				
Live Animals	\$1,210M	\$1,650M	\$1,210M	\$4,070M
Beef	\$540M			\$540M
Byproducts (@\$84M/year)	\$49M	\$84M	\$35M	\$168M

Losses From BSE

	May- Dec 2003	2004	Jan-May 2005	TOTAL
Extra processing costs	\$45M	\$120M	\$75M	\$240M
Redistribution Costs	\$400M			\$400M
Reduced Exports				
Live Animals	\$1,210M	\$1,650M	\$1,210M	\$4,070M
Beef	\$540M			\$540M
Byproducts	\$49M	\$84M	\$35M	\$168M
TOTAL				<u>\$4,932M</u>

Losses from BSE

- \$5B overstates the loss.
 - Live animals, beef and byproducts marketed to domestic consumers instead of foreign consumers.
 - Imports ↓.
 - Redistributive effects (not included in our analysis, but very important).

Losses From BSE

	May- Dec 2003	2004	Jan-May 2005	TOTAL
Extra processing costs	\$45M	\$120M	\$75M	\$240M
Redistribution Costs	\$400M			\$400M
Reduced Exports				
Live Animals	\$1,210M	\$1,650M	\$1,210M	\$4,070M
Beef	\$540M			\$540M
Byproducts	\$49M	\$84M	\$35M	\$168M
Reduced Imports				
Live Animals	(\$44M)	(\$76M)	(\$32M)	(\$152M)
Beef	(\$81M)	(\$492M)	(\$188M)	(\$761M)
Byproducts	(\$5M)	(\$28M)	(\$10M)	(\$43M)
TOTAL				<u>\$3,976M</u>

Live Animal Imports

HS:0102	COSTS (C\$)			
	2002	2003	2004	2005-Nov
TOTAL	\$79,895,926	\$36,797,416	\$3,166,891	\$5,256,629

Live Animals

- Annual prices fell below pre-BSE levels and well below the exceptionally strong pre-BSE levels.

Alberta Slaughter Prices, C\$/cwt

Year	Slaughter Steers	Slaughter Heifers	D1/D2 Cows	D3 Cows	Feeder Cows	Bulls
1994	\$86.34	\$87.12	\$60.31	\$54.23	\$65.95	\$73.48
1995	\$82.90	\$84.71	\$51.26	\$45.09	\$55.68	\$59.46
1996	\$78.42	\$78.67	\$44.92	\$38.17	\$44.54	\$48.58
1997	\$84.00	\$83.85	\$50.48	\$44.11	\$53.01	\$56.84
1998	\$83.56	\$84.17	\$50.91	\$45.45	\$53.29	\$61.07
1999	\$89.30	\$90.34	\$55.26	\$48.21	\$58.38	\$64.29
2000	\$95.00	\$95.90	\$60.47	\$53.83	\$63.37	\$69.29
2001	\$102.82	\$102.29	\$63.99	\$56.42	\$66.20	\$75.03
2002	\$97.14	\$99.58	\$57.04	\$50.88	\$59.08	\$70.67
2003	\$84.28	\$85.35	\$37.04	\$29.44	\$45.84	\$40.85
2004	\$78.40	\$80.11	\$23.89	\$17.48	\$26.61	\$20.76

Beef and Veal Imports

HS:0102	COSTS ('000\$)			
	2002	2003	2004	2005-Nov
TOTAL	\$787,737	\$706,236	\$295,868	\$337,621

Offal Imports

HS:0102	COSTS ('000\$)			
	2002	2003	2004	2005-Nov
TOTAL	\$99,249	\$89,988	\$72,130	\$74,894

Domestic Marketing Channel

- Lower returns to primary producers
 - Fed Cattle
 - Feeder Cattle
 - Cull cattle
- Larger packer margins
 - Gross profit:
 - **C\$79/hd** (pre-BSE)
 - **C\$216/hd** (post Sept 10, 2003)
- Final consumers
 - High quality beef
 - little or no change
 - Low quality and ground beef
 - lower prices in some areas for short periods.

Cross Market Effects

- Hogs/pork
- Poultry

Effect On The Hog Market

- Higher beef prices in the US raised the demand for pork.
 - Increased demand in the US was met largely by hog and pork exports from Canada.
 - ↑ from 20,000 - 25,000 hd/week to 40,000 hd/week/
 - In 2003, 7.3 million head exported (yr-to-yr↑: 33%)
- ↑ in exports to the US also a result of lower beef prices in Canada.

Effect On The Poultry Market

- No perceptible impact
 - Canadian production ↑1.2%; avian influenza
 - Consumption up slightly;
 - Per capita consumption ½ kg higher in 2004.

Summary - 1

- Losses of \$4B likely an upper bound.
 - Processing costs ↑
 - Redistribution costs ↑
 - Exports ↓; imports also ↓

Summary - 2

- Redistribution of **consumption** and **income** are important, but beyond the scope of this study.
- Observations:
 - Prices to final consumers steady
 - Large margins for packers
 - Lower prices for cattle producers
 - Fed, Feeder cattle temporary.
 - Cull cattle on-going.
 - Beneficial effects for domestic hog producers.