

## 0.1 Some extra theoretical results

In this section, we run an additional exercise to confirm the importance of the additive dimension in the welfare-detrimental effects of trade costs. Under a constant fixed export costs, we simulate the model under two alternative cases. Starting from the values observed in 1974, we simulate (i) the observed reduction in the additive cost  $t/\tilde{p}^{fas}$ , maintaining the ad-valorem component at its initial (1974) value, and (ii) the opposite case where  $\tau$  takes its 2019 value with the same additive cost (in percentage of the fas price) as in 1974. These two scenarii (as well as the initial one based on 1974 values) are reported in Table 2.

Table 1: Exploring alternative scenario: Calibration

	Air transport			Maritime transport		
	1974	2019		1974	2019	
	(1)	(2)	(3)	(4)	(5)	(6)
$\tau$ (in %)	3.6	3.6	2.2	5.4	5.4	2.3
$t/\tilde{p}_x^{fas}$ (in %)	2.6	0.6	2.6	5.1	1.8	5.1
TC	6.2	4.2	4.8	10.6	7.2	7.4
$\beta$ (in %)	42.0	14.3	54.2	48	25	68.9

Notes:  $t$  is calibrated so that the ratio  $t/\tilde{p}_x^{fas}$  from the model matches its empirical target, with  $\tilde{p}_x^{fas}$  the average fas price set in place by those domestic firms that export. We theoretically define the export fas price through:  $p_x = \tau\tilde{p}_x^{fas} + t$ . TC = Transport Costs, expressed in percentage of the average fas export price.  $\beta$  is the share of additive in total transport costs

The quantitative results strongly confirm the welfare-detrimental effects of additive costs, and the larger welfare gains when this specific component of international trade costs reduces.

Table 2: Exploring alternative scenario: Results

	Air transport		Maritime transport	
TC(0)	0,062	0,062	0,105	0,105
TC(1)	0,042	0,048	0,072	0,074
$\Delta TotalTC$ (pp)	-0,02	-0,014	-0,033	-0,031
$\Delta\tau$ (pp)	0	-0,014	0	-0,031
$\Delta t/pfas$ (pp)	-0,020	0,000	-0,033	0
$\Delta\beta$ (in pp)	-27,747	12,140	-23,534	20,358
Delta Welfare (abs)	0,042	0,007	0,060	0,011
Rel. Delta welf (in %)	2,589	0,411	3,801	0,695
Variety effect (in %)	-2,487	-0,213	-2,879	-0,171
Price effect (in %)	5,275	0,625	6,973	0,867

Notes: TC = Transport Costs, expressed in percentage of the average fas export price.  $\beta$  is the share of additive in total transport costs