

Common External Tariff Sensitivity Analyses

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Purpose

The general objective of this analysis is to inform policy-makers' decision in establishing the appropriate level of common external tariff (CET) on imported cement without unduly hindering the competitiveness of the market. The specific objective is to estimate the *reservation tariff*, i.e. the maximum level CET that could be imposed without foreclosing the market to importers.

Method

The reservation tariff is calculated as the level of tariff for which the minimum non-recoverable cost of making cement available for local consumption would be identical for importers and the local producer.

Data Description and Sources

The non-recoverable cost of producing cement was estimated from the financial statements published by the Caribbean Cement Company Limited (CCCL) in its annual reports. Data used to estimate the cost for importing cement were sourced from a sample of customs entry forms for cement imported in 2008 and 2009; as well as information from the Kingston Wharves, Bureau of Standards Jamaica, and shipping companies.

The importation of cement proceeds in five distinct stages: (i) landing at port of entry; (ii) clearing customs; (iii) wharfing; (iv) stevedoring; (v) Bureau Standard Jamaica (BSJ) inspection; and (vi) delivery to warehouse. In our calculations presented below, we

compare the costs associated with importing 12,000 metric tonnes (where 1 ton is equivalent to 1,000 kg) of cement with the costs of producing a similar quantity.

Production Costs

Production costs were obtained from the “Notes to the Consolidated Financial Statements” presented in the Annual Report 2008 prepared by the CCCL. Specifically, production cost is calculated as *total expenses* less amounts reported for *marketing and selling expenses* and *changes in inventories of finished goods and work in progress*. This figure was then prorated using the total quantity of cement produced during the financial year to arrive at an estimate for the cost of producing 12,000 tonnes. The breakdown of total expenses during the period 2002-2008 is summarized in the Appendix. It shows, among other things, that total expenses increased during 2008 by approximately \$510.9 million (6.6 percent) over the previous year although *repairs and maintenance* costs declined by \$195.6 million. It should be noted that *raw material and consumables* increased by \$491.4 million despite the fact that cement production declined by 48,491 tonnes. Further, *personnel remuneration* increased by \$385.1 million. Note also (i) the significant increases in personnel remuneration in 2007 and 2008; and (ii) the high amounts for raw materials and consumables for 2006-2008 compared with the years 2001-2005.

Results

Table 1 below shows that imposing any level of CET would likely discourage the importation of cement. This conclusion is based on our estimate that it costs the local producer approximately USD 119.2 to manufacture one metric ton of cement compared to the USD 123.1 required to import a similar quantity without any CET imposed.¹

¹ This result is predicated on a foreign exchange rate of J\$89.00 to US\$1.

Table 1*Comparison of Costs of Importing and Producing 12,000 metric tonnes of OPC*

Non-recoverable Costs (in \$000s)	Importer		Manufacturer	
	JMD	USD ¹	JMD	USD ¹
<u>Production</u> ⁴	---	---	128,594.1	1,430.4
Landed (CIF)	11,600.6	1,252.5	---	---
<u>Customs</u> ²			---	---
CET (@ 0.0000 %)				
SCF (@ 0.3000 %)	337.8	3.8		
CUP (@ 2.0000 %)	2,252.0	25.1		
ENVL(@ 0.5000 %)	563.0	6.3		
<u>BSJ inspection fee</u>	248.0	2.8		
<u>Wharfing</u> (Kingston Wharves)			---	---
Wharfage	538.0	6.0		
port development cess	196.0	2.2		
security	1,051.0	11.7		
lifting charges ³	1,200.0	13.3		
terminal transaction fee	1,576.0	17.5		
<u>Stevedoring</u>			---	---
Discharging @ USD 3.65 per ton	3,937.6	43.8		
delays	97.1	1.1		
SAJ cess @ USD 1.88 per ton	2,038.1	22.6		
Miscellaneous	224.8	2.5		
Wastage @ 0.5% of CIF	640.8	7.2	---	---
Delivery to warehouse @ USD 2.5 per ton	2,667	30	---	---
Cost of funds @ 8% p.a. for 3 months	2,563.2	28.8		
Total non-recoverable costs	132,785.7	1,477.0	128,594.1	1,430.4
Cost of goods sold (in \$ per metric ton)	11,065.5	123.1	10,716.2	119.2
Reservation CET tariff		0.0000 %		

Notes:

1. The exchange rate used is JMD 89.00 to USD 1.00. [Source: <http://www.boj.org.jm>]
2. GCT is excluded from calculations because sums paid for GCT are recoverable by importers.
3. Lifting charges are negotiable.
4. Production costs were calculated as the CCCL's *total expenses* less amounts included for *marketing and selling expenses* and *changes in inventories of finished goods and work in progress* (prorated for 12,000 tonnes) for the financial year ending December 2008. [Source: CCCL(2009) *Annual Report 2008*].

Sensitivity Analyses

The conclusion above was drawn from what we believe to be a reasonable estimate of the relative costs of producing and importing cement. In what follows, we demonstrate how our conclusion is likely to be altered by varying some of the critical assumptions made in crafting the baseline results presented in Table 1.

A. Production Costs variations

In this section we show how the reservation CET rate would change if we made alternative assumptions about the cost of producing cement, all other things being constant.

Table 2

Sensitivity of reservation CET tariff to changes in production costs

Production Costs (USD per metric ton)	123.1	126.2	129.4	132.5	135.7	138.5
Reservation CET (%)	0.0000	3.0788	6.0488	9.0189	12.0847	14.7673

The table shows, for instance that the cost of producing one ton of cement would have to be at least USD 123.1 for any level of CET to be imposed without discouraging importation; further, these costs would have to exceed USD 138.5 before the maximum 15 percent should be imposed.

B. Foreign Exchange Rate Variations

In this section we show how the reservation CET rate would change if we made alternative assumptions about the foreign exchange rate.

The table below shows how our conclusion arrived at in Table 1 will change based on alternative assumption about the foreign exchange rate. The cost of importing decreases as the Jamaican dollar appreciates in value against its United States counterpart. Accordingly, Table 3 below shows that, all other things constant, the dollar would have

to appreciate to at least J\$88.52 to US\$1.00 before any CET could be imposed without discouraging importation of cement.

Table 3

Sensitivity of reservation CET tariff to changes in Foreign Exchange Rate

Foreign Exchange Rate (J\$ per US\$1)	88.52	86.24	84.08	82.02	80.05	78.20
Reservation CET (%)	0.0089	3.0111	6.0055	9.0082	12.0243	14.9950

Appendix

Financial Statements for the Caribbean Cement Company Limited as at December 31

	2008 \$'000s	2007 \$'000s	2006 \$'000s	2005 \$'000s	2004 \$'000s	2003 \$'000s	2002 \$'000s	2001 \$'000s
Revenue	8,642,729	7,721,003	6,632,008	5,765,114	5,343,651	3,946,418	3,630,408	3,061,060
raw material and consumables	1,876,040	1,384,620	2,068,807	763,288	573,856	426,814	404,440	603,975
fuel and electricity	1,796,094	1,611,948	1,512,688	1,339,466	1,130,548	834,200	771,639	644,860
personnel remuneration	1,802,289	1,417,206	1,090,248	989,075	893,541	783,877	693,712	610,290
Repairs and maintenance	439,788	635,346	433,298	550,614	-	-	-	-
operating lease	678,447	589,052	591,601	578,381	-	-	-	-
depreciation	299,808	297,081	257,269	244,285	253,324	208,771	180,823	165,809
marketing and selling expenses	318,025	303,702	429,977	310,472	-	-	-	-
insurance	127,794	103,038	100,547	-	-	-	-	-
training and staff development	136,696	102,312	72,313	-	-	-	-	-
other	607,214	678,590	510,912	807,895	1,635,259	1,294,618	1,076,009	699,897
changes in inventories	- 182,850	265,556 -	452,367	190,895	283,606 -	279,546 -	21,049	26,628
TOTAL EXPENSE	7,899,345	7,388,451	6,615,293	5,774,371	4,770,134	3,268,734	3,105,574	2,751,459
Cement Production (tonnes)	724,528	773,019	760,815	884,843	808,070	607,682	613,981	596,247

Source: CCCL, Annual Report, 2002-2008.