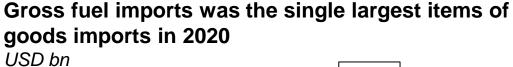


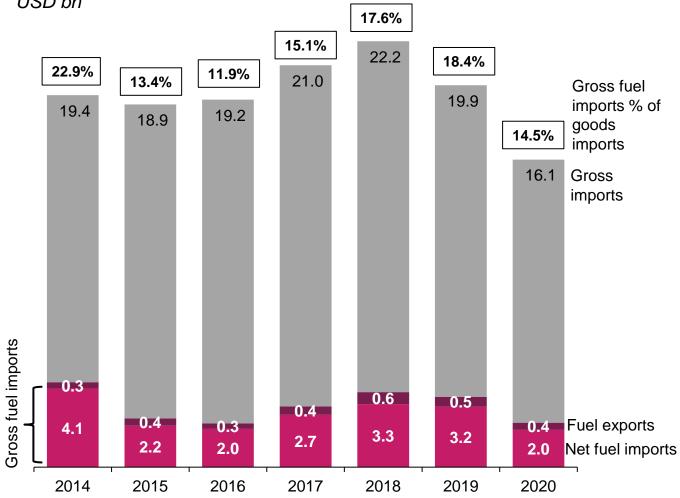
Sri Lanka Fuel Price Analysis

A confidential property of Advocata Institute

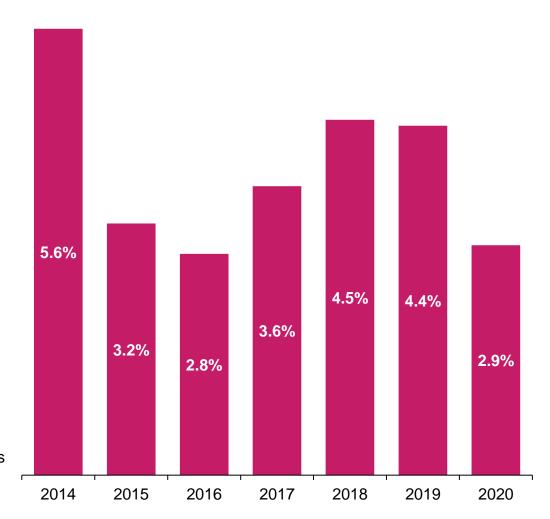
Date 24/06/2021

Fuel is our largest import





... and amounted to 2.9% of GDP % GDP





Definitions

What is an **Externality**?

The result of an individual's, household's or firm's decision to consume, produce or invest that is imposed on an unrelated third party (not involved in the transactions). Externalities can be positive or negative and can also be borne privately – an individual or organisation, or socially – borne by society.

What is a **Corrective Tax**?

A corrective tax is a market-based policy option used by the government to address negative externalities. The tax adjusts the cost of production of the good or service that is creating the externality. This discourages the production and consumption of the good or service.



Definitions continued...

What is a **Subsidy**?

A benefit given to an individual, business or institution in the form of a cash payment or tax reduction granted by the government. It is generally given to reduce the cost of providing a good or service that creates a positive externality, as it is in the overall interest of the public.

What is a **Tax Subsidy**?

This refers to the reduction in the tax burden borne by producers of goods and services that generate a positive externality to society. It is a benefit awarded by the government to provide an economic incentive to produce



Who benefits from the Tax Subsidy?

"The non-poor are the largest consumers of fuel and electricity (the top 30 percent of society consumes 70 percent of fuel, well ahead of direct and indirect consumption of fuel by the bottom 40 percent through the use of public transport), the administered fuel prices are an effective subsidy to the non-poor funded indirectly by fiscal resources" – World Bank



How do we compare to the region..



Regional comparison – Sri Lanka is the cheapest by far

Per Capita GDP		(Prices a	Absolute are as of 15 th Ju	ne 2021)		Relative		Relative price
USD 2020		Petrol (LKR/litre)	Diesel (LKR/litre)	Kerosene (LKR/litre)	Petrol (LKR/litre)	Diesel (LKR/litre)	Kerosene (LKR/litre)	of Petrol/Diesel
3,679	Sri Lanka	157	111	77	100	100	100	41%
1,965	India (Delhi)	260	236	87	166	212	113	10%
1,260	Pakistan	135	141	102	86	127	132	-4%
1,998	Bangladesh	207	151	151	132	136	196	37%
1,196	Nepal	205	176	176	131	159	229	16%

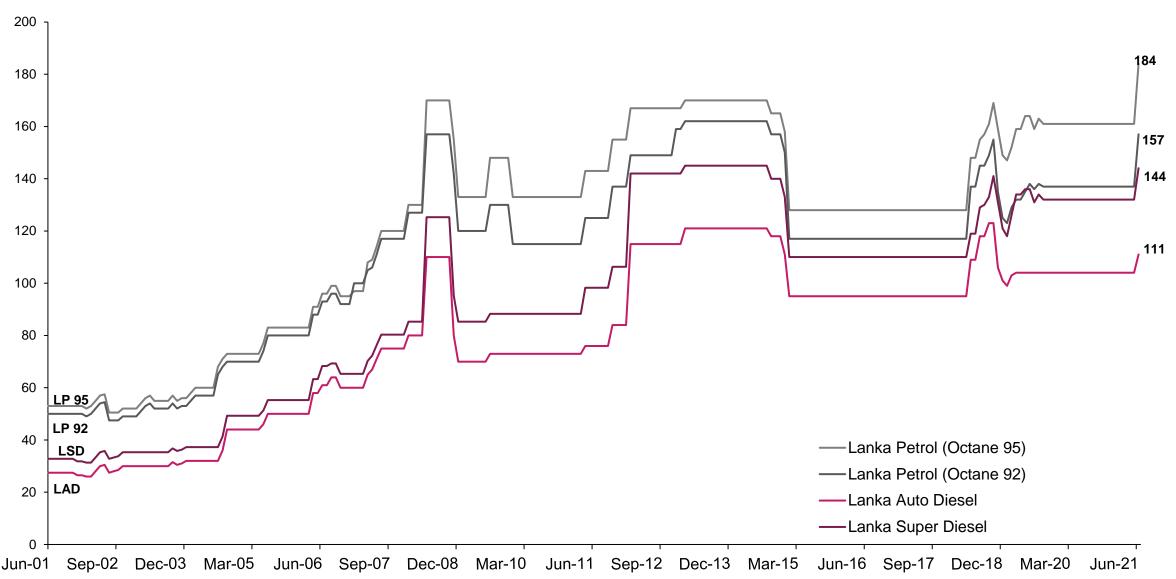


How do prices compare to historical levels...



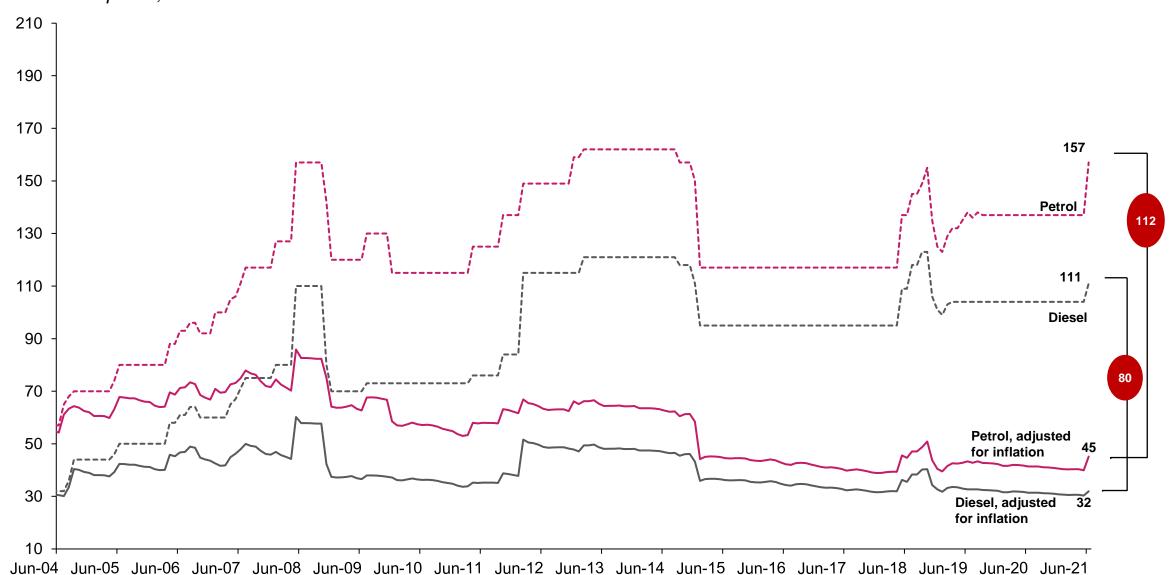
Prices revised for the first time in 20 months...

End month prices, LKR/litre



When adjusted for CCPI inflation, petrol and diesel are at historic lows...

End month prices, LKR/litre





Sri Lanka Fuel Pricing Formula

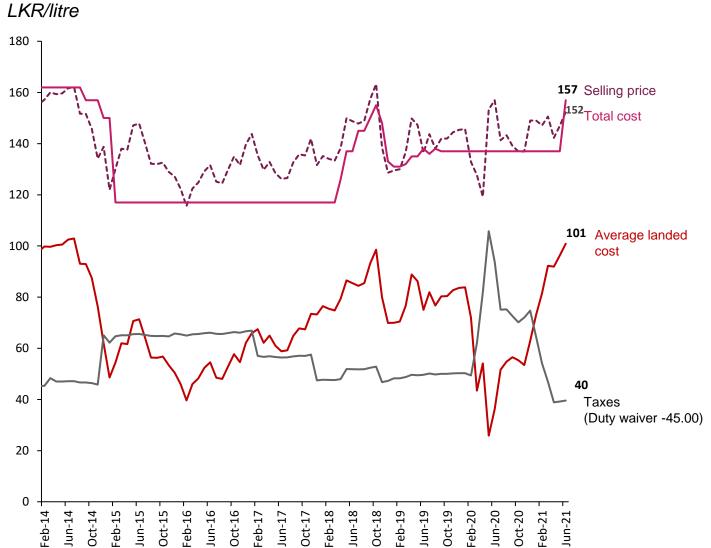
			Petrol	Diesel
(1)	Platts Price (USD/barrel)		77.03	76.27
(2)	Insurance, freight & supplier premium (USD/barrel)		4.00	4.00
(3)	Import Price - CIF (US\$/barrel)	(1) + (2)	81.03	80.27
(4)	Exchange rate		198.51	198.51
(5)	Landed cost/liter	(3) X (4)/159	101.17	100.28
(6)	PAL	(5) X PAL rate	7.59	7.52
(7)	Customs Duty		50.00	25.00
(8)	Duty Waiver		-45.00	-25.00
(9)	Net Customs Duty		5.00	0.00
(10)	Excise Duty		27.00	6.00
(11)	Total Taxes	(6) + (9) + (10)	39.59	13.52
(12)	Terminal Charges		3.00	2.09
(13)	Transport Costs		0.27	0.27
(14)	Storage Costs		2.25	1.50
(15)	Total Other costs	(12) + (13) + (14)	5.52	3.85
(16)	Dealer Margin	3% x Selling price	3.93	3.33
(17)	O/H & Finance costs		2.50	2.50
(18)	Total Cost	(5) + (11) + (15) (16) + (17)	152.69	123.48
	Selling Price		157.00	111.00
	Profit/(Loss) per liter	11	4.31	-12.48

India Fuel Pricing Formula

	Fuel Price Analysis for 23 rd June 2021		Petrol- INR, LKR	Diesel – INR, LKR
(1)	International Price of Brent Crude Oil		75.30	75.30
(2)	Currency Exchange Rate		74.21	74.21
(3)	Crude Oil in Indian Currency	(1) X (2)	5,588.01	5,588.01
(4)	1 Barrel of Crude Oil		159.00	159.00
(5)	Crude Oil - Cost per Litre	(3)/(4)	35.14, 94.54	35.14, 94.54
(6)	Refinery Processing + Refinery Margins + OMC Margin + Freight Cost, Logistics		3.60	6.10
(7)	Fuel Price after Processing	(5) + (6)	38.74, 104.22	41.24, 110.95
(8)	Additional: Excise Duty + Road Cess as Charged by Central Government		32.90, 88.50	31.80, 85.54
(9)	Commission to Petrol Pump Dealers		3.79	2.59
(10)	Fuel Cost Before VAT	(7) + (8) + (9)	75.43, 202.92	75.63, 203.46
(11)	Additional: VAT (30% for Petrol and 16.75% for Diesel)	% X (10)	22.63, 60.88	12.67, 34.08
(12)	Final Retail Price	(10) + (11)	98.07, 263.80	88.30, 237.54

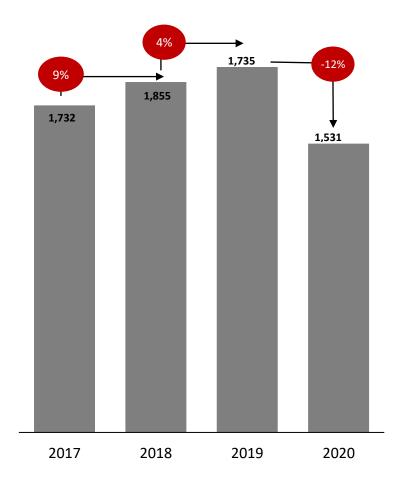
Current profit on Petrol is around LKR 4.6/litre*

Petrol – Selling Price vs Cost



Petrol sales

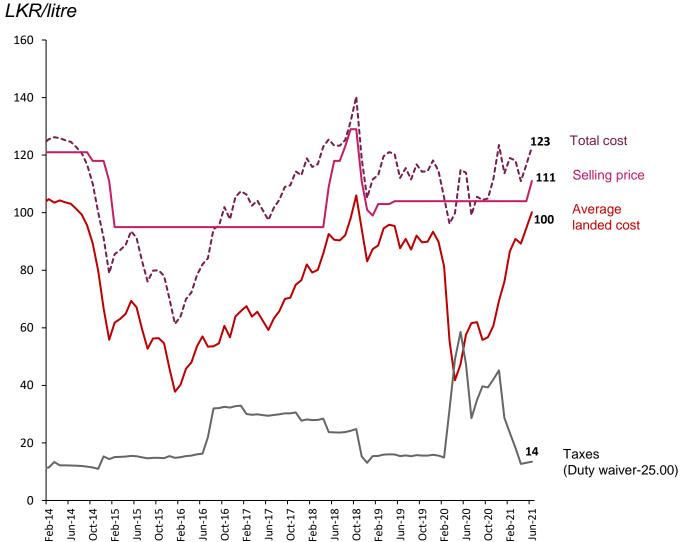
Liters mn





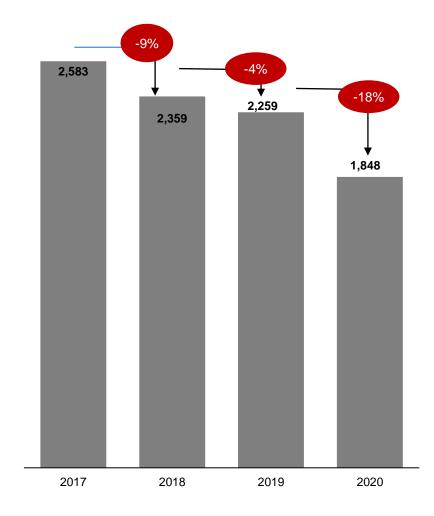
Current loss on Diesel is around LKR 12/litre

Diesel – Selling Price vs Cost



Diesel sales

Mn litres





How is Fuel taxed?

		Imported Petrol	Refined Petrol*	Imported Diesel	Refined Diesel*
Customs Duty	LKR	50.00		25.00	
Duty Waiver	LKR	-45.00		-25.00	
Net Customs Duty	LKR	5.00		0.00	
PAL	% of Landed cost	7.50%, 7.59	2.50%, 1.75	7.50%, 7.52	2.50%,1.75
Excise Duty	LKR	27.00	27.00	6.00	6.00
Total Taxes	LKR	39.59	29.75	13.52	7.75

^{*}Locally refined fuels are taxed at a lower rate as Crude oil imports are charged a lower PAL and zero Customs duty.

Corrective Fuel Tax, IMF Estimate, 2010

	Petrol USD/liter, LKR/liter	Diesel USD/liter, LKR/liter
Sri Lanka	USD 0.63, LKR 126	USD 0.42, LKR 84
India	USD 0.78	USD 0.54

Corrective taxes reflect the negative externalities caused by: Local tailpipe emissions, Carbon, Congestion, Accidents, Noise and Road damage



What would the current status quo cost?

	Based on 2020 Volume, Liters		nment from duty	oil companie	ofit (+)/loss (-) to es due to non al obligation	
	mn	Per litre, LKR	Annual, LKR mn	Per litre, LKR	Annual, LKR mn	
Petrol	1,683	45.00	75,731	+4.31	+7,254	
Diesel	2,113	25.00	52,831	-12.68	-26,793	

If taxed at 35.8%, equivalent to other products*?

	Full t	axes	Curren	t taxes	Tax su	ıbsidy
	Effective tax rate, per litre	Per litre, LKR	Effective tax rate, per litre	Per litre, LKR	Tax subsidy rate, per litre	Per litre, LKR
Petrol	35.8%	36.11	39.23%	39.57	-3.43%	-3.46
Diesel	35.8%	35.86	13.50%	13.51	+22.30%	+22.34

Note: * This includes Customs duty of 15%, PAL 10% and VAT of 8%; current data point is as at 12-Jun-2021; percentages rounded off to the closest decimal place Source: CBSL, Bloomberg, Sri Lanka Customs, Advocata Research

CPC Financial Statements

LKR Mn	2010	2011	2012	2013	2014	2015	2016	2017	2018
Revenue	256,329	356,442	512,910	490,381	525,182	376,734	423,061	445,950	520,967
Cost of Sales	265,604	428,071	573,692	467,638	499,956	337,119	326,441	418,962	523,982
Gross Profit/(Loss)	(9,275)	(71,628)	(60,782)	22,744	25,227	39,616	96,620	26,989	(3,015)
Operating Profit/(Loss)	(20,295)	(85,812)	(78,930)	7,552	12,296	26,857	81,413	7,201	(23,135)
Exchange Rate Variation					(967)	(32,842)	(8,829)	(4,922)	(82,717)
Proft/(Loss) After Tax	(26,923)	(94,508)	(97,181)	(7,947)	1,129	(20,521)	53,027	1,056	(105,051)

LKR Mn	2010	2011	2012	2013	2014	2015	2016	2017	2018
ASSETS									
PPE	8,280	8,818	9,572	13,111	13,591	13,872	13,506	23,609	23,406
Trade & Other Receivables	86,722	122,508	117,514	90,173	55,168	38,535	58,725	95,954	107,878
Total Assets	155,723	187,128	206,232	187,035	181,826	198,973	190,990	218,701	329,271
EQUITY									
Contributed Capital	3,500	3,500	3,500	3,500	3,500	28,487	28,487	28,487	28,487
Retained Earnings	(46,589)	(140,463)	(237,037)	(245,021)	(240,749)	(262,465)	(219,327)	(220,661)	(325,574)
Total Equity	(38,071)	(131,944)	(228,545)	(236,529)	(232,257)	(228,985)	(185,868)	(176,992)	(281,761)
LIABILITIES									
Short Term Borrowings			211,163	227,408	247,788	267,222	193,684	179,641	294,663
Trade and Other Payables	145,632	167,032	220,897	194,097	164,280	159,171	182,095	214,078	313,112
Total Liabilities	193,175	318,452	434,776	423,564	414,082	427,958	376,836	395,693	611,033

Note: Most Short-Term Borrowings are US Dollar denominated.

Source: CBSL, CPC Annual Reports, Advocata Research



Effective tax rates following recent changes

	Curren	it taxes		taxes uty waiver)	Normal Im	port Taxes*		port Tax + e Taxes**
	Effective tax rate- % Landed Cost, % Total Cost	Per litre, LKR	Effective tax rate- % Landed Cost, % Total Cost	Per litre, LKR	Effective tax rate- % Landed Cost, % Total Cost	Per litre, LKR	Effective tax rate- % Landed Cost, % Total Cost	Per litre, LKR
Petrol	39.23% 25.93%	39.57	83.61% 42.79%	84.59	35.80% 24.20%	36.11	159.40% 58.71%	160.80
Diesel	13.50% 11.00%	13.51	38.41% 26.04%	38.52	35.80% 24.69%	35.86	118.66% 52.10%	118.99

Note: * This includes Customs duty of 15%, PAL 10% and VAT of 8% current data point is as at 12-Jun-2021; percentages rounded off to the closest decimal place. **Corrective tax for Petrol is USD 0.63 (LKR 124.69)

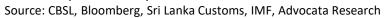
and for Diesel is USD 0.42 (LKR 83.13)



CPC receives a LKR 6 bn tax subsidy on crude oil imports due to lower PAL & zero Customs Duty

	Produc volume,		Sales volume,		Productio n as a %	PAL fo	regone		ns Duty gone	Total taxes
	МТ	Mn Litres	МТ	Mn Litres	share of sales	LKR/litre	Total, LKR mn	LKR/litre	Total, LKR mn	foregone, LKR mn
Petrol	164,416	222	1,259,000	1,531	13.1%	5.84	1,296	5.00	1,110	2,406
Diesel	537,645	607	1,819,000	1,848	29.6%	6.58	3,502	0.00	-	3,502
Fuel oil	465,419	522	971,000	1,089	47.9%					
Kerosene	109,165	131	176,000	211	62.0%					
Naptha	156,953	234	164,649	246	95.3%					
Avtur (jet fuel)	157,279	191	165,000	201	95.3%					

Note: Average price of Petrol and Diesel CIF (LKR/litre) during 2021 was used to calculate PAL foregone; average customs duty during 2021 was used to calculate customs duty foregone; crude oil is taxed at a PAL of 2.5% and is exempted from duty





Appendix: IMF Corrective Taxes on Fuels

ANNEX TABLE 62.1 (Continued)

Country Spet GI Spet GI Spet GI Spet IIRet Country plants controls plants p			Coal	Naturalgas	gas	Gasoline	Diesel
nia average all plants plants plants with plants average all plants groun of plants average all plants plants plants level a #na #na 1.9 1.9 0.51 a #na #na 1.9 #na 0.05 da #na #na 1.9 #na 0.05 da #na #na #na 1.9 0.51 da #na #na 2.1 2.0 0.51 ala #na #na 2.0 2.1 0.55 ala #na #na 2.0 2.1 0.55 ala #na #na 2.0 2.1 0.55 ala #na #na 4.2 2.2 2.0 0.53		¢	er GJ	\$ per	ß	\$ per	liter
#ma #ma 1.9 1.9 0.51 #ma #ma #ma 1.9 1.9 0.50 #ma #ma #ma 1.9 1.9 0.20 #ma #ma #ma 1.9 1.9 0.20 #ma #ma #ma 1.9 0.70 #ma #ma 1.9 0.70 #ma #ma 1.9 0.70 #ma #ma 1.9 0.70 #ma 0.40 #m	Country	average all plants	plants with controls	average all plants	ground		
#13 #13 #13 #13 #13 #13 #13 #13 #13 #13	Tanzania	eu≢	#ua	1.9	1.9	0.51	0.33
### ### 21 20 061 #### #### #### 1.9 0.51 #### #### #### 1.9 0.51 ###################################	Togo	#na	ŧu∌	1.9	₩	0.20	0.17
### ### ### ### 1.9 0.51 #### ### ### 1.9 0.51 #### #### #### 1.9 0.70 ##### #### #### 1.9 0.70 ##################################	Tunisia	#LIB	#ua	2.1	2.0	1970	0.44
### ### ### ### 1.9 0.70 #### #### 1.9 0.70 ##################################	Uganda	#La	#na	ŧu∌	1.9	0.51	0.33
### ### ### ### ### ### ### ### ### ##	Zambia	# na	#na	₩u	1.9	0.70	0.42
#ma #ma 20 1.9 0.17 4.1 3.9 20 2.1 0.55 8.3 4.2 23 2.0 0.45 #ma #ma #ma #ma 0.09 #ma #ma #ma #ma 0.09 #ma #ma #ma #ma 0.03 #ma #ma #ma #ma 0.03 8.7 8.7 22 2.0 0.32 5.5 17.7 4.7 #ma #ma #ma 8.8 8.1 7.7 4.0 2.3 2.0 0.32 5.3 4.7 2.3 2.0 0.32 4.1 3.7 4.1 2.3 0.08 4.1 3.7 4.1 2.3 0.08 7.4 4.5 #ma #ma 0.04 4.1 3.7 20 0.04 4.1 3.7 4.1 2.3 0.04 4.1 3.7 20 0.04 4.1 3.7 4.1 2.3 0.03 4.1 3.7 4.1 2.3 0.03 4.1 3.7 20 0.04 4.1 3.7 4.1 2.1 #ma 0.03 4.1 3.7 4.5 #ma #ma 0.03 #ma #ma #ma #ma 0.03 #ma #ma #ma #ma 0.04 6.0 6.0 6.3 8.7 4.4 #ma #ma 0.046 11.7 5.6 5.3 8.8 2.1 #ma 0.046	Zimbabwe	3.3	3.3	₩ua	1.9	0.22	0.20
tan than than than 20 1.9 0.17 4.1 3.9 20 2.1 0.55 shh than than than 20 2.1 0.55 shh than than than than than 20 0.45 a than than than than than 0.29 a than than than than 0.29 a than than than than 0.29 a 5.7 4.0 2.3 2.0 0.78 a 7.4 4.5 4.1 2.3 0.98 a 7.4 5.5 4.1 2.1 than 0.20 a than than than than than than 0.20 a than than than than than than 0.20 a than than than than 0.20 a than	Asia and Oceania						
sh	Afghanistan	≢ua	₩	2.0	6:	0.17	0.17
sh 8.3 4.2 2.3 2.0 0.45 #na #na #na #na 9.0 4.0 0.29 a #na #na #na #na 0.09 a #na #na #na 9.0 0.29 15.0 9.2 3.2 2.5 0.55 0.55 #na #na #na #na 0.73 0.58 a 5.7 4.0 2.2 2.5 0.58 a 5.5 17.7 4.7 #na #na a 5.5 5.1 3.1 2.5 0.78 a 5.5 5.1 4.7 4.7 #na 4.1 a 5.3 4.7 4.1 2.3 2.0 0.28 a 7.4 4.5 4.7 4.1 2.3 0.08 a 7.4 4.5 4.0 2.3 2.0 0.28 a 7.4 <	Australia	4.1	3.9	20	2.1	0.55	0.73
#ma #ma #ma #ma #ma 096 #ma #ma #ma #ma 006 #ma #ma #ma 0.29 #ma #ma #ma #ma #ma 0.38 #ma #ma #ma #ma #ma #ma 0.38 #ma 7.4 4.0 2.3 2.0 0.78 #ma 7.4 4.5 2.3 2.0 0.38 #ma 7.4 4.5 2.3 2.0 0.38 #ma 7.4 4.5 2.3 2.0 0.31 #ma #ma #ma #ma #ma 0.34 #ma #ma #ma #ma #ma 0.29 #ma 0.25 #ma 0.25 #ma 0.26 #ma 0.26 #ma 0.26 #ma 0.26 #ma 0.26 #ma 0.26 #ma #ma 0.29 #ma 0.29 #ma 0.25 #ma 0.26 #ma 0.	Bangladesh	8.3	4.2	23	2.0	0.45	0.43
a #na #na 3.9 #na 0.29 15.0 9.2 3.2 2.5 0.55 #na #na #na #na 0.73 #na #na #na #na 0.73 #na #na #na #na 0.73 ng SAR 16.5 17.7 4.7 #na #na 0.58 p. of 8.1 7.7 4.1 2.3 0.98 a 5.3 4.7 2.3 2.0 0.78 a 5.3 4.7 2.3 0.08 a 7.4 4.5 #na #na 0.48 land 4.1 3.7 4.1 2.3 0.98 a 7.4 4.5 #na #na 0.48 land 4.1 3.7 2.0 2.0 0.44 e #na #na #na #na #na 0.29 w.Guinea #na #na #na #na 0.29 e #na #na #na #na #na 0.29 e #na #na #na #na #na 0.29 covince of 6.0 6.3 3.8 2.1 #na 0.46	Bhutan	#U#	₩u	ŧu∍	ŧu∌	960	0.58
a #na #na #na #na 0.73 15.0 9.2 3.2 2.5 0.55 #na #na #na #na 0.73 ng SAR 16.5 17.7 4.7 #na #na 0.78 a 5.7 4.0 2.2 2.0 0.78 a 5.7 4.0 2.3 2.0 0.32 a 5.3 5.1 3.1 2.5 1.13 p. of 8.1 7.7 4.1 2.3 0.98 a 7.4 4.5 2.3 2.0 0.44 a 7.4 4.5 4.0 2.3 0.08 a 7.4 4.5 2.3 2.0 0.44 a 7.4 4.5 4.1 2.3 0.08 a 8.1 7.4 4.5 #na #na 0.25 a 8.1 3.7 2.0 0.31 e 8.2 4.1 2.1 #na 0.25 e 9.3 4.1 2.1 #na 0.25 e 9.3 4.1 2.1 #na 0.25 e #na #na #na #na #na 0.29 covince of 6.0 6.3 4.4 #na #na 0.46 5.5 3.8 2.1 #na #na 0.46	Brunei	gu#	≢na	3.9	₩	0.29	0.25
15.0 9.2 3.2 2.5 0.55 #na #na #na #na ma a 5.7 4.7 #na #na ma a 5.7 4.0 2.2 2.0 0.78 a 5.7 4.0 2.3 2.0 0.78 a 5.7 4.1 2.3 2.0 0.78 p. of 8.1 7.7 4.1 2.3 0.98 p. of 8.1 7.7 4.1 2.3 0.08 a 7.4 4.7 4.1 2.3 0.08 and 4.1 3.7 2.3 2.0 0.48 and 4.1 3.7 2.0 2.0 0.48 and 4.1 3.7 2.0 2.0 0.48 and 4.1 3.7 2.0 2.0 0.48 swGuinea #na #na #na #na 0.2 and #na </td <td>Cambodia</td> <td>⊭u∌</td> <td>₩u</td> <td>⊭ua</td> <td>≢ua</td> <td>0.73</td> <td>0.52</td>	Cambodia	⊭u∌	₩u	⊭ua	≢ua	0.73	0.52
#na #na #na #na 0.58 ng SAR 16.5 17.7 4.7 #na #na 0.58 8.7 8.7 2.2 2.0 0.78 8.7 4.0 23 2.0 0.32 5.5 5.1 3.1 2.5 1.13 p. of 8.1 7.7 4.1 2.3 0.98 #na #na #na #na #na 0.48 e #na #na #na #na #na 0.34 e #na #na #na #na #na 0.29 w.Guinea #na #na #na #na 0.29 e #na #na #na #na #na #na 0.29 f. 3 4.1 2.1 #na 0.34 e #na #na #na #na #na #na 0.29 f. 3 3.7 2.0 2.0 0.31 w.Guinea #na #na #na #na 0.29 f. 3 4.1 2.1 #na 0.29 f. 3 4.1 2.1 #na 0.29 f. 3 3.7 2.0 2.0 0.31 e #na #na #na 0.34 f. 3 3.7 2.0 2.0 0.31 e #na #na #na 0.34 f. 3 3.7 2.0 2.0 0.31 e #na #na 0.35 f. 3 3.8 2.1 #na 0.45	China	15.0	9.2	3.2	2.5	0.55	0.51
a 5.7 4.7 #na #na #na 8.7 8.7 2.2 2.0 0.78 8.7 2.2 2.0 0.78 6.32 2.0 0.78 4.0 2.3 2.0 0.78 6.0 2.3 2.0 0.32 6.32 6.3 2.0 0.32 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	Eji	⊭ua	#ua	≢ua	#ua	0.58	0.40
8.7 8.7 22 2.0 0.78 a 5.7 4.0 23 2.0 0.32 5.5 5.1 3.1 2.5 1.13 fina fina fina fina fina 0.18 a 7.4 4.7 2.3 2.0 0.55 a 7.4 4.5 4.1 2.3 0.98 a 7.4 4.5 4.1 4.2 0.44 b 7.3 4.5 4.0 2.0 0.44 c 7.3 4.5 4.0 2.0 0.44 e 8.1 3.7 2.0 2.0 0.44 e 9.2 4.1 2.1 fina 0.25 e 9.3 fina fina fina fina 0.25 e 9.4 4.1 2.1 fina 0.25 e 9.5 4.1 2.1 fina 0.25 e 9.6 4.1 2.1 fina 0.25 e 9.7 4.4 fina fina fina 0.25 e 9.8 fina fina fina fina fina 0.25 e 9.8 fina fina fina fina fina 0.25 e 12.7 5.6 2.3 fina 0.45 5.5 3.8 2.1 fina 0.45	Hong Kong SAR	16.5	17.7	4.7	₩	⊭ua	⊭ua
a 5.7 4.0 23 2.0 0.32 5.5 5.1 3.1 2.5 1.13 fina fina fina fina dina dina dina dina dina dina dina d	India	8.7	8.7	22	2.0	0.78	0.54
5.5 5.1 3.1 2.5 1.13 #na #na #na #na 0.18 #na #na #na 0.18 5.3 4.7 4.1 2.3 0.98 a 7.4 4.7 2.3 2.0 0.55 #na #na #na #na 0.48 w Guinea #na #na #na #na 0.20 w Guinea #na #na #na #na 0.20 e #na #na #na #na #na 0.20 e #na #na #na #na #na 0.20 for other of 6.0 6.3 4.4 #na #na 0.45 12.7 5.6 2.3 #na #na 0.45 12.7 5.6 2.3 #na #na 0.45 12.7 5.6 2.3 #na #na 0.45 5.5 3.8 2.1 #na 0.45	Indonesia	5.7	4.0	23	2.0	0.32	0.42
p. of #na #na #na #na 0.18 p. of 8.1 7.7 4.1 2.3 0.98 5.3 4.7 2.3 2.0 0.55 a 7.4 4.5 #na #na 0.58 a 7.4 4.5 #na #na 0.48 land 4.1 3.7 2.0 2.0 0.44 land 4.1 3.7 2.0 2.0 0.44 es 7.3 4.5 2.3 2.0 0.31 es #na #na #na 0.25 e #na #na #na 0.20 e #na #na #na 0.63 rowince of 6.0 6.3 4.4 #na 0.45 5.5 3.7 4.4 #na 0.45 5.5 3.8 2.1 #na 0.45	Japan	5.5	5.1	3.1	2.5	1.13	1.44
p. of 8.1 7.7 4.1 2.3 0.98 5.3 4.7 2.3 2.0 0.55 #na #na #na #na 0.55 a 7.4 4.5 #na #na 0.48 land 4.1 3.7 20 2.0 0.44 ex 7.3 4.5 2.3 2.0 0.44 ex 5.9 4.1 2.1 #na 0.26 ex #na #na 4.1 #na 0.25 ex #na #na 4.1 #na 0.25 ex #na #na 4.1 #na 0.25 ex #na #na 4.4 #na 0.63 ex #na #na 4.4 #na #na fox 6.0 6.3 4.4 #na 0.45 fox 5.5 3.8 2.1 #na 0.46	Kiribati	₩u	≢na	₩ua	≢ua	0.18	0.17
5.3 4.7 2.3 2.0 0.55 #na #na #na #na 0.48 land 4.1 3.7 20 2.0 0.44 7.3 4.5 #na #na 0.48 7.3 4.5 20 2.0 0.44 7.3 4.5 23 2.0 0.31 es #na #na #na #na 0.25 es #na #na #na 0.25 e #na #na #na 2.9 1.29 rovince of 6.0 6.3 4.4 #na #na 0.45 5.5 3.8 2.1 #na #na 0.45	Korea, Rep. of	8.1	7.7	1.4	2.3	0.98	1.20
#na #na #na #na 0.58 a 7.4 4.5 #na #na 0.48 land 4.1 3.7 2.0 2.0 0.44 7.3 4.5 2.3 2.0 0.31 w.Guinea #na #na #na 0.34 es #na #na #na 0.25 #na #na #na 0.20 rovince of 6.0 6.3 #na #na 0.45 5.5 3.8 2.1 #na #na 0.45 5.5 3.8 2.1 #na #na 0.45	Malaysia	5.3	4.7	2.3	2.0	0.55	0.58
a 7.4 4.5 #na #na 0.48 land 4.1 3.7 2.0 2.0 0.44 7.3 4.5 2.3 2.0 0.44 7.3 4.5 2.3 2.0 0.31 9.5 4.1 2.1 #na 0.34 9.5 4.1 2.1 #na 0.25 9.6 4.1 2.1 #na 0.25 9.7 4.1 2.1 #na 0.25 9.8 #na #na 2.9 2.9 1.29 12.7 5.6 2.3 #na #na 0.45 5.5 3.8 2.1 #na 0.46	Maldives	ŧna	₩	⊭na	#ua	0.58	0.52
land 4.1 3.7 20 2.0 0.44 7.3 4.5 23 2.0 0.31 8.6	Mongolia	7.4	4.5	≢ua	#ua	0.48	0.54
7.3 4.5 23 2.0 0.31 ew Guinea #na #na #na 0.34 es 5.9 4.1 2.1 #na 0.25 e #na #na #na 0.25 e #na #na #na 0.20 rovince of 6.0 6.3 4.4 #na #na 0.45 5.5 3.8 2.1 #na #na 0.46	New Zealand	1.1	3.7	20	2.0	0.44	0.55
es #na #na #na #na 0.34 es 5.9 4.1 2.1 #na 0.25 #na #na 7.9 2.9 1.29 e #na #na 2.9 2.9 1.29 rovince of 6.0 6.3 4.4 #na #na 0.45 5.5 3.8 2.1 #na 0.46	Pakistan	7.3	4.5	23	2.0	0.31	0.29
es 5.9 4.1 2.1 #na 0.25 #na #na #na 0.20 e #na #na 2.9 2.9 1.29 5.7 3.7 #na #na #na rovince of 6.0 6.3 4.4 #na #na 12.7 5.6 2.3 #na 0.45 5.5 3.8 2.1 #na 0.46	Papua New Guinea	#LB	≢na	ŧna	₩	0.34	0.26
#na #na #na #na 0.20 #na #na 2.9 2.9 1.29 5.7 3.7 #na #na #na #na 12.7 5.6 2.3 #na 0.45 5.5 3.8 2.1 #na 0.46	Philippines	5.9	4.1	2.1	₩	0.25	0.32
e #na #na 2.9 2.9 1.29 5.7 3.7 #na #na 0.63 rovince of 6.0 6.3 4.4 #na #na #na 12.7 5.6 2.3 #na 0.42 5.5 3.8 2.1 #na 0.46	Samoa	# na	≢ua	⊭ua	⊭ua	0.20	0.17
5.7 3.7 #na #na 0.63 rovince of 6.0 6.3 4.4 #na #na #na 12.7 5.6 2.3 #na 0.42 5.5 3.8 2.1 #na 0.46	Singapore	⊭ua	₩	2.9	5.9	1.29	2.18
rovince of 6.0 6.3 4.4 #n.a #n.a #n.a 12.7 5.6 2.3 #n.a 0.42 5.5 3.8 2.1 #n.a 0.46	Sri Lanka	2.7	3.7	#ua	#µa	0.63	0.42
12.7 5.6 2.3 #m.a 0.42 5.5 3.8 2.1 #m.a 0.46	Taiwan Province of	0.9	6.3	4.4	eu⊭	ŧu∌	≢u∌
12.7 5.6 2.3 #m.a 0.42 5.5 3.8 2.1 #m.a 0.46	China						
5.5 3.8 2.1 #m.a 0.46	Thailand	12.7	9.6	2.3	#Ua	0.45	0.39
	Vietnam	5.5	3.8	2.1	₩	0.46	0.43

Source: See Chapters 3 and 4.

aged acrossall plants and across only plants with control technologies (when the two are the same, either all plants have control technologies or none do). Corrective motor finel taxes are not reported when two or more components of the corrective tax cannot be estimated. Bold #na = data not available, black #na = fuel not used.



Thank you