

NOT FOR PUBLICATION

APPENDICES FOR THE PAPER:

**“Financial Development and the Sources of Growth and
Convergence”**

Appendix A Methodological Appendix

Appendix A.1 Comparison of Unknown Densities

We employ the nonparametric statistic test developed by Li (1996) which tests the null hypothesis $H_0 : f(x) = g(x)$ for all x , against the alternative $H_1 : f(x) \neq g(x)$ for some x .¹ This test, which works with either independent or dependent data, is often used for example when testing whether income distributions across two regions, groups or times are the same. The test statistic used to test for the difference between two unknown distributions (which goes asymptotically to the standard normal, as shown by Fan and Ullah (1999)), predicated on the integrated square error metric on a space of density functions, $M(f, g) = \int_x (f(x) - g(x))^2 dx$, is

$$J = \frac{Nb^{\frac{1}{2}}M}{\hat{\sigma}} \sim \text{Normal}(0, 1), \quad (1)$$

where

$$M = \frac{1}{N^2b} \sum_{i=1}^N \sum_{\substack{j=1 \\ j \neq i}}^N \left[K\left(\frac{x_i - x_j}{b}\right) + K\left(\frac{z_i - z_j}{b}\right) - K\left(\frac{z_i - x_j}{b}\right) - K\left(\frac{x_i - z_j}{b}\right) \right],$$

$$\hat{\sigma}^2 = \frac{1}{N^2b\pi^{\frac{1}{2}}} \sum_{i=1}^N \sum_{j=1}^N \left[K\left(\frac{x_i - x_j}{b}\right) + K\left(\frac{z_i - z_j}{b}\right) + 2K\left(\frac{x_i - z_j}{b}\right) \right],$$

K is the standard normal kernel and b is the optimally chosen bandwidth.²

¹The explanation that follows assumes that $\{x\}$ and $\{z\}$ are two equally sized samples of size N , taken from f and g respectively. The extension to unequal sample sizes is trivial.

²For further details see Fan and Ullah (1999), Li (1996), and Pagan and Ullah (1999).

Appendix A.2 Data Envelopment Analysis in practice

Suppose for clarity that we observe 6 countries with the following values of Y , L , and K :

Country	Y	L	K
A	5	1	2
B	4	1	4
C	12	1.5	9
D	7.5	1.5	10.5
E	14	2	18
F	24	3	42

We know that in the CRS case, we can show the input-output relationship in a two-dimensional plot with K/L and Y/L axes:

Country	Y	L	K	$y = Y/L$	$k = K/L$
A	5	1	2	5	2
B	4	1	4	4	4
C	12	1.5	9	8	6
D	7.5	1.5	10.5	5	7
E	14	2	18	7	9
F	24	3	42	8	14

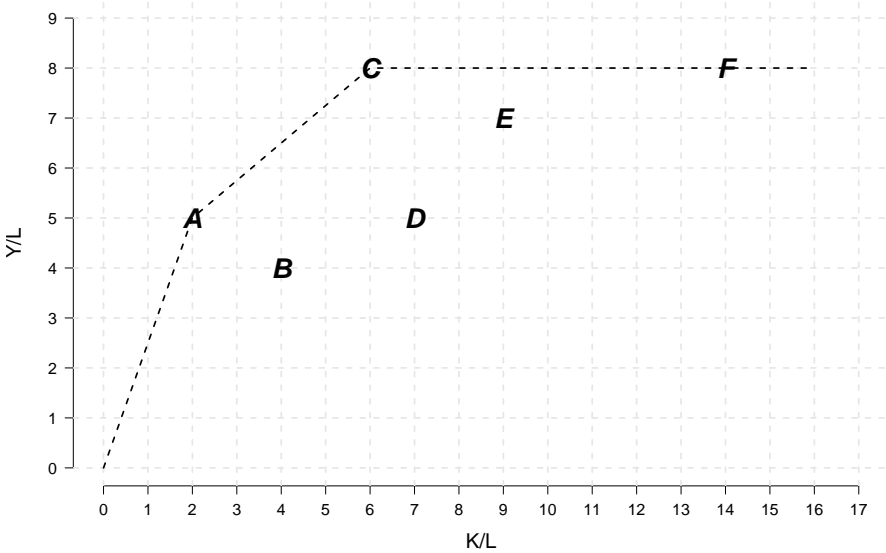


Figure A.1: Hypothetical observations A–F and a production frontier (dotted kinked line)

The DEA efficiency score is the solution to a linear programming (LP) problem solved for each observation j :

$$\begin{aligned} & \max F^j \\ & \text{subject to the following constraints} \\ & \sum_{i=1}^6 z_i Y_i \geq F Y_j \\ & \sum_{i=1}^6 z_i K_i \leq K_j \\ & \sum_{i=1}^6 z_i L_i \leq L_j \\ & z_i \geq 0 \end{aligned}$$

Hence for country A the LP problem is

$$\begin{aligned} & \max F^A \\ & \text{subject to the following constraints} \\ & z_1 5 + z_2 4 + z_3 12 + z_4 7.5 + z_5 14 + z_6 24 \geq F^A 5 \\ & z_1 2 + z_2 4 + z_3 9 + z_4 10.5 + z_5 18 + z_6 42 \leq 2 \\ & z_1 1 + z_2 1 + z_3 1.5 + z_4 1.5 + z_5 2 + z_6 3 \leq 1 \\ & z_i \geq 0 \end{aligned}$$

Analogously, for country B the LP problem is

$$\begin{aligned} & \max F^B \\ & \text{subject to the following constraints} \\ & z_1 5 + z_2 4 + z_3 12 + z_4 7.5 + z_5 14 + z_6 24 \geq F^B 4 \\ & z_1 2 + z_2 4 + z_3 9 + z_4 10.5 + z_5 18 + z_6 42 \leq 4 \\ & z_1 1 + z_2 1 + z_3 1.5 + z_4 1.5 + z_5 2 + z_6 3 \leq 1 \\ & z_i \geq 0 \end{aligned}$$

We notice that the left hand side (LHS) of the constraints remains the same for all countries. This LHS determines the technology. What changes from country to country are the values of Y , K , and L for the particular country that appears on the right hand side (RHS) of the constraints, which are benchmarked against the technology that is defined by the LHS of the constraints.

The calculated efficiencies are then given in the last column of the table

Country	Y	L	K	$y = Y/L$	$k = K/L$	TE
A	5	1	2	5	2	1.000
B	4	1	4	4	4	0.615
C	12	1.5	9	8	6	1.000
D	7.5	1.5	10.5	5	7	0.625
E	14	2	18	7	9	0.875
F	24	3	42	8	14	1.000

Clearly, countries A, C, and F are on the frontier as their efficiencies are equal to 1. It is also seen in Figure 1.

Now suppose that the country G appears in the sample with values 8.75, 3.75, and 1.25 for Y , K , and L , respectively.

Country	Y	L	K	$y = Y/L$	$k = K/L$
A	5	1	2	5	2
B	4	1	4	4	4
C	12	1.5	9	8	6
D	7.5	1.5	10.5	5	7
E	14	2	18	7	9
F	24	3	42	8	14
G	8.75	1.25	3.75	7	3

The figure tells us that the technology has changed, thus if we write the LP program for country A now

$$\begin{aligned} & \max F^A \\ & \text{subject to the following constraints} \\ & z_1 5 + z_2 4 + z_3 12 + z_4 7.5 + z_5 14 + z_6 24 + z_7 8.75 \geq F^A 5 \\ & z_1 2 + z_2 4 + z_3 9 + z_4 10.5 + z_5 18 + z_6 42 + z_7 3.75 \leq 2 \\ & z_1 1 + z_2 1 + z_3 1.5 + z_4 1.5 + z_5 2 + z_6 3 + z_7 1.25 \leq 1 \\ & z_i \geq 0 \end{aligned}$$

It is intuitive that country A (the RHS of the new constraints) is now benchmarked against new technology determined by the LHS of the new constraints that now contain country G (addition of the terms with z_7).

The calculated efficiencies are then given in the last column of the table

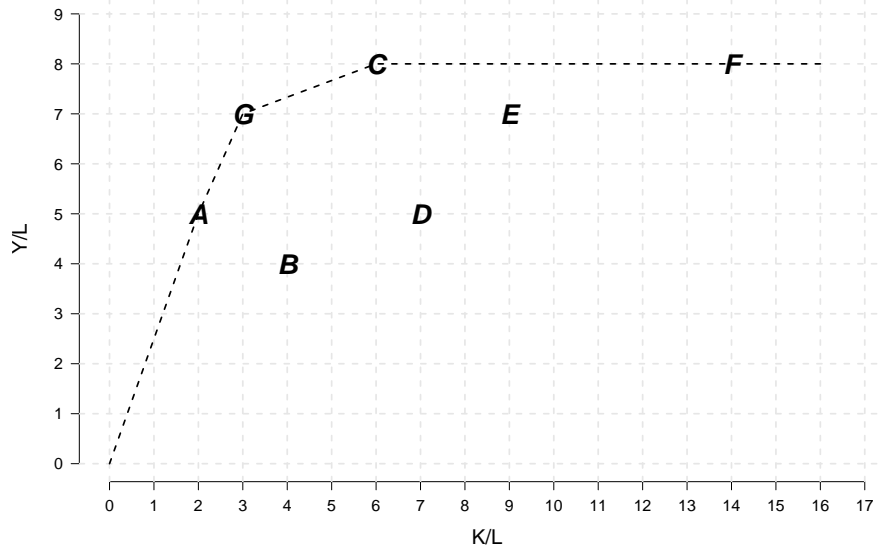


Figure A.2: Hypothetical observations A–G and a production frontier (dotted kinked line)

Country	Y	L	K	$y = Y/L$	$k = K/L$	TE
A	5	1	2	5	2	1.000
B	4	1	4	4	4	0.545
C	12	1.5	9	8	6	1.000
D	7.5	1.5	10.5	5	7	0.625
E	14	2	18	7	9	0.875
F	24	3	42	8	14	1.000
G	8.75	1.25	3.75	7	3	1.000

Here we observe that now countries A, C, F, and G are determining the frontier as their efficiency levels are equal to 1 (see also Figure 2). We also note that the relative position (to the new frontier) of countries D and E did not change, so their efficiency levels remain unchanged. Country B, however, is now further away from the [new] frontier, that is why its efficiency falls from 0.615 to 0.545.

Appendix B Human capital data

Table A.1: Human capital augmentation factors

#	Country	1965	2005	#	Country	1965	2005
1	Argentina	2.078	2.764	30	Japan	2.515	3.196
2	Australia	2.856	3.331	31	Kenya	1.257	2.338
3	Austria	1.950	2.801	32	Malaysia	1.561	2.869
4	Belgium	2.357	3.029	33	Mauritius	1.752	2.391
5	Bolivia	1.621	2.808	34	Mexico	1.529	2.629
6	Burundi	1.112	1.467	35	Morocco	1.097	1.781
7	Canada	2.678	3.188	36	Nepal	1.037	1.572
8	Chile	2.019	2.875	37	Netherlands	2.392	3.099
9	Colombia	1.583	2.326	38	New Zealand	3.061	3.462
10	Costa Rica	1.730	2.569	39	Norway	2.562	3.439
11	Cote d'Ivoire	1.150	1.614	40	Panama	1.862	2.795
12	Cyprus	1.986	2.792	41	Paraguay	1.641	2.459
13	Denmark	2.599	2.908	42	Peru	1.698	2.681
14	Dominican Rep.	1.565	2.317	43	Philippines	1.842	2.671
15	Ecuador	1.680	2.470	44	Portugal	1.594	2.458
16	Egypt	1.149	2.221	45	Sierra Leone	1.094	1.509
17	El Salvador	1.372	2.394	46	Singapore	1.765	2.643
18	Finland	2.148	2.889	47	South Africa	1.797	2.605
19	France	1.825	2.910	48	Spain	1.629	2.878
20	Ghana	1.349	2.434	49	Sri Lanka	1.903	2.611
21	Greece	2.183	2.911	50	Sweden	2.467	3.249
22	Guatemala	1.230	1.707	51	Switzerland	2.583	2.864
23	Honduras	1.331	2.275	52	Syria	1.258	1.856
24	Iceland	2.212	2.955	53	Thailand	1.660	2.274
25	India	1.188	1.831	54	Trinidad and To- bago	2.089	2.797
26	Ireland	2.626	3.193	55	United Kingdom	2.274	2.780
27	Israel	2.556	3.199	56	United States	2.936	3.380
28	Italy	1.936	2.768	57	Uruguay	1.926	2.558
29	Jamaica	1.787	2.858				

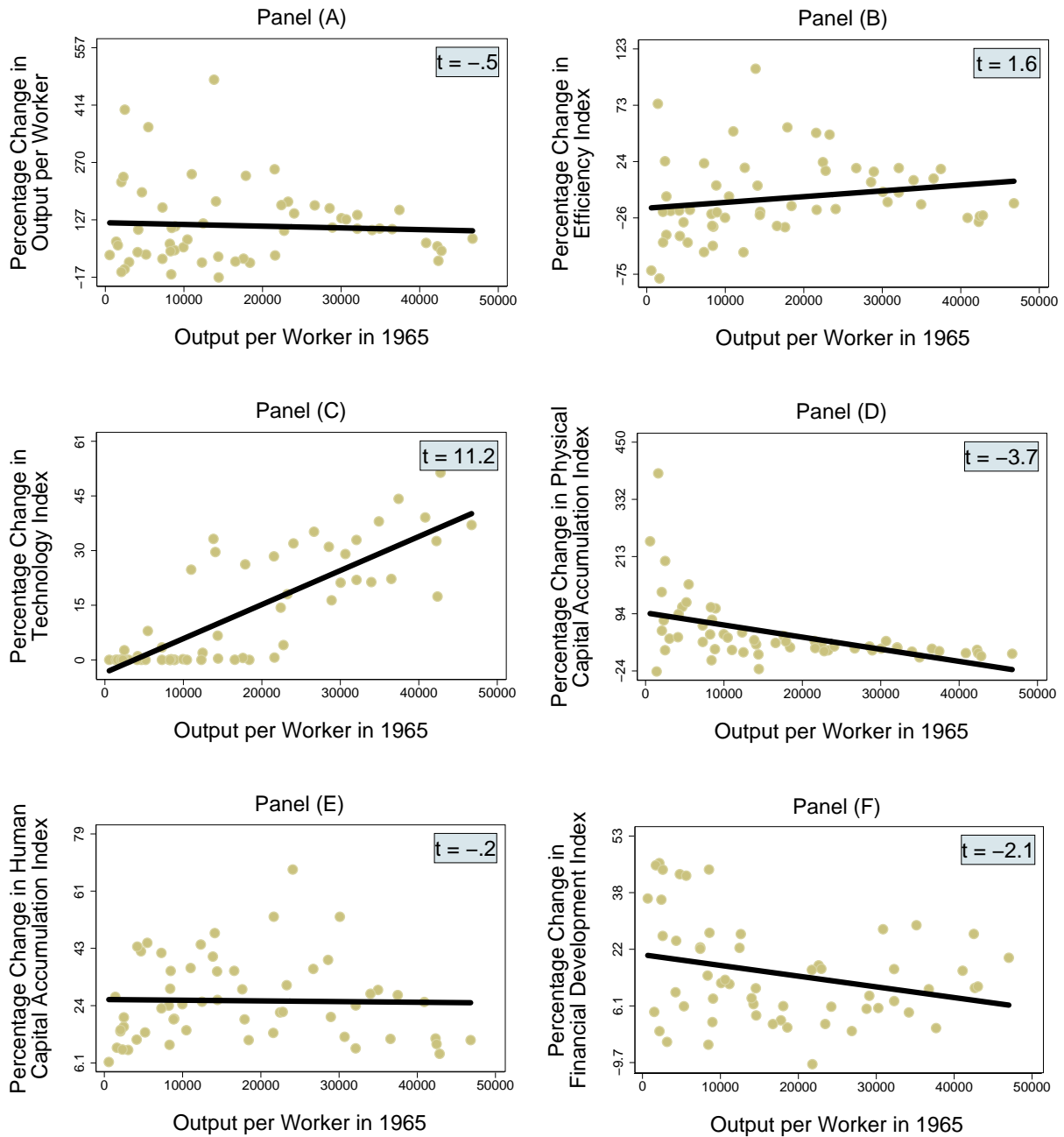


Figure: Percentage change (from 1965 to 2005) in output per worker and five decomposition indices, plotted against output per worker in 1965.

Notes: Each panel contains a GLS regression line; the topright number in each panel is a t -statistic of a respective GLS regression based on “heteroskedasticity-consistent” estimators for the variance (??).

Appendix C Robustness checks: quinquartite decomposition

Appendix C.1 Private Credit by Deposit Money Banks and other Financial Institutions /GDP (CREDIT1, cut-off 25/75%, Overhead Costs)

Table A.2: Linking financial efficiency and financial development^a

	Net interest margin			Overhead costs		
	(1)	(2)	(3)	(1)	(2)	(3)
Low Region ^b	1.8610	1.2383	1.0562	0.2690	-0.4603	0.2890
	0.1616	0.3841	0.4748	0.8529	0.7680	0.8532
Middle Region ^c	2.0127	1.9855	1.8429	1.4080	1.3885	1.9752
	<0.0001	0.0003	0.0031	0.0048	0.0178	0.0028
High Region ^d	1.1712	1.2336	1.1401	0.8549	0.8960	1.2806
	<0.0001	0.0001	0.0017	0.0012	0.0066	0.0010
GB70		0.2994	0.2968		0.2141	0.2247
		0.2101	0.2180		0.4135	0.3766
ly65			0.0431			-0.1774
			0.6146			0.0551
Constant	2.4841	2.3537	2.0475	2.8287	2.7388	3.9988
	<0.0001	<0.0001	0.0036	<0.0001	<0.0001	<0.0001
R-squared	0.450	0.412	0.416	0.325	0.325	0.378
N	57	51	51	57	51	51
Joint significance ^e	<0.0001	0.0001	0.0028	0.0001	0.0021	0.0004

^a The dependent variable is the log of the inverse of the financial efficiency measure. The coefficients on the financial development regimes (regions) represent the sum of coefficients and the respective numbers below the coefficients are p-values for the sum of coefficients

^b Financial development falls into the low region if its value is lower than the 25th percentile of the financial development distribution

^c Financial development falls into the middle region if its value is between the 25th and 75th percentiles (inclusive) of the financial development distribution

^d Financial development falls into the high region if its value is greater than the 75th percentile of the financial development distribution

^e p-value of the F-statistic on the three coefficients on financial development in the main regression.

Table A.3: Financial efficiency augmentation factors

#	Country	1965	2005	#	Country	1965	2005
1	Argentina	1.030	1.030	30	Japan	2.671	3.526
2	Australia	1.057	3.668	31	Kenya	1.041	1.627
3	Austria	2.124	3.956	32	Malaysia	1.034	3.884
4	Belgium	1.036	2.511	33	Mauritius	1.063	2.526
5	Bolivia	1.015	2.278	34	Mexico	1.639	1.045
6	Burundi	1.007	1.576	35	Morocco	1.037	2.692
7	Canada	1.060	8.851	36	Nepal	1.004	1.867
8	Chile	1.028	2.574	37	Netherlands	2.513	7.898
9	Colombia	1.053	1.729	38	New Zealand	1.623	4.875
10	Costa Rica	1.741	1.863	39	Norway	3.375	3.535
11	Cote d'Ivoire	1.054	1.038	40	Panama	1.042	2.612
12	Cyprus	2.128	7.486	41	Paraguay	1.023	1.049
13	Denmark	1.742	7.932	42	Peru	1.033	1.054
14	Dominican Rep.	1.021	1.055	43	Philippines	1.573	1.823
15	Ecuador	1.049	1.061	44	Portugal	2.815	6.032
16	Egypt	1.044	2.681	45	Sierra Leone	1.018	1.012
17	El Salvador	1.057	2.288	46	Singapore	2.041	3.898
18	Finland	2.091	2.463	47	South Africa	2.358	5.308
19	France	1.625	3.156	48	Spain	2.542	5.289
20	Ghana	1.020	1.040	49	Sri Lanka	1.027	1.782
21	Greece	1.038	2.498	50	Sweden	2.428	3.780
22	Guatemala	1.036	1.690	51	Switzerland	3.719	7.718
23	Honduras	1.035	2.081	52	Syria	1.054	1.035
24	Iceland	1.800	12.521	53	Thailand	1.040	3.189
25	India	1.027	2.051	54	Trinidad and To- bago	1.030	1.943
26	Ireland	1.897	6.171	55	United Kingdom	1.060	6.978
27	Israel	1.055	2.985	56	United States	2.936	11.165
28	Italy	3.132	3.006	57	Uruguay	1.045	1.588
29	Jamaica	1.050	1.058				

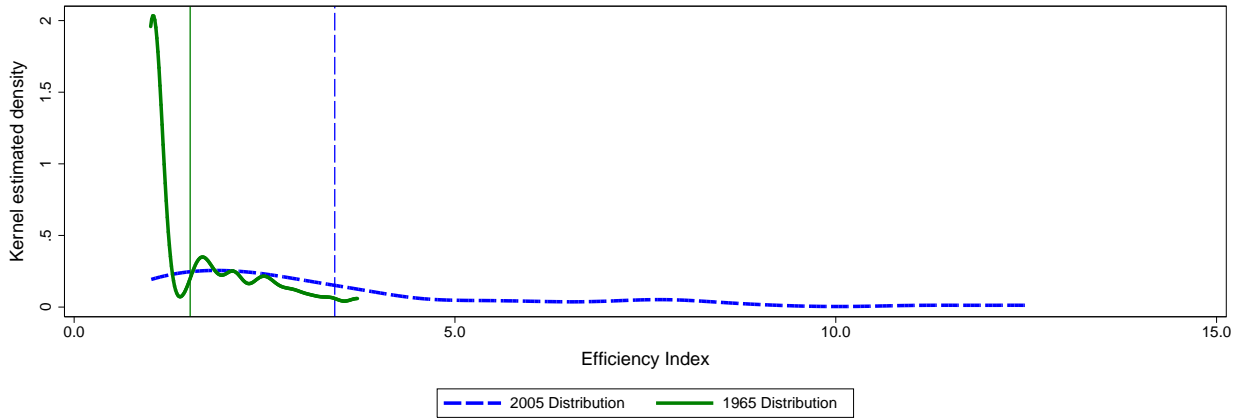


Figure A.3: Distributions of financial development index, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of financial development index. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

Table A.4: Efficiency indices

#	Country	Without Financial Development		With Financial Development	
		1965	2005	1965	2005
1	Argentina	0.65	0.55	0.66	0.56
2	Australia	0.79	0.86	0.81	0.87
3	Austria	0.89	0.94	0.88	0.92
4	Belgium	0.80	0.90	0.85	1.00
5	Bolivia	0.63	0.43	0.64	0.30
6	Burundi	0.85	0.28	0.85	0.22
7	Canada	0.99	0.85	1.00	0.71
8	Chile	0.44	0.61	0.44	0.53
9	Colombia	0.54	0.51	0.54	0.39
10	Costa Rica	1.00	0.60	0.74	0.54
11	Cote d'Ivoire	0.76	0.58	0.75	0.58
12	Cyprus	0.38	0.68	0.34	0.50
13	Denmark	0.86	0.85	0.77	0.75
14	Dominican Rep.	0.75	0.62	0.76	0.62
15	Ecuador	0.38	0.40	0.38	0.40
16	Egypt	0.59	0.64	0.59	0.39
17	El Salvador	0.97	0.60	0.97	0.39
18	Finland	0.66	0.84	0.65	0.95
19	France	0.99	0.91	1.00	0.96
20	Ghana	0.12	0.21	0.12	0.21
21	Greece	0.71	0.79	0.72	0.90
22	Guatemala	0.74	0.64	0.75	0.57
23	Honduras	0.65	0.39	0.65	0.27
24	Iceland	0.92	0.89	0.93	0.80
25	India	0.39	0.42	0.40	0.29
26	Ireland	0.71	0.94	0.52	0.83
27	Israel	0.69	0.74	0.71	0.80
28	Italy	0.81	0.90	0.81	0.95
29	Jamaica	0.66	0.44	0.66	0.45
30	Japan	0.65	0.68	0.44	0.69
31	Kenya	0.45	0.34	0.46	0.24
32	Malaysia	0.52	0.51	0.52	0.42
33	Mauritius	0.36	0.45	0.36	0.42
34	Mexico	0.90	0.67	0.87	0.71
35	Morocco	0.47	0.35	0.48	0.28
36	Nepal	1.00	0.24	1.00	0.19

(continued on next page)

Table A.4 (Continued)

#	Country	Without Financial Development		With Financial Development	
		1965	2005	1965	2005
37	Netherlands	1.00	0.87	1.00	0.74
38	New Zealand	0.89	0.75	0.86	0.63
39	Norway	0.86	0.99	0.86	1.00
40	Panama	0.58	0.54	0.58	0.38
41	Paraguay	0.62	0.35	0.64	0.35
42	Peru	0.50	0.42	0.53	0.42
43	Philippines	0.40	0.32	0.31	0.24
44	Portugal	0.68	0.61	0.54	0.55
45	Sierra Leone	1.00	0.50	1.00	0.51
46	Singapore	0.56	1.00	0.48	1.00
47	South Africa	0.65	0.53	0.50	0.37
48	Spain	0.92	0.78	0.88	0.71
49	Sri Lanka	0.22	0.35	0.22	0.26
50	Sweden	0.84	0.87	0.82	0.87
51	Switzerland	0.97	0.79	0.97	0.74
52	Syria	1.00	0.64	1.00	0.65
53	Thailand	0.32	0.37	0.33	0.30
54	Trinidad and To- bago	0.72	0.80	0.74	0.88
55	United Kingdom	1.00	1.00	1.00	0.86
56	United States	1.00	0.95	0.94	0.82
57	Uruguay	0.53	0.58	0.54	0.46
	Average	0.70	0.64	0.68	0.58

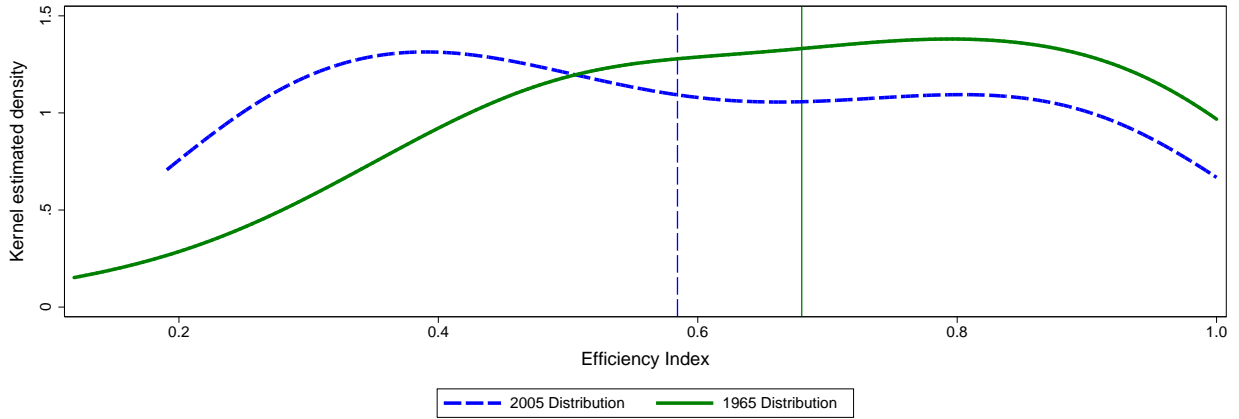


Figure A.4: Distributions of efficiency index, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of efficiency index. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

Table A.5: Percentage change of quinquepartite decomposition indices, 1965–2005

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
1	Argentina	19.2	-14.3	0.0	21.4	14.5	0.0
		19.2	-14.7	0.0	22.3	14.2	
2	Australia	103.2	7.3	23.0	19.8	14.0	12.7
		103.2	8.9	25.2	33.1	11.9	
3	Austria	155.3	5.2	32.4	24.1	39.3	6.0
		155.3	5.1	29.9	43.4	30.4	
4	Belgium	138.6	17.5	22.3	22.8	26.2	7.0
		138.6	12.0	33.5	32.9	20.1	
5	Bolivia	-9.7	-53.0	0.0	-2.6	30.0	51.7
		-9.7	-30.9	0.0	-3.4	35.4	
6	Burundi	38.4	-74.0	0.0	253.2	5.4	43.1
		38.4	-67.3	0.0	297.1	6.7	
7	Canada	60.4	-29.5	32.9	15.4	13.9	30.2
		60.4	-14.4	21.5	35.9	13.5	
8	Chile	117.3	19.8	3.1	11.7	26.1	24.9
		117.3	40.9	0.0	27.2	21.3	
9	Colombia	66.5	-28.9	0.0	50.4	29.5	20.3
		66.5	-6.0	0.0	49.3	18.7	
10	Costa Rica	29.5	-27.4	1.1	33.0	29.5	2.3
		29.5	-39.8	0.0	72.2	24.8	
11	Cote d'Ivoire	20.8	-22.6	0.0	44.4	9.3	-1.2
		20.8	-23.6	0.0	45.0	8.9	
12	Cyprus	240.5	46.2	27.7	17.0	37.5	13.4
		240.5	77.6	7.6	40.3	27.0	
13	Denmark	104.1	-2.9	33.9	19.7	11.1	18.0
		104.1	-1.1	24.3	52.7	8.7	
14	Dominican Rep.	110.1	-18.9	0.0	107.6	22.7	1.7
		110.1	-18.0	0.0	108.9	22.6	
15	Ecuador	50.5	3.9	0.0	20.0	20.3	0.4
		50.5	4.7	0.0	20.9	18.9	
16	Egypt	195.2	-34.7	0.2	108.6	47.2	46.9
		195.2	7.6	0.0	122.1	23.5	
17	El Salvador	19.7	-60.0	0.1	53.8	50.3	29.5
		19.7	-38.7	0.0	50.9	29.4	
18	Finland	171.7	45.9	19.5	17.3	31.1	1.3
		171.7	26.1	26.0	37.7	24.2	
19	France	130.6	-4.1	22.8	20.6	54.4	5.1
		130.6	-8.0	27.6	39.6	40.8	

(continued on next page)

Table A.5 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
20	Ghana	71.9	78.7	0.0	-25.8	28.7	0.7
		71.9	80.6	0.0	-25.9	28.5	
21	Greece	163.3	24.7	15.1	27.9	22.8	16.9
		163.3	11.5	22.7	57.0	22.5	
22	Guatemala	58.0	-24.7	0.7	42.1	24.9	17.4
		58.0	-13.8	0.0	54.9	18.3	
23	Honduras	28.9	-59.1	0.0	69.9	48.2	25.1
		28.9	-39.1	0.0	63.4	29.5	
24	Iceland	104.5	-14.3	39.0	2.0	29.7	29.7
		104.5	-3.6	40.2	23.4	22.6	
25	India	220.8	-27.1	0.0	137.5	16.8	58.6
		220.8	8.3	0.0	154.3	16.4	
26	Ireland	252.7	60.0	29.6	29.5	16.4	12.9
		252.7	32.1	22.0	91.0	14.6	
27	Israel	107.1	12.7	17.3	16.9	21.3	10.6
		107.1	7.1	24.7	31.7	17.8	
28	Italy	162.5	17.9	36.3	20.4	36.4	-0.5
		162.5	11.7	34.8	34.5	29.7	
29	Jamaica	22.3	-32.3	0.0	31.8	36.6	0.3
		22.3	-33.1	0.4	35.8	34.1	
30	Japan	236.5	55.7	27.3	33.3	25.4	1.6
		236.5	5.2	26.9	112.6	18.5	
31	Kenya	3.3	-46.8	0.0	19.6	19.1	36.3
		3.3	-25.4	0.0	18.7	16.8	
32	Malaysia	357.9	-19.6	10.0	136.7	44.3	51.6
		357.9	-2.5	2.2	224.1	41.8	
33	Mauritius	157.3	18.3	4.5	28.2	23.7	31.3
		157.3	26.6	2.3	62.9	22.1	
34	Mexico	37.5	-18.7	1.3	21.2	59.1	-13.4
		37.5	-25.2	1.6	26.3	43.3	
35	Morocco	101.8	-41.7	1.8	81.9	44.4	29.4
		101.8	-25.7	0.0	104.7	32.7	
36	Nepal	62.9	-80.9	0.0	415.1	9.7	51.2
		62.9	-75.6	0.0	491.0	12.9	
37	Netherlands	68.8	-26.2	40.6	10.2	25.7	17.4
		68.8	-12.8	28.1	25.2	20.7	
38	New Zealand	24.1	-26.3	19.9	11.3	12.2	12.4
		24.1	-15.1	8.8	22.8	9.4	
39	Norway	151.1	16.9	45.0	14.6	28.3	0.7

(continued on next page)

Table A.5 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
40	Panama	151.1	16.0	43.8	22.6	22.8	33.0
		106.2	-34.5	0.9	72.1	36.3	
41	Paraguay	106.2	-5.8	0.0	79.0	22.3	1.6
		39.8	-45.2	0.0	118.9	14.7	
42	Peru	39.8	-44.2	0.0	119.2	14.4	0.9
		-17.5	-21.4	0.6	-19.2	28.1	
43	Philippines	-17.5	-17.3	4.1	-20.9	21.2	11.3
		45.7	-22.2	0.0	44.5	16.4	
44	Portugal	45.7	-21.7	0.0	62.0	14.9	6.2
		172.5	1.5	31.7	28.2	49.7	
45	Sierra Leone	172.5	-10.4	22.3	84.6	34.8	-0.3
		-3.7	-49.4	0.0	65.9	15.2	
46	Singapore	-3.7	-50.1	0.0	68.7	14.5	4.6
		476.4	106.3	34.3	36.4	45.8	
47	South Africa	476.4	77.1	32.9	85.5	32.0	7.4
		34.4	-26.2	9.8	9.4	41.0	
48	Spain	34.4	-18.4	0.0	37.7	19.6	6.9
		142.4	-18.9	33.9	24.1	68.3	
49	Sri Lanka	142.4	-15.2	24.5	53.2	49.9	48.3
		233.5	16.3	0.0	76.7	9.5	
50	Sweden	233.5	58.8	0.0	89.4	10.9	4.7
		100.8	5.5	23.9	14.5	28.3	
51	Switzerland	100.8	2.6	21.2	32.1	22.3	11.2
		49.0	-23.9	53.6	4.8	9.4	
52	Syria	49.0	-18.5	43.7	18.4	7.4	-1.4
		48.1	-35.3	0.0	108.9	11.1	
53	Thailand	48.1	-36.2	0.0	109.4	10.8	51.0
		401.5	-8.1	3.9	188.7	20.4	
54	Trinidad and To- bago	401.5	15.3	0.0	281.3	14.1	15.1
		99.2	18.4	4.7	13.4	23.1	
55	United Kingdom	99.2	11.1	8.8	33.5	23.4	31.9
		127.5	-13.6	30.4	33.8	14.4	
56	United States	127.5	0.0	21.2	64.1	14.4	20.6
		79.4	-12.8	38.9	8.3	13.4	
57	Uruguay	79.4	-5.2	23.8	38.0	10.7	17.9
		77.2	-13.6	0.0	43.5	21.2	
		77.2	7.9	0.0	44.9	13.3	

(continued on next page)

Table A.5 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
	Average	111.7	-9.4	13.6	50.1	27.2	17.1
		111.7	-3.9	11.5	70.9	21.5	

Table A.6: Mean percentage changes of quinquepartite decomposition indices (country groupings)

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC
OECD*	0.82	0.82	124.4	3.0	29.7	19.3	28.6	10.9
Asian Tigers**	0.44	0.60	368.1	33.6	18.9	98.8	34.0	27.2
Latin America	0.64	0.47	51.1	-24.4	0.7	41.7	28.5	15.1
Africa	0.57	0.36	68.8	-22.0	1.8	65.0	26.0	21.5
Non-OECD	0.59	0.44	103.7	-17.2	3.4	69.5	26.4	21.0
ALL	0.68	0.58	111.7	-9.4	13.6	50.1	27.2	17.1

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

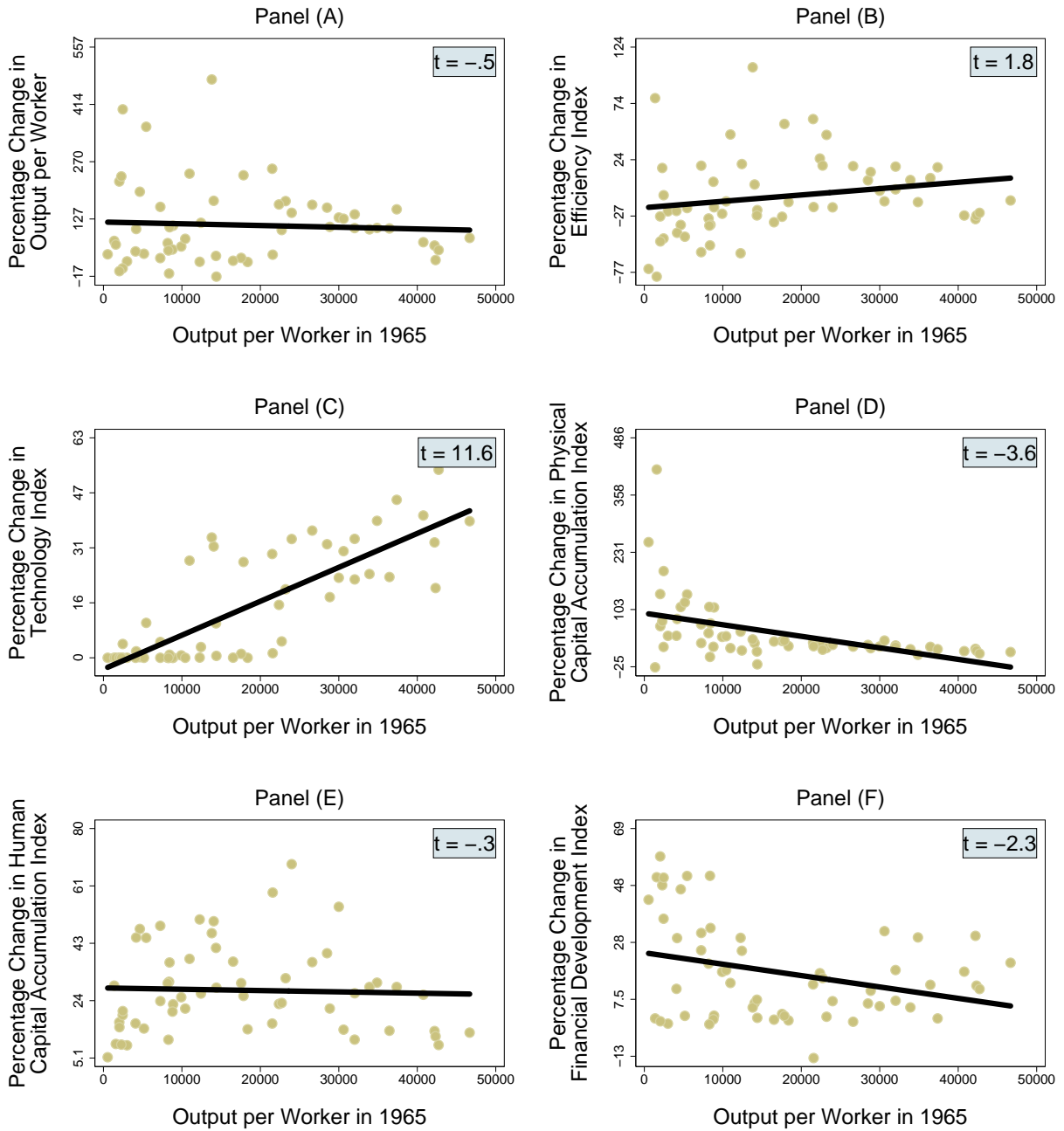


Figure A.6: Percentage change (from 1965 to 2005) in output per worker and five decomposition indices, plotted against output per worker in 1965.

Notes: Each panel contains a GLS regression line; the topright number in each panel is a t -statistic of a respective GLS regression based on “heteroskedasticity-consistent” estimators for the variance (Huber (1981); White (1980)).

Table A.7: Modality tests (*p-values*)

	H_0 : Distribution has one mode H_A : Distribution has more than one mode	Bootstrap <i>p-value</i>
1	$f(y_{2005})$	0.0000
2	$f(y_{1965})$	0.7407
3	$f(y_{1965} \times EFF)$	0.0000
4	$f(y_{1965} \times TECH)$	0.3684
5	$f(y_{1965} \times KACC)$	0.4164
6	$f(y_{1965} \times HACC)$	0.0841
7	$f(y_{1965} \times FKACC)$	0.9369
8	$f(y_{1965} \times EFF \times TECH)$	0.0000
9	$f(y_{1965} \times EFF \times KACC)$	0.0000
10	$f(y_{1965} \times EFF \times HACC)$	0.0000
11	$f(y_{1965} \times EFF \times FKACC)$	0.0000
12	$f(y_{1965} \times TECH \times KACC)$	0.1602
13	$f(y_{1965} \times TECH \times HACC)$	0.1101
14	$f(y_{1965} \times TECH \times FKACC)$	0.7257
15	$f(y_{1965} \times KACC \times HACC)$	0.0410
16	$f(y_{1965} \times KACC \times FKACC)$	0.9800
17	$f(y_{1965} \times HACC \times FKACC)$	0.1341
18	$f(y_{1965} \times EFF \times TECH \times KACC)$	0.0000
19	$f(y_{1965} \times EFF \times TECH \times HACC)$	0.0010
20	$f(y_{1965} \times EFF \times TECH \times FKACC)$	0.0000
21	$f(y_{1965} \times EFF \times KACC \times HACC)$	0.0010
22	$f(y_{1965} \times EFF \times KACC \times FKACC)$	0.0000
23	$f(y_{1965} \times EFF \times HACC \times FKACC)$	0.0000
24	$f(y_{1965} \times TECH \times KACC \times HACC)$	0.0290
25	$f(y_{1965} \times TECH \times KACC \times FKACC)$	0.6657
26	$f(y_{1965} \times TECH \times HACC \times FKACC)$	0.1321
27	$f(y_{1965} \times KACC \times HACC \times FKACC)$	0.0791
28	$f(y_{1965} \times EFF \times TECH \times KACC \times HACC)$	0.0000
29	$f(y_{1965} \times EFF \times TECH \times KACC \times FKACC)$	0.0000
30	$f(y_{1965} \times EFF \times TECH \times HACC \times FKACC)$	0.0000
31	$f(y_{1965} \times EFF \times KACC \times HACC \times FKACC)$	0.0000
32	$f(y_{1965} \times TECH \times KACC \times HACC \times FKACC)$	0.0470

Notes: We used the bootstrapped calibrated Silverman test for multi-modality due to [Hall and York \(2001\)](#) with 1000 bootstrap replications.

Table A.8: Distribution hypothesis tests (*p-values*)

	H_0 : Distributions are equal H_1 : Distributions are not equal	Bootstrap <i>p-value</i>
1	$g(y_{2005})$ vs. $f(y_{1965})$	0.0012
2	$g(y_{2005})$ vs. $f(y_{1965} \times EFF)$	0.0000
3	$g(y_{2005})$ vs. $f(y_{1965} \times TECH)$	0.0052
4	$g(y_{2005})$ vs. $f(y_{1965} \times KACC)$	0.0004
5	$g(y_{2005})$ vs. $f(y_{1965} \times HACC)$	0.0008
6	$g(y_{2005})$ vs. $f(y_{1965} \times FKACC)$	0.0022
7	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH)$	0.0002
8	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC)$	0.0002
9	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times HACC)$	0.0000
10	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times FKACC)$	0.0000
11	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC)$	0.0284
12	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times HACC)$	0.0528
13	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times FKACC)$	0.0340
14	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times HACC)$	0.0006
15	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times FKACC)$	0.0022
16	$g(y_{2005})$ vs. $f(y_{1965} \times HACC \times FKACC)$	0.0044
17	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC)$	0.0006
18	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times HACC)$	0.0008
19	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times FKACC)$	0.0002
20	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times HACC)$	0.0008
21	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times FKACC)$	0.0004
22	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times HACC \times FKACC)$	0.0002
23	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times HACC)$	0.6106
24	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times FKACC)$	0.0460
25	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times HACC \times FKACC)$	0.0702
26	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times HACC \times FKACC)$	0.0040
27	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC \times HACC)$	0.2522
28	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC \times FKACC)$	0.0224
29	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times HACC \times FKACC)$	0.0146
30	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times HACC \times FKACC)$	0.0022
31	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times HACC \times FKACC)$	0.0568

Notes: We used the bootstrapped Li (1996) test with 5000 bootstrap replications and the Sheather and Jones (1991) bandwidth.

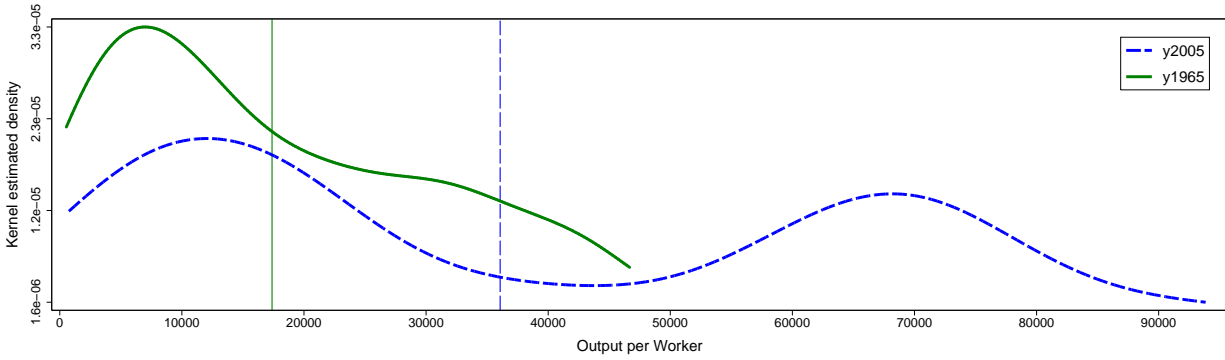


Figure A.7: Distributions of output per worker, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of output per worker. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

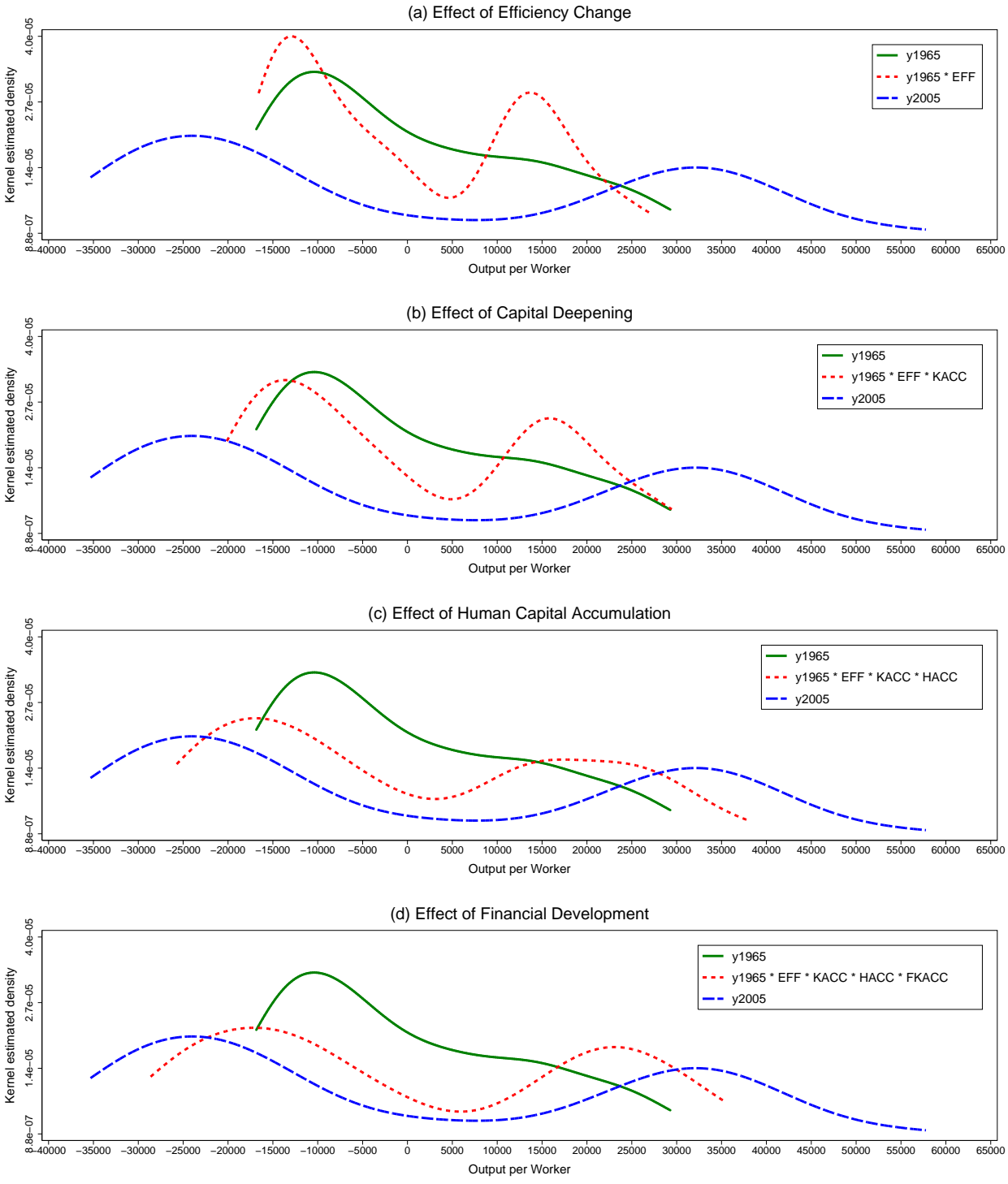


Figure A.8: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: EFF, KACC HACC, and FKACC

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of efficiency change, capital deepening, human capital accumulation, and financial development on the 1965 distribution.

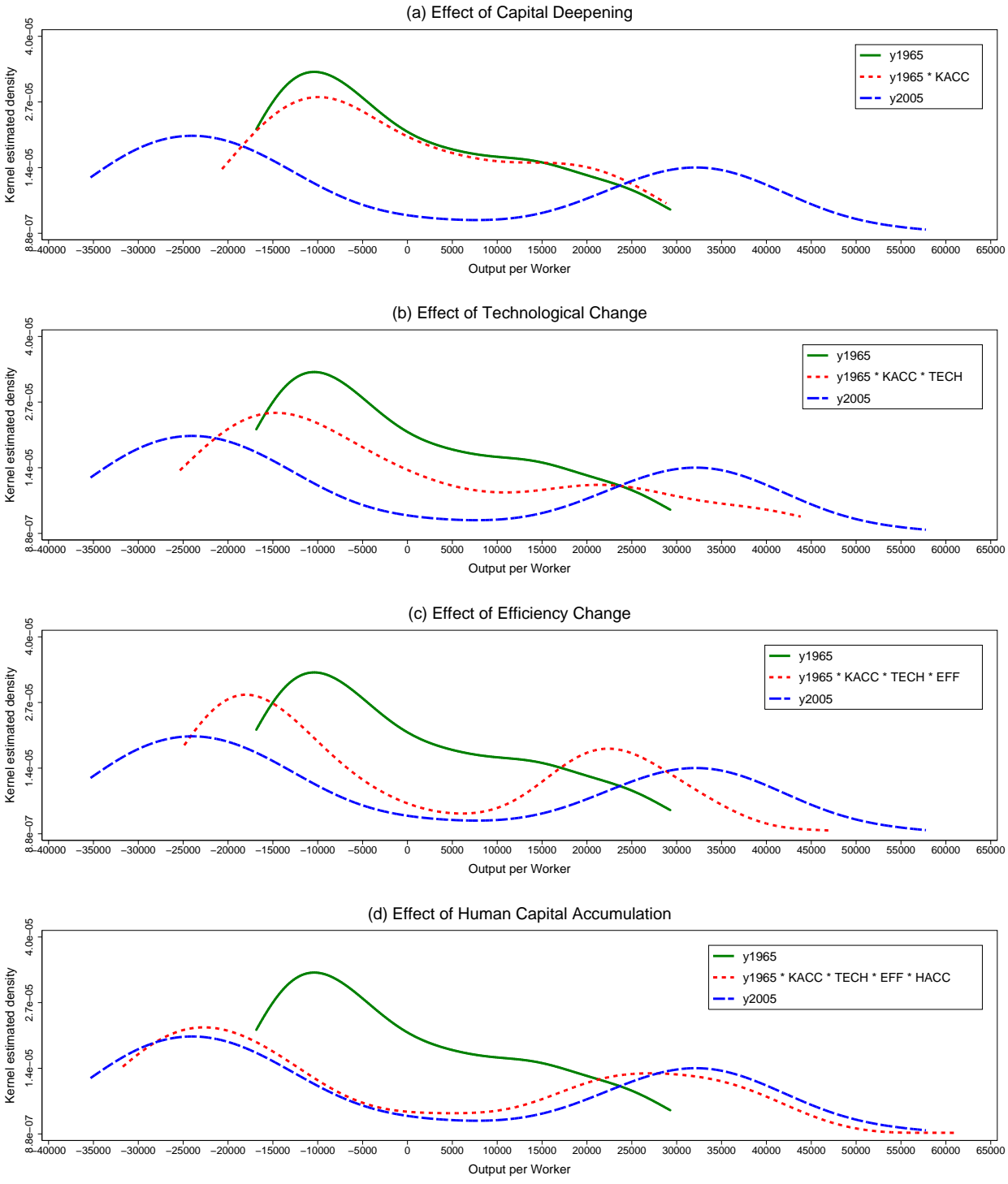


Figure A.9: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: KACC, TECH, EFF, and HACC

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of capital deepening, technological change, efficiency change, and human capital accumulation on the 1965 distribution.

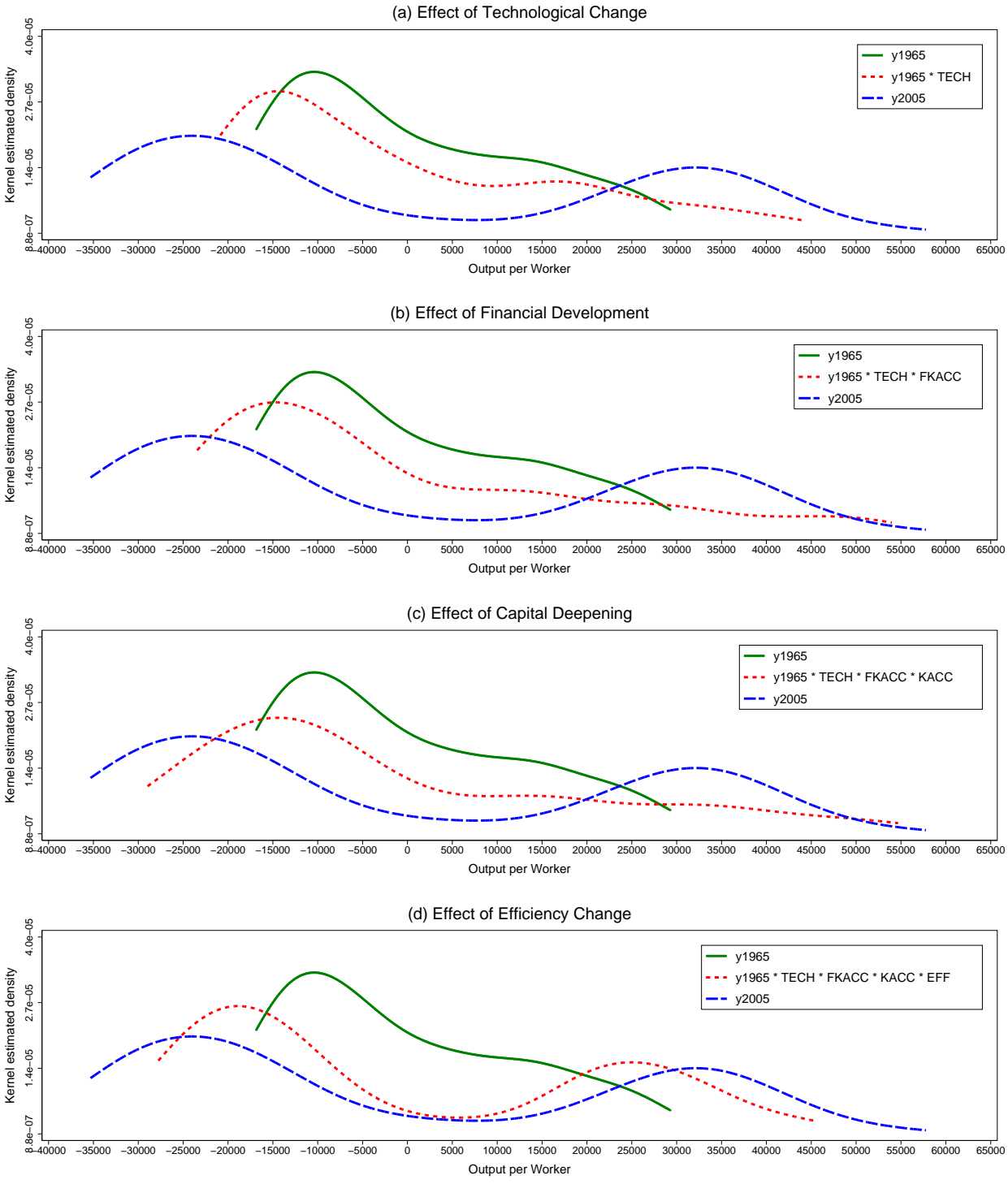


Figure A.10: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: TECH, FKACC, KACC and EFF

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of technological change, financial development, capital deepening, and efficiency change on the 1965 distribution.

Appendix C.2 Private Credit by Deposit Money Banks/GDP (CREDIT2, cut-off 25/75%)

Table A.9: Linking financial efficiency and financial development^a

	Net interest margin			Overhead costs		
	(1)	(2)	(3)	(1)	(2)	(3)
Low Region ^b	1.7666	1.1137	0.9976	0.2793	-0.4370	-0.0806
	0.2046	0.4595	0.5130	0.8553	0.7923	0.9604
Middle Region ^c	2.1142	1.9797	1.7786	1.4611	1.3163	1.9334
	0.0001	0.0027	0.0143	0.0114	0.0623	0.0128
High Region ^d	1.3576	1.3257	1.2168	0.9916	0.9331	1.2673
	<.0001	0.0002	0.0019	0.0011	0.0134	0.0024
GB70		0.1936	0.1957		0.0768	0.0703
		0.3905	0.3884		0.7568	0.7710
ly65			0.0560			-0.1719
			0.5139			0.0653
Constant	2.5085	2.4760	2.0636	2.8447	2.8709	4.1364
	<.0001	<.0001	0.0046	<.0001	<.0001	<.0001
R-squared	0.446	0.396	0.402	0.312	0.302	0.353
N	57	51	51	57	51	51
Joint significance ^e	<.0001	0.0002	0.0045	0.0002	0.0043	0.0010

^a The dependent variable is the log of the inverse of the financial efficiency measure. The coefficients on the financial development regimes (regions) represent the sum of coefficients and the respective numbers below the coefficients are p-values for the sum of coefficients

^b Financial development falls into the low region if its value is lower than the 25th percentile of the financial development distribution

^c Financial development falls into the middle region if its value is between the 25th and 75th percentiles (inclusive) of the financial development distribution

^d Financial development falls into the high region if its value is greater than the 25th percentile of the financial development distribution

^e p-value of the F-statistic on the three coefficients on financial development in the main regression.

Table A.10: Financial efficiency augmentation factors

#	Country	1965	2005	#	Country	1965	2005
1	Argentina	1.037	1.042	30	Japan	2.171	2.704
2	Australia	1.082	2.790	31	Kenya	1.057	1.399
3	Austria	1.719	2.961	32	Malaysia	1.046	2.918
4	Belgium	1.052	2.068	33	Mauritius	1.351	2.078
5	Bolivia	1.019	1.743	34	Mexico	1.426	1.055
6	Burundi	1.010	1.089	35	Morocco	1.052	2.038
7	Canada	1.085	3.363	36	Nepal	1.006	1.567
8	Chile	1.040	1.876	37	Netherlands	1.481	5.110
9	Colombia	1.076	1.482	38	New Zealand	1.047	3.491
10	Costa Rica	1.490	1.564	39	Norway	1.556	2.147
11	Cote d'Ivoire	1.077	1.054	40	Panama	1.059	2.134
12	Cyprus	1.721	4.898	41	Paraguay	1.033	1.069
13	Denmark	1.491	5.127	42	Peru	1.035	1.075
14	Dominican Rep.	1.030	1.078	43	Philippines	1.075	1.451
15	Ecuador	1.069	1.087	44	Portugal	2.104	4.131
16	Egypt	1.062	2.032	45	Sierra Leone	1.025	1.018
17	El Salvador	1.081	1.812	46	Singapore	1.670	2.587
18	Finland	1.700	2.037	47	South Africa	1.932	1.935
19	France	1.418	2.477	48	Spain	1.865	3.724
20	Ghana	1.028	1.056	49	Sri Lanka	1.038	1.515
21	Greece	1.054	2.060	50	Sweden	1.780	2.855
22	Guatemala	1.051	1.458	51	Switzerland	2.820	5.018
23	Honduras	1.050	1.667	52	Syria	1.077	1.049
24	Iceland	1.526	7.351	53	Thailand	1.056	2.497
25	India	1.039	1.676	54	Trinidad and To- bago	1.043	1.449
26	Ireland	1.585	4.206	55	United Kingdom	1.086	4.634
27	Israel	1.078	2.370	56	United States	1.972	1.757
28	Italy	1.793	2.384	57	Uruguay	1.064	1.395
29	Jamaica	1.071	1.083				

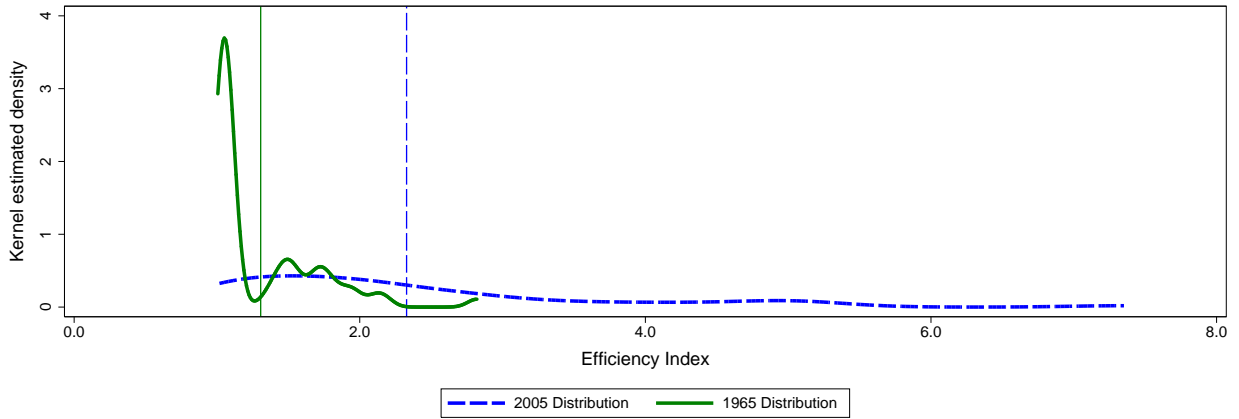


Figure A.11: Distributions of financial development index, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of financial development index. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

Table A.11: Efficiency indices

#	Country	Without Financial Development		With Financial Development	
		1965	2005	1965	2005
1	Argentina	0.65	0.55	0.66	0.57
2	Australia	0.79	0.86	0.80	0.81
3	Austria	0.89	0.94	0.86	0.89
4	Belgium	0.80	0.90	0.84	0.92
5	Bolivia	0.63	0.43	0.64	0.35
6	Burundi	0.85	0.28	0.85	0.27
7	Canada	0.99	0.85	1.00	0.77
8	Chile	0.44	0.61	0.45	0.54
9	Colombia	0.54	0.51	0.55	0.42
10	Costa Rica	1.00	0.60	0.82	0.54
11	Cote d'Ivoire	0.76	0.58	0.75	0.59
12	Cyprus	0.38	0.68	0.34	0.49
13	Denmark	0.86	0.85	0.77	0.75
14	Dominican Rep.	0.75	0.62	0.77	0.62
15	Ecuador	0.38	0.40	0.38	0.40
16	Egypt	0.59	0.64	0.60	0.44
17	El Salvador	0.97	0.60	0.97	0.44
18	Finland	0.66	0.84	0.64	0.85
19	France	0.99	0.91	0.99	0.89
20	Ghana	0.12	0.21	0.12	0.21
21	Greece	0.71	0.79	0.72	0.80
22	Guatemala	0.74	0.64	0.75	0.57
23	Honduras	0.65	0.39	0.66	0.30
24	Iceland	0.92	0.89	0.92	0.80
25	India	0.39	0.42	0.40	0.33
26	Ireland	0.71	0.94	0.57	0.82
27	Israel	0.69	0.74	0.71	0.73
28	Italy	0.81	0.90	0.81	0.90
29	Jamaica	0.66	0.44	0.66	0.45
30	Japan	0.65	0.68	0.45	0.66
31	Kenya	0.45	0.34	0.46	0.28
32	Malaysia	0.52	0.51	0.53	0.40
33	Mauritius	0.36	0.45	0.31	0.41
34	Mexico	0.90	0.67	0.87	0.71
35	Morocco	0.47	0.35	0.48	0.28
36	Nepal	1.00	0.24	1.00	0.21

(continued on next page)

Table A.11 (Continued)

#	Country	Without Financial Development		With Financial Development	
		1965	2005	1965	2005
37	Netherlands	1.00	0.87	1.00	0.74
38	New Zealand	0.89	0.75	0.91	0.59
39	Norway	0.86	0.99	0.86	1.00
40	Panama	0.58	0.54	0.58	0.39
41	Paraguay	0.62	0.35	0.64	0.35
42	Peru	0.50	0.42	0.53	0.42
43	Philippines	0.40	0.32	0.40	0.28
44	Portugal	0.68	0.61	0.54	0.54
45	Sierra Leone	1.00	0.50	1.00	0.51
46	Singapore	0.56	1.00	0.49	1.00
47	South Africa	0.65	0.53	0.50	0.44
48	Spain	0.92	0.78	0.87	0.70
49	Sri Lanka	0.22	0.35	0.22	0.29
50	Sweden	0.84	0.87	0.81	0.80
51	Switzerland	0.97	0.79	0.97	0.74
52	Syria	1.00	0.64	1.00	0.65
53	Thailand	0.32	0.37	0.33	0.29
54	Trinidad and To- bago	0.72	0.80	0.74	0.87
55	United Kingdom	1.00	1.00	1.00	0.86
56	United States	1.00	0.95	0.93	1.00
57	Uruguay	0.53	0.58	0.54	0.50
	Average	0.70	0.64	0.68	0.59

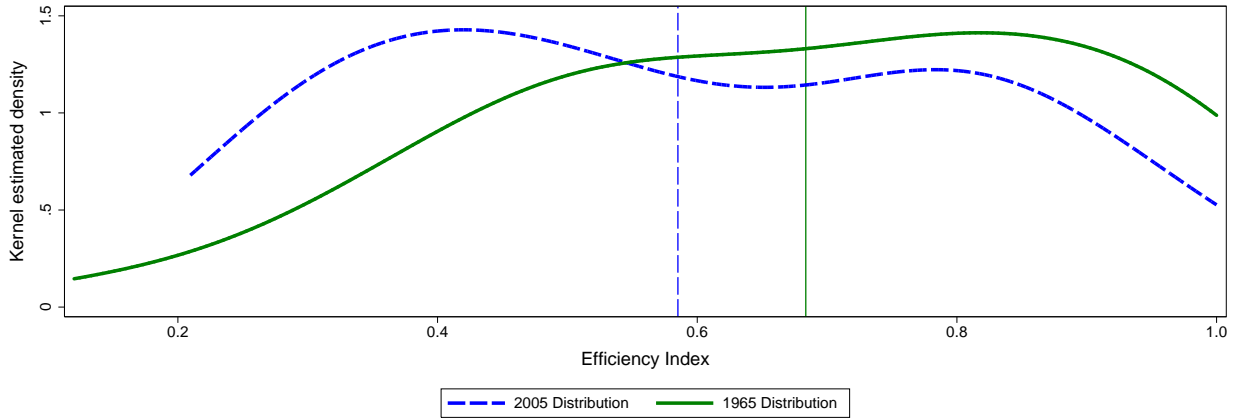


Figure A.12: Distributions of efficiency index, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of efficiency index. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

Table A.12: Percentage change of quinquartite decomposition indices, 1965–2005

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
1	Argentina	19.2	-14.6	0.0	22.2	14.1	0.1
		19.2	-14.7	0.0	22.3	14.2	
2	Australia	103.2	1.1	27.1	22.1	13.6	14.0
		103.2	8.9	25.2	33.1	11.9	
3	Austria	155.3	3.8	34.3	24.1	37.4	7.4
		155.3	5.1	29.9	43.4	30.4	
4	Belgium	138.6	9.3	28.0	25.7	24.8	8.7
		138.6	12.0	33.5	32.9	20.1	
5	Bolivia	-9.7	-46.3	0.0	-2.4	32.2	30.3
		-9.7	-30.9	0.0	-3.4	35.4	
6	Burundi	38.4	-68.1	0.0	282.8	6.9	6.0
		38.4	-67.3	0.0	297.1	6.7	
7	Canada	60.4	-22.8	27.0	21.1	13.9	18.6
		60.4	-14.4	21.5	35.9	13.5	
8	Chile	117.3	20.6	2.2	15.0	26.3	21.4
		117.3	40.9	0.0	27.2	21.3	
9	Colombia	66.5	-22.6	0.0	51.3	24.4	14.4
		66.5	-6.0	0.0	49.3	18.7	
10	Costa Rica	29.5	-34.4	0.9	50.2	28.0	1.7
		29.5	-39.8	0.0	72.2	24.8	
11	Cote d'Ivoire	20.8	-22.1	0.0	44.1	9.4	-1.6
		20.8	-23.6	0.0	45.0	8.9	
12	Cyprus	240.5	43.4	28.5	18.6	34.5	15.9
		240.5	77.6	7.6	40.3	27.0	
13	Denmark	104.1	-3.4	33.5	19.3	10.6	19.9
		104.1	-1.1	24.3	52.7	8.7	
14	Dominican Rep.	110.1	-19.3	0.0	107.3	22.2	2.7
		110.1	-18.0	0.0	108.9	22.6	
15	Ecuador	50.5	3.7	0.0	20.2	20.0	0.6
		50.5	4.7	0.0	20.9	18.9	
16	Egypt	195.2	-26.5	0.0	108.6	38.6	38.8
		195.2	7.6	0.0	122.1	23.5	
17	El Salvador	19.7	-55.1	0.0	55.7	42.0	20.5
		19.7	-38.7	0.0	50.9	29.4	
18	Finland	171.7	33.7	25.8	22.0	29.6	2.2
		171.7	26.1	26.0	37.7	24.2	
19	France	130.6	-10.1	28.0	24.1	51.3	6.7
		130.6	-8.0	27.6	39.6	40.8	

(continued on next page)

Table A.12 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
20	Ghana	71.9	78.0	0.0	-25.8	28.8	1.0
		71.9	80.6	0.0	-25.9	28.5	
21	Greece	163.3	11.4	21.5	36.2	22.7	16.4
		163.3	11.5	22.7	57.0	22.5	
22	Guatemala	58.0	-24.3	0.4	49.7	24.0	11.9
		58.0	-13.8	0.0	54.9	18.3	
23	Honduras	28.9	-54.1	0.0	70.1	40.2	17.8
		28.9	-39.1	0.0	63.4	29.5	
24	Iceland	104.5	-13.3	41.8	2.6	27.9	26.9
		104.5	-3.6	40.2	23.4	22.6	
25	India	220.8	-16.6	0.0	141.8	15.2	38.1
		220.8	8.3	0.0	154.3	16.4	
26	Ireland	252.7	44.2	30.4	37.6	15.6	17.9
		252.7	32.1	22.0	91.0	14.6	
27	Israel	107.1	3.2	23.2	21.4	20.6	11.3
		107.1	7.1	24.7	31.7	17.8	
28	Italy	162.5	11.2	36.4	22.4	35.8	4.1
		162.5	11.7	34.8	34.5	29.7	
29	Jamaica	22.3	-32.5	0.1	33.8	34.6	0.4
		22.3	-33.1	0.4	35.8	34.1	
30	Japan	236.5	47.5	29.3	39.0	20.5	5.2
		236.5	5.2	26.9	112.6	18.5	
31	Kenya	3.3	-39.5	0.0	19.1	16.1	23.5
		3.3	-25.4	0.0	18.7	16.8	
32	Malaysia	357.9	-23.5	12.5	166.0	44.2	38.7
		357.9	-2.5	2.2	224.1	41.8	
33	Mauritius	157.3	31.2	5.9	31.8	23.5	13.8
		157.3	26.6	2.3	62.9	22.1	
34	Mexico	37.5	-18.9	1.3	22.3	50.5	-9.1
		37.5	-25.2	1.6	26.3	43.3	
35	Morocco	101.8	-41.0	1.4	97.0	43.4	19.4
		101.8	-25.7	0.0	104.7	32.7	
36	Nepal	62.9	-79.0	0.0	407.0	10.9	38.3
		62.9	-75.6	0.0	491.0	12.9	
37	Netherlands	68.8	-26.2	36.9	8.5	25.3	22.9
		68.8	-12.8	28.1	25.2	20.7	
38	New Zealand	24.1	-35.1	22.5	17.3	9.7	21.3
		24.1	-15.1	8.8	22.8	9.4	
39	Norway	151.1	16.9	36.7	16.6	28.1	5.3

(continued on next page)

Table A.12 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
40	Panama	151.1	16.0	43.8	22.6	22.8	26.3
		106.2	-33.5	0.4	81.5	34.7	
41	Paraguay	106.2	-5.8	0.0	79.0	22.3	2.3
		39.8	-45.6	0.0	118.7	14.9	
42	Peru	39.8	-44.2	0.0	119.2	14.4	1.8
		-17.5	-20.5	0.8	-20.0	26.5	
43	Philippines	-17.5	-17.3	4.1	-20.9	21.2	21.9
		45.7	-31.2	0.0	52.9	13.6	
44	Portugal	45.7	-21.7	0.0	62.0	14.9	10.2
		172.5	-0.9	32.0	31.1	44.1	
45	Sierra Leone	172.5	-10.4	22.3	84.6	34.8	-0.4
		-3.7	-49.1	0.0	64.8	15.4	
46	Singapore	-3.7	-50.1	0.0	68.7	14.5	8.2
		476.4	105.0	33.8	39.8	38.9	
47	South Africa	476.4	77.1	32.9	85.5	32.0	0.0
		34.4	-12.3	2.0	13.8	31.9	
48	Spain	34.4	-18.4	0.0	37.7	19.6	8.6
		142.4	-19.4	34.0	24.8	65.5	
49	Sri Lanka	142.4	-15.2	24.5	53.2	49.9	30.5
		233.5	28.9	0.0	80.6	9.8	
50	Sweden	233.5	58.8	0.0	89.4	10.9	6.7
		100.8	-0.4	27.3	16.7	27.1	
51	Switzerland	100.8	2.6	21.2	32.1	22.3	7.6
		49.0	-23.9	60.6	4.3	8.6	
52	Syria	49.0	-18.5	43.7	18.4	7.4	-1.9
		48.1	-35.0	0.0	108.7	11.2	
53	Thailand	48.1	-36.2	0.0	109.4	10.8	42.8
		401.5	-9.9	3.9	208.6	21.6	
54	Trinidad and To- bago	401.5	15.3	0.0	281.3	14.1	9.3
		99.2	16.7	4.6	20.8	23.6	
55	United Kingdom	99.2	11.1	8.8	33.5	23.4	30.5
		127.5	-14.1	30.8	35.7	14.4	
56	United States	127.5	0.0	21.2	64.1	14.4	-1.4
		79.4	7.0	24.0	21.4	13.0	
57	Uruguay	79.4	-5.2	23.8	38.0	10.7	12.8
		77.2	-7.0	0.0	44.5	16.9	
		77.2	7.9	0.0	44.9	13.3	

(continued on next page)

Table A.12 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
	Average	111.7	-9.4	13.9	54.3	25.4	13.5
		111.7	-3.9	11.5	70.9	21.5	

Table A.13: Mean percentage changes of quinquepartite decomposition indices (country groupings)

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC
OECD*	0.82	0.80	124.4	-0.1	30.4	22.5	26.8	11.4
Asian Tigers**	0.45	0.59	368.1	29.8	19.9	113.3	31.3	23.7
Latin America	0.65	0.48	51.1	-23.1	0.6	44.9	26.5	10.9
Africa	0.56	0.38	68.8	-16.6	1.0	70.7	23.8	11.2
Non-OECD	0.60	0.45	103.7	-15.2	3.4	74.3	24.5	14.8
ALL	0.68	0.59	111.7	-9.4	13.9	54.3	25.4	13.5

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

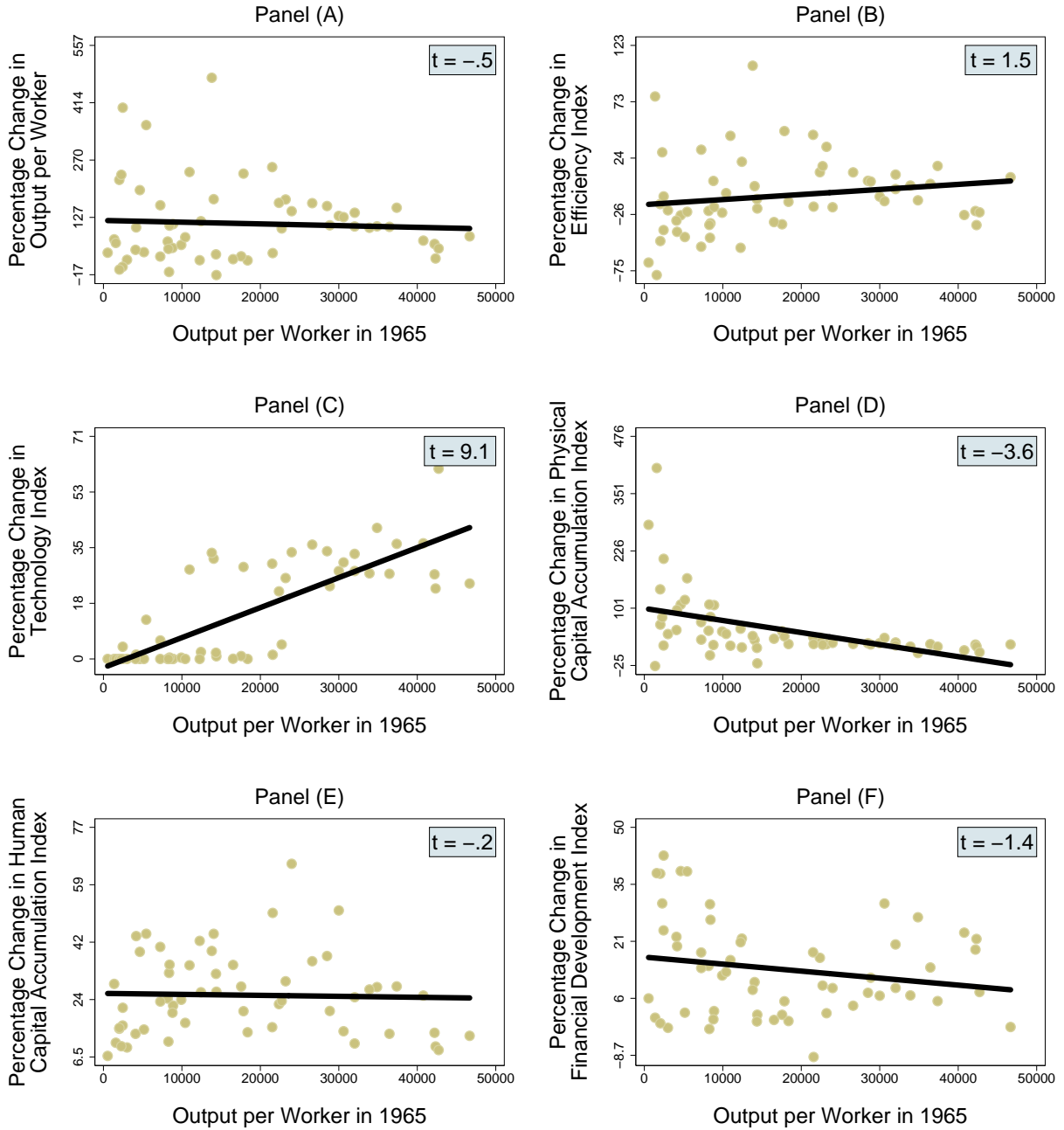


Figure A.14: Percentage change (from 1965 to 2005) in output per worker and five decomposition indices, plotted against output per worker in 1965.

Notes: Each panel contains a GLS regression line; the topright number in each panel is a t -statistic of a respective GLS regression based on “heteroskedasticity-consistent” estimators for the variance (Huber (1981); White (1980)).

Table A.14: Modality tests (*p-values*)

	H_0 : Distribution has one mode H_A : Distribution has more than one mode	Bootstrap <i>p-value</i>
1	$f(y_{2005})$	0.0000
2	$f(y_{1965})$	0.7407
3	$f(y_{1965} \times EFF)$	0.0020
4	$f(y_{1965} \times TECH)$	0.2172
5	$f(y_{1965} \times KACC)$	0.7578
6	$f(y_{1965} \times HACC)$	0.0761
7	$f(y_{1965} \times FKACC)$	0.7778
8	$f(y_{1965} \times EFF \times TECH)$	0.0020
9	$f(y_{1965} \times EFF \times KACC)$	0.0030
10	$f(y_{1965} \times EFF \times HACC)$	0.0000
11	$f(y_{1965} \times EFF \times FKACC)$	0.0000
12	$f(y_{1965} \times TECH \times KACC)$	0.0671
13	$f(y_{1965} \times TECH \times HACC)$	0.0270
14	$f(y_{1965} \times TECH \times FKACC)$	0.6226
15	$f(y_{1965} \times KACC \times HACC)$	0.0611
16	$f(y_{1965} \times KACC \times FKACC)$	0.5335
17	$f(y_{1965} \times HACC \times FKACC)$	0.0501
18	$f(y_{1965} \times EFF \times TECH \times KACC)$	0.0000
19	$f(y_{1965} \times EFF \times TECH \times HACC)$	0.0010
20	$f(y_{1965} \times EFF \times TECH \times FKACC)$	0.0010
21	$f(y_{1965} \times EFF \times KACC \times HACC)$	0.0040
22	$f(y_{1965} \times EFF \times KACC \times FKACC)$	0.0010
23	$f(y_{1965} \times EFF \times HACC \times FKACC)$	0.0000
24	$f(y_{1965} \times TECH \times KACC \times HACC)$	0.0180
25	$f(y_{1965} \times TECH \times KACC \times FKACC)$	0.3183
26	$f(y_{1965} \times TECH \times HACC \times FKACC)$	0.0180
27	$f(y_{1965} \times KACC \times HACC \times FKACC)$	0.0651
28	$f(y_{1965} \times EFF \times TECH \times KACC \times HACC)$	0.0010
29	$f(y_{1965} \times EFF \times TECH \times KACC \times FKACC)$	0.0000
30	$f(y_{1965} \times EFF \times TECH \times HACC \times FKACC)$	0.0000
31	$f(y_{1965} \times EFF \times KACC \times HACC \times FKACC)$	0.0000
32	$f(y_{1965} \times TECH \times KACC \times HACC \times FKACC)$	0.0070

Notes: We used the bootstrapped calibrated Silverman test for multi-modality due to [Hall and York \(2001\)](#) with 1000 bootstrap replications.

Table A.15: Distribution hypothesis tests (p -values)

	H_0 : Distributions are equal H_1 : Distributions are not equal	Bootstrap p -value
1	$g(y_{2005})$ vs. $f(y_{1965})$	0.0004
2	$g(y_{2005})$ vs. $f(y_{1965} \times EFF)$	0.0000
3	$g(y_{2005})$ vs. $f(y_{1965} \times TECH)$	0.0040
4	$g(y_{2005})$ vs. $f(y_{1965} \times KACC)$	0.0002
5	$g(y_{2005})$ vs. $f(y_{1965} \times HACC)$	0.0004
6	$g(y_{2005})$ vs. $f(y_{1965} \times FKACC)$	0.0010
7	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH)$	0.0002
8	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC)$	0.0000
9	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times HACC)$	0.0000
10	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times FKACC)$	0.0000
11	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC)$	0.0316
12	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times HACC)$	0.0464
13	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times FKACC)$	0.0328
14	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times HACC)$	0.0006
15	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times FKACC)$	0.0020
16	$g(y_{2005})$ vs. $f(y_{1965} \times HACC \times FKACC)$	0.0024
17	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC)$	0.0012
18	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times HACC)$	0.0006
19	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times FKACC)$	0.0000
20	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times HACC)$	0.0006
21	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times FKACC)$	0.0002
22	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times HACC \times FKACC)$	0.0000
23	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times HACC)$	0.8940
24	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times FKACC)$	0.2876
25	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times HACC \times FKACC)$	0.4932
26	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times HACC \times FKACC)$	0.0080
27	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC \times HACC)$	0.1606
28	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC \times FKACC)$	0.0248
29	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times HACC \times FKACC)$	0.0088
30	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times HACC \times FKACC)$	0.0034
31	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times HACC \times FKACC)$	0.0800

Notes: We used the bootstrapped Li (1996) test with 5000 bootstrap replications and the Sheather and Jones (1991) bandwidth.

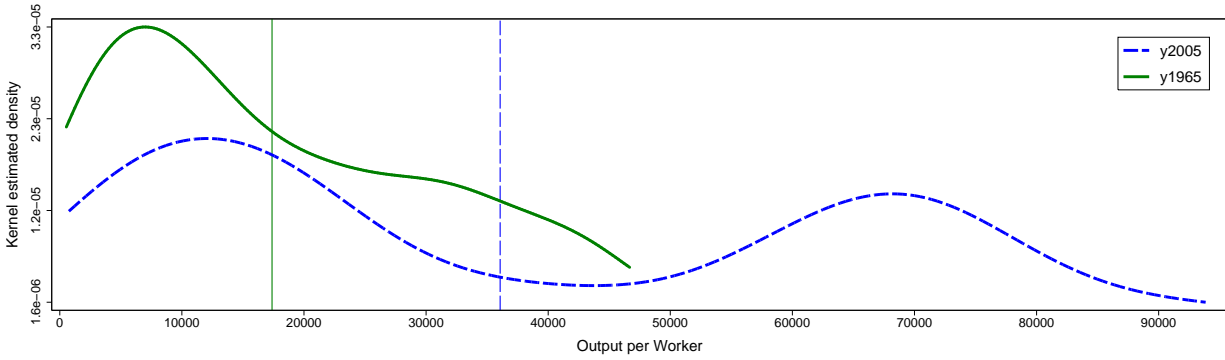


Figure A.15: Distributions of output per worker, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of output per worker. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

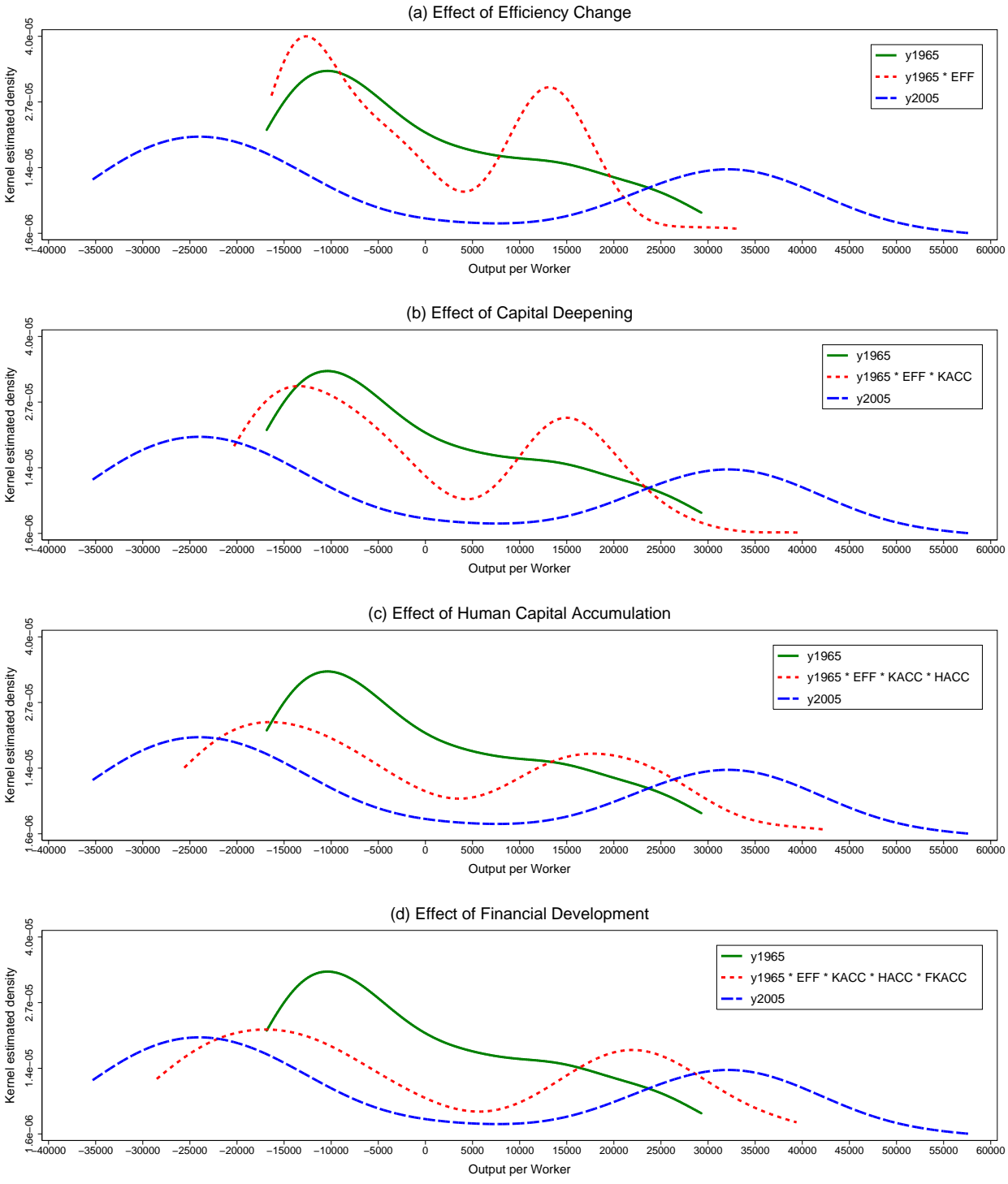


Figure A.16: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: EFF, KACC HACC, and FKACC

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of efficiency change, capital deepening, human capital accumulation, and financial development on the 1965 distribution.

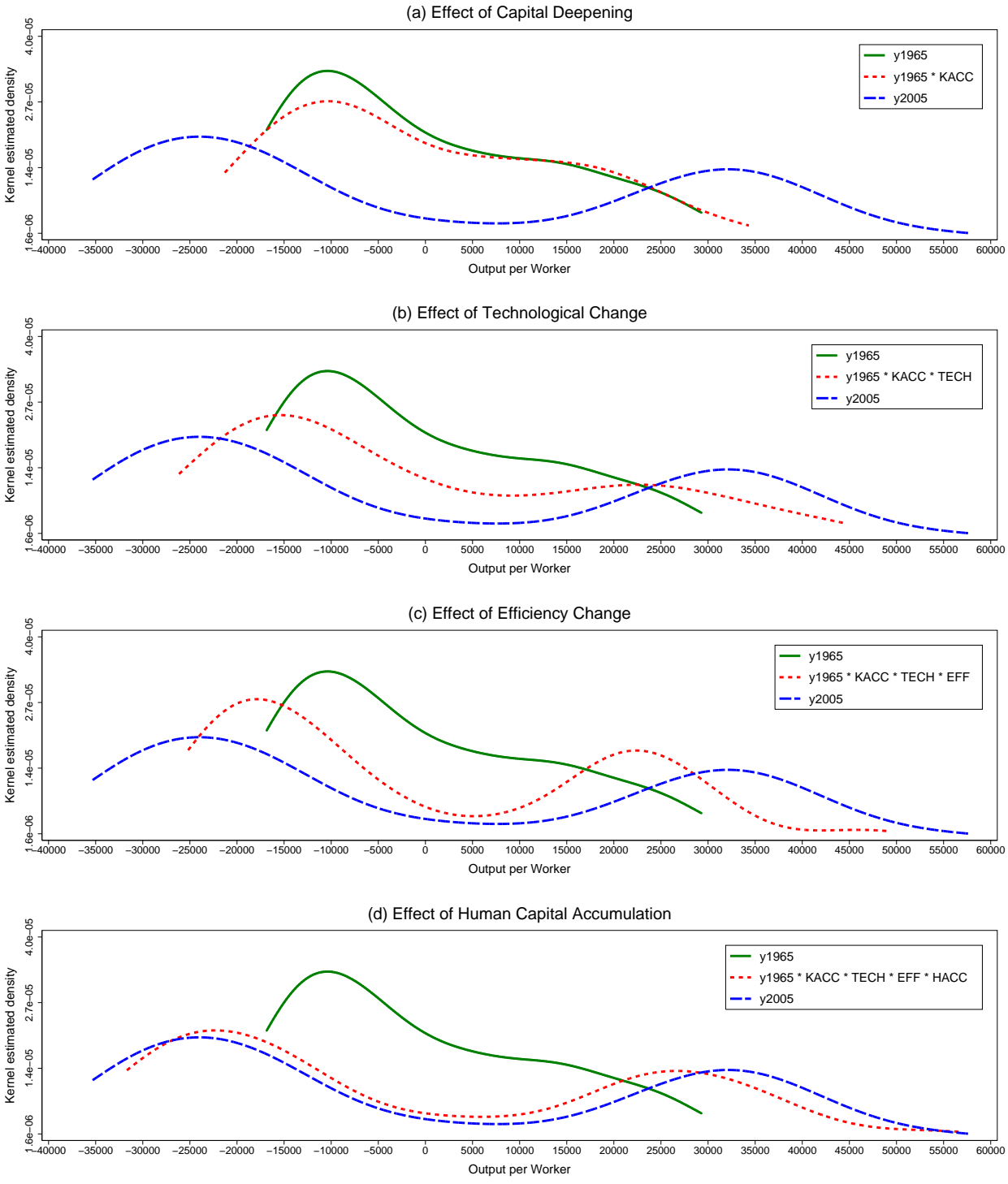


Figure A.17: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: KACC, TECH, EFF, and HACC

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of capital deepening, technological change, efficiency change, and human capital accumulation on the 1965 distribution.

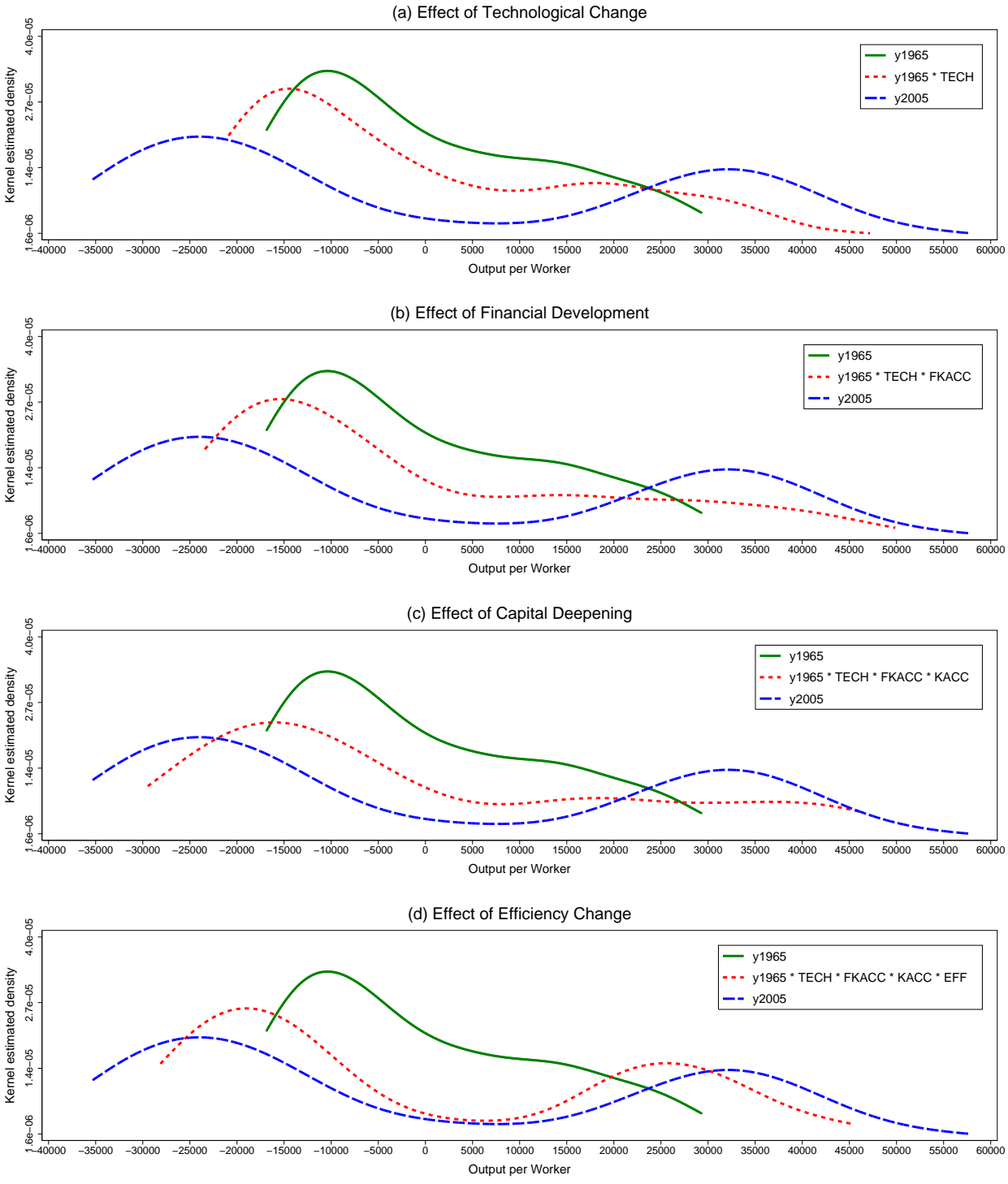


Figure A.18: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: TECH, FKACC, KACC and EFF

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of technological change, financial development, capital deepening, and efficiency change on the 1965 distribution.

Appendix C.3 Liquid Liabilities/GDP (LLY, cut-off 25/75%)

Table A.16: Linking financial efficiency and financial development^a

	Net interest margin			Overhead costs		
	(1)	(2)	(3)	(1)	(2)	(3)
Low Region ^b	1.4539	1.0558	1.0918	0.0883	-0.7669	-0.7927
	0.1885	0.3740	0.3438	0.9409	0.5369	0.5202
Middle Region ^c	2.3376	2.2578	2.1612	1.6886	1.5546	1.6239
	<.0001	0.0002	0.0003	0.0025	0.0113	0.0082
High Region ^d	1.4916	1.4383	1.3413	1.1363	1.0463	1.1160
	<.0001	<.0001	0.0001	0.0003	0.0026	0.0015
GB70		0.1394	0.2212		0.0548	-0.0038
		0.4452	0.2267		0.7740	0.9842
ly65			0.1213			-0.0870
			0.0551			0.1941
Constant	2.3142	2.3126	1.2795	2.6991	2.7604	3.5015
	<.0001	<.0001	0.0379	<.0001	<.0001	<.0001
R-squared	0.577	0.555	0.590	0.496	0.537	0.554
N	57	51	51	57	51	51
Joint significance ^e	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

^a The dependent variable is the log of the inverse of the financial efficiency measure. The coefficients on the financial development regimes (regions) represent the sum of coefficients and the respective numbers below the coefficients are p-values for the sum of coefficients

^b Financial development falls into the low region if its value is lower than the 25th percentile of the financial development distribution

^c Financial development falls into the middle region if its value is between the 25th and 75th percentiles (inclusive) of the financial development distribution

^d Financial development falls into the high region if its value is greater than the 75th percentile of the financial development distribution

^e p-value of the F-statistic on the three coefficients on financial development in the main regression.

Table A.17: Financial efficiency augmentation factors

#	Country	1965	2005	#	Country	1965	2005
1	Argentina	1.637	1.937	29	Japan	2.755	17.456
2	Australia	2.843	2.889	30	Kenya	2.053	2.406
3	Austria	3.174	3.542	31	Malaysia	2.333	5.286
4	Belgium	2.478	4.284	32	Mauritius	2.099	3.961
5	Bolivia	1.417	2.790	33	Mexico	2.352	2.133
6	Burundi	1.355	2.020	34	Morocco	1.985	3.277
7	Canada	2.295	5.773	35	Nepal	1.299	4.134
8	Chile	1.438	3.071	36	Netherlands	3.943	4.727
9	Colombia	1.842	2.092	37	New Zealand	2.098	3.474
10	Costa Rica	1.827	2.090	38	Norway	2.972	3.492
11	Cote d'Ivoire	1.933	2.008	39	Panama	1.732	2.886
12	Denmark	2.900	3.765	40	Paraguay	1.462	2.123
13	Dominican Rep.	1.748	1.926	41	Peru	1.613	2.330
14	Ecuador	1.599	2.050	42	Philippines	1.899	3.239
15	Egypt	2.350	3.653	43	Portugal	2.904	3.873
16	El Salvador	1.859	2.369	44	Sierra Leone	1.445	1.821
17	Finland	2.460	3.478	45	Singapore	3.455	4.493
18	France	3.782	2.805	46	South Africa	3.816	2.592
19	Ghana	1.905	1.942	47	Spain	4.045	4.108
20	Greece	2.156	3.226	48	Sri Lanka	1.909	2.403
21	Guatemala	1.618	2.612	49	Sweden	3.626	2.961
22	Honduras	1.647	2.810	50	Switzerland	4.215	7.670
23	Iceland	2.056	4.066	51	Syria	2.142	2.553
24	India	1.955	4.165	52	Thailand	2.220	4.423
25	Ireland	3.934	3.454	53	Trinidad and To- bago	1.959	2.639
26	Israel	1.946	3.737	54	United Kingdom	2.235	5.569
27	Italy	2.597	3.898	55	United States	2.547	2.572
28	Jamaica	2.139	2.792	56	Uruguay	1.896	2.808

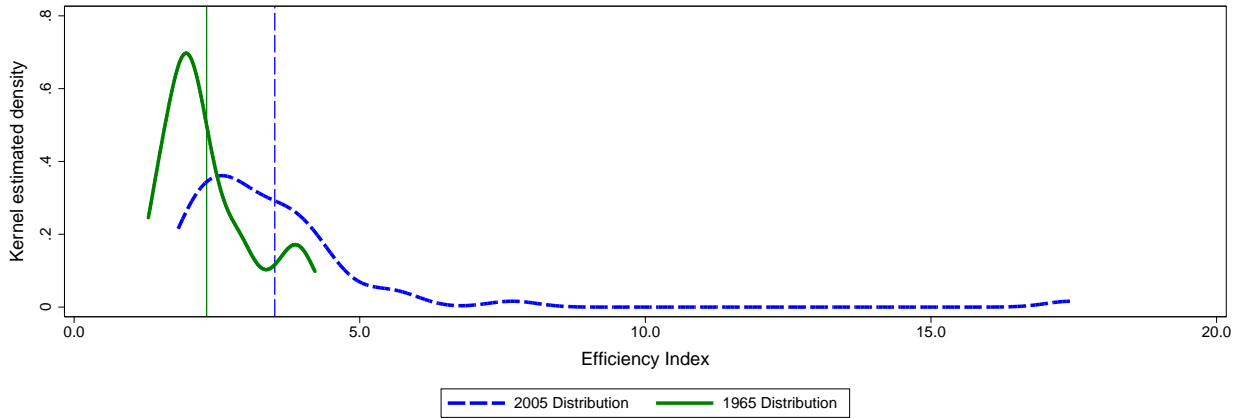


Figure A.19: Distributions of financial development index, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of financial development index. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

Table A.18: Efficiency indices

#	Country	Without Financial Development		With Financial Development	
		1965	2005	1965	2005
1	Argentina	0.65	0.55	0.75	0.59
2	Australia	0.79	0.86	0.79	0.89
3	Austria	0.89	0.94	0.89	0.95
4	Belgium	0.80	0.90	0.84	0.89
5	Bolivia	0.63	0.43	0.74	0.37
6	Burundi	0.85	0.28	0.82	0.25
7	Canada	0.99	0.85	1.00	0.77
8	Chile	0.44	0.61	0.54	0.56
9	Colombia	0.54	0.51	0.55	0.50
10	Costa Rica	1.00	0.60	1.00	0.63
11	Cote d'Ivoire	0.76	0.58	0.77	0.58
12	Denmark	0.86	0.85	0.78	0.84
13	Dominican Rep.	0.75	0.62	0.80	0.66
14	Ecuador	0.38	0.40	0.45	0.42
15	Egypt	0.59	0.64	0.56	0.47
16	El Salvador	0.97	0.60	0.97	0.54
17	Finland	0.66	0.84	0.68	0.84
18	France	0.99	0.91	0.98	0.95
19	Ghana	0.12	0.21	0.12	0.22
20	Greece	0.71	0.79	0.73	0.80
21	Guatemala	0.74	0.64	0.80	0.60
22	Honduras	0.65	0.39	0.70	0.33
23	Iceland	0.92	0.89	0.97	0.87
24	India	0.39	0.42	0.41	0.29
25	Ireland	0.71	0.94	0.52	0.93
26	Israel	0.69	0.74	0.73	0.73
27	Italy	0.81	0.90	0.84	0.90
28	Jamaica	0.66	0.44	0.67	0.42
29	Japan	0.65	0.68	0.56	0.62
30	Kenya	0.45	0.34	0.45	0.30
31	Malaysia	0.52	0.51	0.50	0.37
32	Mauritius	0.36	0.45	0.35	0.38
33	Mexico	0.90	0.67	0.90	0.71
34	Morocco	0.47	0.35	0.47	0.30
35	Nepal	1.00	0.24	1.00	0.17
36	Netherlands	1.00	0.87	1.00	0.82

(continued on next page)

Table A.18 (Continued)

#	Country	Without Financial Development		With Financial Development	
		1965	2005	1965	2005
37	New Zealand	0.89	0.75	0.94	0.69
38	Norway	0.86	0.99	0.86	1.00
39	Panama	0.58	0.54	0.62	0.46
40	Paraguay	0.62	0.35	0.80	0.33
41	Peru	0.50	0.42	0.57	0.38
42	Philippines	0.40	0.32	0.44	0.24
43	Portugal	0.68	0.61	0.60	0.60
44	Sierra Leone	1.00	0.50	1.00	0.50
45	Singapore	0.56	1.00	0.49	1.00
46	South Africa	0.65	0.53	0.50	0.50
47	Spain	0.92	0.78	0.89	0.75
48	Sri Lanka	0.22	0.35	0.24	0.30
49	Sweden	0.84	0.87	0.83	0.90
50	Switzerland	0.97	0.79	0.97	0.74
51	Syria	1.00	0.64	1.00	0.56
52	Thailand	0.32	0.37	0.31	0.29
53	Trinidad and To- bago	0.72	0.80	0.78	0.84
54	United Kingdom	1.00	1.00	1.00	0.91
55	United States	1.00	0.95	1.00	1.00
56	Uruguay	0.53	0.58	0.53	0.51
	Average	0.71	0.64	0.71	0.61

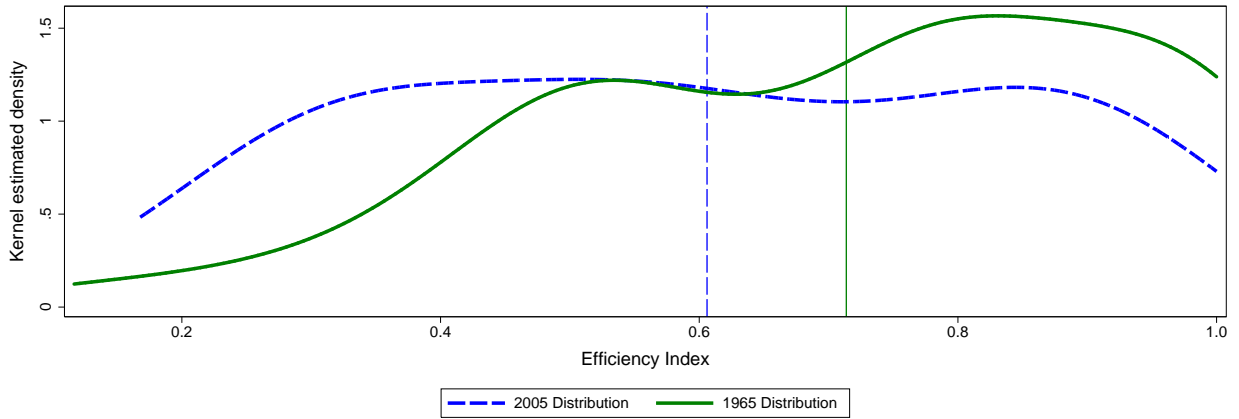


Figure A.20: Distributions of efficiency index, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of efficiency index. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

Production Frontiers in 1965 and 2005

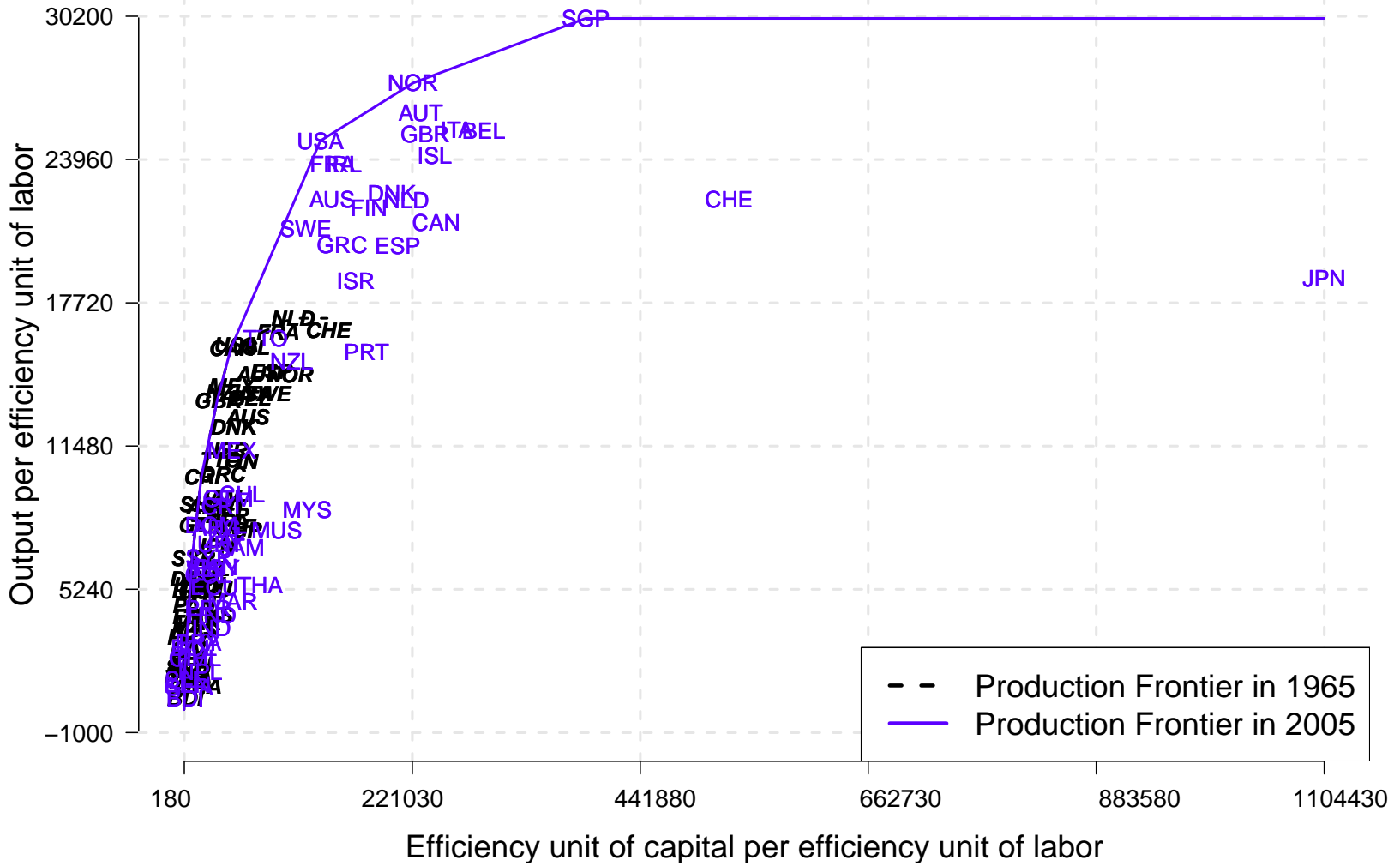


Figure A.21: Production frontiers in 1965 and 2005

Notes: The bold italic abbreviations show the 1965 observations and the normal font abbreviations show the 2005 observations. The dotted line represents the 1965 production frontier and the solid line presents the 2005 production frontier.

Table A.19: Percentage change of quinquartite decomposition indices, 1965–2005

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
1	Argentina	19.2	−21.1	0.0	19.4	17.8	7.4
		19.2	−14.7	0.0	22.3	14.2	
2	Australia	103.2	12.0	26.0	26.5	13.5	0.3
		103.2	8.9	25.2	33.1	11.9	
3	Austria	155.3	5.9	34.6	30.7	34.6	1.8
		155.3	5.1	29.9	43.4	30.4	
4	Belgium	138.6	5.6	34.7	22.8	23.1	11.0
		138.6	12.0	33.5	32.9	20.1	
5	Bolivia	−9.7	−49.8	0.0	−2.6	21.4	52.3
		−9.7	−30.9	0.0	−3.4	35.4	
6	Burundi	38.4	−69.9	0.0	220.1	8.3	32.5
		38.4	−67.3	0.0	297.1	6.7	
7	Canada	60.4	−23.3	27.4	19.3	14.3	20.4
		60.4	−14.4	21.5	35.9	13.5	
8	Chile	117.3	3.4	2.6	24.1	29.9	27.1
		117.3	40.9	0.0	27.2	21.3	
9	Colombia	66.5	−7.4	0.0	40.6	20.0	6.6
		66.5	−6.0	0.0	49.3	18.7	
10	Costa Rica	29.5	−37.1	0.0	59.2	23.5	4.6
		29.5	−39.8	0.0	72.2	24.8	
11	Cote d'Ivoire	20.8	−24.3	0.0	38.3	12.6	2.5
		20.8	−23.6	0.0	45.0	8.9	
12	Denmark	104.1	7.9	25.5	31.6	9.1	5.0
		104.1	−1.1	24.3	52.7	8.7	
13	Dominican Rep.	110.1	−18.1	0.0	104.0	18.5	6.1
		110.1	−18.0	0.0	108.9	22.6	
14	Ecuador	50.5	−7.0	0.0	17.0	24.2	11.3
		50.5	4.7	0.0	20.9	18.9	
15	Egypt	195.2	−16.5	0.0	103.5	39.4	24.6
		195.2	7.6	0.0	122.1	23.5	
16	El Salvador	19.7	−44.5	0.0	45.7	31.8	12.3
		19.7	−38.7	0.0	50.9	29.4	
17	Finland	171.7	23.8	26.3	28.1	27.0	6.8
		171.7	26.1	26.0	37.7	24.2	
18	France	130.6	−3.5	34.0	29.9	45.1	−5.3
		130.6	−8.0	27.6	39.6	40.8	
19	Ghana	71.9	89.3	0.0	−27.0	22.9	1.3
		71.9	80.6	0.0	−25.9	28.5	

(continued on next page)

Table A.19 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
20	Greece	163.3	9.7	22.0	43.8	24.7	9.7
		163.3	11.5	22.7	57.0	22.5	
21	Guatemala	58.0	-24.5	0.0	41.5	22.1	21.1
		58.0	-13.8	0.0	54.9	18.3	
22	Honduras	28.9	-52.8	0.0	60.1	27.9	33.5
		28.9	-39.1	0.0	63.4	29.5	
23	Iceland	104.5	-10.1	33.8	16.8	27.0	14.6
		104.5	-3.6	40.2	23.4	22.6	
24	India	220.8	-28.8	0.0	142.1	21.1	53.6
		220.8	8.3	0.0	154.3	16.4	
25	Ireland	252.7	78.3	22.1	43.3	16.2	-2.7
		252.7	32.1	22.0	91.0	14.6	
26	Israel	107.1	-0.3	22.9	25.2	18.9	13.6
		107.1	7.1	24.7	31.7	17.8	
27	Italy	162.5	6.8	35.7	25.4	34.2	7.6
		162.5	11.7	34.8	34.5	29.7	
28	Jamaica	22.3	-37.8	2.6	26.8	40.5	7.5
		22.3	-33.1	0.4	35.8	34.1	
29	Japan	236.5	11.8	32.9	26.9	20.3	48.4
		236.5	5.2	26.9	112.6	18.5	
30	Kenya	3.3	-34.9	0.0	16.9	22.0	11.3
		3.3	-25.4	0.0	18.7	16.8	
31	Malaysia	357.9	-25.4	17.3	168.1	48.2	31.7
		357.9	-2.5	2.2	224.1	41.8	
32	Mauritius	157.3	7.9	10.3	44.4	27.0	17.9
		157.3	26.6	2.3	62.9	22.1	
33	Mexico	37.5	-20.9	0.2	20.2	48.2	-2.7
		37.5	-25.2	1.6	26.3	43.3	
34	Morocco	101.8	-36.2	0.4	93.1	38.9	17.6
		101.8	-25.7	0.0	104.7	32.7	
35	Nepal	62.9	-83.2	0.0	354.0	12.4	90.3
		62.9	-75.6	0.0	491.0	12.9	
36	Netherlands	68.8	-18.1	42.9	13.4	22.0	4.2
		68.8	-12.8	28.1	25.2	20.7	
37	New Zealand	24.1	-25.9	13.3	18.9	10.0	12.8
		24.1	-15.1	8.8	22.8	9.4	
38	Norway	151.1	16.4	42.6	16.3	25.6	3.6
		151.1	16.0	43.8	22.6	22.8	
39	Panama	106.2	-25.3	0.0	74.2	21.9	30.0

(continued on next page)

Table A.19 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
		106.2	-5.8	0.0	79.0	22.3	
40	Paraguay	39.8	-59.5	0.0	135.1	19.2	23.2
		39.8	-44.2	0.0	119.2	14.4	
41	Peru	-17.5	-32.2	0.0	-19.7	27.9	18.6
		-17.5	-17.3	4.1	-20.9	21.2	
42	Philippines	45.7	-44.2	0.0	61.1	15.8	39.9
		45.7	-21.7	0.0	62.0	14.9	
43	Portugal	172.5	-0.4	23.6	48.2	39.5	7.0
		172.5	-10.4	22.3	84.6	34.8	
44	Sierra Leone	-3.7	-50.3	0.0	46.7	18.4	11.6
		-3.7	-50.1	0.0	68.7	14.5	
45	Singapore	476.4	103.9	35.1	42.9	37.9	6.2
		476.4	77.1	32.9	85.5	32.0	
46	South Africa	34.4	-1.0	0.5	17.1	28.5	-10.2
		34.4	-18.4	0.0	37.7	19.6	
47	Spain	142.4	-15.2	36.8	31.3	58.8	0.2
		142.4	-15.2	24.5	53.2	49.9	
48	Sri Lanka	233.5	28.1	0.0	101.2	14.0	13.5
		233.5	58.8	0.0	89.4	10.9	
49	Sweden	100.8	8.1	26.3	22.1	24.7	-3.4
		100.8	2.6	21.2	32.1	22.3	
50	Switzerland	49.0	-23.9	60.8	4.8	8.8	6.7
		49.0	-18.5	43.7	18.4	7.4	
51	Syria	48.1	-43.9	0.0	104.7	15.9	11.2
		48.1	-36.2	0.0	109.4	10.8	
52	Thailand	401.5	-5.5	6.8	209.1	20.5	33.4
		401.5	15.3	0.0	281.3	14.1	
53	Trinidad and To- bago	99.2	7.6	8.1	27.7	23.1	9.0
		99.2	11.1	8.8	33.5	23.4	
54	United Kingdom	127.5	-8.9	27.0	39.8	16.3	20.9
		127.5	0.0	21.2	64.1	14.4	
55	United States	79.4	0.0	21.7	31.1	12.2	0.2
		79.4	-5.2	23.8	38.0	10.7	
56	Uruguay	77.2	-3.2	0.0	32.0	15.5	20.1
		77.2	7.9	0.0	44.9	13.3	
	Average	109.4	-10.9	13.5	54.2	24.3	15.4
		109.4	-5.4	11.6	71.4	21.4	

Table A.20: Mean percentage changes of quinquepartite decomposition indices (country groupings)

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC
OECD*	0.84	0.83	124.4	1.6	29.6	26.9	25.2	7.6
Asian Tigers**	0.46	0.57	368.1	21.2	23.0	111.8	31.7	29.9
Latin America	0.70	0.51	51.1	-25.6	0.8	42.8	24.1	18.2
Africa	0.56	0.39	68.8	-15.1	1.2	61.4	24.2	12.1
Non-OECD	0.63	0.46	99.7	-19.0	3.1	72.0	23.8	20.4
ALL	0.71	0.61	109.4	-10.9	13.5	54.2	24.3	15.4

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

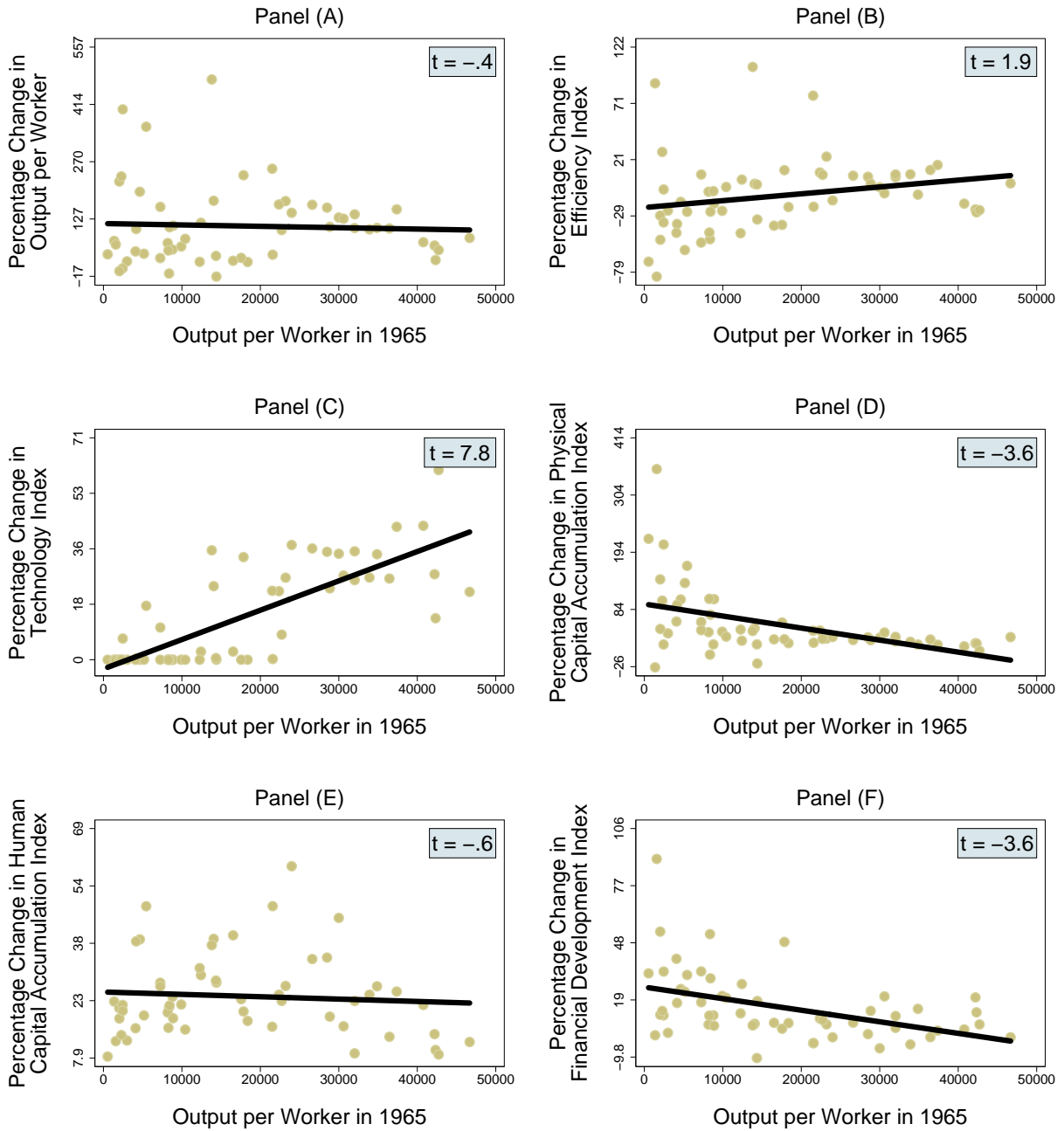


Figure A.22: Percentage change (from 1965 to 2005) in output per worker and five decomposition indices, plotted against output per worker in 1965.

Notes: Each panel contains a GLS regression line; the topright number in each panel is a t -statistic of a respective GLS regression based on “heteroskedasticity-consistent” estimators for the variance (Huber (1981); White (1980)).

Table A.21: Modality tests (*p-values*)

	H_0 : Distribution has one mode H_A : Distribution has more than one mode	Bootstrap <i>p-value</i>
1	$f(y_{2005})$	0.0000
2	$f(y_{1965})$	0.7638
3	$f(y_{1965} \times EFF)$	0.0060
4	$f(y_{1965} \times TECH)$	0.1471
5	$f(y_{1965} \times KACC)$	0.1251
6	$f(y_{1965} \times HACC)$	0.0851
7	$f(y_{1965} \times FKACC)$	0.9419
8	$f(y_{1965} \times EFF \times TECH)$	0.0040
9	$f(y_{1965} \times EFF \times KACC)$	0.0070
10	$f(y_{1965} \times EFF \times HACC)$	0.0010
11	$f(y_{1965} \times EFF \times FKACC)$	0.0010
12	$f(y_{1965} \times TECH \times KACC)$	0.0310
13	$f(y_{1965} \times TECH \times HACC)$	0.0531
14	$f(y_{1965} \times TECH \times FKACC)$	0.2212
15	$f(y_{1965} \times KACC \times HACC)$	0.0180
16	$f(y_{1965} \times KACC \times FKACC)$	0.4955
17	$f(y_{1965} \times HACC \times FKACC)$	0.1762
18	$f(y_{1965} \times EFF \times TECH \times KACC)$	0.0030
19	$f(y_{1965} \times EFF \times TECH \times HACC)$	0.0010
20	$f(y_{1965} \times EFF \times TECH \times FKACC)$	0.0010
21	$f(y_{1965} \times EFF \times KACC \times HACC)$	0.0040
22	$f(y_{1965} \times EFF \times KACC \times FKACC)$	0.0020
23	$f(y_{1965} \times EFF \times HACC \times FKACC)$	0.0000
24	$f(y_{1965} \times TECH \times KACC \times HACC)$	0.0160
25	$f(y_{1965} \times TECH \times KACC \times FKACC)$	0.1101
26	$f(y_{1965} \times TECH \times HACC \times FKACC)$	0.0561
27	$f(y_{1965} \times KACC \times HACC \times FKACC)$	0.0521
28	$f(y_{1965} \times EFF \times TECH \times KACC \times HACC)$	0.0010
29	$f(y_{1965} \times EFF \times TECH \times KACC \times FKACC)$	0.0000
30	$f(y_{1965} \times EFF \times TECH \times HACC \times FKACC)$	0.0000
31	$f(y_{1965} \times EFF \times KACC \times HACC \times FKACC)$	0.0000
32	$f(y_{1965} \times TECH \times KACC \times HACC \times FKACC)$	0.0180

Notes: We used the bootstrapped calibrated Silverman test for multi-modality due to [Hall and York \(2001\)](#) with 1000 bootstrap replications.

Table A.22: Distribution hypothesis tests (p -values)

	H_0 : Distributions are equal H_1 : Distributions are not equal	Bootstrap p -value
1	$g(y_{2005})$ vs. $f(y_{1965})$	0.0000
2	$g(y_{2005})$ vs. $f(y_{1965} \times EFF)$	0.0000
3	$g(y_{2005})$ vs. $f(y_{1965} \times TECH)$	0.0032
4	$g(y_{2005})$ vs. $f(y_{1965} \times KACC)$	0.0004
5	$g(y_{2005})$ vs. $f(y_{1965} \times HACC)$	0.0004
6	$g(y_{2005})$ vs. $f(y_{1965} \times FKACC)$	0.0016
7	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH)$	0.0004
8	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC)$	0.0000
9	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times HACC)$	0.0000
10	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times FKACC)$	0.0000
11	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC)$	0.0304
12	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times HACC)$	0.0222
13	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times FKACC)$	0.0070
14	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times HACC)$	0.0008
15	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times FKACC)$	0.0008
16	$g(y_{2005})$ vs. $f(y_{1965} \times HACC \times FKACC)$	0.0006
17	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC)$	0.0054
18	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times HACC)$	0.0006
19	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times FKACC)$	0.0002
20	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times HACC)$	0.0016
21	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times FKACC)$	0.0002
22	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times HACC \times FKACC)$	0.0000
23	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times HACC)$	0.7502
24	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times FKACC)$	0.0682
25	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times HACC \times FKACC)$	0.0660
26	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times HACC \times FKACC)$	0.0010
27	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC \times HACC)$	0.6922
28	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC \times FKACC)$	0.0182
29	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times HACC \times FKACC)$	0.0024
30	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times HACC \times FKACC)$	0.0030
31	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times HACC \times FKACC)$	0.1438

Notes: We used the bootstrapped Li (1996) test with 5000 bootstrap replications and the Sheather and Jones (1991) bandwidth.

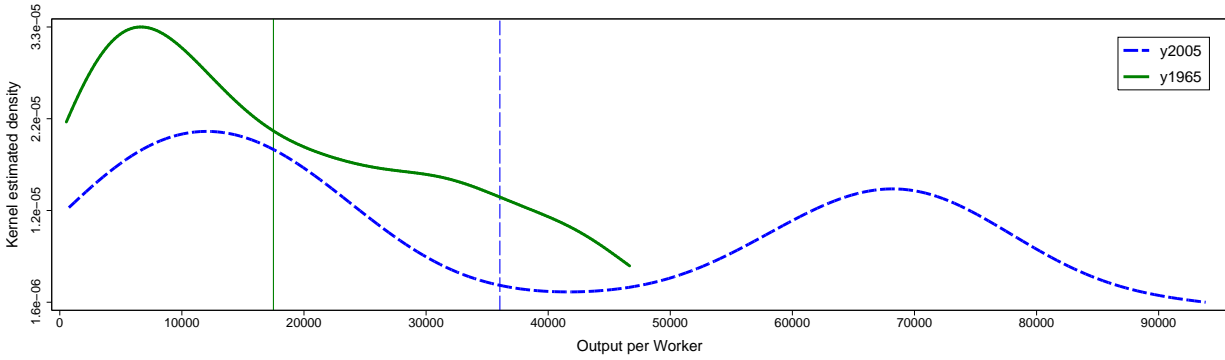


Figure A.23: Distributions of output per worker, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of output per worker. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

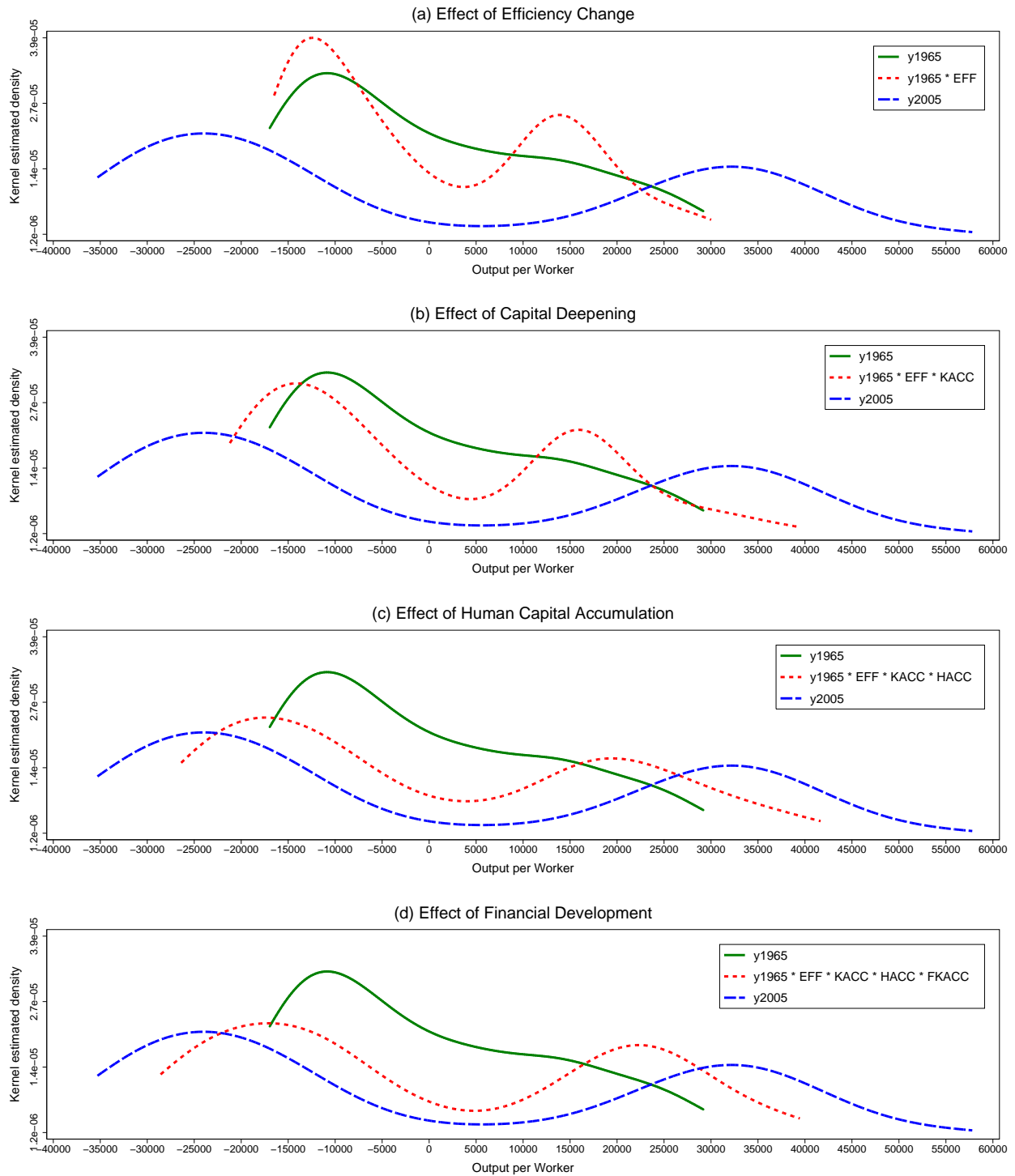


Figure A.24: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: EFF, KACC HACC, and FKACC

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of efficiency change, capital deepening, human capital accumulation, and financial development on the 1965 distribution.

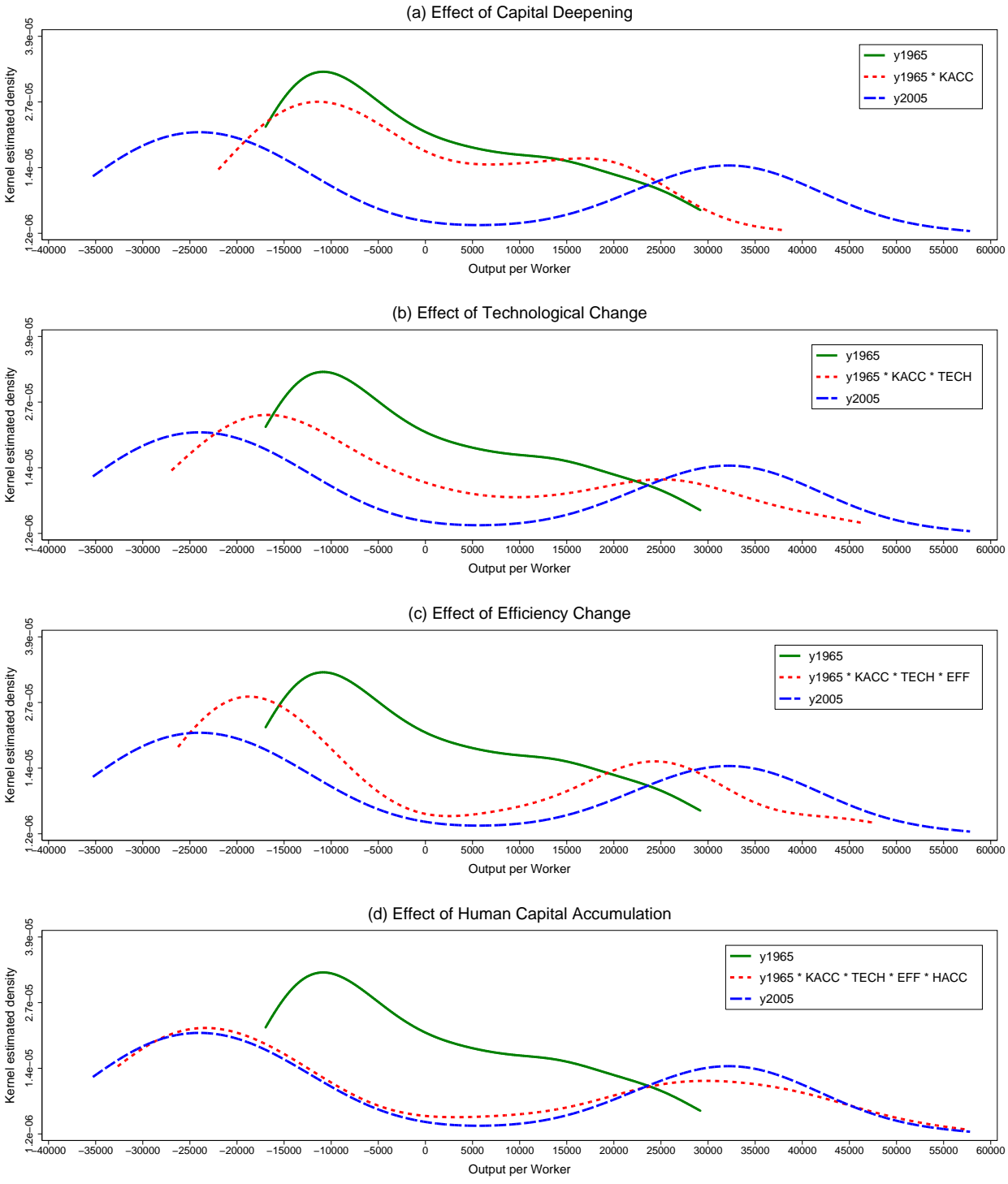


Figure A.25: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: KACC, TECH, EFF, and HACC

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of capital deepening, technological change, efficiency change, and human capital accumulation on the 1965 distribution.

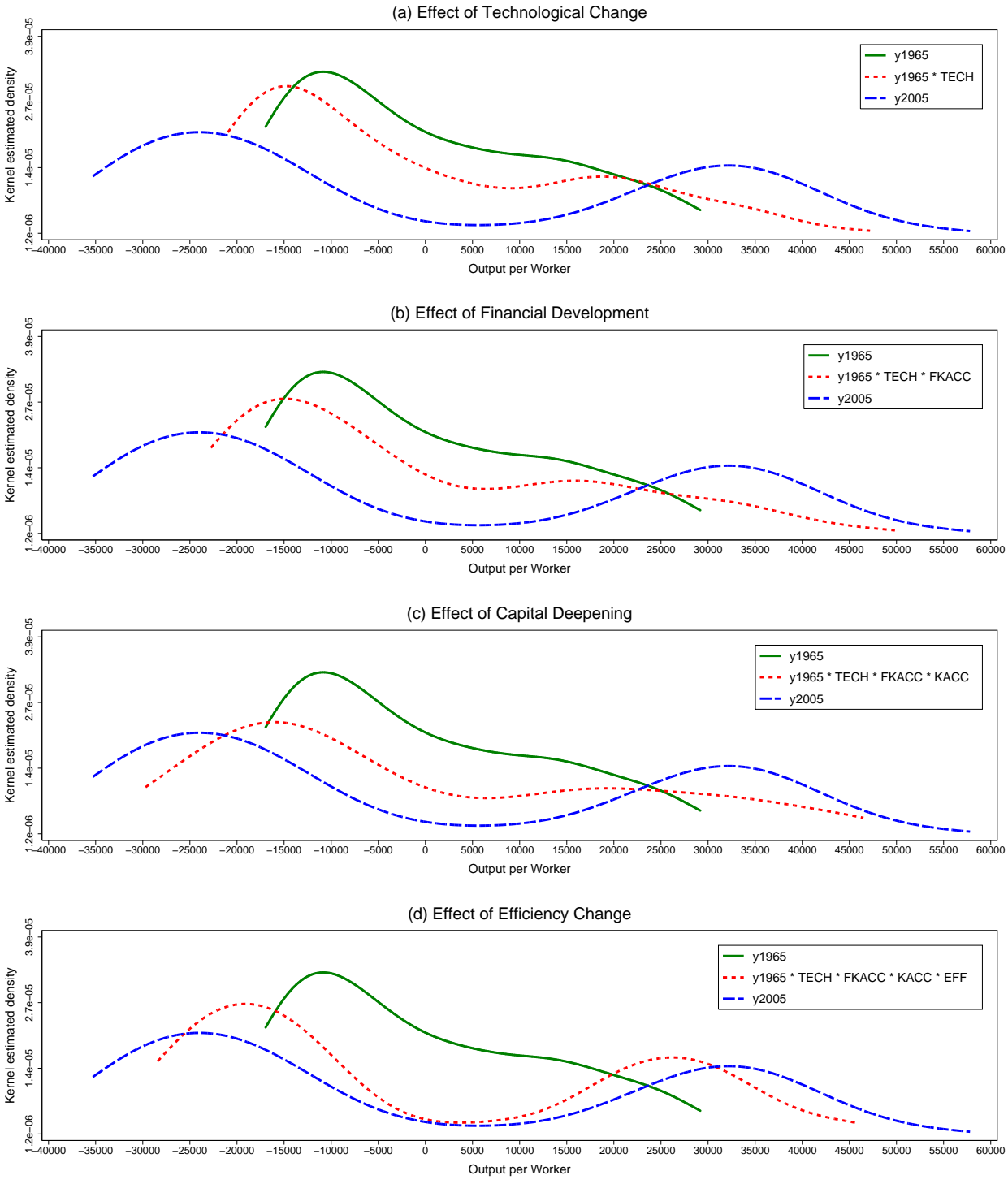


Figure A.26: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: TECH, FKACC, KACC and EFF

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of technological change, financial development, capital deepening, and efficiency change on the 1965 distribution.

Appendix C.4 Claims on the Non-financial Private Sector/ GDP (PRIVY, cut-off 25/75%)

Table A.23: Linking financial efficiency and financial development^a

	Net interest margin			Overhead costs		
	(1)	(2)	(3)	(1)	(2)	(3)
Low Region ^b	1.2182	0.8942	0.8548	0.0057	-0.4001	0.1874
	0.2220	0.3901	0.4264	0.9962	0.7480	0.8774
Middle Region ^c	2.0551	2.0849	2.0469	1.3814	1.3723	1.9383
	<.0001	<.0001	0.0001	0.0031	0.0125	0.0012
High Region ^d	1.2158	1.2494	1.2287	0.8916	0.8910	1.2004
	<.0001	<.0001	<.0001	0.0004	0.0026	0.0002
GB70		0.2441	0.2468		0.1015	0.0608
		0.1793	0.1807		0.6390	0.7692
ly65			0.0124			-0.1846
			0.8590			0.0233
Constant	2.4107	2.2935	2.2028	2.7904	2.7567	4.1090
	<.0001	<.0001	0.0003	<.0001	<.0001	<.0001
R-squared	0.594	0.580	0.580	0.415	0.426	0.488
N	57	51	51	57	51	51
Joint significance ^e	<.0001	<.0001	<.0001	<.0001	0.0001	<.0001

^a The dependent variable is the log of the inverse of the financial efficiency measure. The coefficients on the financial development regimes (regions) represent the sum of coefficients and the respective numbers below the coefficients are p-values for the sum of coefficients

^b Financial development falls into the low region if its value is lower than the 25th percentile of the financial development distribution

^c Financial development falls into the middle region if its value is between the 25th and 75th percentiles (inclusive) of the financial development distribution

^d Financial development falls into the high region if its value is greater than the 25th percentile of the financial development distribution

^e p-value of the F-statistic on the three coefficients on financial development in the main regression.

Table A.24: Financial efficiency augmentation factors

#	Country	1965	2005	#	Country	1965	2005
1	Argentina	1.344	1.682	30	Japan	2.474	5.739
2	Australia	2.518	3.157	31	Kenya	1.474	1.837
3	Austria	2.213	4.050	32	Malaysia	1.398	3.611
4	Belgium	1.665	3.163	33	Mauritius	1.684	3.104
5	Bolivia	1.194	2.128	34	Mexico	1.875	1.789
6	Burundi	1.063	1.872	35	Morocco	1.490	3.063
7	Canada	1.915	8.650	36	Nepal	1.050	2.113
8	Chile	1.314	2.412	37	Netherlands	2.834	7.041
9	Colombia	1.586	2.042	38	New Zealand	1.798	4.197
10	Costa Rica	1.925	2.005	39	Norway	3.341	3.606
11	Cote d'Ivoire	1.624	1.470	40	Panama	1.409	2.426
12	Cyprus	2.112	9.849	41	Paraguay	1.212	1.531
13	Denmark	1.667	6.956	42	Peru	1.383	1.647
14	Dominican Rep.	1.426	1.677	43	Philippines	1.927	2.343
15	Ecuador	1.677	1.686	44	Portugal	3.098	5.212
16	Egypt	1.761	2.500	45	Sierra Leone	1.167	1.265
17	El Salvador	1.596	2.201	46	Singapore	1.968	4.477
18	Finland	2.012	2.315	47	South Africa	2.639	7.282
19	France	2.789	3.368	48	Spain	1.617	5.102
20	Ghana	1.389	1.814	49	Sri Lanka	1.440	1.898
21	Greece	1.918	2.755	50	Sweden	2.361	4.460
22	Guatemala	1.446	1.760	51	Switzerland	3.781	6.957
23	Honduras	1.530	1.922	52	Syria	1.611	1.724
24	Iceland	1.682	9.339	53	Thailand	1.618	3.245
25	India	1.495	2.654	54	Trinidad and To- bago	1.415	2.081
26	Ireland	1.916	5.137	55	United Kingdom	1.804	5.615
27	Israel	1.612	2.929	56	United States	3.386	10.986
28	Italy	2.815	3.135	57	Uruguay	1.448	1.725
29	Jamaica	1.633	2.035				

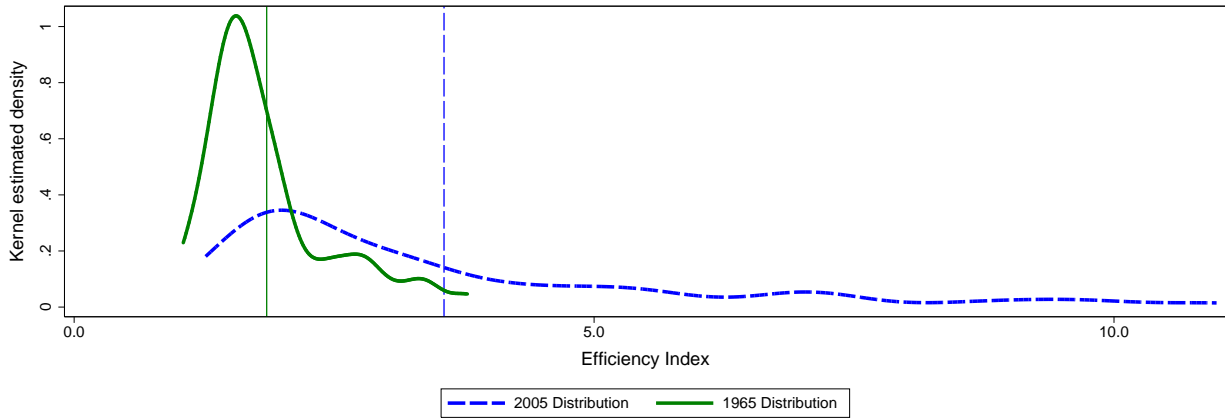


Figure A.27: Distributions of financial development index, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of financial development index. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

Table A.25: Efficiency indices

#	Country	Without Financial Development		With Financial Development	
		1965	2005	1965	2005
1	Argentina	0.65	0.55	0.77	0.58
2	Australia	0.79	0.86	0.78	0.91
3	Austria	0.89	0.94	0.90	0.93
4	Belgium	0.80	0.90	0.85	0.94
5	Bolivia	0.63	0.43	0.72	0.38
6	Burundi	0.85	0.28	0.84	0.23
7	Canada	0.99	0.85	1.00	0.71
8	Chile	0.44	0.61	0.52	0.58
9	Colombia	0.54	0.51	0.56	0.47
10	Costa Rica	1.00	0.60	0.95	0.59
11	Cote d'Ivoire	0.76	0.58	0.72	0.60
12	Cyprus	0.38	0.68	0.36	0.47
13	Denmark	0.86	0.85	0.90	0.75
14	Dominican Rep.	0.75	0.62	0.80	0.64
15	Ecuador	0.38	0.40	0.40	0.42
16	Egypt	0.59	0.64	0.58	0.52
17	El Salvador	0.97	0.60	1.00	0.52
18	Finland	0.66	0.84	0.68	1.00
19	France	0.99	0.91	0.98	0.95
20	Ghana	0.12	0.21	0.13	0.19
21	Greece	0.71	0.79	0.70	0.89
22	Guatemala	0.74	0.64	0.82	0.66
23	Honduras	0.65	0.39	0.67	0.37
24	Iceland	0.92	0.89	0.97	0.80
25	India	0.39	0.42	0.40	0.34
26	Ireland	0.71	0.94	0.68	0.87
27	Israel	0.69	0.74	0.73	0.82
28	Italy	0.81	0.90	0.81	0.95
29	Jamaica	0.66	0.44	0.69	0.44
30	Japan	0.65	0.68	0.53	0.63
31	Kenya	0.45	0.34	0.47	0.29
32	Malaysia	0.52	0.51	0.57	0.46
33	Mauritius	0.36	0.45	0.37	0.43
34	Mexico	0.90	0.67	0.92	0.71
35	Morocco	0.47	0.35	0.50	0.29
36	Nepal	1.00	0.24	1.00	0.22

(continued on next page)

Table A.25 (Continued)

#	Country	Without Financial Development		With Financial Development	
		1965	2005	1965	2005
37	Netherlands	1.00	0.87	1.00	0.77
38	New Zealand	0.89	0.75	0.92	0.68
39	Norway	0.86	0.99	0.86	1.00
40	Panama	0.58	0.54	0.62	0.45
41	Paraguay	0.62	0.35	0.75	0.36
42	Peru	0.50	0.42	0.56	0.43
43	Philippines	0.40	0.32	0.35	0.27
44	Portugal	0.68	0.61	0.55	0.57
45	Sierra Leone	1.00	0.50	1.00	0.53
46	Singapore	0.56	1.00	0.55	1.00
47	South Africa	0.65	0.53	0.54	0.35
48	Spain	0.92	0.78	0.99	0.73
49	Sri Lanka	0.22	0.35	0.24	0.33
50	Sweden	0.84	0.87	0.85	0.83
51	Switzerland	0.97	0.79	0.97	0.74
52	Syria	1.00	0.64	1.00	0.64
53	Thailand	0.32	0.37	0.32	0.32
54	Trinidad and To- bago	0.72	0.80	0.82	0.92
55	United Kingdom	1.00	1.00	1.00	0.91
56	United States	1.00	0.95	0.95	0.82
57	Uruguay	0.53	0.58	0.58	0.59
	Average	0.70	0.64	0.71	0.61

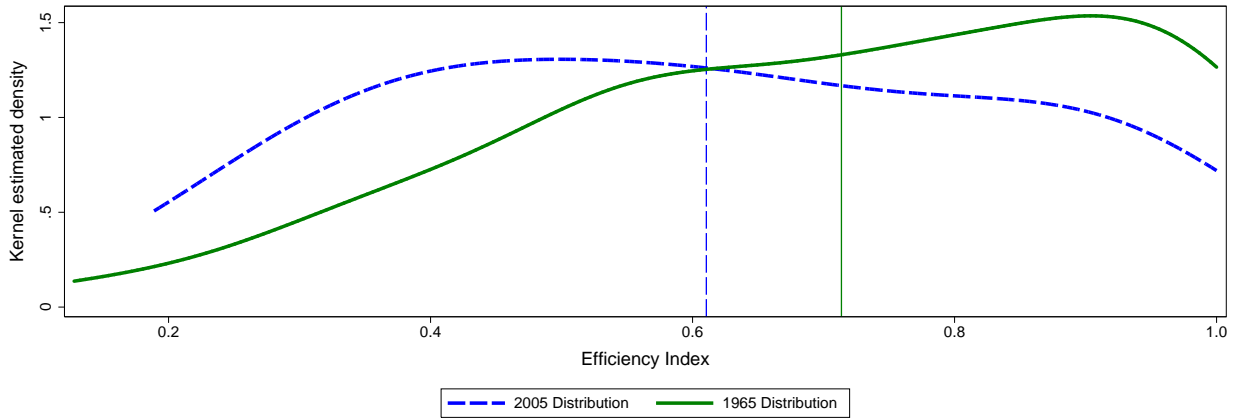


Figure A.28: Distributions of efficiency index, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of efficiency index. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

Production Frontiers in 1965 and 2005

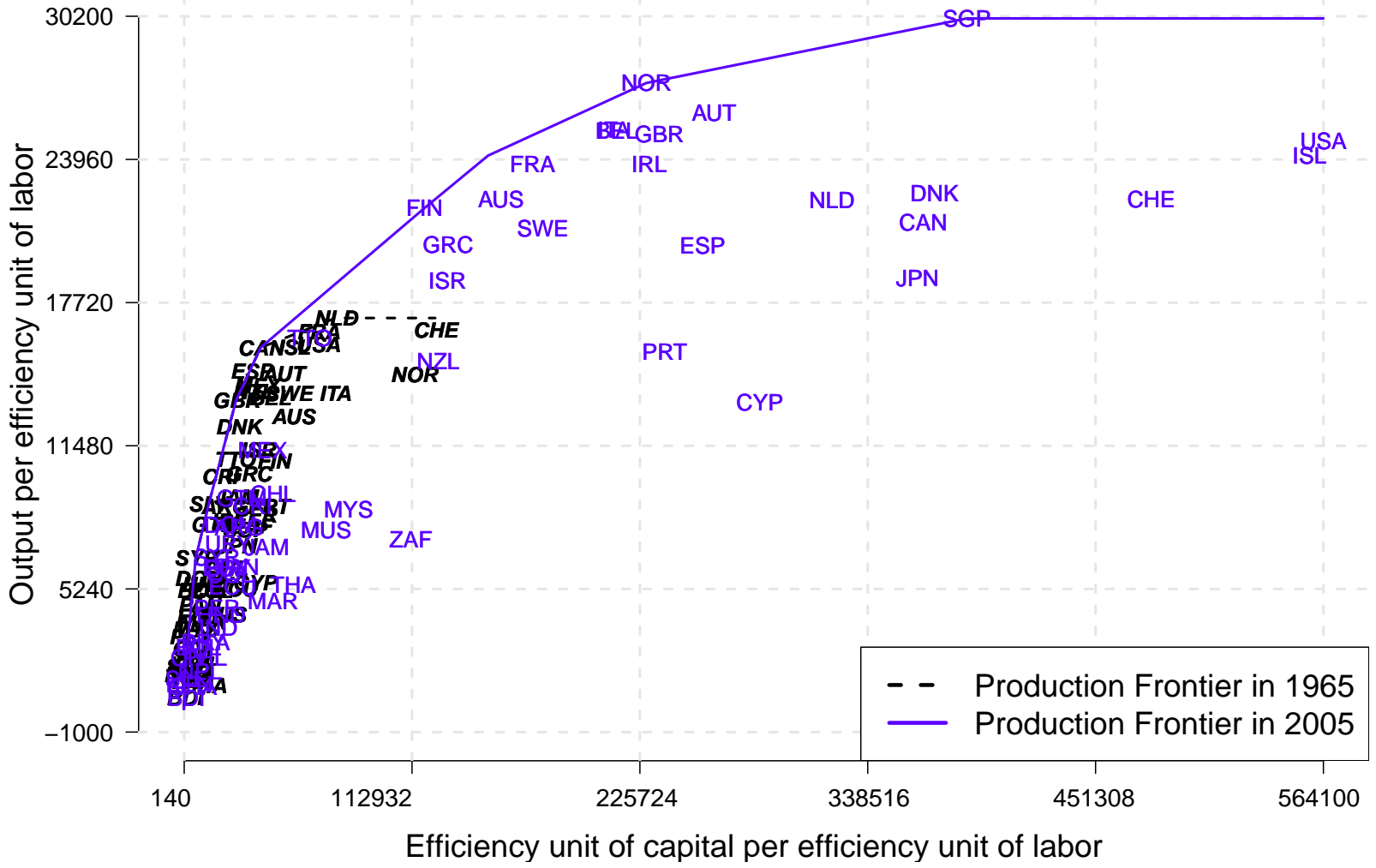


Figure A.29: Production frontiers in 1965 and 2005

Notes: The bold italic abbreviations show the 1965 observations and the normal font abbreviations show the 2005 observations. The dotted line represents the 1965 production frontier and the solid line presents the 2005 production frontier.

Table A.26: Percentage change of quinquartite decomposition indices, 1965–2005

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
1	Argentina	19.2	−25.3	0.0	23.5	16.1	11.3
		19.2	−14.7	0.0	22.3	14.2	
2	Australia	103.2	16.6	22.0	21.4	14.6	2.7
		103.2	8.9	25.2	33.1	11.9	
3	Austria	155.3	3.0	29.7	29.2	36.8	8.1
		155.3	5.1	29.9	43.4	30.4	
4	Belgium	138.6	10.6	25.9	27.4	23.3	9.0
		138.6	12.0	33.5	32.9	20.1	
5	Bolivia	−9.7	−47.4	0.0	−2.0	30.1	34.5
		−9.7	−30.9	0.0	−3.4	35.4	
6	Burundi	38.4	−72.7	0.0	212.8	7.3	51.0
		38.4	−67.3	0.0	297.1	6.7	
7	Canada	60.4	−28.6	32.0	16.6	14.6	27.3
		60.4	−14.4	21.5	35.9	13.5	
8	Chile	117.3	10.5	0.8	23.5	26.8	24.6
		117.3	40.9	0.0	27.2	21.3	
9	Colombia	66.5	−16.8	0.0	46.4	22.9	11.3
		66.5	−6.0	0.0	49.3	18.7	
10	Costa Rica	29.5	−37.7	0.0	58.7	29.4	1.2
		29.5	−39.8	0.0	72.2	24.8	
11	Cote d'Ivoire	20.8	−17.3	0.0	39.6	11.7	−6.4
		20.8	−23.6	0.0	45.0	8.9	
12	Cyprus	240.5	29.9	28.8	21.4	30.7	28.3
		240.5	77.6	7.6	40.3	27.0	
13	Denmark	104.1	−16.5	32.3	35.1	8.5	26.1
		104.1	−1.1	24.3	52.7	8.7	
14	Dominican Rep.	110.1	−19.2	0.0	93.8	21.6	10.4
		110.1	−18.0	0.0	108.9	22.6	
15	Ecuador	50.5	5.0	0.0	18.7	20.5	0.2
		50.5	4.7	0.0	20.9	18.9	
16	Egypt	195.2	−9.8	0.0	99.7	34.7	21.7
		195.2	7.6	0.0	122.1	23.5	
17	El Salvador	19.7	−47.8	0.0	49.1	35.0	13.9
		19.7	−38.7	0.0	50.9	29.4	
18	Finland	171.7	47.8	14.1	21.6	28.4	3.1
		171.7	26.1	26.0	37.7	24.2	
19	France	130.6	−3.2	25.2	23.5	50.9	2.0
		130.6	−8.0	27.6	39.6	40.8	

(continued on next page)

Table A.26 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
20	Ghana	71.9	47.7	0.0	-21.9	32.7	12.3
		71.9	80.6	0.0	-25.9	28.5	
21	Greece	163.3	27.0	15.4	32.7	24.9	8.5
		163.3	11.5	22.7	57.0	22.5	
22	Guatemala	58.0	-20.2	0.0	51.3	20.5	8.6
		58.0	-13.8	0.0	54.9	18.3	
23	Honduras	28.9	-44.6	0.0	59.1	33.7	9.4
		28.9	-39.1	0.0	63.4	29.5	
24	Iceland	104.5	-17.0	35.5	7.6	29.5	30.5
		104.5	-3.6	40.2	23.4	22.6	
25	India	220.8	-16.1	0.0	127.1	17.5	43.2
		220.8	8.3	0.0	154.3	16.4	
26	Ireland	252.7	28.5	26.6	52.7	14.9	23.6
		252.7	32.1	22.0	91.0	14.6	
27	Israel	107.1	13.0	15.3	21.6	19.4	9.5
		107.1	7.1	24.7	31.7	17.8	
28	Italy	162.5	17.3	30.5	24.1	36.3	1.3
		162.5	11.7	34.8	34.5	29.7	
29	Jamaica	22.3	-35.9	0.4	29.8	35.8	7.7
		22.3	-33.1	0.4	35.8	34.1	
30	Japan	236.5	19.6	31.9	51.6	18.1	19.1
		236.5	5.2	26.9	112.6	18.5	
31	Kenya	3.3	-37.5	0.0	17.1	21.5	16.2
		3.3	-25.4	0.0	18.7	16.8	
32	Malaysia	357.9	-20.1	5.6	167.3	46.4	38.7
		357.9	-2.5	2.2	224.1	41.8	
33	Mauritius	157.3	16.0	3.8	40.3	25.1	21.8
		157.3	26.6	2.3	62.9	22.1	
34	Mexico	37.5	-22.3	0.1	22.9	46.3	-1.7
		37.5	-25.2	1.6	26.3	43.3	
35	Morocco	101.8	-41.2	0.8	93.7	41.9	23.9
		101.8	-25.7	0.0	104.7	32.7	
36	Nepal	62.9	-77.9	0.0	339.8	12.2	49.2
		62.9	-75.6	0.0	491.0	12.9	
37	Netherlands	68.8	-23.2	35.8	10.6	25.0	17.1
		68.8	-12.8	28.1	25.2	20.7	
38	New Zealand	24.1	-26.2	14.5	16.3	10.2	14.5
		24.1	-15.1	8.8	22.8	9.4	
39	Norway	151.1	16.9	41.9	17.5	27.2	1.3

(continued on next page)

Table A.26 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
40	Panama	151.1	16.0	43.8	22.6	22.8	26.4
		106.2	-26.6	0.0	75.3	26.7	
41	Paraguay	106.2	-5.8	0.0	79.0	22.3	14.2
		39.8	-52.1	0.0	115.1	18.8	
42	Peru	39.8	-44.2	0.0	119.2	14.4	11.1
		-17.5	-22.9	0.0	-22.3	23.9	
43	Philippines	-17.5	-17.3	4.1	-20.9	21.2	13.0
		45.7	-21.4	0.0	43.1	14.6	
44	Portugal	45.7	-21.7	0.0	62.0	14.9	9.2
		172.5	2.3	27.5	34.3	42.5	
45	Sierra Leone	172.5	-10.4	22.3	84.6	34.8	3.8
		-3.7	-47.4	0.0	48.9	18.5	
46	Singapore	-3.7	-50.1	0.0	68.7	14.5	19.1
		476.4	81.8	32.9	48.7	34.6	
47	South Africa	476.4	77.1	32.9	85.5	32.0	21.0
		34.4	-35.6	11.9	16.1	32.8	
48	Spain	34.4	-18.4	0.0	37.7	19.6	24.9
		142.4	-26.5	27.7	35.3	52.8	
49	Sri Lanka	142.4	-15.2	24.5	53.2	49.9	18.5
		233.5	38.5	0.0	79.9	12.9	
50	Sweden	233.5	58.8	0.0	89.4	10.9	7.9
		100.8	-1.9	23.7	19.8	28.0	
51	Switzerland	100.8	2.6	21.2	32.1	22.3	11.2
		49.0	-23.9	51.7	6.8	8.6	
52	Syria	49.0	-18.5	43.7	18.4	7.4	4.8
		48.1	-35.8	0.0	94.7	13.2	
53	Thailand	48.1	-36.2	0.0	109.4	10.8	35.6
		401.5	1.4	2.0	198.1	20.0	
54	Trinidad and To- bago	401.5	15.3	0.0	281.3	14.1	13.6
		99.2	12.0	2.9	25.6	21.0	
55	United Kingdom	99.2	11.1	8.8	33.5	23.4	22.5
		127.5	-8.6	26.8	39.5	14.9	
56	United States	127.5	0.0	21.2	64.1	14.4	21.9
		79.4	-13.3	37.4	9.4	13.0	
57	Uruguay	79.4	-5.2	23.8	38.0	10.7	8.3
		77.2	0.8	0.0	40.5	15.5	
		77.2	7.9	0.0	44.9	13.3	

(continued on next page)

Table A.26 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
	Average	111.7	-10.4	12.5	51.4	24.8	16.2
		111.7	-3.9	11.5	70.9	21.5	

Table A.27: Mean percentage changes of quinquepartite decomposition indices (country groupings)

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC
OECD*	0.85	0.82	124.4	-1.0	27.6	25.3	25.9	13.2
Asian Tigers**	0.49	0.60	368.1	20.7	18.1	116.5	29.8	28.1
Latin America	0.70	0.52	51.1	-23.0	0.3	42.9	24.9	12.9
Africa	0.57	0.38	68.8	-22.0	1.8	60.7	25.1	18.4
Non-OECD	0.63	0.48	103.7	-16.4	3.0	67.8	24.2	18.1
ALL	0.71	0.61	111.7	-10.4	12.5	51.4	24.8	16.2

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

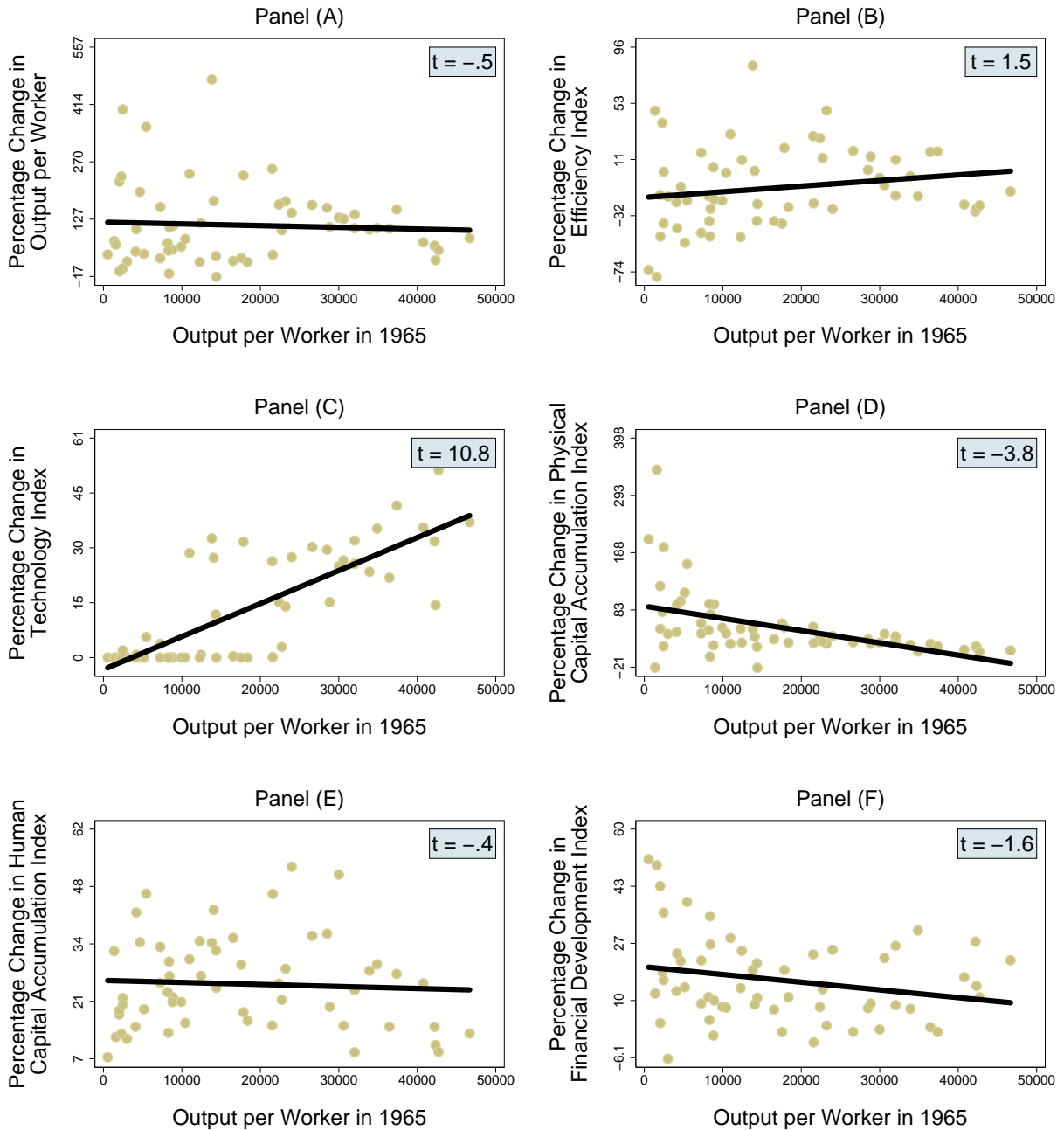


Figure A.30: Percentage change (from 1965 to 2005) in output per worker and five decomposition indices, plotted against output per worker in 1965.

Notes: Each panel contains a GLS regression line; the topright number in each panel is a t -statistic of a respective GLS regression based on “heteroskedasticity-consistent” estimators for the variance (Huber (1981); White (1980)).

Table A.28: Modality tests (*p-values*)

	H_0 : Distribution has one mode H_A : Distribution has more than one mode	Bootstrap <i>p-value</i>
1	$f(y_{2005})$	0.0000
2	$f(y_{1965})$	0.7407
3	$f(y_{1965} \times EFF)$	0.0010
4	$f(y_{1965} \times TECH)$	0.3614
5	$f(y_{1965} \times KACC)$	0.2282
6	$f(y_{1965} \times HACC)$	0.1351
7	$f(y_{1965} \times FKACC)$	0.8509
8	$f(y_{1965} \times EFF \times TECH)$	0.0040
9	$f(y_{1965} \times EFF \times KACC)$	0.0000
10	$f(y_{1965} \times EFF \times HACC)$	0.0080
11	$f(y_{1965} \times EFF \times FKACC)$	0.0000
12	$f(y_{1965} \times TECH \times KACC)$	0.0981
13	$f(y_{1965} \times TECH \times HACC)$	0.1542
14	$f(y_{1965} \times TECH \times FKACC)$	0.7828
15	$f(y_{1965} \times KACC \times HACC)$	0.0160
16	$f(y_{1965} \times KACC \times FKACC)$	0.4525
17	$f(y_{1965} \times HACC \times FKACC)$	0.2172
18	$f(y_{1965} \times EFF \times TECH \times KACC)$	0.0000
19	$f(y_{1965} \times EFF \times TECH \times HACC)$	0.0060
20	$f(y_{1965} \times EFF \times TECH \times FKACC)$	0.0020
21	$f(y_{1965} \times EFF \times KACC \times HACC)$	0.0020
22	$f(y_{1965} \times EFF \times KACC \times FKACC)$	0.0000
23	$f(y_{1965} \times EFF \times HACC \times FKACC)$	0.0000
24	$f(y_{1965} \times TECH \times KACC \times HACC)$	0.0200
25	$f(y_{1965} \times TECH \times KACC \times FKACC)$	0.3003
26	$f(y_{1965} \times TECH \times HACC \times FKACC)$	0.1792
27	$f(y_{1965} \times KACC \times HACC \times FKACC)$	0.0961
28	$f(y_{1965} \times EFF \times TECH \times KACC \times HACC)$	0.0000
29	$f(y_{1965} \times EFF \times TECH \times KACC \times FKACC)$	0.0000
30	$f(y_{1965} \times EFF \times TECH \times HACC \times FKACC)$	0.0000
31	$f(y_{1965} \times EFF \times KACC \times HACC \times FKACC)$	0.0000
32	$f(y_{1965} \times TECH \times KACC \times HACC \times FKACC)$	0.0430

Notes: We used the bootstrapped calibrated Silverman test for multi-modality due to [Hall and York \(2001\)](#) with 1000 bootstrap replications.

Table A.29: Distribution hypothesis tests (p -values)

	H_0 : Distributions are equal H_1 : Distributions are not equal	Bootstrap p -value
1	$g(y_{2005})$ vs. $f(y_{1965})$	0.0018
2	$g(y_{2005})$ vs. $f(y_{1965} \times EFF)$	0.0002
3	$g(y_{2005})$ vs. $f(y_{1965} \times TECH)$	0.0040
4	$g(y_{2005})$ vs. $f(y_{1965} \times KACC)$	0.0000
5	$g(y_{2005})$ vs. $f(y_{1965} \times HACC)$	0.0008
6	$g(y_{2005})$ vs. $f(y_{1965} \times FKACC)$	0.0010
7	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH)$	0.0000
8	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC)$	0.0000
9	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times HACC)$	0.0000
10	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times FKACC)$	0.0000
11	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC)$	0.0302
12	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times HACC)$	0.0410
13	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times FKACC)$	0.0228
14	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times HACC)$	0.0006
15	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times FKACC)$	0.0022
16	$g(y_{2005})$ vs. $f(y_{1965} \times HACC \times FKACC)$	0.0036
17	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC)$	0.0010
18	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times HACC)$	0.0008
19	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times FKACC)$	0.0000
20	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times HACC)$	0.0008
21	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times FKACC)$	0.0004
22	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times HACC \times FKACC)$	0.0000
23	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times HACC)$	0.7886
24	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times FKACC)$	0.1288
25	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times HACC \times FKACC)$	0.0466
26	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times HACC \times FKACC)$	0.0132
27	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC \times HACC)$	0.2452
28	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC \times FKACC)$	0.0272
29	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times HACC \times FKACC)$	0.0076
30	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times HACC \times FKACC)$	0.0048
31	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times HACC \times FKACC)$	0.1234

Notes: We used the bootstrapped Li (1996) test with 5000 bootstrap replications and the Sheather and Jones (1991) bandwidth.

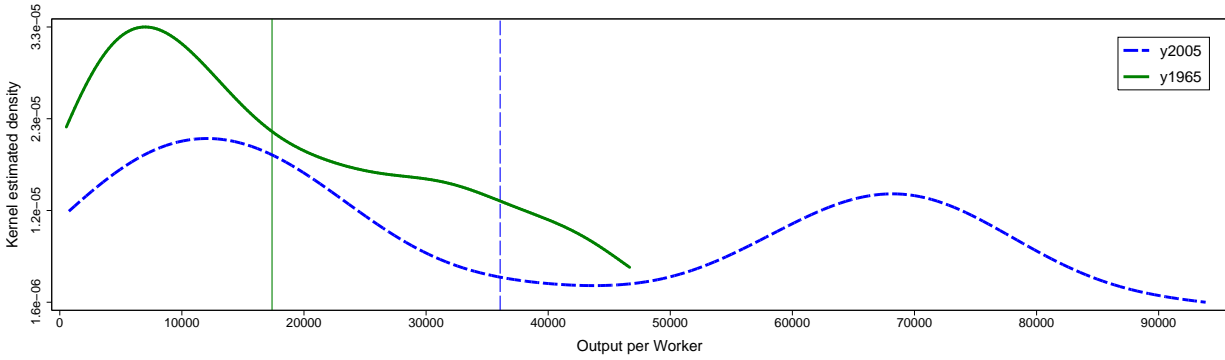


Figure A.31: Distributions of output per worker, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of output per worker. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

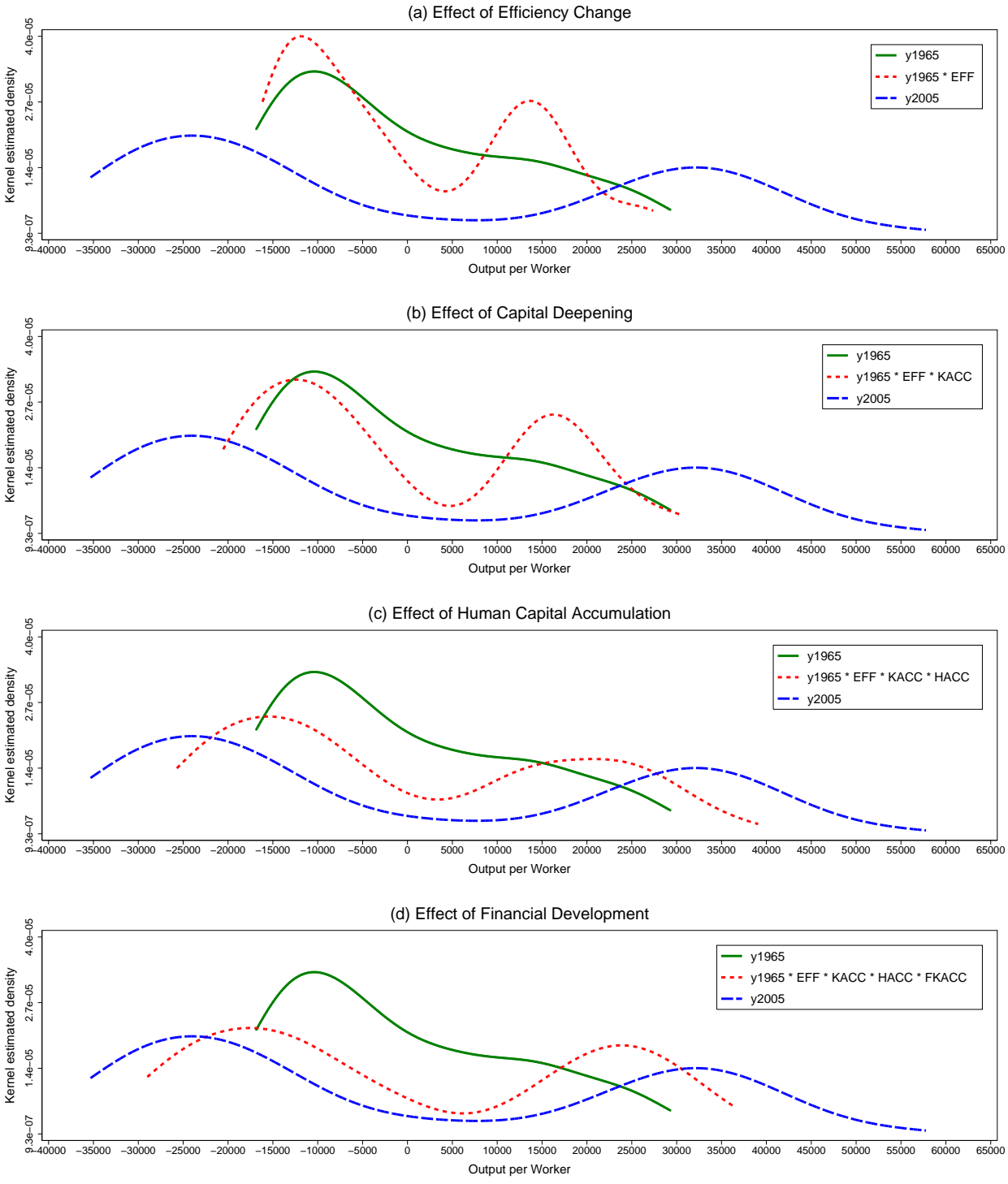


Figure A.32: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: EFF, KACC HACC, and FKACC

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of efficiency change, capital deepening, human capital accumulation, and financial development on the 1965 distribution.

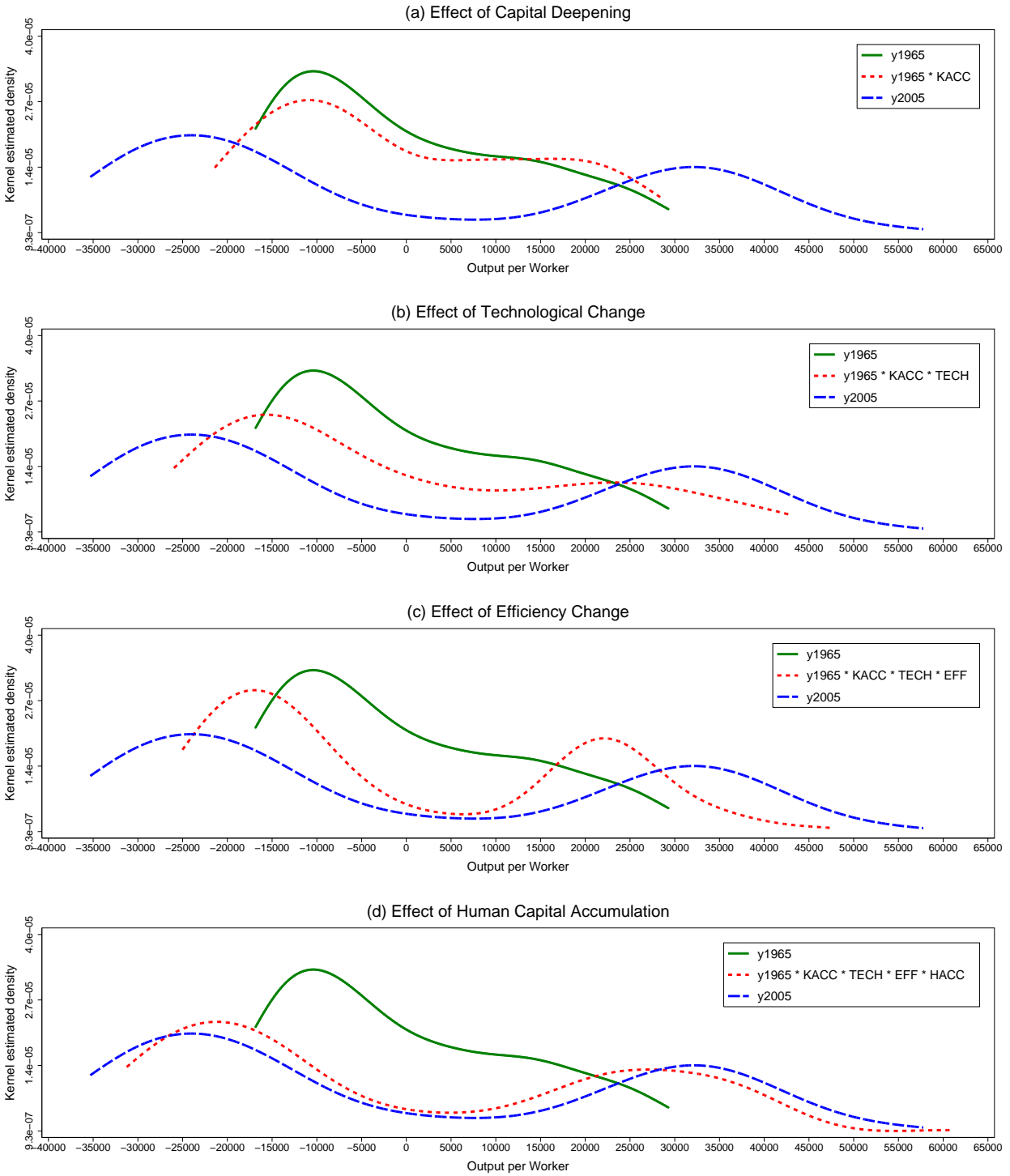


Figure A.33: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: KACC, TECH, EFF, and HACC

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of capital deepening, technological change, efficiency change, and human capital accumulation on the 1965 distribution.

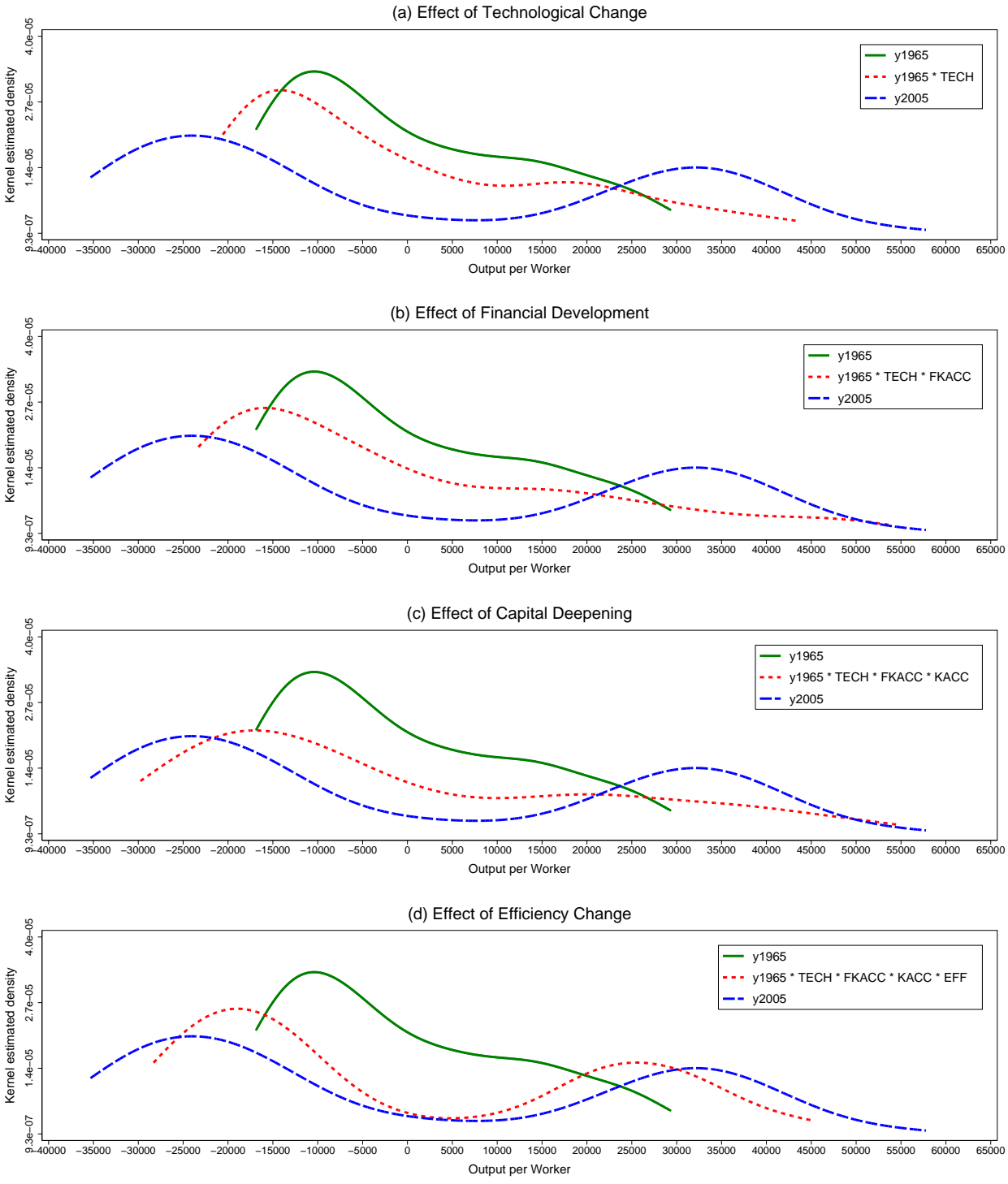


Figure A.34: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: TECH, FKACC, KACC and EFF

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of technological change, financial development, capital deepening, and efficiency change on the 1965 distribution.

Appendix C.5 Private Credit by Deposit Money Banks and other Financial Institutions /GDP (CREDIT1, cut-off 30/70%)

Table A.30: Linking financial efficiency and financial development^a

	Net interest margin			Overhead costs		
	(1)	(2)	(3)	(1)	(2)	(3)
Low Region ^b	1.1839	0.6040	0.3954	0.0437	-0.5899	0.4638
	0.3511	0.6727	0.7941	0.9747	0.7051	0.7682
Middle Region ^c	1.9749	1.8699	1.7053	1.4380	1.3685	2.2004
	0.0003	0.0034	0.0209	0.0120	0.0439	0.0047
High Region ^d	1.1375	1.1720	1.0750	0.8355	0.8561	1.3461
	<.0001	0.0005	0.0074	0.0031	0.0161	0.0015
GB70		0.2899	0.2871		0.1909	0.2052
		0.2190	0.2278		0.4556	0.4046
ly65			0.0395			-0.1997
			0.6548			0.0339
Constant	2.5625	2.4588	2.1877	2.8724	2.8061	4.1755
	<.0001	<.0001	0.0022	<.0001	<.0001	<.0001
R-squared	0.449	0.411	0.413	0.338	0.336	0.400
N	57	51	51	57	51	51
Joint significance ^e	<.0001	0.0001	0.0030	0.0001	0.0014	0.0002

^a The dependent variable is the log of the inverse of the financial efficiency measure. The coefficients on the financial development regimes (regions) represent the sum of coefficients and the respective numbers below the coefficients are p-values for the sum of coefficients

^b Financial development falls into the low region if its value is lower than the 30th percentile of the financial development distribution

^c Financial development falls into the middle region if its value is between the 30th and 70th percentiles (inclusive) of the financial development distribution

^d Financial development falls into the high region if its value is greater than the 30th percentile of the financial development distribution

^e p-value of the F-statistic on the three coefficients on financial development in the main regression.

Table A.31: Financial efficiency augmentation factors

#	Country	1965	2005	#	Country	1965	2005
1	Argentina	1.041	1.041	30	Japan	2.281	2.881
2	Australia	1.079	2.978	31	Kenya	1.056	1.102
3	Austria	1.916	3.172	32	Malaysia	1.047	3.124
4	Belgium	1.050	2.166	33	Mauritius	1.087	2.177
5	Bolivia	1.020	2.036	34	Mexico	1.532	1.062
6	Burundi	1.010	1.095	35	Morocco	1.051	2.351
7	Canada	1.082	6.237	36	Nepal	1.006	1.715
8	Chile	1.038	2.212	37	Netherlands	2.216	5.668
9	Colombia	1.073	1.604	38	New Zealand	1.102	3.780
10	Costa Rica	1.614	1.711	39	Norway	2.858	2.887
11	Cote d'Ivoire	1.075	1.052	40	Panama	1.058	2.239
12	Cyprus	1.919	5.419	41	Paraguay	1.032	1.067
13	Denmark	1.615	5.689	42	Peru	1.046	1.074
14	Dominican Rep.	1.029	1.076	43	Philippines	1.095	1.679
15	Ecuador	1.067	1.085	44	Portugal	2.443	4.521
16	Egypt	1.060	2.343	45	Sierra Leone	1.025	1.017
17	El Salvador	1.078	2.043	46	Singapore	1.851	3.133
18	Finland	1.891	2.131	47	South Africa	2.098	4.061
19	France	1.102	2.624	48	Spain	2.238	4.048
20	Ghana	1.027	1.055	49	Sri Lanka	1.037	1.647
21	Greece	1.053	2.157	50	Sweden	2.106	3.053
22	Guatemala	1.050	1.573	51	Switzerland	3.012	5.560
23	Honduras	1.048	1.883	52	Syria	1.075	1.048
24	Iceland	1.661	8.345	53	Thailand	1.055	2.647
25	India	1.037	1.859	54	Trinidad and To- bago	1.042	1.774
26	Ireland	1.738	4.608	55	United Kingdom	1.083	5.109
27	Israel	1.076	2.504	56	United States	2.470	7.580
28	Italy	2.679	2.519	57	Uruguay	1.062	1.097
29	Jamaica	1.069	1.081				

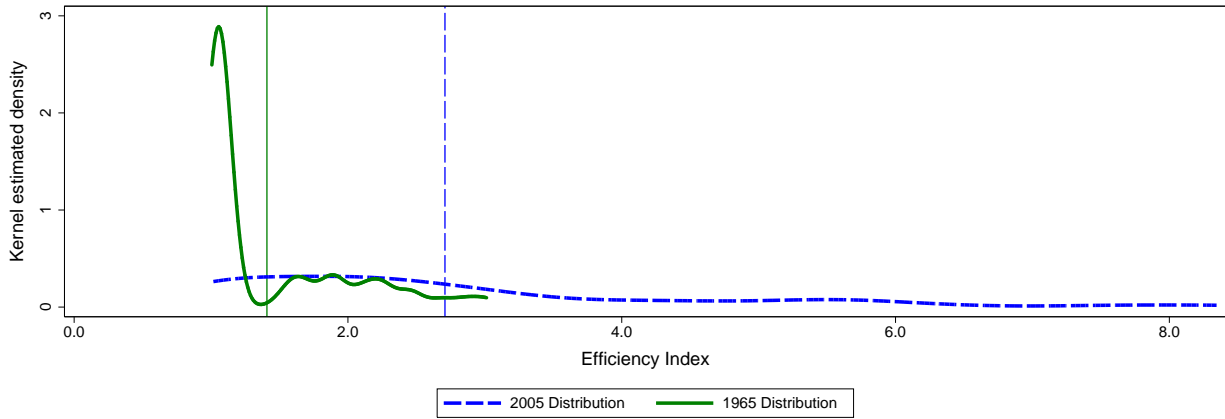


Figure A.35: Distributions of financial development index, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of financial development index. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

Table A.32: Efficiency indices

#	Country	Without Financial Development		With Financial Development	
		1965	2005	1965	2005
1	Argentina	0.65	0.55	0.66	0.57
2	Australia	0.79	0.86	0.80	0.88
3	Austria	0.89	0.94	0.87	0.93
4	Belgium	0.80	0.90	0.83	1.00
5	Bolivia	0.63	0.43	0.64	0.32
6	Burundi	0.85	0.28	0.85	0.27
7	Canada	0.99	0.85	1.00	0.71
8	Chile	0.44	0.61	0.45	0.54
9	Colombia	0.54	0.51	0.55	0.41
10	Costa Rica	1.00	0.60	0.78	0.53
11	Cote d'Ivoire	0.76	0.58	0.75	0.58
12	Cyprus	0.38	0.68	0.33	0.52
13	Denmark	0.86	0.85	0.75	0.75
14	Dominican Rep.	0.75	0.62	0.77	0.62
15	Ecuador	0.38	0.40	0.38	0.40
16	Egypt	0.59	0.64	0.60	0.41
17	El Salvador	0.97	0.60	0.97	0.41
18	Finland	0.66	0.84	0.65	0.96
19	France	0.99	0.91	1.00	0.97
20	Ghana	0.12	0.21	0.12	0.21
21	Greece	0.71	0.79	0.72	0.90
22	Guatemala	0.74	0.64	0.75	0.56
23	Honduras	0.65	0.39	0.66	0.28
24	Iceland	0.92	0.89	0.93	0.80
25	India	0.39	0.42	0.40	0.31
26	Ireland	0.71	0.94	0.54	0.85
27	Israel	0.69	0.74	0.70	0.81
28	Italy	0.81	0.90	0.81	0.95
29	Jamaica	0.66	0.44	0.66	0.45
30	Japan	0.65	0.68	0.44	0.69
31	Kenya	0.45	0.34	0.46	0.33
32	Malaysia	0.52	0.51	0.53	0.44
33	Mauritius	0.36	0.45	0.36	0.43
34	Mexico	0.90	0.67	0.86	0.71
35	Morocco	0.47	0.35	0.48	0.28
36	Nepal	1.00	0.24	1.00	0.20

(continued on next page)

Table A.32 (Continued)

#	Country	Without Financial Development		With Financial Development	
		1965	2005	1965	2005
37	Netherlands	1.00	0.87	1.00	0.75
38	New Zealand	0.89	0.75	0.89	0.66
39	Norway	0.86	0.99	0.86	1.00
40	Panama	0.58	0.54	0.58	0.38
41	Paraguay	0.62	0.35	0.64	0.35
42	Peru	0.50	0.42	0.52	0.42
43	Philippines	0.40	0.32	0.40	0.26
44	Portugal	0.68	0.61	0.53	0.56
45	Sierra Leone	1.00	0.50	1.00	0.51
46	Singapore	0.56	1.00	0.47	1.00
47	South Africa	0.65	0.53	0.49	0.38
48	Spain	0.92	0.78	0.88	0.72
49	Sri Lanka	0.22	0.35	0.22	0.28
50	Sweden	0.84	0.87	0.82	0.88
51	Switzerland	0.97	0.79	0.97	0.74
52	Syria	1.00	0.64	1.00	0.65
53	Thailand	0.32	0.37	0.33	0.30
54	Trinidad and To- bago	0.72	0.80	0.74	0.87
55	United Kingdom	1.00	1.00	1.00	0.89
56	United States	1.00	0.95	0.94	0.82
57	Uruguay	0.53	0.58	0.54	0.57
	Average	0.70	0.64	0.68	0.60

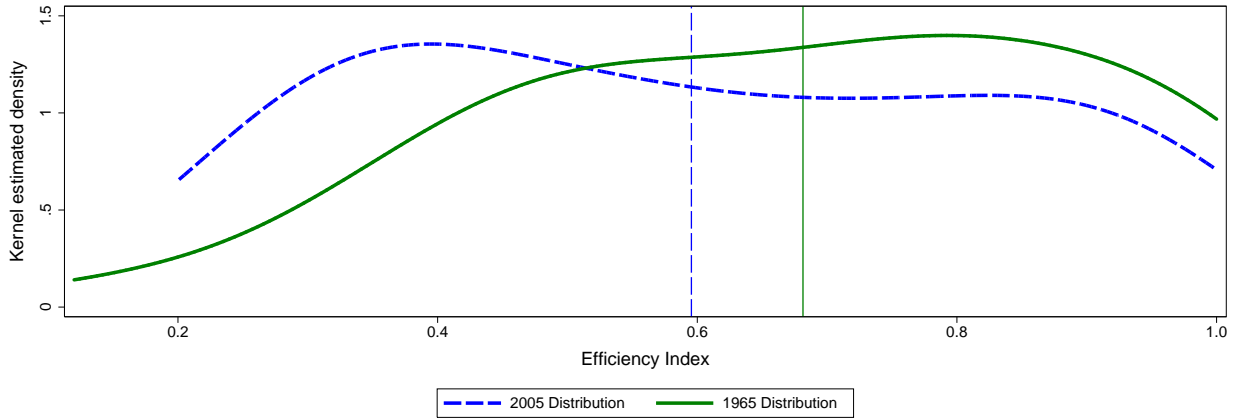


Figure A.36: Distributions of efficiency index, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of efficiency index. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

Table A.33: Percentage change of quinquartite decomposition indices, 1965–2005

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
1	Argentina	19.2	−14.4	0.0	22.3	13.8	0.0
		19.2	−14.7	0.0	22.3	14.2	
2	Australia	103.2	10.2	21.8	20.0	13.5	11.0
		103.2	8.9	25.2	33.1	11.9	
3	Austria	155.3	6.3	31.9	25.0	39.4	4.5
		155.3	5.1	29.9	43.4	30.4	
4	Belgium	138.6	21.0	21.7	21.4	24.7	7.0
		138.6	12.0	33.5	32.9	20.1	
5	Bolivia	−9.7	−50.0	0.0	−2.5	30.9	41.7
		−9.7	−30.9	0.0	−3.4	35.4	
6	Burundi	38.4	−68.2	0.0	282.4	6.8	6.5
		38.4	−67.3	0.0	297.1	6.7	
7	Canada	60.4	−28.9	32.4	19.7	13.9	25.1
		60.4	−14.4	21.5	35.9	13.5	
8	Chile	117.3	19.8	2.5	13.8	26.4	23.0
		117.3	40.9	0.0	27.2	21.3	
9	Colombia	66.5	−25.5	0.0	50.9	25.0	18.6
		66.5	−6.0	0.0	49.3	18.7	
10	Costa Rica	29.5	−31.7	0.5	42.3	30.1	1.9
		29.5	−39.8	0.0	72.2	24.8	
11	Cote d'Ivoire	20.8	−22.2	0.0	44.1	9.4	−1.6
		20.8	−23.6	0.0	45.0	8.9	
12	Cyprus	240.5	55.3	24.2	17.1	36.5	10.4
		240.5	77.6	7.6	40.3	27.0	
13	Denmark	104.1	−0.6	32.9	22.6	10.5	14.0
		104.1	−1.1	24.3	52.7	8.7	
14	Dominican Rep.	110.1	−19.2	0.0	107.3	22.1	2.7
		110.1	−18.0	0.0	108.9	22.6	
15	Ecuador	50.5	3.7	0.0	20.5	19.7	0.7
		50.5	4.7	0.0	20.9	18.9	
16	Egypt	195.2	−31.5	0.0	110.2	43.4	42.9
		195.2	7.6	0.0	122.1	23.5	
17	El Salvador	19.7	−57.7	0.0	55.2	45.3	25.3
		19.7	−38.7	0.0	50.9	29.4	
18	Finland	171.7	47.8	19.0	16.7	31.2	0.9
		171.7	26.1	26.0	37.7	24.2	
19	France	130.6	−3.0	19.9	20.7	46.3	12.3
		130.6	−8.0	27.6	39.6	40.8	

(continued on next page)

Table A.33 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
20	Ghana	71.9	78.1	0.0	-25.8	28.8	1.0
		71.9	80.6	0.0	-25.9	28.5	
21	Greece	163.3	25.4	14.5	27.6	22.7	17.1
		163.3	11.5	22.7	57.0	22.5	
22	Guatemala	58.0	-25.6	0.0	48.2	25.6	14.1
		58.0	-13.8	0.0	54.9	18.3	
23	Honduras	28.9	-56.7	0.0	70.0	42.7	22.6
		28.9	-39.1	0.0	63.4	29.5	
24	Iceland	104.5	-13.8	39.2	4.2	29.7	26.1
		104.5	-3.6	40.2	23.4	22.6	
25	India	220.8	-21.8	0.0	139.6	16.0	47.6
		220.8	8.3	0.0	154.3	16.4	
26	Ireland	252.7	56.2	28.2	33.5	16.0	13.7
		252.7	32.1	22.0	91.0	14.6	
27	Israel	107.1	16.3	16.1	16.3	20.5	9.4
		107.1	7.1	24.7	31.7	17.8	
28	Italy	162.5	17.5	35.4	21.4	36.8	-0.6
		162.5	11.7	34.8	34.5	29.7	
29	Jamaica	22.3	-32.5	0.0	33.4	35.3	0.3
		22.3	-33.1	0.4	35.8	34.1	
30	Japan	236.5	56.2	26.4	34.2	21.3	4.6
		236.5	5.2	26.9	112.6	18.5	
31	Kenya	3.3	-28.1	0.0	18.4	17.5	3.2
		3.3	-25.4	0.0	18.7	16.8	
32	Malaysia	357.9	-17.0	8.1	149.1	44.2	42.1
		357.9	-2.5	2.2	224.1	41.8	
33	Mauritius	157.3	19.3	4.0	34.7	23.8	24.3
		157.3	26.6	2.3	62.9	22.1	
34	Mexico	37.5	-17.6	0.6	20.9	54.6	-11.3
		37.5	-25.2	1.6	26.3	43.3	
35	Morocco	101.8	-41.9	1.4	92.2	44.9	23.0
		101.8	-25.7	0.0	104.7	32.7	
36	Nepal	62.9	-79.9	0.0	409.1	10.3	44.4
		62.9	-75.6	0.0	491.0	12.9	
37	Netherlands	68.8	-25.2	39.3	12.9	25.9	14.0
		68.8	-12.8	28.1	25.2	20.7	
38	New Zealand	24.1	-26.3	16.5	13.1	9.6	16.5
		24.1	-15.1	8.8	22.8	9.4	
39	Norway	151.1	16.9	43.8	16.4	28.2	0.1

(continued on next page)

Table A.33 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
40	Panama	151.1	16.0	43.8	22.6	22.8	27.3
		106.2	-34.3	0.0	80.2	36.7	
41	Paraguay	106.2	-5.8	0.0	79.0	22.3	2.2
		39.8	-45.6	0.0	118.7	14.9	
42	Peru	39.8	-44.2	0.0	119.2	14.4	1.3
		-17.5	-18.9	0.0	-20.6	26.5	
43	Philippines	-17.5	-17.3	4.1	-20.9	21.2	33.5
		45.7	-34.9	0.0	48.6	12.7	
44	Portugal	45.7	-21.7	0.0	62.0	14.9	5.5
		172.5	4.4	29.8	28.5	48.4	
45	Sierra Leone	172.5	-10.4	22.3	84.6	34.8	-0.4
		-3.7	-49.2	0.0	64.9	15.4	
46	Singapore	-3.7	-50.1	0.0	68.7	14.5	7.1
		476.4	110.6	33.3	35.9	41.1	
47	South Africa	476.4	77.1	32.9	85.5	32.0	9.5
		34.4	-21.1	6.4	7.4	36.0	
48	Spain	34.4	-18.4	0.0	37.7	19.6	5.0
		142.4	-17.5	32.5	25.2	68.7	
49	Sri Lanka	142.4	-15.2	24.5	53.2	49.9	39.0
		233.5	22.7	0.0	78.7	9.5	
50	Sweden	233.5	58.8	0.0	89.4	10.9	3.6
		100.8	8.2	22.0	14.4	28.5	
51	Switzerland	100.8	2.6	21.2	32.1	22.3	10.7
		49.0	-23.9	51.4	7.1	9.0	
52	Syria	49.0	-18.5	43.7	18.4	7.4	-1.9
		48.1	-35.0	0.0	108.7	11.2	
53	Thailand	48.1	-36.2	0.0	109.4	10.8	43.6
		401.5	-7.0	3.1	202.1	20.6	
54	Trinidad and To- bago	401.5	15.3	0.0	281.3	14.1	14.5
		99.2	17.3	4.7	15.0	23.3	
55	United Kingdom	99.2	11.1	8.8	33.5	23.4	27.5
		127.5	-11.4	28.8	36.8	14.4	
56	United States	127.5	0.0	21.2	64.1	14.4	17.0
		79.4	-12.8	38.0	12.2	13.5	
57	Uruguay	79.4	-5.2	23.8	38.0	10.7	1.6
		77.2	5.9	0.0	44.4	14.0	
		77.2	7.9	0.0	44.9	13.3	

(continued on next page)

Table A.33 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
	Average	111.7	-7.6	12.8	52.4	26.1	14.1
		111.7	-3.9	11.5	70.9	21.5	

Table A.34: Mean percentage changes of quinquepartite decomposition indices (country groupings)

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC
OECD*	0.82	0.82	124.4	4.0	28.5	20.7	27.6	10.2
Asian Tigers**	0.44	0.61	368.1	35.7	17.7	105.3	31.8	24.4
Latin America	0.64	0.48	51.1	-22.8	0.5	43.7	27.0	12.4
Africa	0.57	0.38	68.8	-18.3	1.3	69.8	25.1	12.1
Non-OECD	0.59	0.45	103.7	-14.9	3.0	72.4	25.2	16.6
ALL	0.68	0.60	111.7	-7.6	12.8	52.4	26.1	14.1

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

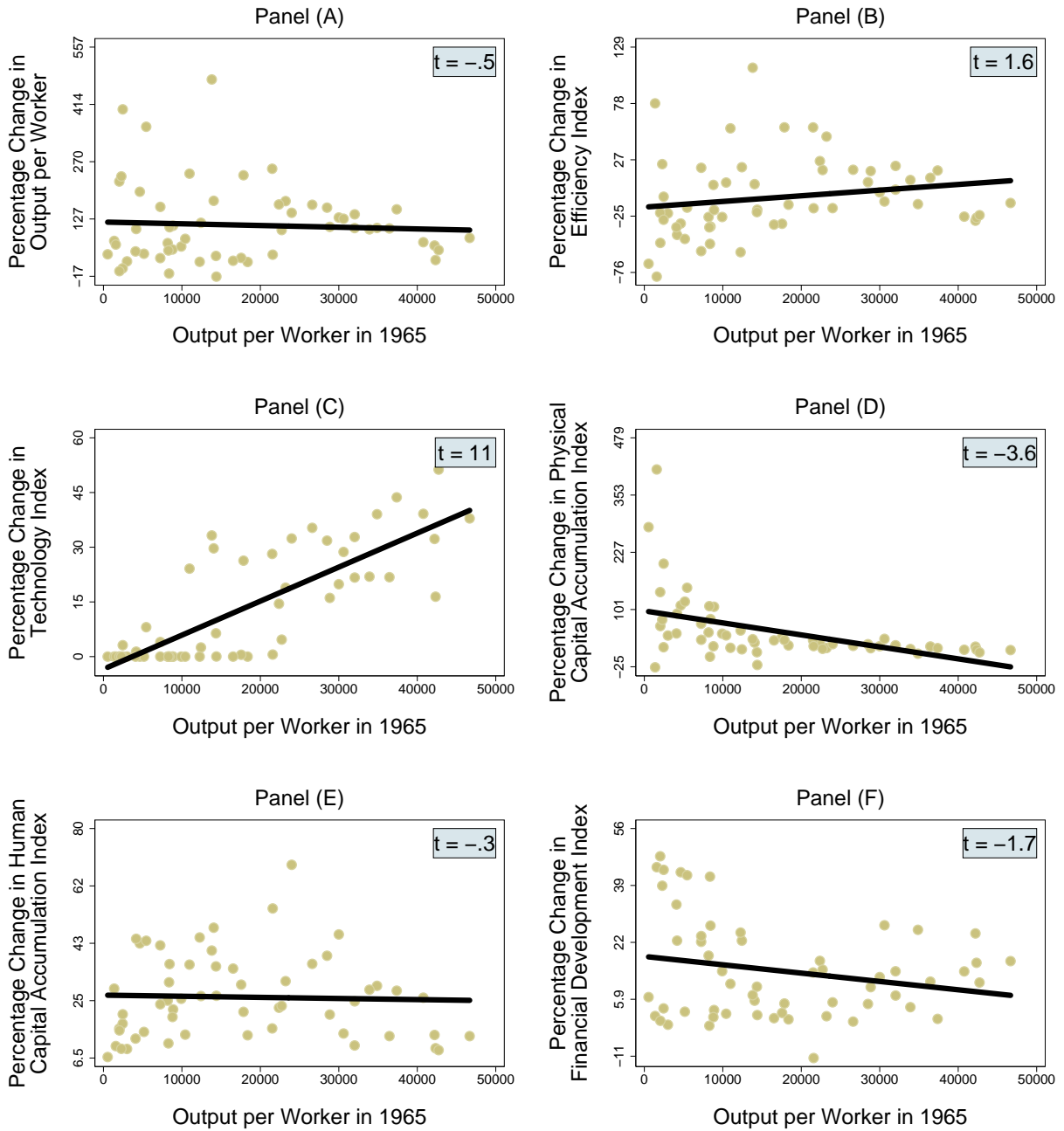


Figure A.38: Percentage change (from 1965 to 2005) in output per worker and five decomposition indices, plotted against output per worker in 1965.

Notes: Each panel contains a GLS regression line; the topright number in each panel is a t -statistic of a respective GLS regression based on “heteroskedasticity-consistent” estimators for the variance (Huber (1981); White (1980)).

Table A.35: Modality tests (*p-values*)

	H_0 : Distribution has one mode H_A : Distribution has more than one mode	Bootstrap <i>p-value</i>
1	$f(y_{2005})$	0.0000
2	$f(y_{1965})$	0.7407
3	$f(y_{1965} \times EFF)$	0.0000
4	$f(y_{1965} \times TECH)$	0.3784
5	$f(y_{1965} \times KACC)$	0.6376
6	$f(y_{1965} \times HACC)$	0.0701
7	$f(y_{1965} \times FKACC)$	0.7518
8	$f(y_{1965} \times EFF \times TECH)$	0.0000
9	$f(y_{1965} \times EFF \times KACC)$	0.0000
10	$f(y_{1965} \times EFF \times HACC)$	0.0000
11	$f(y_{1965} \times EFF \times FKACC)$	0.0000
12	$f(y_{1965} \times TECH \times KACC)$	0.2202
13	$f(y_{1965} \times TECH \times HACC)$	0.1021
14	$f(y_{1965} \times TECH \times FKACC)$	0.8348
15	$f(y_{1965} \times KACC \times HACC)$	0.0390
16	$f(y_{1965} \times KACC \times FKACC)$	0.8759
17	$f(y_{1965} \times HACC \times FKACC)$	0.2002
18	$f(y_{1965} \times EFF \times TECH \times KACC)$	0.0000
19	$f(y_{1965} \times EFF \times TECH \times HACC)$	0.0010
20	$f(y_{1965} \times EFF \times TECH \times FKACC)$	0.0000
21	$f(y_{1965} \times EFF \times KACC \times HACC)$	0.0000
22	$f(y_{1965} \times EFF \times KACC \times FKACC)$	0.0000
23	$f(y_{1965} \times EFF \times HACC \times FKACC)$	0.0000
24	$f(y_{1965} \times TECH \times KACC \times HACC)$	0.0440
25	$f(y_{1965} \times TECH \times KACC \times FKACC)$	0.6527
26	$f(y_{1965} \times TECH \times HACC \times FKACC)$	0.1461
27	$f(y_{1965} \times KACC \times HACC \times FKACC)$	0.1121
28	$f(y_{1965} \times EFF \times TECH \times KACC \times HACC)$	0.0000
29	$f(y_{1965} \times EFF \times TECH \times KACC \times FKACC)$	0.0000
30	$f(y_{1965} \times EFF \times TECH \times HACC \times FKACC)$	0.0000
31	$f(y_{1965} \times EFF \times KACC \times HACC \times FKACC)$	0.0000
32	$f(y_{1965} \times TECH \times KACC \times HACC \times FKACC)$	0.0661

Notes: We used the bootstrapped calibrated Silverman test for multi-modality due to [Hall and York \(2001\)](#) with 1000 bootstrap replications.

Table A.36: Distribution hypothesis tests (p -values)

	H_0 : Distributions are equal H_1 : Distributions are not equal	Bootstrap p -value
1	$g(y_{2005})$ vs. $f(y_{1965})$	0.0008
2	$g(y_{2005})$ vs. $f(y_{1965} \times EFF)$	0.0000
3	$g(y_{2005})$ vs. $f(y_{1965} \times TECH)$	0.0050
4	$g(y_{2005})$ vs. $f(y_{1965} \times KACC)$	0.0004
5	$g(y_{2005})$ vs. $f(y_{1965} \times HACC)$	0.0006
6	$g(y_{2005})$ vs. $f(y_{1965} \times FKACC)$	0.0006
7	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH)$	0.0000
8	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC)$	0.0000
9	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times HACC)$	0.0000
10	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times FKACC)$	0.0000
11	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC)$	0.0270
12	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times HACC)$	0.0284
13	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times FKACC)$	0.0256
14	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times HACC)$	0.0004
15	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times FKACC)$	0.0020
16	$g(y_{2005})$ vs. $f(y_{1965} \times HACC \times FKACC)$	0.0034
17	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC)$	0.0010
18	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times HACC)$	0.0004
19	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times FKACC)$	0.0002
20	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times HACC)$	0.0006
21	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times FKACC)$	0.0004
22	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times HACC \times FKACC)$	0.0000
23	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times HACC)$	0.4054
24	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times FKACC)$	0.0588
25	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times HACC \times FKACC)$	0.0704
26	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times HACC \times FKACC)$	0.0056
27	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC \times HACC)$	0.3192
28	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC \times FKACC)$	0.0220
29	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times HACC \times FKACC)$	0.0096
30	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times HACC \times FKACC)$	0.0036
31	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times HACC \times FKACC)$	0.0692

Notes: We used the bootstrapped Li (1996) test with 5000 bootstrap replications and the Sheather and Jones (1991) bandwidth.

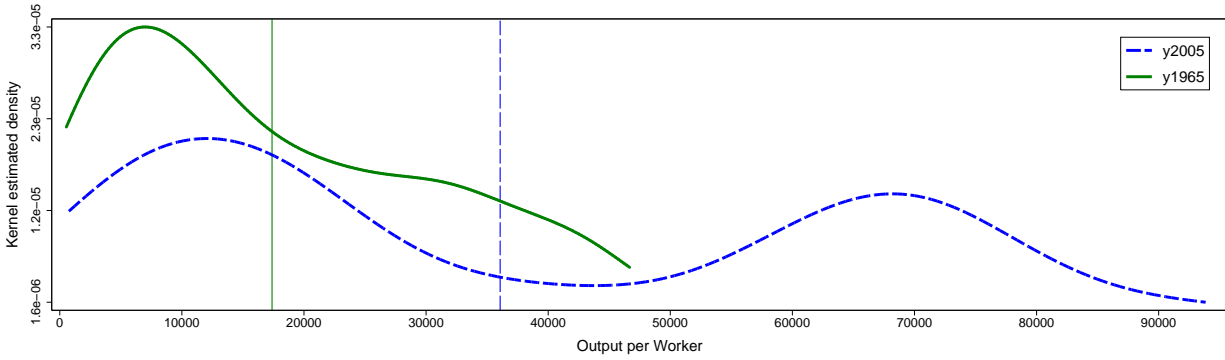


Figure A.39: Distributions of output per worker, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of output per worker. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

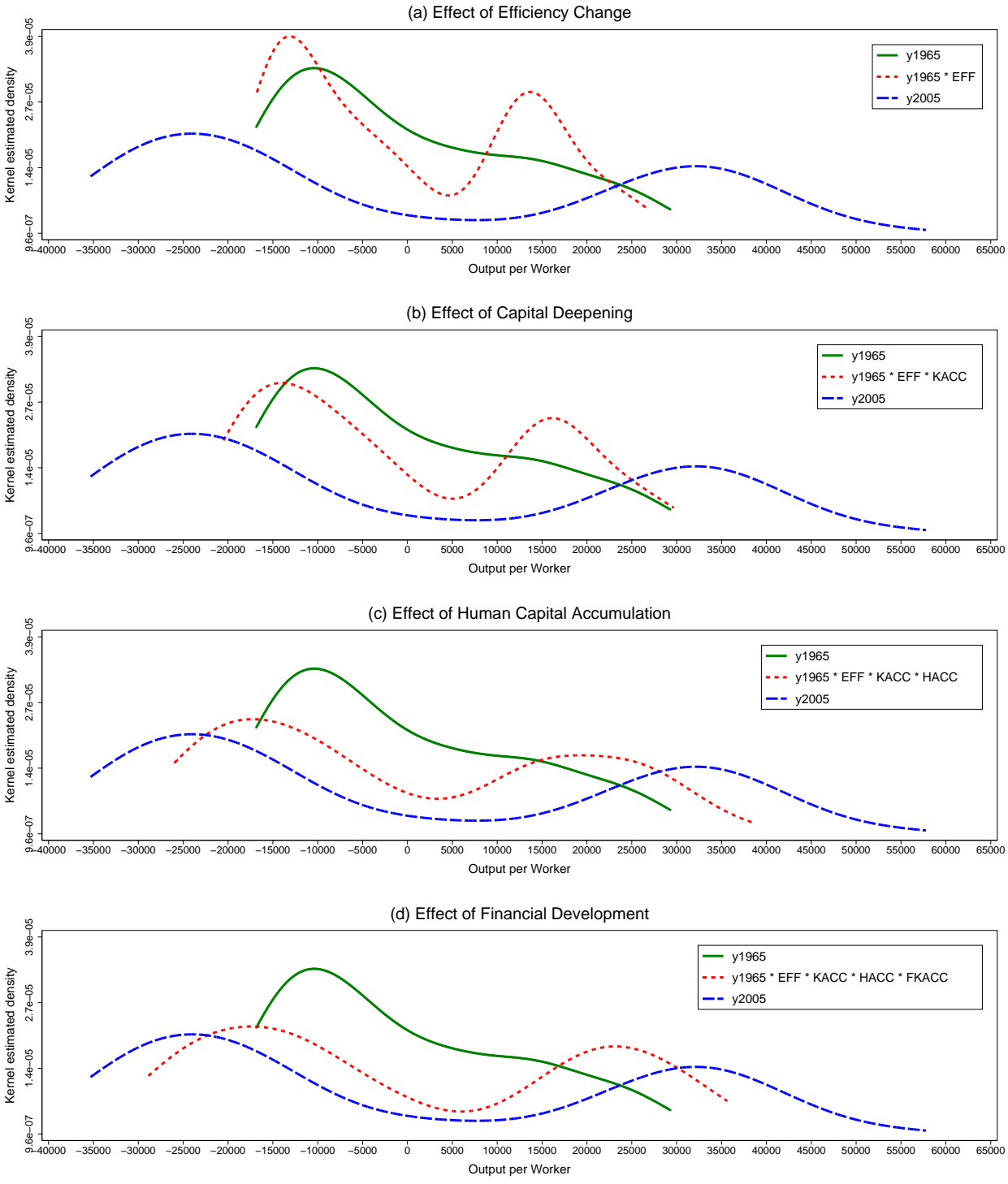


Figure A.40: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: EFF, KACC HACC, and FKACC

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of efficiency change, capital deepening, human capital accumulation, and financial development on the 1965 distribution.

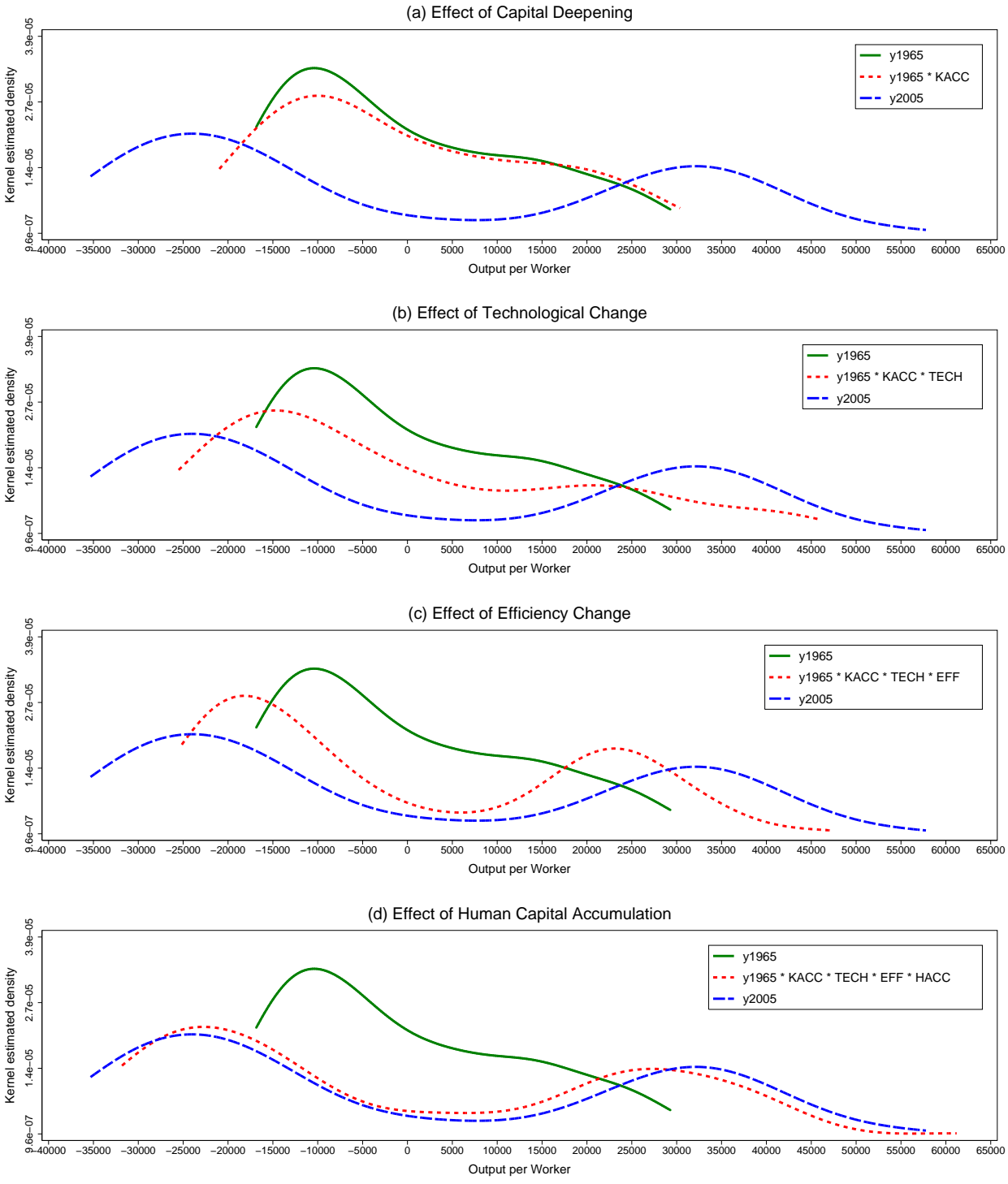


Figure A.41: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: KACC, TECH, EFF, and HACC

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of capital deepening, technological change, efficiency change, and human capital accumulation on the 1965 distribution.

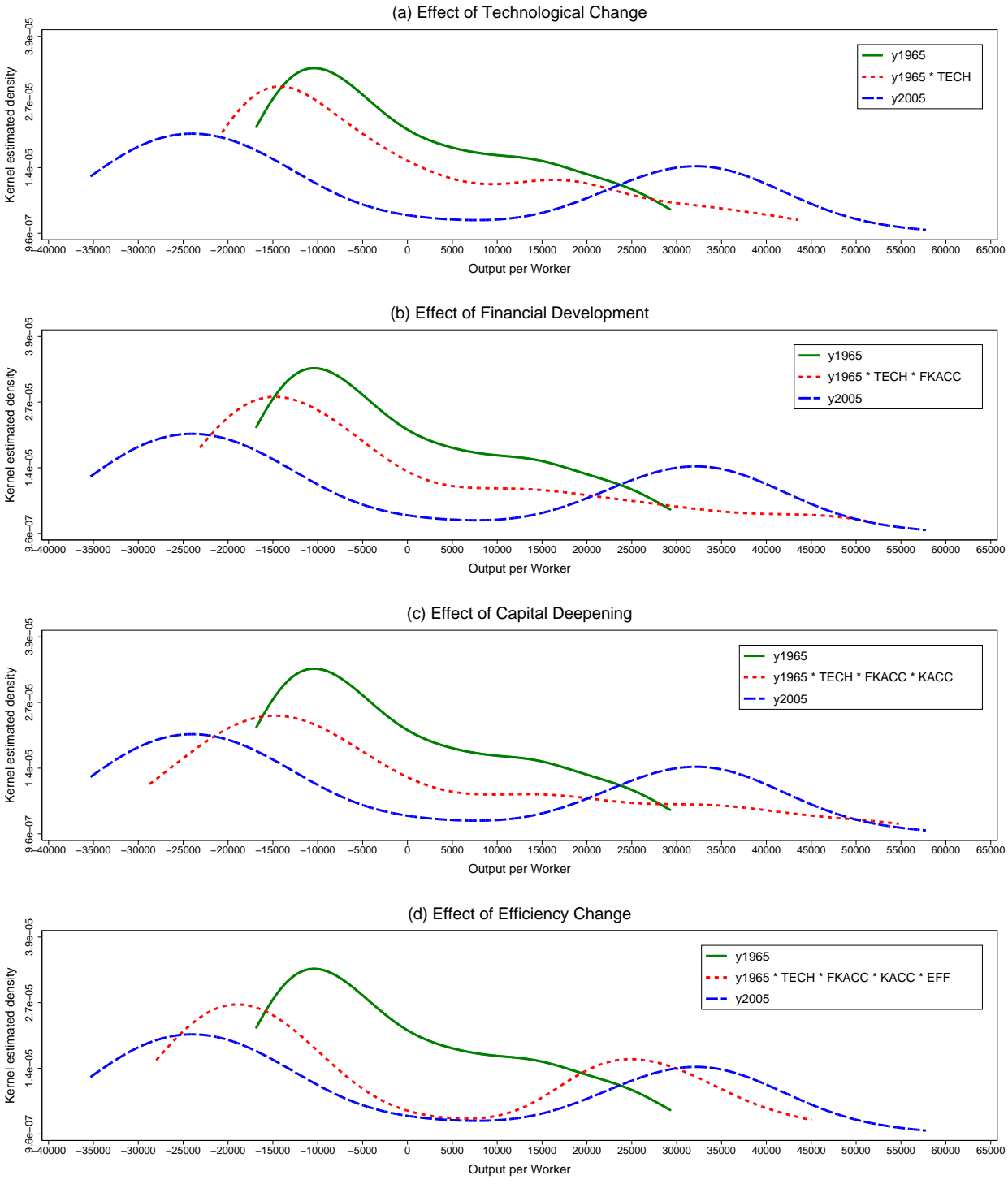


Figure A.42: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: TECH, FKACC, KACC and EFF

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of technological change, financial development, capital deepening, and efficiency change on the 1965 distribution.

Appendix C.6 Private Credit by Deposit Money Banks and other Financial Institutions /GDP (CREDIT1, cut-off 20/80%)

Table A.37: Linking financial efficiency and financial development^a

	Net interest margin			Overhead costs		
	(1)	(2)	(3)	(1)	(2)	(3)
Low Region ^b	1.1193	0.7921	0.5992	-0.4969	-1.2697	-0.7949
	0.4457	0.6079	0.7028	0.7535	0.4440	0.6275
Middle Region ^c	1.7242	1.7144	1.5515	1.2789	1.2560	1.6571
	<.0001	0.0003	0.0028	0.0024	0.0106	0.0022
High Region ^d	1.0466	1.1087	0.9868	0.7764	0.7995	1.0994
	<.0001	0.0002	0.0032	0.0014	0.0089	0.0018
GB70		0.2260	0.2250		0.1219	0.1245
		0.3327	0.3372		0.6248	0.6091
ly65			0.0639			-0.1573
			0.4491			0.0781
Constant	2.5653	2.4581	1.9870	2.8615	2.8139	3.9736
	<.0001	<.0001	0.0050	<.0001	<.0001	<.0001
R-squared	0.440	0.398	0.405	0.339	0.343	0.387
N	57	51	51	57	51	51
Joint significance ^e	<.0001	0.0002	0.0040	0.0001	0.0011	0.0003

^a The dependent variable is the log of the inverse of the financial efficiency measure. The coefficients on the financial development regimes (regions) represent the sum of coefficients and the respective numbers below the coefficients are p-values for the sum of coefficients

^b Financial development falls into the low region if its value is lower than the 20th percentile of the financial development distribution

^c Financial development falls into the middle region if its value is between the 20th and 80th percentiles (inclusive) of the financial development distribution

^d Financial development falls into the high region if its value is greater than the 20th percentile of the financial development distribution

^e p-value of the F-statistic on the three coefficients on financial development in the main regression.

Table A.38: Financial efficiency augmentation factors

#	Country	1965	2005	#	Country	1965	2005
1	Argentina	1.056	1.056	30	Japan	2.155	2.678
2	Australia	1.108	2.762	31	Kenya	1.076	1.504
3	Austria	1.881	2.930	32	Malaysia	1.064	2.888
4	Belgium	1.068	3.290	33	Mauritius	1.421	3.315
5	Bolivia	1.027	1.995	34	Mexico	1.513	1.085
6	Burundi	1.013	1.464	35	Morocco	1.068	2.294
7	Canada	1.112	5.497	36	Nepal	1.008	1.688
8	Chile	1.052	3.397	37	Netherlands	2.166	5.029
9	Colombia	1.100	1.583	38	New Zealand	1.501	3.449
10	Costa Rica	1.592	1.685	39	Norway	2.774	2.683
11	Cote d'Ivoire	1.102	1.071	40	Panama	1.078	2.118
12	Cyprus	1.884	4.823	41	Paraguay	1.043	1.091
13	Denmark	1.593	5.046	42	Peru	1.062	1.101
14	Dominican Rep.	1.039	1.103	43	Philippines	1.462	1.655
15	Ecuador	1.091	1.115	44	Portugal	2.382	4.074
16	Egypt	1.081	2.286	45	Sierra Leone	1.033	1.023
17	El Salvador	1.107	2.002	46	Singapore	1.819	2.896
18	Finland	1.856	3.209	47	South Africa	2.053	3.687
19	France	1.503	2.455	48	Spain	2.187	3.676
20	Ghana	1.037	1.074	49	Sri Lanka	1.050	1.624
21	Greece	1.072	3.268	50	Sweden	3.151	2.827
22	Guatemala	1.068	1.552	51	Switzerland	2.792	4.939
23	Honduras	1.065	1.849	52	Syria	1.102	1.065
24	Iceland	1.637	7.209	53	Thailand	1.074	2.475
25	India	1.051	1.827	54	Trinidad and To- bago	1.056	1.745
26	Ireland	1.711	4.147	55	United Kingdom	1.114	4.565
27	Israel	1.103	2.350	56	United States	2.320	6.592
28	Italy	2.605	2.364	57	Uruguay	1.084	1.474
29	Jamaica	1.094	1.110				

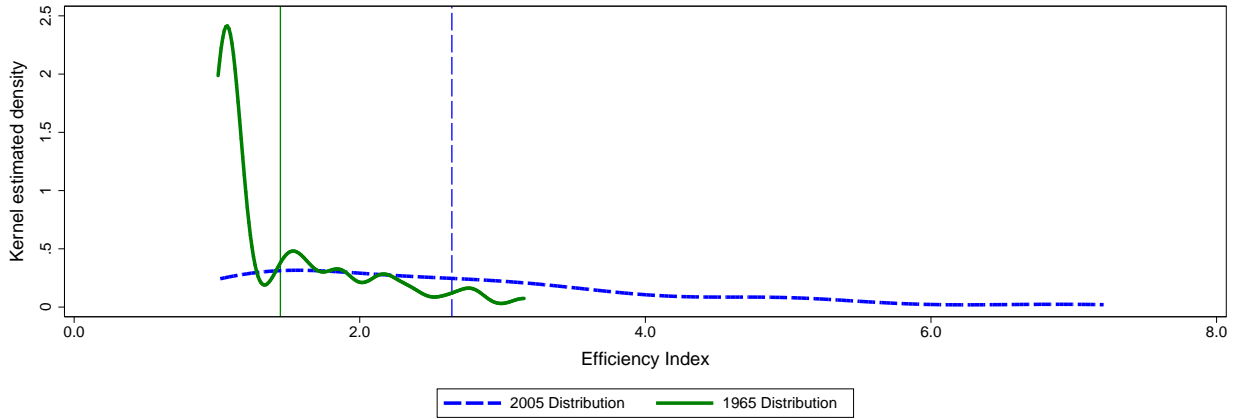


Figure A.43: Distributions of financial development index, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of financial development index. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

Table A.39: Efficiency indices

#	Country	Without Financial Development		With Financial Development	
		1965	2005	1965	2005
1	Argentina	0.65	0.55	0.67	0.57
2	Australia	0.79	0.86	0.81	0.88
3	Austria	0.89	0.94	0.88	0.93
4	Belgium	0.80	0.90	0.85	0.87
5	Bolivia	0.63	0.43	0.65	0.33
6	Burundi	0.85	0.28	0.85	0.23
7	Canada	0.99	0.85	1.00	0.72
8	Chile	0.44	0.61	0.45	0.49
9	Colombia	0.54	0.51	0.55	0.41
10	Costa Rica	1.00	0.60	0.80	0.54
11	Cote d'Ivoire	0.76	0.58	0.75	0.59
12	Cyprus	0.38	0.68	0.34	0.53
13	Denmark	0.86	0.85	0.77	0.75
14	Dominican Rep.	0.75	0.62	0.77	0.62
15	Ecuador	0.38	0.40	0.38	0.40
16	Egypt	0.59	0.64	0.60	0.42
17	El Salvador	0.97	0.60	0.97	0.42
18	Finland	0.66	0.84	0.65	0.81
19	France	0.99	0.91	1.00	0.97
20	Ghana	0.12	0.21	0.12	0.21
21	Greece	0.71	0.79	0.72	0.77
22	Guatemala	0.74	0.64	0.76	0.57
23	Honduras	0.65	0.39	0.66	0.29
24	Iceland	0.92	0.89	0.93	0.80
25	India	0.39	0.42	0.40	0.32
26	Ireland	0.71	0.94	0.55	0.85
27	Israel	0.69	0.74	0.71	0.82
28	Italy	0.81	0.90	0.81	0.94
29	Jamaica	0.66	0.44	0.66	0.45
30	Japan	0.65	0.68	0.45	0.69
31	Kenya	0.45	0.34	0.46	0.27
32	Malaysia	0.52	0.51	0.53	0.45
33	Mauritius	0.36	0.45	0.31	0.38
34	Mexico	0.90	0.67	0.88	0.71
35	Morocco	0.47	0.35	0.48	0.28
36	Nepal	1.00	0.24	1.00	0.20

(continued on next page)

Table A.39 (Continued)

#	Country	Without Financial Development		With Financial Development	
		1965	2005	1965	2005
37	Netherlands	1.00	0.87	1.00	0.76
38	New Zealand	0.89	0.75	0.86	0.67
39	Norway	0.86	0.99	0.86	1.00
40	Panama	0.58	0.54	0.58	0.39
41	Paraguay	0.62	0.35	0.65	0.35
42	Peru	0.50	0.42	0.53	0.42
43	Philippines	0.40	0.32	0.33	0.26
44	Portugal	0.68	0.61	0.54	0.56
45	Sierra Leone	1.00	0.50	1.00	0.51
46	Singapore	0.56	1.00	0.49	1.00
47	South Africa	0.65	0.53	0.50	0.39
48	Spain	0.92	0.78	0.88	0.73
49	Sri Lanka	0.22	0.35	0.23	0.28
50	Sweden	0.84	0.87	0.81	0.89
51	Switzerland	0.97	0.79	0.97	0.74
52	Syria	1.00	0.64	1.00	0.65
53	Thailand	0.32	0.37	0.33	0.31
54	Trinidad and To- bago	0.72	0.80	0.75	0.88
55	United Kingdom	1.00	1.00	1.00	0.89
56	United States	1.00	0.95	0.95	0.82
57	Uruguay	0.53	0.58	0.54	0.49
	Average	0.70	0.64	0.68	0.59

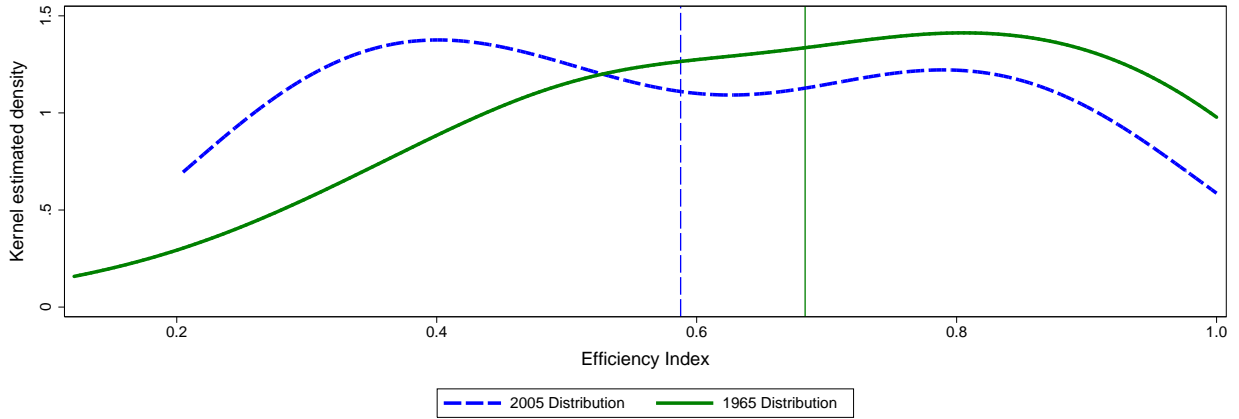


Figure A.44: Distributions of efficiency index, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of efficiency index. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

Production Frontiers in 1965 and 2005

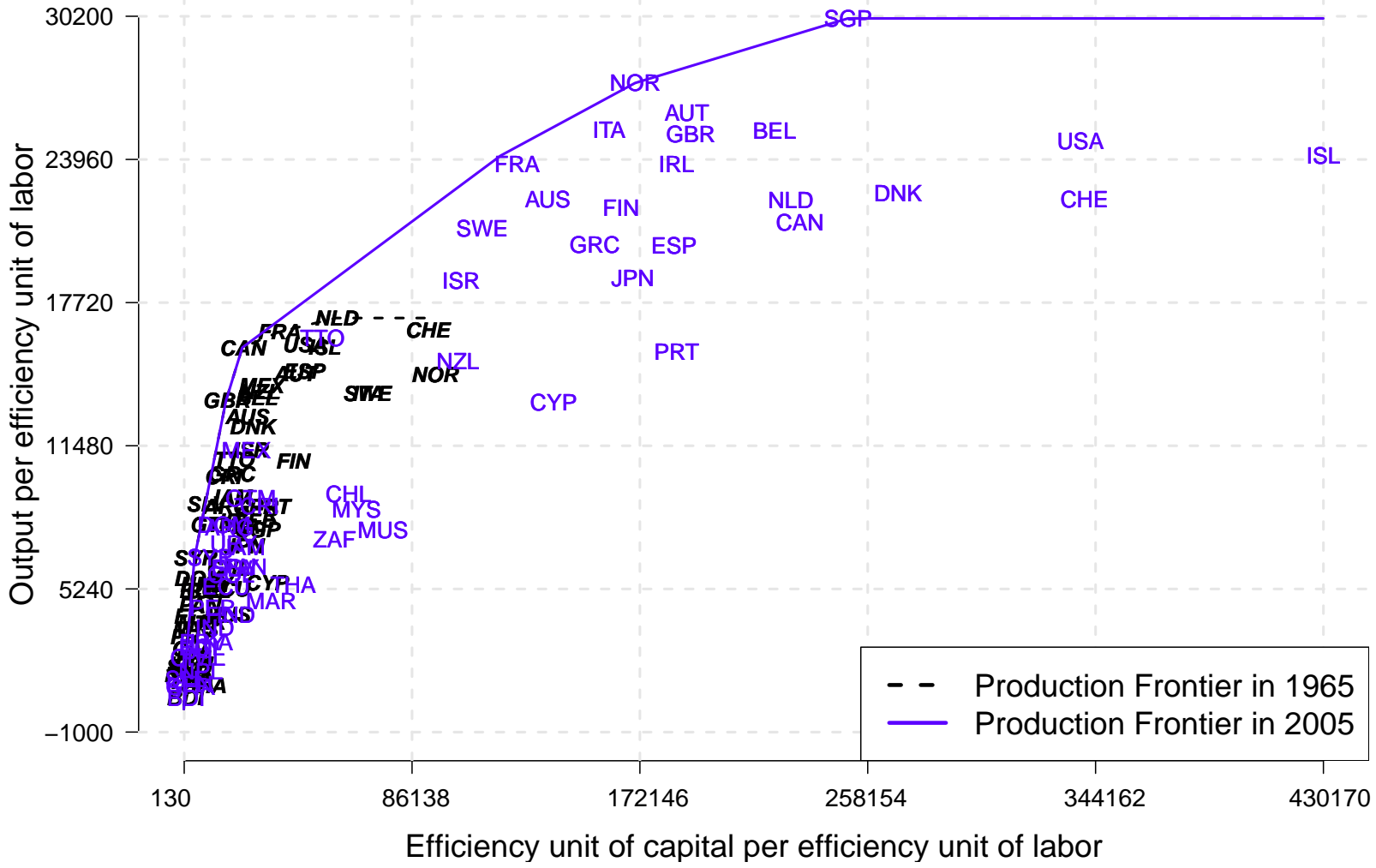


Figure A.45: Production frontiers in 1965 and 2005

Notes: The bold italic abbreviations show the 1965 observations and the normal font abbreviations show the 2005 observations. The dotted line represents the 1965 production frontier and the solid line presents the 2005 production frontier.

Table A.40: Percentage change of quinquupartite decomposition indices, 1965–2005

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
1	Argentina	19.2	-14.6	0.0	22.5	13.9	0.0
		19.2	-14.7	0.0	22.3	14.2	
2	Australia	103.2	9.3	22.0	22.0	13.9	9.7
		103.2	8.9	25.2	33.1	11.9	
3	Austria	155.3	5.5	31.4	27.1	39.0	4.2
		155.3	5.1	29.9	43.4	30.4	
4	Belgium	138.6	2.0	31.5	26.2	25.4	12.3
		138.6	12.0	33.5	32.9	20.1	
5	Bolivia	-9.7	-49.4	0.0	-2.4	30.9	39.6
		-9.7	-30.9	0.0	-3.4	35.4	
6	Burundi	38.4	-72.4	0.0	255.0	5.9	33.6
		38.4	-67.3	0.0	297.1	6.7	
7	Canada	60.4	-28.0	31.5	21.0	13.9	22.8
		60.4	-14.4	21.5	35.9	13.5	
8	Chile	117.3	8.9	6.1	14.6	27.5	28.7
		117.3	40.9	0.0	27.2	21.3	
9	Colombia	66.5	-24.2	0.0	51.1	25.6	15.7
		66.5	-6.0	0.0	49.3	18.7	
10	Costa Rica	29.5	-32.2	0.7	44.0	29.2	1.9
		29.5	-39.8	0.0	72.2	24.8	
11	Cote d'Ivoire	20.8	-21.7	0.0	43.8	9.6	-2.1
		20.8	-23.6	0.0	45.0	8.9	
12	Cyprus	240.5	54.7	23.2	19.4	37.3	9.0
		240.5	77.6	7.6	40.3	27.0	
13	Denmark	104.1	-3.4	33.4	26.6	11.1	12.7
		104.1	-1.1	24.3	52.7	8.7	
14	Dominican Rep.	110.1	-19.6	0.0	106.9	21.9	3.7
		110.1	-18.0	0.0	108.9	22.6	
15	Ecuador	50.5	3.4	0.0	20.2	20.1	0.7
		50.5	4.7	0.0	20.9	18.9	
16	Egypt	195.2	-29.8	0.0	109.4	42.3	41.1
		195.2	7.6	0.0	122.1	23.5	
17	El Salvador	19.7	-56.7	0.0	55.4	44.9	22.7
		19.7	-38.7	0.0	50.9	29.4	
18	Finland	171.7	24.3	28.7	22.8	30.9	5.6
		171.7	26.1	26.0	37.7	24.2	
19	France	130.6	-3.0	21.7	22.2	53.9	3.8
		130.6	-8.0	27.6	39.6	40.8	

(continued on next page)

Table A.40 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
20	Ghana	71.9	77.2	0.0	-25.7	28.6	1.6
		71.9	80.6	0.0	-25.9	28.5	
21	Greece	163.3	6.0	24.3	35.3	22.6	20.5
		163.3	11.5	22.7	57.0	22.5	
22	Guatemala	58.0	-24.6	0.4	48.1	24.8	13.0
		58.0	-13.8	0.0	54.9	18.3	
23	Honduras	28.9	-55.9	0.0	70.0	42.9	20.5
		28.9	-39.1	0.0	63.4	29.5	
24	Iceland	104.5	-14.0	38.6	5.2	29.4	26.1
		104.5	-3.6	40.2	23.4	22.6	
25	India	220.8	-20.2	0.0	140.0	15.8	44.6
		220.8	8.3	0.0	154.3	16.4	
26	Ireland	252.7	53.9	27.8	36.7	16.1	12.9
		252.7	32.1	22.0	91.0	14.6	
27	Israel	107.1	15.2	16.1	18.3	21.0	8.2
		107.1	7.1	24.7	31.7	17.8	
28	Italy	162.5	17.2	35.1	23.0	36.4	-1.1
		162.5	11.7	34.8	34.5	29.7	
29	Jamaica	22.3	-32.5	0.0	32.7	35.8	0.5
		22.3	-33.1	0.4	35.8	34.1	
30	Japan	236.5	53.3	26.4	37.0	20.0	5.5
		236.5	5.2	26.9	112.6	18.5	
31	Kenya	3.3	-42.0	0.0	19.1	16.7	28.1
		3.3	-25.4	0.0	18.7	16.8	
32	Malaysia	357.9	-15.3	6.8	152.0	44.1	39.4
		357.9	-2.5	2.2	224.1	41.8	
33	Mauritius	157.3	25.3	9.2	24.3	23.5	22.5
		157.3	26.6	2.3	62.9	22.1	
34	Mexico	37.5	-19.0	1.0	22.2	54.5	-11.0
		37.5	-25.2	1.6	26.3	43.3	
35	Morocco	101.8	-41.0	1.2	91.6	43.6	22.7
		101.8	-25.7	0.0	104.7	32.7	
36	Nepal	62.9	-79.5	0.0	403.4	10.6	42.9
		62.9	-75.6	0.0	491.0	12.9	
37	Netherlands	68.8	-24.4	37.7	13.7	25.6	13.3
		68.8	-12.8	28.1	25.2	20.7	
38	New Zealand	24.1	-22.5	16.3	12.6	12.1	9.0
		24.1	-15.1	8.8	22.8	9.4	
39	Norway	151.1	16.9	43.7	17.7	27.7	-0.5

(continued on next page)

Table A.40 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
40	Panama	151.1	16.0	43.8	22.6	22.8	24.1
		106.2	-33.0	0.2	82.0	35.9	
41	Paraguay	106.2	-5.8	0.0	79.0	22.3	3.0
		39.8	-46.0	0.0	118.5	15.1	
42	Peru	39.8	-44.2	0.0	119.2	14.4	1.7
		-17.5	-21.0	0.5	-19.7	27.2	
43	Philippines	-17.5	-17.3	4.1	-20.9	21.2	9.0
		45.7	-19.9	0.0	45.9	14.3	
44	Portugal	45.7	-21.7	0.0	62.0	14.9	5.2
		172.5	3.1	29.2	31.4	47.9	
45	Sierra Leone	172.5	-10.4	22.3	84.6	34.8	-0.5
		-3.7	-48.8	0.0	63.6	15.6	
46	Singapore	-3.7	-50.1	0.0	68.7	14.5	6.7
		476.4	104.9	33.7	39.8	41.0	
47	South Africa	476.4	77.1	32.9	85.5	32.0	9.4
		34.4	-21.2	5.3	8.9	35.9	
48	Spain	34.4	-18.4	0.0	37.7	19.6	4.5
		142.4	-17.6	31.6	27.2	68.1	
49	Sri Lanka	142.4	-15.2	24.5	53.2	49.9	35.9
		233.5	24.5	0.0	79.6	9.7	
50	Sweden	233.5	58.8	0.0	89.4	10.9	-1.3
		100.8	10.5	26.6	14.7	26.9	
51	Switzerland	100.8	2.6	21.2	32.1	22.3	10.9
		49.0	-23.9	50.1	8.0	8.9	
52	Syria	49.0	-18.5	43.7	18.4	7.4	-2.5
		48.1	-34.6	0.0	108.4	11.3	
53	Thailand	48.1	-36.2	0.0	109.4	10.8	42.3
		401.5	-5.1	2.4	201.8	20.1	
54	Trinidad and To- bago	401.5	15.3	0.0	281.3	14.1	14.6
		99.2	17.8	4.2	15.1	23.0	
55	United Kingdom	99.2	11.1	8.8	33.5	23.4	25.2
		127.5	-10.6	28.2	38.7	14.4	
56	United States	127.5	0.0	21.2	64.1	14.4	16.7
		79.4	-13.5	37.0	14.3	13.5	
57	Uruguay	79.4	-5.2	23.8	38.0	10.7	14.1
		77.2	-8.7	0.0	44.3	17.9	
		77.2	7.9	0.0	44.9	13.3	

(continued on next page)

Table A.40 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
	Average	111.7	-9.0	13.4	52.8	26.2	14.1
		111.7	-3.9	11.5	70.9	21.5	

Table A.41: Mean percentage changes of quinquepartite decomposition indices (country groupings)

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC
OECD*	0.83	0.81	124.4	1.0	29.7	23.0	27.8	9.4
Asian Tigers**	0.45	0.61	368.1	34.5	17.4	107.6	31.3	23.5
Latin America	0.65	0.48	51.1	-24.3	0.8	43.9	27.3	12.8
Africa	0.56	0.37	68.8	-19.4	1.7	65.5	24.6	17.4
Non-OECD	0.59	0.45	103.7	-15.4	3.2	71.5	25.3	17.0
ALL	0.68	0.59	111.7	-9.0	13.4	52.8	26.2	14.1

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

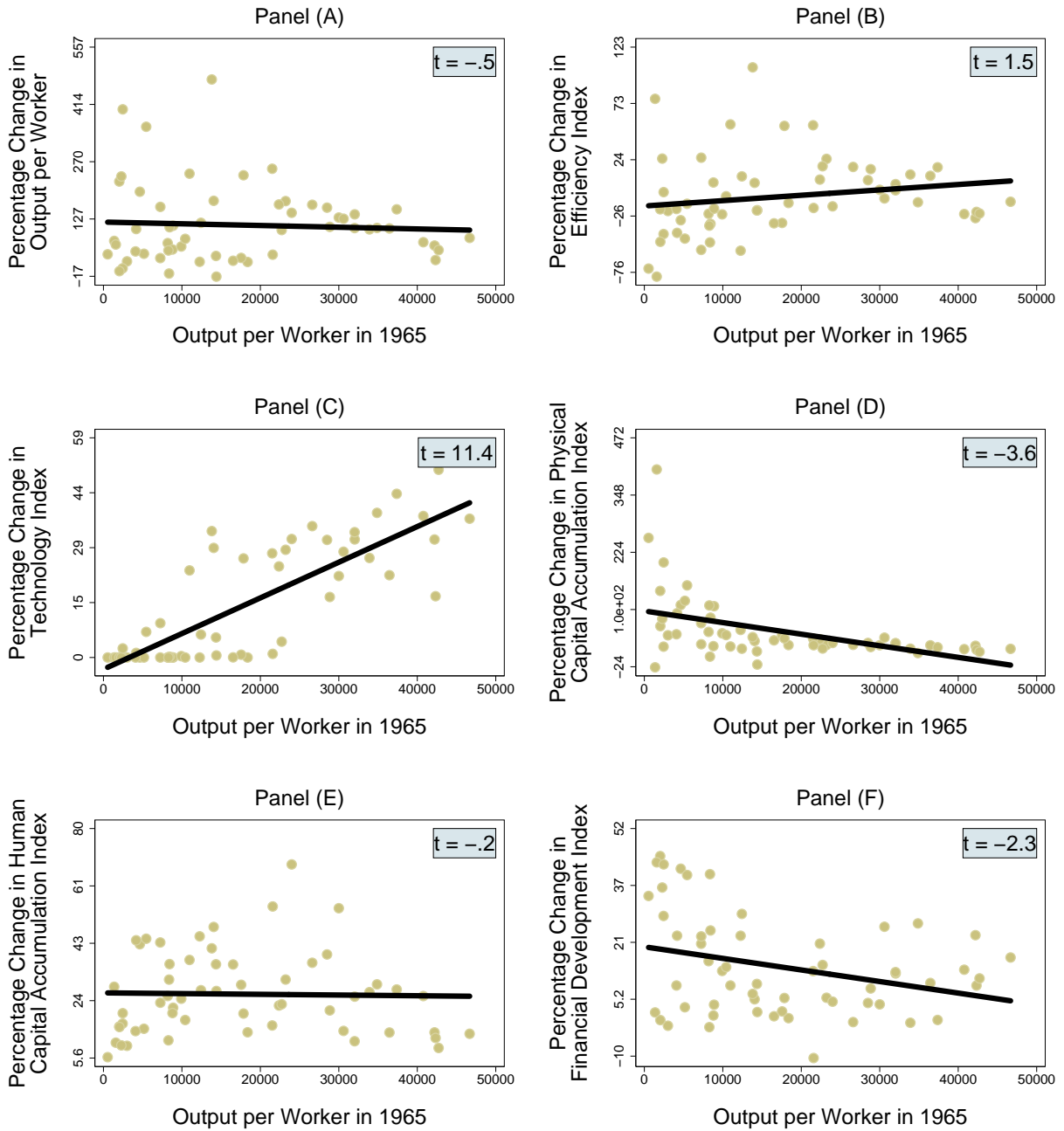


Figure A.46: Percentage change (from 1965 to 2005) in output per worker and five decomposition indices, plotted against output per worker in 1965.

Notes: Each panel contains a GLS regression line; the topright number in each panel is a t -statistic of a respective GLS regression based on “heteroskedasticity-consistent” estimators for the variance (Huber (1981); White (1980)).

Table A.42: Modality tests (*p-values*)

	H_0 : Distribution has one mode H_A : Distribution has more than one mode	Bootstrap <i>p-value</i>
1	$f(y_{2005})$	0.0000
2	$f(y_{1965})$	0.7407
3	$f(y_{1965} \times EFF)$	0.0000
4	$f(y_{1965} \times TECH)$	0.3744
5	$f(y_{1965} \times KACC)$	0.6947
6	$f(y_{1965} \times HACC)$	0.0751
7	$f(y_{1965} \times FKACC)$	0.8649
8	$f(y_{1965} \times EFF \times TECH)$	0.0000
9	$f(y_{1965} \times EFF \times KACC)$	0.0000
10	$f(y_{1965} \times EFF \times HACC)$	0.0000
11	$f(y_{1965} \times EFF \times FKACC)$	0.0000
12	$f(y_{1965} \times TECH \times KACC)$	0.1552
13	$f(y_{1965} \times TECH \times HACC)$	0.0671
14	$f(y_{1965} \times TECH \times FKACC)$	0.6406
15	$f(y_{1965} \times KACC \times HACC)$	0.0330
16	$f(y_{1965} \times KACC \times FKACC)$	0.6597
17	$f(y_{1965} \times HACC \times FKACC)$	0.1722
18	$f(y_{1965} \times EFF \times TECH \times KACC)$	0.0000
19	$f(y_{1965} \times EFF \times TECH \times HACC)$	0.0010
20	$f(y_{1965} \times EFF \times TECH \times FKACC)$	0.0000
21	$f(y_{1965} \times EFF \times KACC \times HACC)$	0.0000
22	$f(y_{1965} \times EFF \times KACC \times FKACC)$	0.0000
23	$f(y_{1965} \times EFF \times HACC \times FKACC)$	0.0000
24	$f(y_{1965} \times TECH \times KACC \times HACC)$	0.0260
25	$f(y_{1965} \times TECH \times KACC \times FKACC)$	0.4895
26	$f(y_{1965} \times TECH \times HACC \times FKACC)$	0.1011
27	$f(y_{1965} \times KACC \times HACC \times FKACC)$	0.0921
28	$f(y_{1965} \times EFF \times TECH \times KACC \times HACC)$	0.0000
29	$f(y_{1965} \times EFF \times TECH \times KACC \times FKACC)$	0.0000
30	$f(y_{1965} \times EFF \times TECH \times HACC \times FKACC)$	0.0000
31	$f(y_{1965} \times EFF \times KACC \times HACC \times FKACC)$	0.0000
32	$f(y_{1965} \times TECH \times KACC \times HACC \times FKACC)$	0.0490

Notes: We used the bootstrapped calibrated Silverman test for multi-modality due to [Hall and York \(2001\)](#) with 1000 bootstrap replications.

Table A.43: Distribution hypothesis tests (p -values)

	H_0 : Distributions are equal H_1 : Distributions are not equal	Bootstrap p -value
1	$g(y_{2005})$ vs. $f(y_{1965})$	0.0006
2	$g(y_{2005})$ vs. $f(y_{1965} \times EFF)$	0.0002
3	$g(y_{2005})$ vs. $f(y_{1965} \times TECH)$	0.0040
4	$g(y_{2005})$ vs. $f(y_{1965} \times KACC)$	0.0006
5	$g(y_{2005})$ vs. $f(y_{1965} \times HACC)$	0.0004
6	$g(y_{2005})$ vs. $f(y_{1965} \times FKACC)$	0.0004
7	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH)$	0.0000
8	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC)$	0.0006
9	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times HACC)$	0.0000
10	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times FKACC)$	0.0000
11	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC)$	0.0408
12	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times HACC)$	0.0516
13	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times FKACC)$	0.0206
14	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times HACC)$	0.0004
15	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times FKACC)$	0.0014
16	$g(y_{2005})$ vs. $f(y_{1965} \times HACC \times FKACC)$	0.0046
17	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC)$	0.0008
18	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times HACC)$	0.0008
19	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times FKACC)$	0.0002
20	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times HACC)$	0.0004
21	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times FKACC)$	0.0000
22	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times HACC \times FKACC)$	0.0000
23	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times HACC)$	0.7650
24	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times FKACC)$	0.0692
25	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times HACC \times FKACC)$	0.0722
26	$g(y_{2005})$ vs. $f(y_{1965} \times KACC \times HACC \times FKACC)$	0.0054
27	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC \times HACC)$	0.3886
28	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC \times FKACC)$	0.0228
29	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times TECH \times HACC \times FKACC)$	0.0076
30	$g(y_{2005})$ vs. $f(y_{1965} \times EFF \times KACC \times HACC \times FKACC)$	0.0030
31	$g(y_{2005})$ vs. $f(y_{1965} \times TECH \times KACC \times HACC \times FKACC)$	0.1120

Notes: We used the bootstrapped Li (1996) test with 5000 bootstrap replications and the Sheather and Jones (1991) bandwidth.

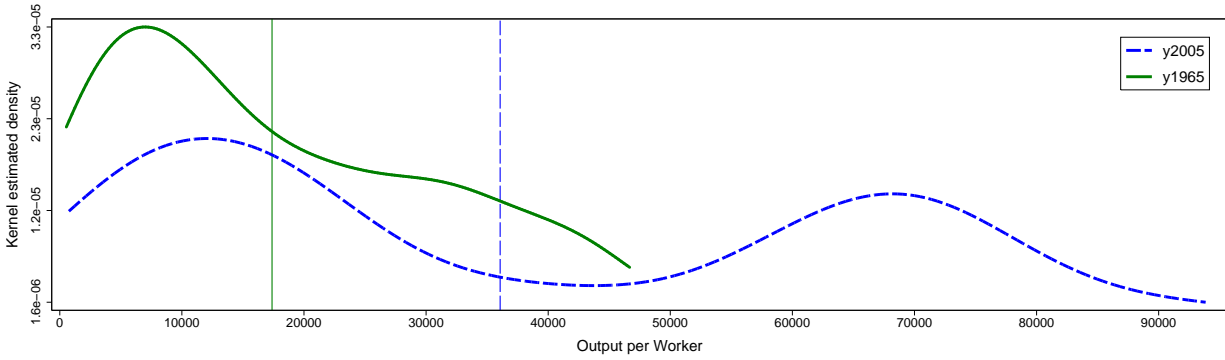


Figure A.47: Distributions of output per worker, 1965 and 2005

Notes: Estimated 1965 and 2005 distributions of output per worker. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 2005 distribution and the dashed vertical line represents the 2005 mean value.

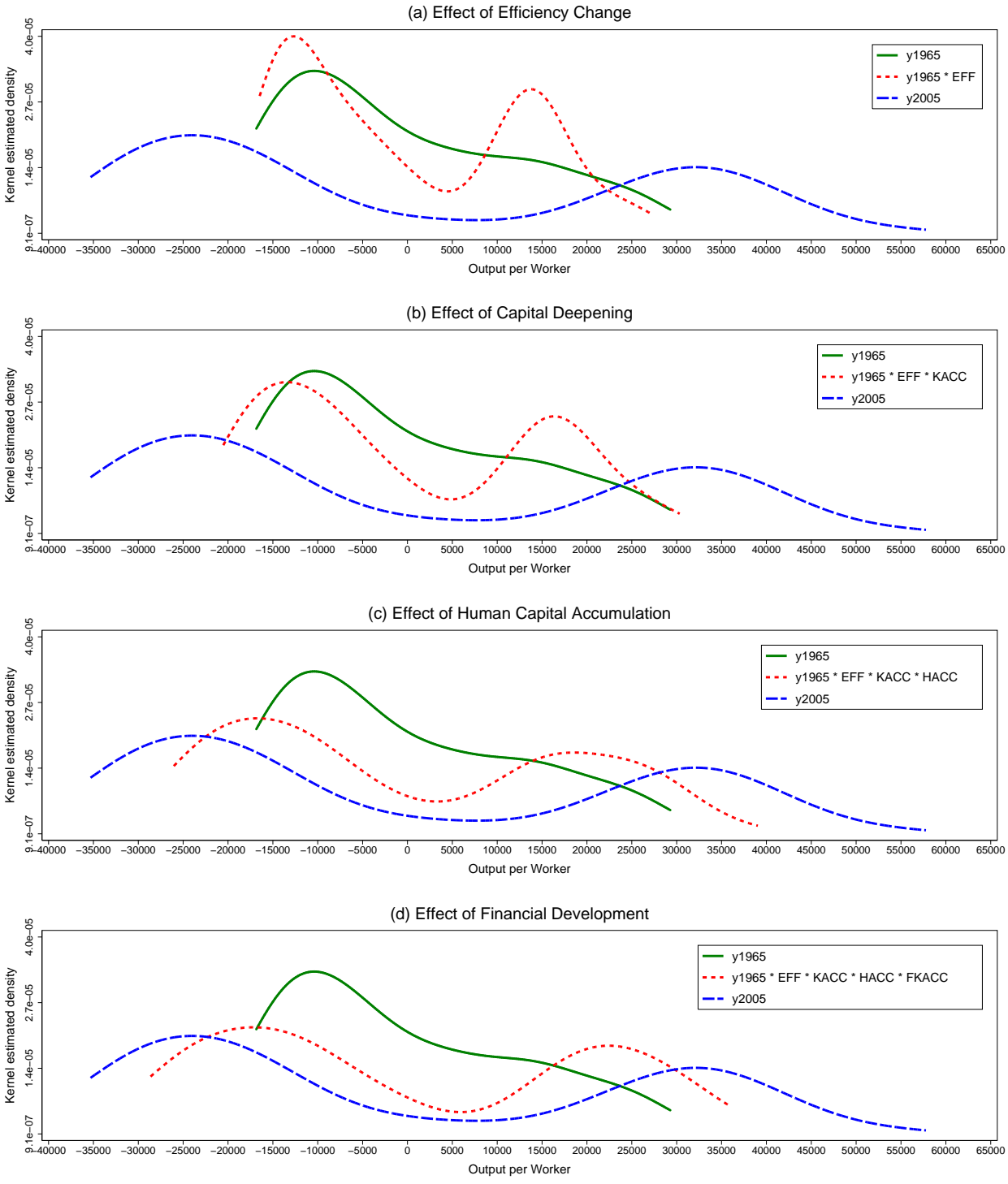


Figure A.48: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: EFF, KACC HACC, and FKACC

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of efficiency change, capital deepening, human capital accumulation, and financial development on the 1965 distribution.

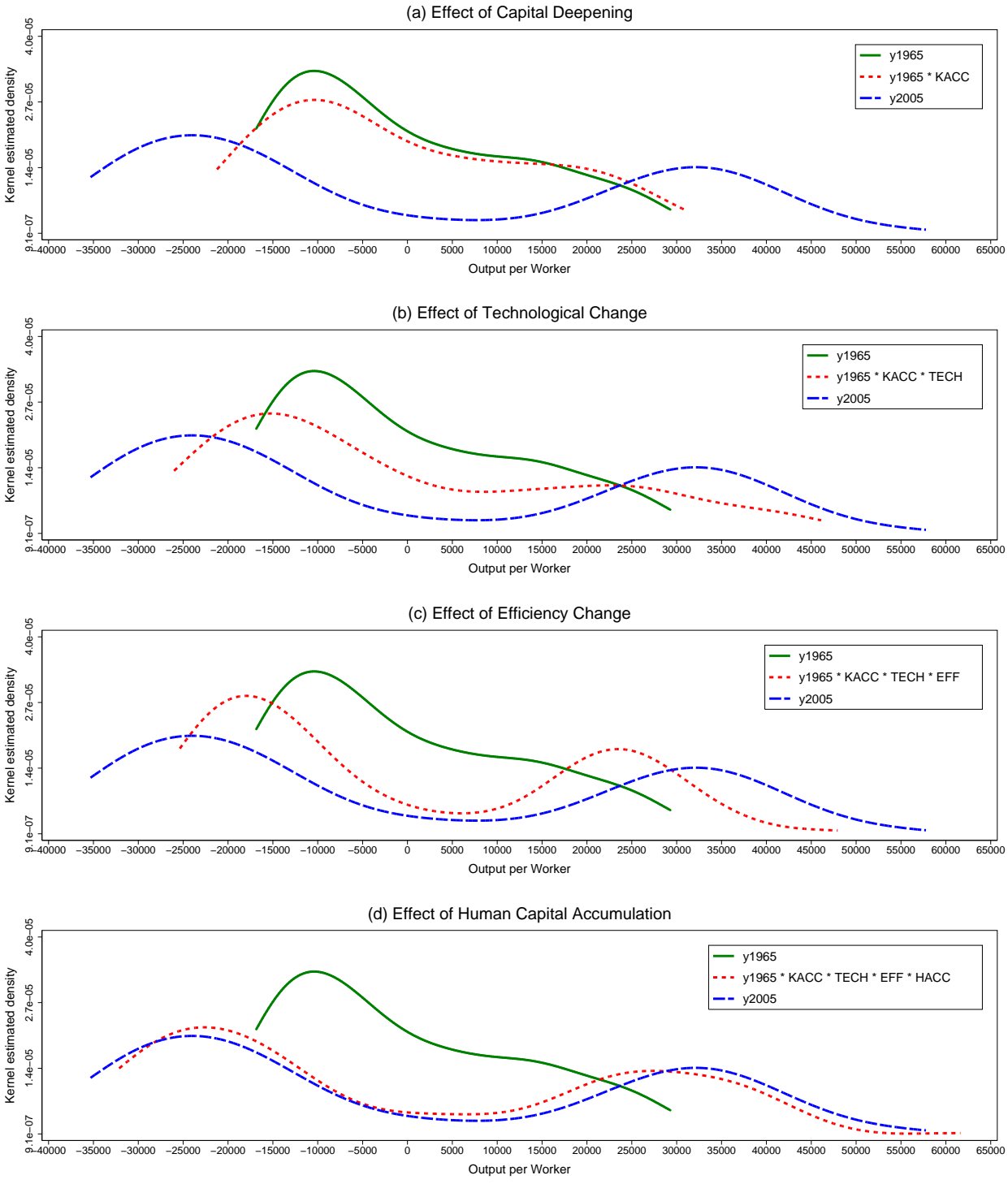


Figure A.49: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: KACC, TECH, EFF, and HACC

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of capital deepening, technological change, efficiency change, and human capital accumulation on the 1965 distribution.

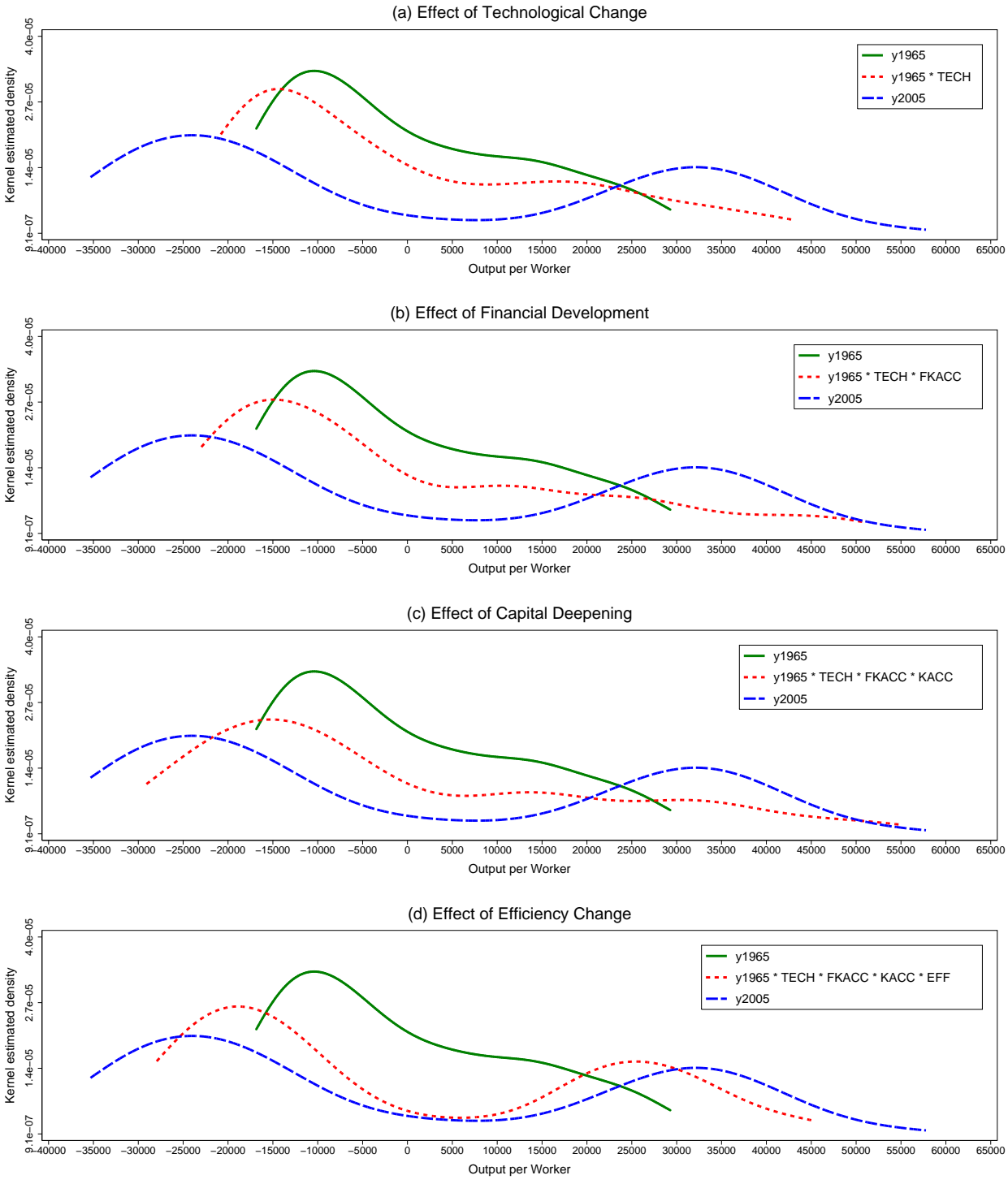


Figure A.50: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: TECH, FKACC, KACC and EFF

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 2005 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of technological change, financial development, capital deepening, and efficiency change on the 1965 distribution.

Appendix C.7 Private Credit by Deposit Money Banks and other Financial Institutions /GDP (CREDIT1, cut-off 25/75%), HR sample, 1965–1990

Table A.44: Financial efficiency augmentation factors

#	Country	1965	1990	#	Country	1965	1990
1	Argentina	1.114	1.146	23	Japan	2.398	6.837
2	Australia	1.226	2.871	24	Kenya	1.156	1.740
3	Austria	2.020	2.655	25	Mauritius	1.251	1.760
4	Belgium	1.140	1.937	26	Mexico	1.585	1.166
5	Bolivia	1.054	1.234	27	Netherlands	2.363	4.175
6	Canada	1.236	2.720	28	New Zealand	1.572	2.527
7	Chile	1.106	2.372	29	Norway	3.111	3.291
8	Colombia	1.208	1.502	30	Panama	1.162	2.007
9	Denmark	1.679	2.522	31	Paraguay	1.088	1.149
10	Dominican Rep.	1.080	1.551	32	Peru	1.127	1.052
11	Ecuador	1.190	1.146	33	Philippines	1.526	1.228
12	Finland	1.990	2.553	34	Portugal	2.626	2.422
13	France	1.573	2.778	35	Sierra Leone	1.067	1.036
14	Greece	1.147	1.875	36	Spain	2.388	2.399
15	Guatemala	1.139	1.141	37	Sri Lanka	1.101	1.206
16	Honduras	1.134	1.718	38	Sweden	2.203	4.083
17	Iceland	1.730	2.174	39	Switzerland	3.220	5.822
18	India	1.103	1.559	40	Syria	1.213	1.077
19	Ireland	1.818	3.169	41	Thailand	1.153	2.282
20	Israel	1.216	2.606	42	United Kingdom	1.239	3.568
21	Italy	2.901	2.647	43	United States	2.609	3.787
22	Jamaica	1.195	1.707				

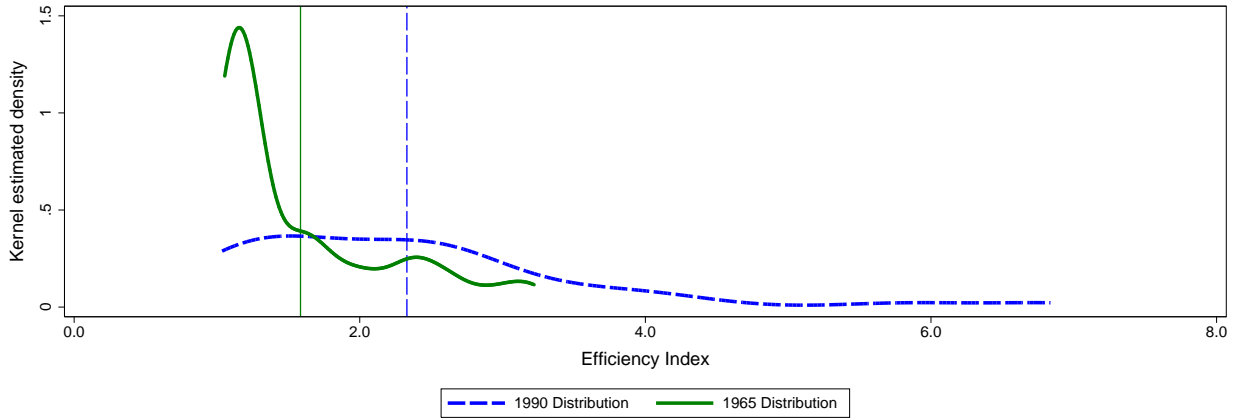


Figure A.51: Distributions of financial development index, 1965 and 1990

Notes: Estimated 1965 and 1990 distributions of financial development index. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 1990 distribution and the dashed vertical line represents the 1990 mean value.

Table A.45: Efficiency indices

#	Country	Without Financial Development		With Financial Development	
		1965	1990	1965	1990
1	Argentina	0.65	0.46	0.69	0.48
2	Australia	0.79	0.79	0.80	0.73
3	Austria	0.89	0.98	0.88	0.98
4	Belgium	0.80	0.91	0.85	1.00
5	Bolivia	0.63	0.43	0.67	0.43
6	Canada	0.99	0.90	1.00	0.85
7	Chile	0.44	0.54	0.46	0.37
8	Colombia	0.54	0.51	0.55	0.45
9	Denmark	0.86	0.82	0.78	0.79
10	Dominican Rep.	0.75	0.58	0.79	0.50
11	Ecuador	0.38	0.37	0.39	0.39
12	Finland	0.66	0.76	0.65	0.78
13	France	0.99	1.00	1.00	1.00
14	Greece	0.71	0.75	0.74	0.84
15	Guatemala	0.74	0.70	0.78	0.74
16	Honduras	0.65	0.52	0.67	0.43
17	Iceland	0.92	0.86	0.93	0.90
18	India	0.39	0.34	0.42	0.31
19	Ireland	0.71	0.76	0.57	0.68
20	Israel	0.69	0.81	0.71	0.78
21	Italy	0.81	0.97	0.81	0.97
22	Jamaica	0.66	0.45	0.67	0.42
23	Japan	0.65	0.75	0.45	0.75
24	Kenya	0.46	0.37	0.47	0.27
25	Mauritius	0.36	0.39	0.36	0.34
26	Mexico	0.90	0.78	0.88	0.86
27	Netherlands	1.00	0.92	1.00	0.82
28	New Zealand	0.89	0.69	0.86	0.63
29	Norway	0.86	0.87	0.86	0.87
30	Panama	0.58	0.60	0.59	0.45
31	Paraguay	0.62	0.43	0.67	0.45
32	Peru	0.50	0.36	0.53	0.39
33	Philippines	0.40	0.31	0.33	0.31
34	Portugal	0.68	0.71	0.54	0.68
35	Sierra Leone	1.00	0.48	1.00	0.53
36	Spain	0.92	0.93	0.88	0.97

(continued on next page)

Table A.45 (Continued)

#	Country	Without Financial Development		With Financial Development	
		1965	1990	1965	1990
37	Sri Lanka	0.22	0.25	0.23	0.25
38	Sweden	0.84	0.83	0.82	0.69
39	Switzerland	0.97	0.88	0.97	0.88
40	Syria	1.00	0.51	1.00	0.55
41	Thailand	0.32	0.36	0.33	0.26
42	United Kingdom	1.00	1.00	1.00	0.85
43	United States	1.00	0.93	0.95	0.78
Average		0.72	0.66	0.71	0.64

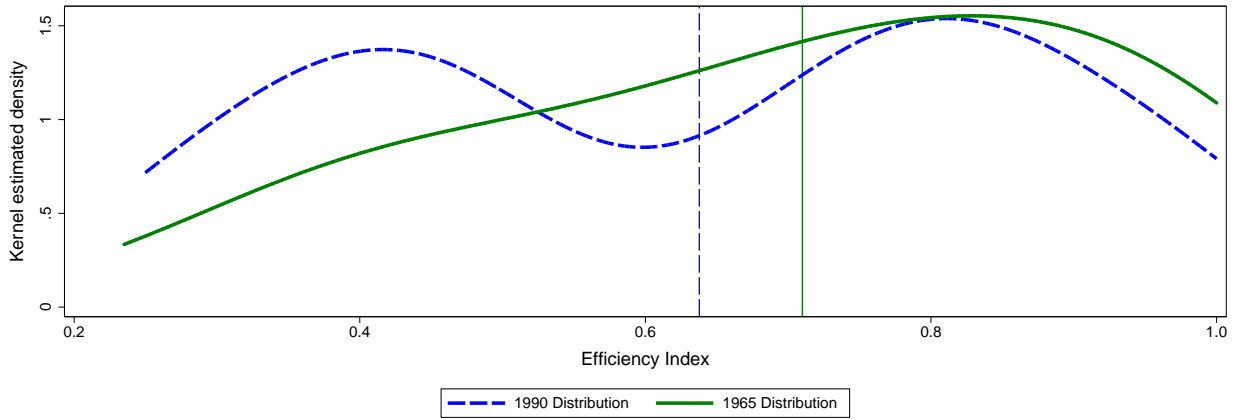


Figure A.52: Distributions of efficiency index, 1965 and 1990

Notes: Estimated 1965 and 1990 distributions of efficiency index. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 1990 distribution and the dashed vertical line represents the 1990 mean value.

Production Frontiers in 1965 and 1990

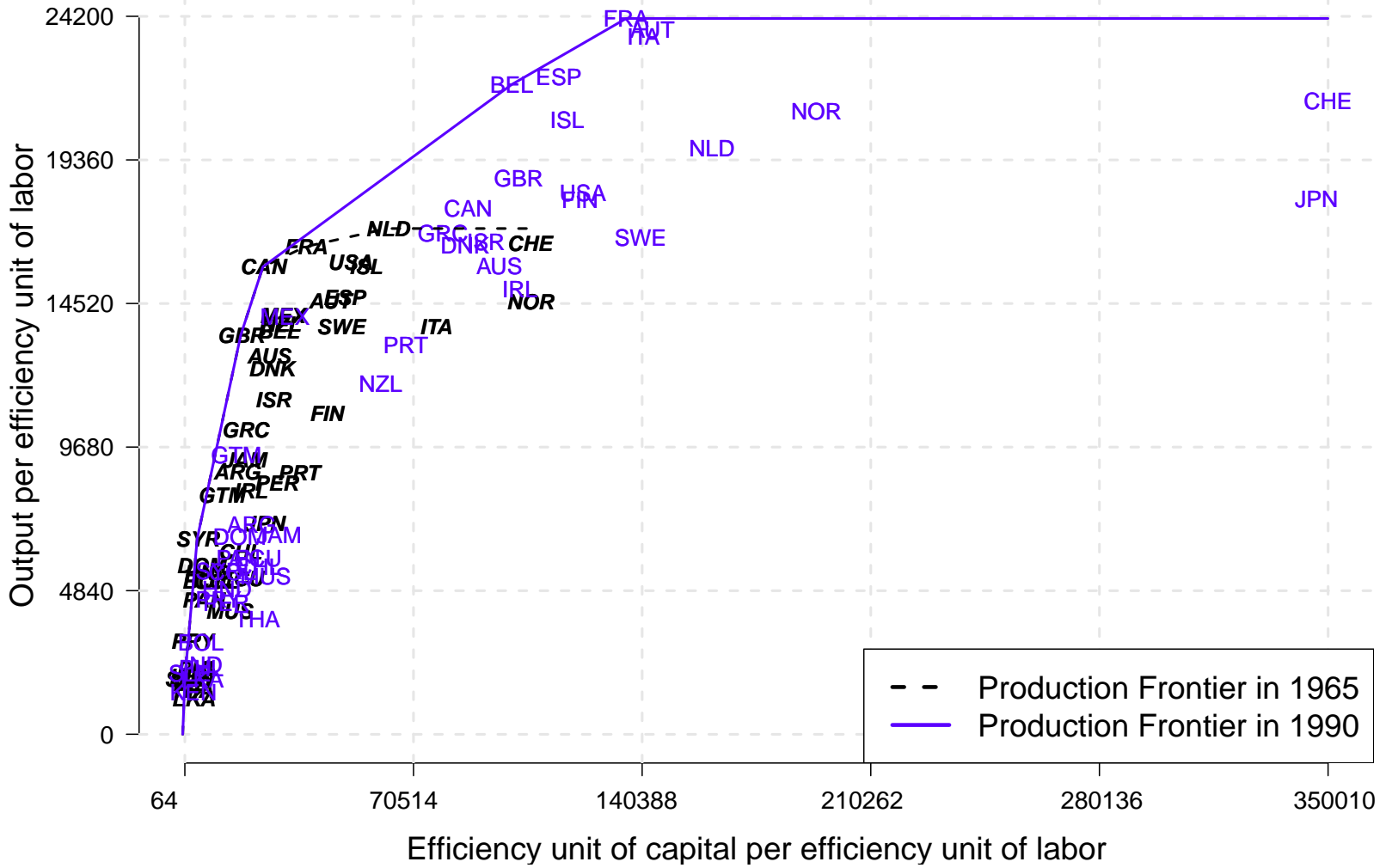


Figure A.53: Production frontiers in 1965 and 1990

Notes: The bold italic abbreviations show the 1965 observations and the normal font abbreviations show the 1990 observations. The dotted line represents the 1965 production frontier and the solid line presents the 1990 production frontier.

Table A.46: Percentage change of quinquartite decomposition indices, 1965–1990

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
1	Argentina	1.0	−29.7	0.0	26.6	12.3	1.0
		1.0	−28.6	0.0	25.3	12.9	
2	Australia	41.6	−9.2	12.8	11.9	12.2	10.2
		41.6	−0.0	9.4	16.5	11.1	
3	Austria	113.6	12.0	21.8	19.2	28.1	2.6
		113.6	10.2	20.4	30.9	23.1	
4	Belgium	95.4	17.7	13.8	16.9	19.2	4.7
		95.4	12.8	21.9	22.1	16.4	
5	Bolivia	−12.3	−36.0	0.0	2.8	24.8	6.9
		−12.3	−31.0	0.0	2.9	23.6	
6	Canada	26.7	−14.8	10.5	11.5	9.2	10.5
		26.7	−8.6	7.4	18.4	9.0	
7	Chile	19.6	−20.3	0.0	−8.9	16.9	41.0
		19.6	22.9	0.0	−12.0	10.6	
8	Colombia	39.8	−17.7	0.0	33.4	13.6	12.2
		39.8	−6.1	0.0	32.4	12.4	
9	Denmark	45.0	2.4	10.6	15.1	7.9	3.2
		45.0	−5.4	8.8	32.7	6.2	
10	Dominican Rep.	56.3	−36.6	0.0	77.8	16.2	19.3
		56.3	−22.6	0.0	76.0	14.7	
11	Ecuador	58.1	0.2	0.0	31.1	21.9	−1.3
		58.1	−2.9	0.2	33.5	21.7	
12	Finland	101.3	19.0	19.3	16.6	18.6	2.5
		101.3	14.2	19.4	27.6	15.7	
13	France	95.3	0.0	20.3	18.6	30.0	5.3
		95.3	1.0	21.1	28.0	24.7	
14	Greece	101.0	13.3	8.9	24.8	15.0	13.5
		101.0	6.6	14.7	42.4	15.5	
15	Guatemala	49.9	−5.0	0.0	40.7	12.0	0.1
		49.9	−5.6	0.0	42.0	11.8	
16	Honduras	27.7	−35.6	0.0	34.8	18.6	24.1
		27.7	−18.9	0.0	33.0	18.4	
17	Iceland	59.4	−3.4	20.9	12.1	18.6	2.7
		59.4	−7.1	27.8	15.5	16.2	
18	India	83.7	−24.9	0.0	77.3	12.6	22.6
		83.7	−12.1	0.0	85.5	12.6	
19	Ireland	112.8	20.0	13.8	26.4	12.2	9.9
		112.8	7.2	7.6	66.2	11.0	

(continued on next page)

Table A.46 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
20	Israel	76.0	10.1	12.0	12.4	16.8	8.8
		76.0	17.3	11.3	17.1	15.1	
21	Italy	117.0	20.9	29.0	14.9	22.6	-1.2
		117.0	20.9	22.6	21.4	20.5	
22	Jamaica	-4.8	-37.9	0.4	13.7	18.9	12.9
		-4.8	-30.9	0.0	20.1	14.7	
23	Japan	195.5	66.1	19.0	18.1	12.2	12.8
		195.5	14.9	19.0	94.4	11.2	
24	Kenya	15.2	-41.5	0.0	29.1	16.2	31.2
		15.2	-19.6	0.0	29.0	11.2	
25	Mauritius	61.7	-5.5	0.1	28.5	16.0	14.7
		61.7	9.9	0.0	33.2	10.4	
26	Mexico	42.2	-1.7	1.1	17.9	33.5	-9.1
		42.2	-13.6	3.2	23.5	29.2	
27	Netherlands	43.5	-18.1	25.1	7.2	20.5	8.4
		43.5	-7.7	15.3	14.1	18.2	
28	New Zealand	-7.7	-26.6	5.3	5.2	7.3	5.8
		-7.7	-22.6	1.8	11.8	4.8	
29	Norway	71.2	1.7	35.9	6.2	15.6	1.0
		71.2	1.7	29.4	13.6	14.6	
30	Panama	73.7	-24.4	0.0	49.5	16.9	31.5
		73.7	4.7	0.0	44.6	14.8	
31	Paraguay	86.6	-32.7	0.0	146.0	8.6	3.8
		86.6	-30.2	0.0	148.3	7.6	
32	Peru	-27.3	-25.6	0.4	-15.4	18.9	-3.2
		-27.3	-29.2	2.4	-14.8	17.7	
33	Philippines	31.8	-8.2	0.0	48.4	11.2	-13.0
		31.8	-23.5	0.0	55.5	10.7	
34	Portugal	111.5	25.9	7.4	15.0	38.5	-1.8
		111.5	3.6	4.3	53.8	27.2	
35	Sierra Leone	33.5	-46.9	0.0	152.4	2.3	-2.6
		33.5	-52.2	0.0	174.6	1.8	
36	Spain	106.1	10.3	19.2	18.0	32.7	0.0
		106.1	1.2	18.9	35.5	26.3	
37	Sri Lanka	95.7	6.3	0.0	58.6	9.7	5.7
		95.7	13.7	0.0	57.8	9.0	
38	Sweden	46.9	-15.6	22.4	11.6	18.2	7.8
		46.9	-1.8	10.0	17.9	15.4	
39	Switzerland	43.1	-8.8	35.9	0.0	9.0	5.9

(continued on next page)

Table A.46 (Continued)

#	Country	PROD	EFF	TECH	KACC	HACC	FKACC
40	Syria	43.1	-8.8	28.4	12.8	8.4	-8.0
		21.3	-45.2	0.0	116.4	11.2	
41	Thailand	21.3	-49.5	0.0	117.3	10.4	54.0
		211.3	-23.1	0.0	141.5	8.8	
42	United Kingdom	211.3	12.5	0.0	163.1	5.2	20.6
		58.1	-15.0	13.7	24.6	8.9	
43	United States	58.1	0.0	4.8	38.6	8.8	4.6
		32.7	-17.3	20.8	11.7	13.8	
		32.7	-7.2	7.4	19.9	11.1	
Average		61.6	-9.3	9.3	33.0	16.5	8.9
		61.6	-6.3	7.8	42.4	14.2	

Table A.47: Mean percentage changes of quinquepartite decomposition indices (country groupings)

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC
OECD*	0.83	0.83	75.1	3.6	17.6	14.7	18.3	5.5
Asian Tigers**	0.39	0.50	203.4	21.5	9.5	79.8	10.5	33.4
Latin America	0.62	0.46	30.7	-25.1	0.1	36.0	16.6	12.4
Africa	0.61	0.38	36.8	-31.3	0.0	70.0	11.5	14.5
Non-OECD	0.59	0.43	47.5	-22.9	0.6	52.2	14.5	12.5
ALL	0.71	0.64	61.6	-9.3	9.3	33.0	16.5	8.9

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

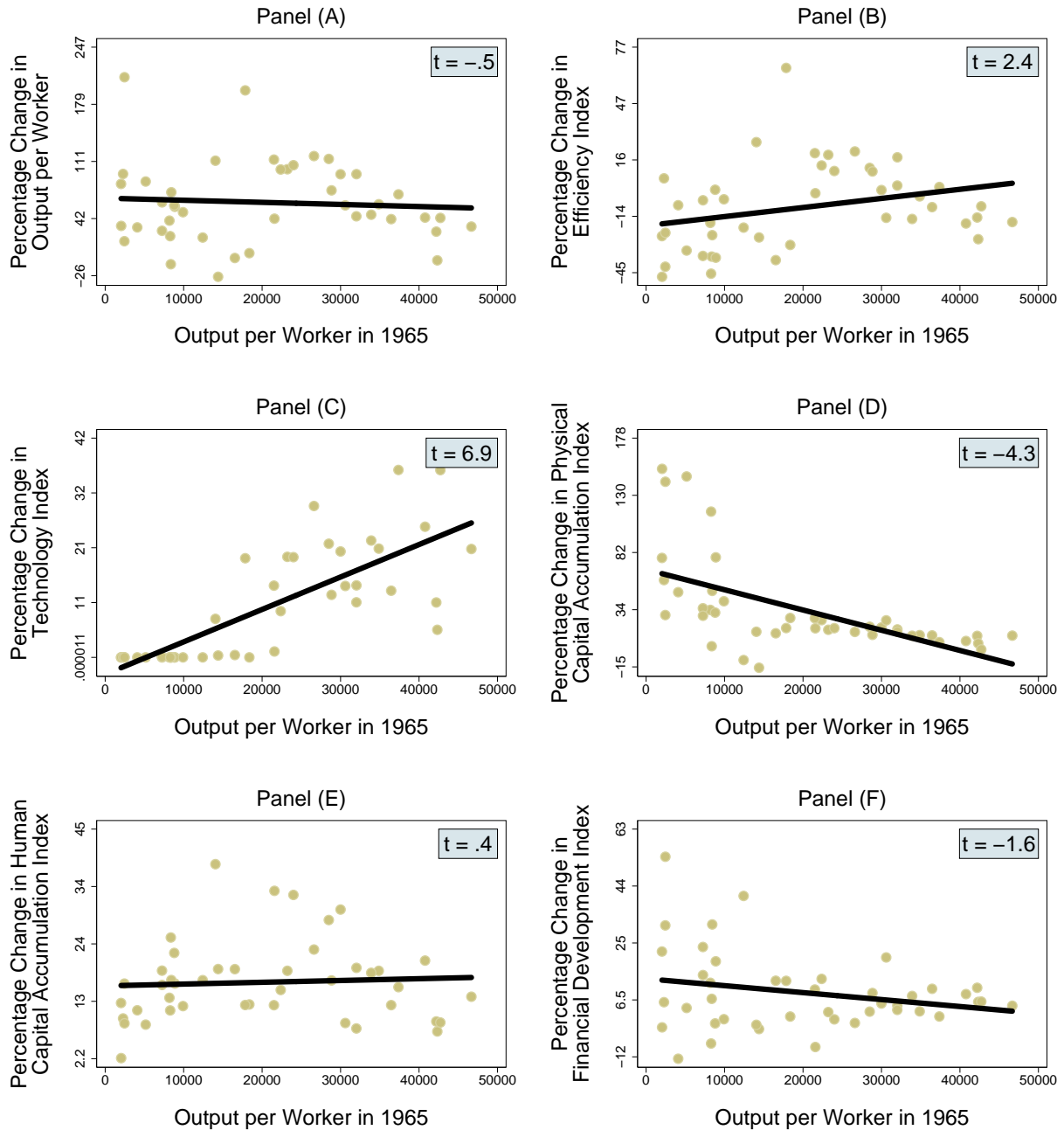


Figure A.54: Percentage change (from 1965 to 1990) in output per worker and five decomposition indices, plotted against output per worker in 1965.

Notes: Each panel contains a GLS regression line; the topright number in each panel is a t -statistic of a respective GLS regression based on “heteroskedasticity-consistent” estimators for the variance (Huber (1981); White (1980)).

Table A.48: Modality tests (*p-values*)

	H_0 : Distribution has one mode H_A : Distribution has more than one mode	Bootstrap <i>p-value</i>
1	$f(y_{1990})$	0.0000
2	$f(y_{1965})$	0.1622
3	$f(y_{1965} \times EFF)$	0.0000
4	$f(y_{1965} \times TECH)$	0.0861
5	$f(y_{1965} \times KACC)$	0.0100
6	$f(y_{1965} \times HACC)$	0.0100
7	$f(y_{1965} \times FKACC)$	0.5846
8	$f(y_{1965} \times EFF \times TECH)$	0.0000
9	$f(y_{1965} \times EFF \times KACC)$	0.0000
10	$f(y_{1965} \times EFF \times HACC)$	0.0000
11	$f(y_{1965} \times EFF \times FKACC)$	0.0000
12	$f(y_{1965} \times TECH \times KACC)$	0.0100
13	$f(y_{1965} \times TECH \times HACC)$	0.0330
14	$f(y_{1965} \times TECH \times FKACC)$	0.1712
15	$f(y_{1965} \times KACC \times HACC)$	0.0000
16	$f(y_{1965} \times KACC \times FKACC)$	0.0631
17	$f(y_{1965} \times HACC \times FKACC)$	0.0521
18	$f(y_{1965} \times EFF \times TECH \times KACC)$	0.0000
19	$f(y_{1965} \times EFF \times TECH \times HACC)$	0.0000
20	$f(y_{1965} \times EFF \times TECH \times FKACC)$	0.0000
21	$f(y_{1965} \times EFF \times KACC \times HACC)$	0.0000
22	$f(y_{1965} \times EFF \times KACC \times FKACC)$	0.0000
23	$f(y_{1965} \times EFF \times HACC \times FKACC)$	0.0000
24	$f(y_{1965} \times TECH \times KACC \times HACC)$	0.0010
25	$f(y_{1965} \times TECH \times KACC \times FKACC)$	0.0290
26	$f(y_{1965} \times TECH \times HACC \times FKACC)$	0.0410
27	$f(y_{1965} \times KACC \times HACC \times FKACC)$	0.0040
28	$f(y_{1965} \times EFF \times TECH \times KACC \times HACC)$	0.0000
29	$f(y_{1965} \times EFF \times TECH \times KACC \times FKACC)$	0.0000
30	$f(y_{1965} \times EFF \times TECH \times HACC \times FKACC)$	0.0000
31	$f(y_{1965} \times EFF \times KACC \times HACC \times FKACC)$	0.0000
32	$f(y_{1965} \times TECH \times KACC \times HACC \times FKACC)$	0.0060

Notes: We used the bootstrapped calibrated Silverman test for multi-modality due to [Hall and York \(2001\)](#) with 1000 bootstrap replications.

Table A.49: Distribution hypothesis tests (p -values)

	H_0 : Distributions are equal H_1 : Distributions are not equal	Bootstrap p -value
1	$g(y_{1990})$ vs. $f(y_{1965})$	0.0008
2	$g(y_{1990})$ vs. $f(y_{1965} \times EFF)$	0.0000
3	$g(y_{1990})$ vs. $f(y_{1965} \times TECH)$	0.0064
4	$g(y_{1990})$ vs. $f(y_{1965} \times KACC)$	0.0008
5	$g(y_{1990})$ vs. $f(y_{1965} \times HACC)$	0.0028
6	$g(y_{1990})$ vs. $f(y_{1965} \times FKACC)$	0.0012
7	$g(y_{1990})$ vs. $f(y_{1965} \times EFF \times TECH)$	0.0000
8	$g(y_{1990})$ vs. $f(y_{1965} \times EFF \times KACC)$	0.0000
9	$g(y_{1990})$ vs. $f(y_{1965} \times EFF \times HACC)$	0.0000
10	$g(y_{1990})$ vs. $f(y_{1965} \times EFF \times FKACC)$	0.0002
11	$g(y_{1990})$ vs. $f(y_{1965} \times TECH \times KACC)$	0.0586
12	$g(y_{1990})$ vs. $f(y_{1965} \times TECH \times HACC)$	0.0754
13	$g(y_{1990})$ vs. $f(y_{1965} \times TECH \times FKACC)$	0.0306
14	$g(y_{1990})$ vs. $f(y_{1965} \times KACC \times HACC)$	0.0156
15	$g(y_{1990})$ vs. $f(y_{1965} \times KACC \times FKACC)$	0.0038
16	$g(y_{1990})$ vs. $f(y_{1965} \times HACC \times FKACC)$	0.0086
17	$g(y_{1990})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC)$	0.0068
18	$g(y_{1990})$ vs. $f(y_{1965} \times EFF \times TECH \times HACC)$	0.0242
19	$g(y_{1990})$ vs. $f(y_{1965} \times EFF \times TECH \times FKACC)$	0.0012
20	$g(y_{1990})$ vs. $f(y_{1965} \times EFF \times KACC \times HACC)$	0.0036
21	$g(y_{1990})$ vs. $f(y_{1965} \times EFF \times KACC \times FKACC)$	0.0000
22	$g(y_{1990})$ vs. $f(y_{1965} \times EFF \times HACC \times FKACC)$	0.0004
23	$g(y_{1990})$ vs. $f(y_{1965} \times TECH \times KACC \times HACC)$	0.6636
24	$g(y_{1990})$ vs. $f(y_{1965} \times TECH \times KACC \times FKACC)$	0.2178
25	$g(y_{1990})$ vs. $f(y_{1965} \times TECH \times HACC \times FKACC)$	0.1942
26	$g(y_{1990})$ vs. $f(y_{1965} \times KACC \times HACC \times FKACC)$	0.0418
27	$g(y_{1990})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC \times HACC)$	0.6566
28	$g(y_{1990})$ vs. $f(y_{1965} \times EFF \times TECH \times KACC \times FKACC)$	0.0430
29	$g(y_{1990})$ vs. $f(y_{1965} \times EFF \times TECH \times HACC \times FKACC)$	0.0794
30	$g(y_{1990})$ vs. $f(y_{1965} \times EFF \times KACC \times HACC \times FKACC)$	0.0120
31	$g(y_{1990})$ vs. $f(y_{1965} \times TECH \times KACC \times HACC \times FKACC)$	0.3272

Notes: We used the bootstrapped Li (1996) test with 5000 bootstrap replications and the Sheather and Jones (1991) bandwidth.

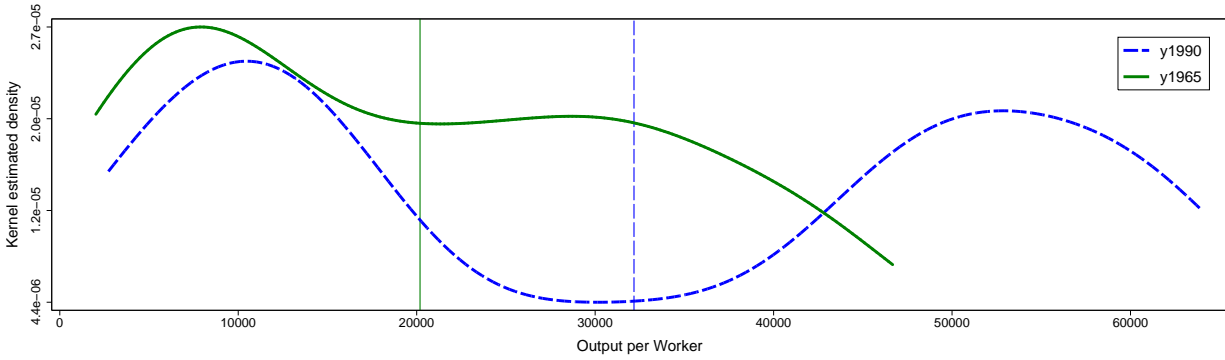


Figure A.55: Distributions of output per worker, 1965 and 1990

Notes: Estimated 1965 and 1990 distributions of output per worker. The solid curve is the estimated 1965 distribution and the solid vertical line represents the 1965 mean value. The dashed curve is the estimated 1990 distribution and the dashed vertical line represents the 1990 mean value.

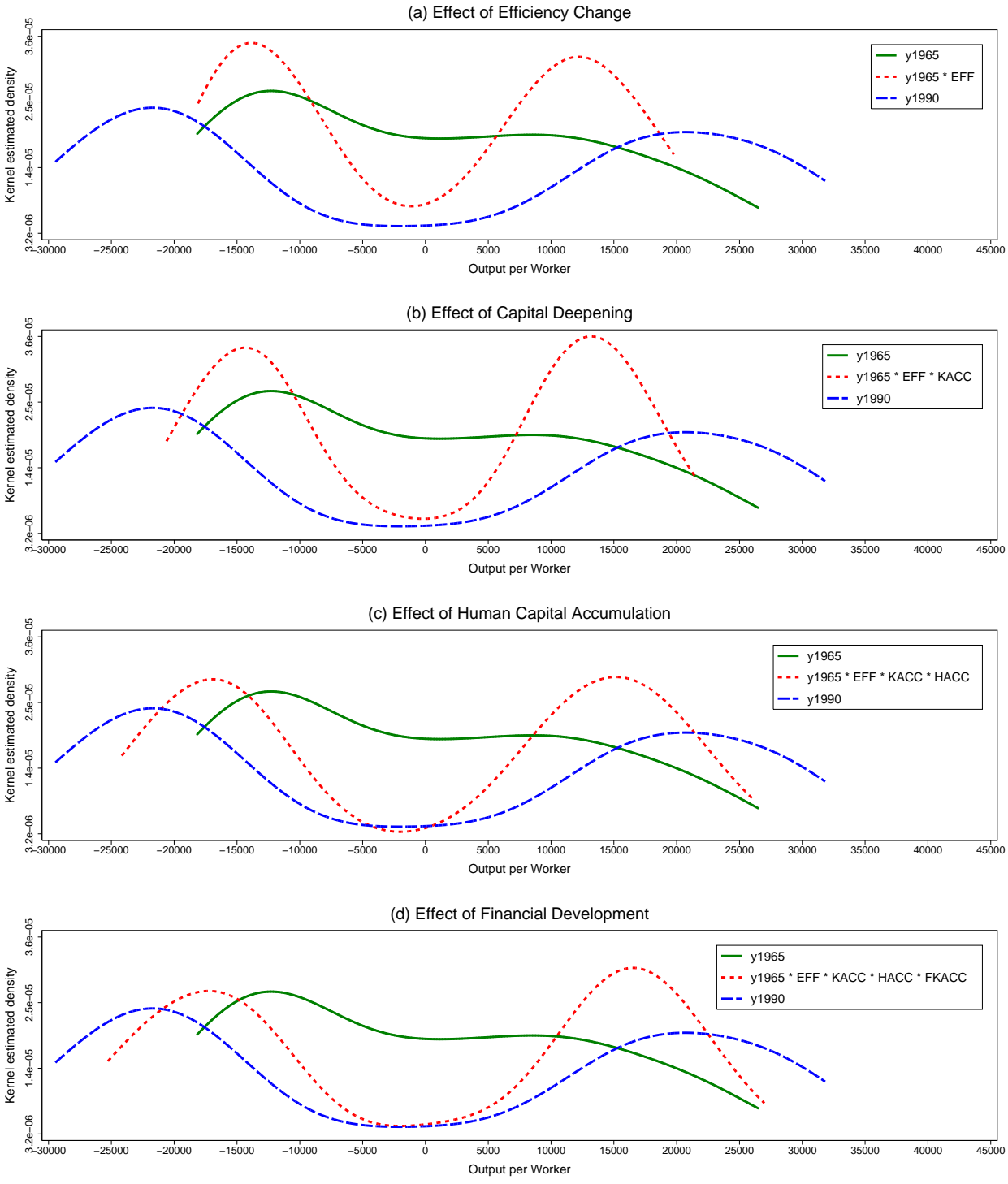


Figure A.56: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: EFF, KACC HACC, and FKACC

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 1990 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of efficiency change, capital deepening, human capital accumulation, and financial development on the 1965 distribution.

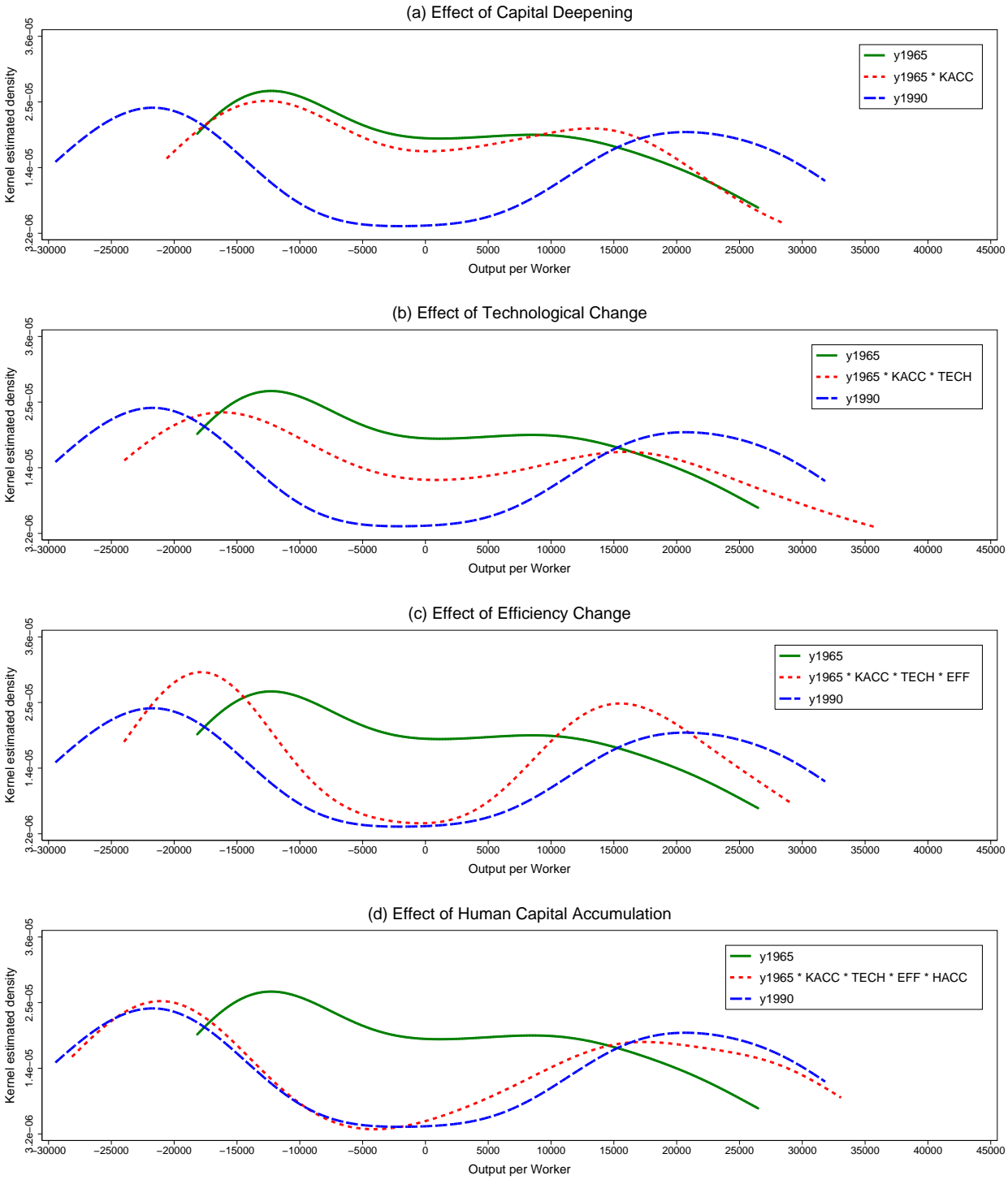


Figure A.57: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: KACC, TECH, EFF, and HACC

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 1990 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of capital deepening, technological change, efficiency change, and human capital accumulation on the 1965 distribution.

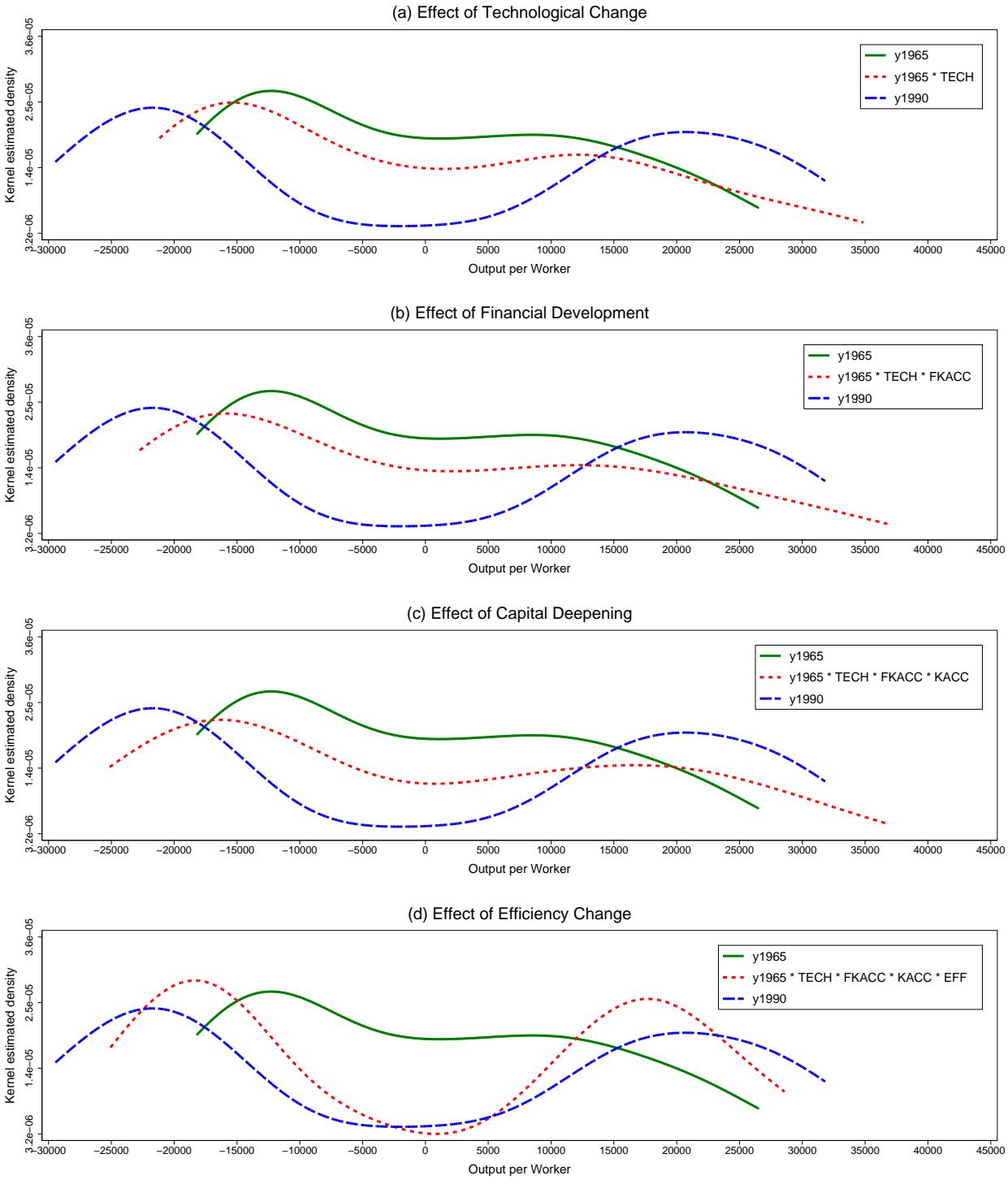


Figure A.58: Counterfactual Distributions of Output per Worker. Sequence of introducing effects of decomposition: TECH, FKACC, KACC and EFF

Notes: In each panel, the solid curve is the actual 1965 distribution and the dashed curve is the actual 1990 distribution. The dotted curves in each panel are the counterfactual distributions isolating, sequentially, the effects of technological change, financial development, capital deepening, and efficiency change on the 1965 distribution.

Appendix D Sexapartite Decomposition, FD is Private Credit by Deposit Money Banks and other Financial Institutions /GDP (CREDIT1, cut-off 25/75%), 1984–2005

Appendix D.1 INST is Investment Profile

Table A.50: INST is Investment Profile

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	1.009	1.017	28	Jamaica	1.011	1.024
2	Australia	1.024	1.032	29	Japan	1.029	1.030
3	Austria	1.027	1.032	30	Kenya	1.014	1.025
4	Belgium	1.026	1.030	31	Malaysia	1.020	1.024
5	Bolivia	1.009	1.017	32	Mexico	1.016	1.029
6	Canada	1.026	1.032	33	Morocco	1.016	1.024
7	Chile	1.007	1.030	34	Netherlands	1.025	1.032
8	Colombia	1.021	1.023	35	New Zealand	1.023	1.032
9	Costa Rica	1.014	1.022	36	Norway	1.026	1.030
10	Cote d'Ivoire	1.017	1.013	37	Panama	1.016	1.026
11	Cyprus	1.024	1.032	38	Paraguay	1.021	1.022
12	Denmark	1.023	1.030	39	Peru	1.014	1.021
13	Dominican Rep.	1.011	1.024	40	Philippines	1.013	1.024
14	Ecuador	1.013	1.014	41	Portugal	1.016	1.032
15	Egypt	1.016	1.017	42	Sierra Leone	1.010	1.020
16	El Salvador	1.012	1.021	43	Singapore	1.029	1.032
17	Finland	1.027	1.032	44	South Africa	1.019	1.029
18	France	1.017	1.032	45	Spain	1.024	1.032
19	Ghana	1.006	1.022	46	Sri Lanka	1.018	1.019
20	Greece	1.013	1.027	47	Sweden	1.024	1.032
21	Guatemala	1.014	1.026	48	Switzerland	1.029	1.032
22	Honduras	1.014	1.020	49	Syria	1.012	1.016
23	Iceland	1.022	1.029	50	Thailand	1.021	1.022
24	India	1.017	1.025	51	Trinidad and To- bago	1.018	1.030
25	Ireland	1.022	1.032	52	United Kingdom	1.022	1.032
26	Israel	1.014	1.026	53	United States	1.029	1.031
27	Italy	1.022	1.032	54	Uruguay	1.016	1.025

Table A.51: Percentage change of quinquartite decomposition indices, 1984–2005

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
FD is CREDIT1, 25/75, Reg. 3 and INST is Investment Profile										
1	Argentina	0.72	0.83	1.0	15.6	1.2	-14.6	2.1	-1.7	0.7
2	Australia	0.86	0.87	46.3	1.5	6.0	14.7	2.0	15.8	0.3
3	Austria	0.95	0.93	37.7	-2.5	12.6	5.9	11.9	5.7	0.1
4	Belgium	0.95	1.00	46.3	5.0	5.5	13.4	9.7	6.1	0.1
5	Bolivia	0.95	0.55	-4.6	-41.9	8.9	-18.3	7.3	71.1	0.6
6	Canada	0.88	0.71	37.6	-19.4	15.3	15.6	7.8	18.8	0.1
7	Chile	0.35	0.55	114.7	56.5	0.1	40.8	7.7	-10.8	1.2
8	Colombia	0.56	0.60	22.0	7.3	1.4	16.1	3.8	-7.1	0.2
9	Costa Rica	1.00	0.61	16.0	-38.8	1.1	33.0	2.8	36.2	0.6
10	Cote d'Ivoire	0.63	1.00	-14.4	59.9	11.6	-34.0	3.1	-29.3	-0.2
11	Cyprus	0.45	0.51	61.1	13.9	7.6	5.6	4.8	18.5	0.3
12	Denmark	0.87	0.75	48.1	-14.0	15.3	16.6	-0.1	28.0	0.2
13	Dominican Rep.	0.81	0.89	26.7	10.4	1.8	34.1	3.9	-19.9	0.9
14	Ecuador	0.44	0.57	-21.1	29.8	0.8	-29.7	5.6	-18.9	0.1
15	Egypt	0.59	0.57	64.6	-2.8	1.5	7.9	7.8	43.3	0.1
16	El Salvador	0.68	0.59	30.9	-13.2	1.4	19.1	7.6	15.3	0.7
17	Finland	0.68	0.94	59.3	38.2	1.2	7.1	9.1	-2.6	0.1
18	France	1.00	0.96	37.4	-3.6	4.3	5.1	24.5	4.0	0.3
19	Ghana	0.34	0.38	25.1	12.8	8.3	-13.1	8.5	7.5	0.9
20	Greece	0.80	0.89	37.5	10.7	0.3	6.8	13.7	1.8	0.2
21	Guatemala	0.97	0.71	0.3	-27.3	0.9	4.8	2.3	26.4	1.0
22	Honduras	0.64	0.41	-3.9	-35.5	1.9	26.1	6.3	8.6	0.4
23	Iceland	0.88	0.80	42.9	-8.5	15.3	1.6	11.1	20.0	0.0
24	India	0.57	0.48	115.7	-15.0	7.5	87.8	5.4	18.5	0.6
25	Ireland	0.57	0.84	102.5	48.1	11.6	9.2	4.6	7.1	0.1
26	Israel	0.76	0.80	28.7	4.8	1.5	9.3	5.7	4.2	0.5

(continued on next page)

Table A.51 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
27	Italy	0.95	0.95	39.4	-0.5	9.9	7.8	16.1	1.8	0.1
28	Jamaica	0.46	0.58	51.9	26.4	0.7	36.3	4.6	-16.7	0.6
29	Japan	0.66	0.69	40.9	5.1	19.1	8.3	9.6	-5.2	0.0
30	Kenya	0.46	0.47	-0.5	0.8	9.6	-9.3	10.2	-10.4	0.6
31	Malaysia	0.41	0.43	79.3	5.6	0.1	22.9	10.8	24.5	0.1
32	Mexico	1.00	0.89	-10.8	-10.6	0.3	-9.1	4.2	4.0	1.1
33	Morocco	0.40	0.28	24.4	-29.6	0.4	21.0	14.9	25.7	0.7
34	Netherlands	0.92	0.74	19.6	-19.7	15.1	4.8	6.2	16.3	0.1
35	New Zealand	0.77	0.64	15.5	-16.9	2.1	5.4	3.6	24.4	0.3
36	Norway	0.89	1.00	61.8	12.9	12.5	4.8	16.3	4.4	0.1
37	Panama	0.50	0.48	15.1	-3.2	0.6	14.4	2.9	-0.5	0.9
38	Paraguay	0.73	0.57	-16.2	-21.6	9.0	-6.5	4.0	0.7	0.1
39	Peru	0.66	0.62	-19.0	-5.6	4.1	-26.5	3.8	7.5	0.5
40	Philippines	0.39	0.44	8.7	11.3	9.0	-3.5	3.2	-10.8	0.9
41	Portugal	0.56	0.55	63.7	-1.8	11.6	18.2	13.9	10.7	0.2
42	Sierra Leone	1.00	1.00	-28.5	0.0	16.4	-40.7	3.2	-0.5	0.9
43	Singapore	0.81	1.00	110.1	22.9	26.8	8.4	23.5	0.7	0.0
44	South Africa	0.46	0.38	7.8	-17.9	0.0	-4.4	23.3	11.1	0.3
45	Spain	0.89	0.72	37.3	-19.1	11.3	8.0	26.3	11.7	0.1
46	Sri Lanka	0.45	0.43	77.7	-5.2	8.7	27.6	2.9	31.3	0.1
47	Sweden	0.75	0.87	52.7	16.3	2.9	10.9	10.8	3.7	0.1
48	Switzerland	0.89	0.74	8.1	-17.2	29.7	0.0	-1.5	2.3	0.0
49	Syria	0.99	1.00	-4.4	1.5	6.7	-16.1	1.9	3.0	0.3
50	Thailand	0.27	0.31	132.6	12.6	0.6	80.0	10.7	2.9	0.1
51	Trinidad and To- bago	0.46	0.88	74.4	90.1	0.3	-5.0	8.6	-11.7	0.4
52	United Kingdom	0.91	0.88	65.4	-3.6	12.2	19.7	8.5	17.5	0.3
53	United States	0.80	0.82	48.8	2.8	15.3	6.6	0.3	17.4	0.0

(continued on next page)

Table A.51 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
54	Uruguay	0.41	0.70	54.1	70.0	1.0	8.9	1.7	-19.6	0.7
	Average	0.70	0.70	36.5	3.7	7.1	8.6	7.8	7.6	0.4

Table A.52: Mean percentage changes of quinquepartite decomposition indices (country groupings), INST is Investment Profile

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
OECD*	0.84	0.83	42.6	0.1	10.4	8.3	9.5	9.7	0.2
Asian Tigers**	0.54	0.61	90.7	11.6	11.7	29.9	13.6	5.7	0.1
Latin America	0.65	0.63	21.4	7.4	2.2	8.3	4.7	3.7	0.6
Africa	0.55	0.58	11.2	3.3	6.8	-10.4	10.2	6.7	0.5
Non-OECD	0.60	0.61	32.2	6.1	4.7	8.8	6.7	6.2	0.5
ALL	0.70	0.70	36.5	3.7	7.1	8.6	7.8	7.6	0.4

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

Appendix D.2 INST is Law and Order

Table A.53: INST is Law and Order

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	2.037	2.037	28	Jamaica	1.607	1.810
2	Australia	4.151	4.030	29	Japan	3.274	3.274
3	Austria	4.151	4.151	30	Kenya	1.672	1.739
4	Belgium	4.151	3.274	31	Malaysia	3.025	2.583
5	Bolivia	1.268	2.037	32	Mexico	2.583	2.037
6	Canada	4.151	4.151	33	Morocco	1.607	3.274
7	Chile	2.583	3.274	34	Netherlands	4.151	4.151
8	Colombia	1.485	1.268	35	New Zealand	4.151	3.951
9	Costa Rica	2.583	2.583	36	Norway	4.151	4.151
10	Cote d'Ivoire	2.386	1.810	37	Panama	1.607	2.037
11	Cyprus	1.607	3.274	38	Paraguay	1.607	1.607
12	Denmark	4.151	4.151	39	Peru	1.268	2.037
13	Dominican Rep.	2.037	1.607	40	Philippines	1.268	1.705
14	Ecuador	2.583	1.864	41	Portugal	3.274	3.274
15	Egypt	1.882	2.583	42	Sierra Leone	2.583	2.294
16	El Salvador	1.268	1.920	43	Singapore	3.025	3.274
17	Finland	4.151	4.151	44	South Africa	2.037	1.810
18	France	3.274	3.274	45	Spain	2.583	3.274
19	Ghana	1.268	1.672	46	Sri Lanka	1.268	2.037
20	Greece	2.037	2.908	47	Sweden	4.151	4.151
21	Guatemala	1.268	1.739	48	Switzerland	4.151	3.274
22	Honduras	1.268	1.427	49	Syria	1.456	3.274
23	Iceland	4.151	4.151	50	Thailand	2.037	1.810
24	India	1.958	2.583	51	Trinidad and To- bago	2.583	1.722
25	Ireland	2.583	4.151	52	United Kingdom	3.835	3.687
26	Israel	1.607	3.274	53	United States	4.151	3.274
27	Italy	3.274	2.583	54	Uruguay	2.037	1.810

Table A.54: Percentage change of quinquartite decomposition indices, 1984–2005

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
FD is CREDIT1, 25/75, Reg. 3 and INST is Law and Order										
1	Argentina	0.69	0.70	1.0	2.0	0.0	-6.7	7.0	-0.7	0.0
2	Australia	0.79	0.83	46.3	4.0	9.1	14.4	2.0	11.7	-1.0
3	Austria	0.95	0.87	37.7	-8.1	21.2	5.4	11.5	5.1	0.0
4	Belgium	0.87	0.99	46.3	12.7	6.3	9.5	9.6	6.0	-4.0
5	Bolivia	1.00	0.43	-4.6	-56.5	0.0	-22.3	5.2	77.9	50.9
6	Canada	0.81	0.71	37.6	-12.4	15.3	7.8	7.7	17.4	0.0
7	Chile	0.33	0.53	114.7	60.7	0.0	19.5	11.0	-6.9	8.2
8	Colombia	0.54	0.63	22.0	18.2	0.0	11.9	7.0	-5.4	-8.8
9	Costa Rica	0.74	0.58	16.0	-21.4	0.0	16.0	8.3	17.5	0.0
10	Cote d'Ivoire	0.39	1.00	-14.4	155.8	9.4	-39.5	1.1	-38.4	-18.9
11	Cyprus	0.51	0.51	61.1	-0.9	7.6	3.2	5.3	13.3	22.7
12	Denmark	0.80	0.75	48.1	-6.9	15.3	13.4	-0.1	21.8	0.0
13	Dominican Rep.	0.67	0.78	26.7	17.4	0.0	27.1	12.3	-12.3	-13.7
14	Ecuador	0.44	0.49	-21.1	10.7	0.0	-16.2	8.7	-10.0	-13.0
15	Egypt	0.48	0.48	64.6	-1.5	0.0	3.4	17.1	24.1	11.3
16	El Salvador	0.70	0.53	30.9	-23.8	0.0	10.3	13.5	12.1	22.3
17	Finland	0.67	0.86	59.3	28.0	9.4	6.7	9.3	-2.5	0.0
18	France	1.00	0.94	37.4	-5.6	5.5	6.5	25.2	3.6	0.0
19	Ghana	0.42	0.39	25.1	-7.0	14.0	-18.7	2.8	11.4	26.8
20	Greece	0.91	0.93	37.5	1.6	0.0	6.2	12.7	2.0	10.8
21	Guatemala	1.00	0.76	0.3	-24.5	0.0	1.8	4.4	13.6	10.1
22	Honduras	0.68	0.40	-3.9	-41.3	0.0	29.0	11.5	6.4	7.0
23	Iceland	0.85	0.80	42.9	-5.5	18.2	0.0	11.3	14.9	0.0
24	India	0.43	0.33	115.7	-24.6	0.0	91.7	11.3	12.6	19.1
25	Ireland	0.61	0.79	102.5	29.6	15.1	12.6	4.8	7.4	7.1
26	Israel	0.89	0.79	28.7	-10.8	1.8	7.1	6.3	2.5	21.3

(continued on next page)

Table A.54 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
27	Italy	0.95	1.00	39.4	5.0	7.4	9.3	15.7	1.8	-3.9
28	Jamaica	0.50	0.59	51.9	16.7	0.0	17.8	18.4	-12.5	6.6
29	Japan	0.66	0.70	40.9	6.3	18.2	7.5	10.2	-5.3	0.0
30	Kenya	0.42	0.48	-0.5	14.9	10.2	-13.3	3.1	-15.1	3.4
31	Malaysia	0.37	0.46	79.3	22.5	0.0	14.1	17.7	12.3	-3.0
32	Mexico	1.00	0.89	-10.8	-11.3	0.0	-5.1	15.8	2.1	-10.4
33	Morocco	0.43	0.27	24.4	-36.1	0.0	6.1	23.4	10.2	35.0
34	Netherlands	0.88	0.74	19.6	-16.4	17.5	0.0	6.3	14.5	0.0
35	New Zealand	0.71	0.60	15.5	-16.3	5.9	6.1	3.6	20.5	-1.6
36	Norway	0.89	0.95	61.8	7.4	20.2	3.8	16.3	3.8	0.0
37	Panama	0.54	0.48	15.1	-10.4	0.0	6.2	11.1	-0.2	9.2
38	Paraguay	0.63	0.55	-16.2	-13.7	0.0	-6.8	3.3	0.8	0.0
39	Peru	0.68	0.47	-19.0	-31.4	0.0	-22.8	5.4	5.3	38.0
40	Philippines	0.41	0.40	8.7	-3.3	0.0	-3.6	2.8	-11.1	27.6
41	Portugal	0.55	0.56	63.7	0.5	11.1	16.7	14.1	10.0	0.0
42	Sierra Leone	0.73	0.87	-28.5	18.8	12.0	-41.7	2.4	-0.5	-9.7
43	Singapore	0.81	1.00	110.1	22.9	24.9	7.9	25.3	0.4	0.8
44	South Africa	0.51	0.43	7.8	-17.1	0.0	-2.6	28.4	6.4	-2.2
45	Spain	0.96	0.73	37.3	-24.3	10.8	10.5	27.8	11.1	4.2
46	Sri Lanka	0.48	0.33	77.7	-31.5	0.0	29.2	2.2	32.9	47.8
47	Sweden	0.69	0.81	52.7	17.3	7.0	6.0	10.7	3.7	0.0
48	Switzerland	0.89	0.74	8.1	-17.2	32.9	0.0	-1.7	0.0	0.0
49	Syria	0.92	0.60	-4.4	-35.3	0.0	-12.9	3.3	2.3	60.5
50	Thailand	0.24	0.34	132.6	40.7	0.0	45.5	15.2	1.3	-2.6
51	Trinidad and To- bago	0.50	0.97	74.4	95.0	0.0	-3.7	9.9	-7.7	-8.4
52	United Kingdom	0.86	0.86	65.4	-0.4	13.7	16.2	8.5	16.2	-0.4
53	United States	0.74	0.82	48.8	11.6	15.5	2.6	0.3	15.2	-2.6

(continued on next page)

Table A.54 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
54	Uruguay	0.40	0.65	54.1	60.9	0.0	3.8	5.7	-9.0	-4.1
	Average	0.68	0.67	36.5	3.1	6.6	5.5	9.9	5.8	6.3

Table A.55: Mean percentage changes of quinquepartite decomposition indices (country groupings), INST is Law and Order

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
OECD*	0.82	0.81	42.6	-0.0	12.5	7.1	10.1	8.2	-0.1
Asian Tigers**	0.52	0.62	90.7	23.1	10.8	18.8	17.1	2.2	-1.2
Latin America	0.63	0.60	21.4	3.7	0.0	4.1	8.9	4.3	6.5
Africa	0.48	0.56	11.2	18.3	6.5	-15.2	11.2	-0.3	6.5
Non-OECD	0.58	0.57	32.2	5.2	2.5	4.4	9.7	4.2	10.7
ALL	0.68	0.67	36.5	3.1	6.6	5.5	9.9	5.8	6.3

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

Appendix D.3 INST is Democratic Accountability

Table A.56: INST is Democratic Accountability

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	1.226	1.284	28	Jamaica	1.248	1.248
2	Australia	1.395	1.395	29	Japan	1.395	1.320
3	Austria	1.363	1.320	30	Kenya	1.181	1.292
4	Belgium	1.320	1.395	31	Malaysia	1.320	1.284
5	Bolivia	1.159	1.248	32	Mexico	1.248	1.395
6	Canada	1.388	1.395	33	Morocco	1.117	1.320
7	Chile	1.117	1.284	34	Netherlands	1.395	1.395
8	Colombia	1.248	1.284	35	New Zealand	1.395	1.395
9	Costa Rica	1.320	1.357	36	Norway	1.395	1.395
10	Cote d'Ivoire	1.181	1.117	37	Panama	1.128	1.395
11	Cyprus	1.181	1.395	38	Paraguay	1.057	1.117
12	Denmark	1.395	1.395	39	Peru	1.226	1.320
13	Dominican Rep.	1.181	1.320	40	Philippines	1.170	1.320
14	Ecuador	1.248	1.248	41	Portugal	1.320	1.395
15	Egypt	1.237	1.123	42	Sierra Leone	1.117	1.284
16	El Salvador	1.087	1.320	43	Singapore	1.248	1.117
17	Finland	1.395	1.395	44	South Africa	1.320	1.320
18	France	1.376	1.395	45	Spain	1.320	1.395
19	Ghana	1.057	1.320	46	Sri Lanka	1.248	1.248
20	Greece	1.320	1.395	47	Sweden	1.395	1.395
21	Guatemala	1.057	1.320	48	Switzerland	1.395	1.395
22	Honduras	1.117	1.248	49	Syria	1.072	1.057
23	Iceland	1.395	1.395	50	Thailand	1.181	1.281
24	India	1.237	1.395	51	Trinidad and To- bago	1.117	1.248
25	Ireland	1.395	1.395	52	United Kingdom	1.395	1.395
26	Israel	1.344	1.395	53	United States	1.395	1.395
27	Italy	1.395	1.357	54	Uruguay	1.187	1.320

Table A.57: Percentage change of quinquartite decomposition indices, 1984–2005

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
FD is CREDIT1, 25/75, Reg. 3 and INST is Democratic Accountability										
1	Argentina	0.69	0.75	1.0	9.0	0.0	-12.1	3.7	-1.4	3.0
2	Australia	0.85	0.86	46.3	1.5	6.7	15.1	2.0	15.1	0.0
3	Austria	0.95	0.90	37.7	-4.8	13.8	7.6	11.7	6.2	-0.5
4	Belgium	0.96	0.99	46.3	2.7	6.2	14.6	9.9	5.6	1.0
5	Bolivia	0.91	0.49	-4.6	-46.6	11.8	-18.4	6.4	75.2	5.1
6	Canada	0.87	0.71	37.6	-18.8	15.3	14.0	7.8	19.4	0.1
7	Chile	0.37	0.55	114.7	48.4	0.0	37.2	9.1	-9.0	6.3
8	Colombia	0.51	0.54	22.0	6.0	0.0	13.7	6.1	-6.4	1.9
9	Costa Rica	0.86	0.57	16.0	-34.2	0.1	27.3	5.3	29.0	1.9
10	Cote d'Ivoire	0.59	1.00	-14.4	69.3	13.3	-35.2	2.7	-30.4	-3.7
11	Cyprus	0.47	0.50	61.1	7.8	8.5	5.5	5.0	17.9	5.4
12	Denmark	0.85	0.75	48.1	-12.7	15.3	14.9	-0.1	28.2	0.0
13	Dominican Rep.	0.76	0.79	26.7	3.7	0.4	30.3	5.4	-17.7	7.6
14	Ecuador	0.44	0.52	-21.1	18.4	0.0	-25.6	6.6	-16.0	0.0
15	Egypt	0.54	0.58	64.6	7.0	0.5	7.4	11.4	37.4	-6.8
16	El Salvador	0.68	0.53	30.9	-22.1	0.5	16.3	11.2	13.3	14.2
17	Finland	0.68	0.94	59.3	38.1	1.3	6.9	9.2	-2.5	0.0
18	France	1.00	0.96	37.4	-4.5	4.8	5.6	24.8	3.8	0.3
19	Ghana	0.35	0.35	25.1	-0.8	9.7	-13.9	7.7	8.0	14.7
20	Greece	0.81	0.89	37.5	9.3	0.4	7.2	13.9	1.6	0.9
21	Guatemala	1.00	0.66	0.3	-33.7	0.0	3.9	3.4	21.8	15.7
22	Honduras	0.64	0.38	-3.9	-39.6	1.3	24.6	9.1	7.4	7.5
23	Iceland	0.87	0.80	42.9	-8.1	15.3	1.4	11.2	19.6	0.0
24	India	0.52	0.41	115.7	-21.6	7.2	87.0	5.2	18.8	9.9
25	Ireland	0.57	0.80	102.5	41.2	14.6	11.4	4.6	7.4	0.0
26	Israel	0.76	0.80	28.7	4.2	1.7	9.0	5.8	3.9	1.4

(continued on next page)

Table A.57 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
27	Italy	0.95	0.94	39.4	-1.3	10.7	8.6	16.0	1.7	-0.4
28	Jamaica	0.44	0.56	51.9	26.6	0.0	30.3	8.4	-15.0	0.0
29	Japan	0.66	0.69	40.9	5.0	20.5	9.1	9.3	-5.8	-0.8
30	Kenya	0.44	0.43	-0.5	-2.6	9.8	-10.1	10.1	-11.3	5.8
31	Malaysia	0.39	0.44	79.3	13.1	0.0	18.4	12.7	19.6	-0.6
32	Mexico	1.00	0.80	-10.8	-19.6	0.0	-8.0	8.9	2.1	8.5
33	Morocco	0.42	0.28	24.4	-32.2	0.0	15.9	17.6	19.4	12.7
34	Netherlands	0.92	0.74	19.6	-19.7	15.3	2.0	6.3	19.2	0.0
35	New Zealand	0.76	0.64	15.5	-16.1	2.4	5.4	3.6	23.1	0.0
36	Norway	0.89	0.98	61.8	10.3	14.3	5.5	16.0	4.9	0.0
37	Panama	0.51	0.43	15.1	-15.4	0.0	12.0	5.2	-0.4	15.9
38	Paraguay	0.75	0.55	-16.2	-26.9	12.2	-6.6	3.8	0.8	4.6
39	Peru	0.61	0.55	-19.0	-10.5	2.2	-25.4	5.0	7.1	5.5
40	Philippines	0.37	0.37	8.7	-0.5	10.9	-3.6	4.1	-11.2	10.5
41	Portugal	0.57	0.52	63.7	-7.3	14.6	21.5	14.1	10.3	0.8
42	Sierra Leone	1.00	0.96	-28.5	-3.9	11.5	-42.4	2.6	-0.5	13.4
43	Singapore	0.81	1.00	110.1	22.9	25.7	11.7	23.1	0.7	-1.8
44	South Africa	0.47	0.38	7.8	-17.9	0.0	-4.0	24.3	10.1	0.0
45	Spain	0.90	0.69	37.3	-24.2	14.0	11.0	26.8	11.8	0.9
46	Sri Lanka	0.41	0.39	77.7	-5.4	9.6	26.1	2.5	32.6	0.0
47	Sweden	0.75	0.87	52.7	16.3	3.3	10.7	10.9	3.5	0.0
48	Switzerland	0.89	0.74	8.1	-17.2	32.9	0.0	-1.7	0.0	0.0
49	Syria	1.00	1.00	-4.4	0.0	8.8	-15.5	2.2	2.9	-1.0
50	Thailand	0.26	0.31	132.6	17.6	0.0	65.6	12.0	2.7	3.8
51	Trinidad and To- bago	0.49	0.89	74.4	80.7	0.0	-4.7	9.1	-10.0	3.2
52	United Kingdom	0.90	0.83	65.4	-7.6	15.3	22.1	8.5	17.1	0.0
53	United States	0.80	0.82	48.8	3.3	15.3	3.9	0.3	19.9	0.0

(continued on next page)

Table A.57 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
54	Uruguay	0.41	0.63	54.1	55.6	0.0	7.3	2.9	-16.7	7.6
	Average	0.69	0.67	36.5	0.8	7.4	7.8	8.6	7.3	3.2

Table A.58: Mean percentage changes of quinquepartite decomposition indices (country groupings), INST is Democratic Accountability

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
OECD*	0.84	0.81	42.6	-1.5	11.5	8.7	9.7	9.6	0.5
Asian Tigers**	0.53	0.61	90.7	14.6	11.6	26.2	14.3	4.3	0.2
Latin America	0.63	0.59	21.4	1.2	1.8	6.9	6.3	3.9	6.3
Africa	0.54	0.57	11.2	2.7	6.4	-11.8	10.9	4.7	5.2
Non-OECD	0.59	0.58	32.2	2.4	4.6	7.2	7.8	5.7	5.1
ALL	0.69	0.67	36.5	0.8	7.4	7.8	8.6	7.3	3.2

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

Production Frontiers in 1984 and 2005

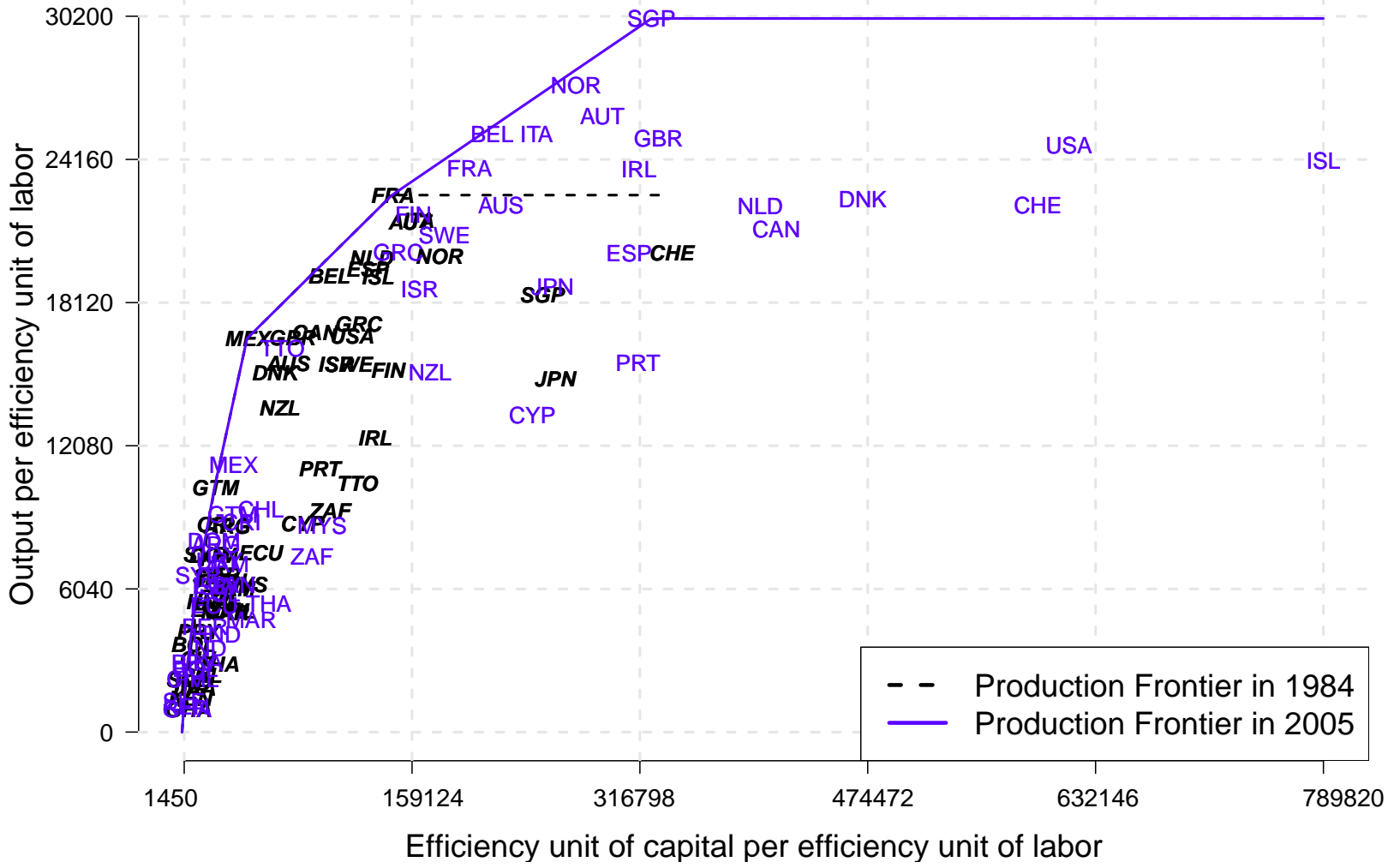


Figure A.61: Production frontiers in 1984 and 2005, INST is Democratic Accountability

Notes: The bold italic abbreviations show the 1984 observations and the normal font abbreviations show the 2005 observations. The dotted line represents the 1984 production frontier and the solid line presents the 2005 production frontier.

Appendix D.4 INST is Bureaucracy Quality

Table A.59: INST is Bureaucracy Quality

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	1.931	2.405	28	Jamaica	1.730	2.405
2	Australia	2.995	2.995	29	Japan	2.995	2.995
3	Austria	2.684	2.995	30	Kenya	1.795	1.931
4	Belgium	2.995	2.995	31	Malaysia	2.405	2.405
5	Bolivia	1.245	1.931	32	Mexico	1.931	2.405
6	Canada	2.995	2.995	33	Morocco	2.116	1.931
7	Chile	2.195	2.405	34	Netherlands	2.995	2.995
8	Colombia	2.405	1.931	35	New Zealand	2.995	2.995
9	Costa Rica	1.931	1.931	36	Norway	2.995	2.995
10	Cote d'Ivoire	2.405	1.245	37	Panama	1.245	1.931
11	Cyprus	2.405	2.995	38	Paraguay	1.245	1.551
12	Denmark	2.995	2.995	39	Peru	1.551	1.931
13	Dominican Rep.	1.931	1.551	40	Philippines	1.551	2.405
14	Ecuador	1.931	1.931	41	Portugal	2.078	2.405
15	Egypt	1.551	1.931	42	Sierra Leone	1.931	1.245
16	El Salvador	1.245	1.931	43	Singapore	2.684	2.995
17	Finland	2.995	2.995	44	South Africa	2.995	1.931
18	France	2.995	2.405	45	Spain	2.405	2.405
19	Ghana	1.245	1.931	46	Sri Lanka	1.931	1.931
20	Greece	1.931	2.405	47	Sweden	2.995	2.995
21	Guatemala	1.245	1.931	48	Switzerland	2.995	2.995
22	Honduras	1.245	1.931	49	Syria	1.364	1.551
23	Iceland	2.995	2.995	50	Thailand	2.155	1.931
24	India	2.116	2.405	51	Trinidad and To- bago	1.931	2.405
25	Ireland	2.684	2.995	52	United Kingdom	2.995	2.995
26	Israel	2.078	2.995	53	United States	2.995	2.995
27	Italy	2.405	2.155	54	Uruguay	1.551	1.931

Table A.60: Percentage change of quinquepartite decomposition indices, 1984–2005

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
FD is CREDIT1, 25/75, Reg. 3 and INST is Bureaucracy Quality										
1	Argentina	0.64	0.62	1.0	-4.0	0.0	-9.6	5.2	-1.1	11.9
2	Australia	0.83	0.85	46.3	2.7	8.0	13.5	2.0	13.9	0.0
3	Austria	0.96	0.93	37.7	-3.1	12.6	4.6	11.5	7.3	1.0
4	Belgium	0.94	0.97	46.3	3.6	8.0	12.8	9.9	5.4	0.0
5	Bolivia	1.00	0.44	-4.6	-56.3	4.2	-21.8	7.4	71.9	45.1
6	Canada	0.85	0.71	37.6	-17.4	16.1	13.6	7.9	17.0	0.0
7	Chile	0.31	0.54	114.7	73.8	0.2	16.7	10.4	-7.5	3.3
8	Colombia	0.42	0.50	22.0	18.8	0.0	9.8	9.1	-4.5	-10.1
9	Costa Rica	0.79	0.59	16.0	-25.0	0.0	19.2	7.1	21.1	0.0
10	Cote d'Ivoire	0.38	1.00	-14.4	161.6	31.4	-34.7	1.4	-37.7	-39.6
11	Cyprus	0.46	0.50	61.1	9.0	9.0	3.7	5.0	17.2	6.2
12	Denmark	0.83	0.75	48.1	-10.1	15.8	14.1	-0.1	24.9	0.0
13	Dominican Rep.	0.65	0.79	26.7	22.1	0.0	29.5	9.5	-15.3	-13.7
14	Ecuador	0.45	0.47	-21.1	4.6	0.1	-20.1	8.0	-12.6	0.0
15	Egypt	0.51	0.50	64.6	-3.1	0.0	4.8	10.8	33.4	9.8
16	El Salvador	0.70	0.50	30.9	-28.3	0.2	12.9	11.4	13.2	28.0
17	Finland	0.68	0.91	59.3	33.6	4.1	7.3	9.3	-2.3	0.0
18	France	1.00	0.99	37.4	-0.7	4.1	6.3	25.2	3.6	-3.5
19	Ghana	0.42	0.31	25.1	-26.1	26.1	-17.6	4.8	9.9	41.4
20	Greece	0.89	0.93	37.5	4.6	1.7	5.8	12.0	2.8	6.1
21	Guatemala	1.00	0.66	0.3	-34.2	0.0	2.7	3.5	17.5	22.1
22	Honduras	0.68	0.35	-3.9	-48.7	0.5	20.8	9.2	7.4	31.6
23	Iceland	0.87	0.80	42.9	-8.2	16.6	1.4	11.4	18.1	0.0
24	India	0.40	0.33	115.7	-18.8	1.7	93.7	10.2	13.6	7.7
25	Ireland	0.59	0.84	102.5	43.9	12.7	8.7	4.8	8.2	1.4
26	Israel	0.82	0.77	28.7	-5.9	4.0	8.0	6.1	3.1	11.4

(continued on next page)

Table A.60 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
27	Italy	0.99	1.00	39.4	1.1	6.7	11.6	15.9	1.6	-1.7
28	Jamaica	0.45	0.47	51.9	3.9	0.0	25.6	15.8	-8.2	9.5
29	Japan	0.66	0.69	40.9	5.0	19.6	6.6	10.3	-4.6	0.0
30	Kenya	0.38	0.38	-0.5	0.4	18.3	-12.3	4.8	-14.0	5.9
31	Malaysia	0.37	0.44	79.3	19.6	0.7	12.9	18.8	11.1	0.0
32	Mexico	1.00	0.73	-10.8	-27.0	0.0	-6.5	16.1	1.5	10.9
33	Morocco	0.35	0.28	24.4	-18.4	0.0	14.2	21.0	16.3	-5.2
34	Netherlands	0.92	0.74	19.6	-19.4	16.3	4.6	6.3	14.6	0.0
35	New Zealand	0.74	0.62	15.5	-16.9	4.7	5.9	3.7	20.9	0.0
36	Norway	0.89	1.00	61.8	12.9	15.2	3.0	15.0	5.0	0.0
37	Panama	0.57	0.45	15.1	-20.7	0.0	8.2	9.0	-0.3	23.5
38	Paraguay	0.77	0.54	-16.2	-30.4	3.1	-6.5	4.2	0.7	18.8
39	Peru	0.60	0.48	-19.0	-20.6	0.2	-22.1	7.9	5.0	15.4
40	Philippines	0.34	0.29	8.7	-15.4	1.4	-3.7	2.5	-11.2	44.4
41	Portugal	0.60	0.58	63.7	-2.9	9.4	20.3	14.7	7.8	3.5
42	Sierra Leone	0.96	1.00	-28.5	3.8	55.7	-40.6	4.6	-0.4	-28.6
43	Singapore	0.81	1.00	110.1	22.9	25.3	7.1	25.6	0.4	1.0
44	South Africa	0.45	0.40	7.8	-10.9	1.3	-3.2	26.7	8.0	-9.7
45	Spain	0.95	0.76	37.3	-20.3	9.6	10.3	27.8	11.5	0.0
46	Sri Lanka	0.34	0.34	77.7	-1.2	1.9	29.7	2.4	33.0	0.0
47	Sweden	0.74	0.83	52.7	12.2	6.5	11.4	11.0	3.3	0.0
48	Switzerland	0.89	0.74	8.1	-17.2	29.7	0.0	-1.5	2.2	0.0
49	Syria	0.96	0.94	-4.4	-1.6	1.4	-17.8	1.3	3.3	11.4
50	Thailand	0.22	0.32	132.6	43.0	0.1	43.2	15.3	1.7	-3.3
51	Trinidad and To- bago	0.52	0.88	74.4	68.5	1.2	-3.7	9.9	-8.0	5.1
52	United Kingdom	0.88	0.88	65.4	-0.1	12.8	14.9	8.6	17.6	0.0
53	United States	0.79	0.82	48.8	3.8	16.4	6.1	0.3	15.7	0.0

(continued on next page)

Table A.60 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
54	Uruguay	0.42	0.60	54.1	43.6	0.0	5.1	4.6	-12.0	10.8
	Average	0.68	0.66	36.5	2.0	8.1	6.1	9.5	6.5	5.0

Table A.61: Mean percentage changes of quinquepartite decomposition indices (country groupings), INST is Bureaucracy Quality

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH
OECD*	0.84	0.82	42.6	-0.9	11.2	8.0	10.1	8.9	0.8
Asian Tigers**	0.52	0.61	90.7	22.6	11.4	17.5	17.5	2.1	-0.6
Latin America	0.62	0.55	21.4	-2.0	0.6	4.2	8.3	4.2	12.6
Africa	0.49	0.55	11.2	15.3	19.0	-12.8	10.6	2.2	-3.7
Non-OECD	0.57	0.55	32.2	3.9	5.9	4.8	9.2	4.8	7.9
ALL	0.68	0.66	36.5	2.0	8.1	6.1	9.5	6.5	5.0

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

Appendix E Septipartite decomposition, FD is Private Credit by Deposit Money Banks and other Financial Institutions /GDP (CREDIT1, cut-off 25/75%), 1984–2005

Appendix E.1 INST1 is Investment Profile, INST2 is Law and Order

Table A.62: INST is Investment Profile

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	1.009	1.017	28	Jamaica	1.011	1.024
2	Australia	1.024	1.032	29	Japan	1.029	1.030
3	Austria	1.027	1.032	30	Kenya	1.014	1.025
4	Belgium	1.026	1.030	31	Malaysia	1.020	1.024
5	Bolivia	1.009	1.017	32	Mexico	1.016	1.029
6	Canada	1.026	1.032	33	Morocco	1.016	1.024
7	Chile	1.007	1.030	34	Netherlands	1.025	1.032
8	Colombia	1.021	1.023	35	New Zealand	1.023	1.032
9	Costa Rica	1.014	1.022	36	Norway	1.026	1.030
10	Cote d'Ivoire	1.017	1.013	37	Panama	1.016	1.026
11	Cyprus	1.024	1.032	38	Paraguay	1.021	1.022
12	Denmark	1.023	1.030	39	Peru	1.014	1.021
13	Dominican Rep.	1.011	1.024	40	Philippines	1.013	1.024
14	Ecuador	1.013	1.014	41	Portugal	1.016	1.032
15	Egypt	1.016	1.017	42	Sierra Leone	1.010	1.020
16	El Salvador	1.012	1.021	43	Singapore	1.029	1.032
17	Finland	1.027	1.032	44	South Africa	1.019	1.029
18	France	1.017	1.032	45	Spain	1.024	1.032
19	Ghana	1.006	1.022	46	Sri Lanka	1.018	1.019
20	Greece	1.013	1.027	47	Sweden	1.024	1.032
21	Guatemala	1.014	1.026	48	Switzerland	1.029	1.032
22	Honduras	1.014	1.020	49	Syria	1.012	1.016
23	Iceland	1.022	1.029	50	Thailand	1.021	1.022
24	India	1.017	1.025	51	Trinidad and To- bago	1.018	1.030
25	Ireland	1.022	1.032	52	United Kingdom	1.022	1.032
26	Israel	1.014	1.026	53	United States	1.029	1.031
27	Italy	1.022	1.032	54	Uruguay	1.016	1.025

Table A.63: INST is Law and Order

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	2.037	2.037	28	Jamaica	1.607	1.810
2	Australia	4.151	4.030	29	Japan	3.274	3.274
3	Austria	4.151	4.151	30	Kenya	1.672	1.739
4	Belgium	4.151	3.274	31	Malaysia	3.025	2.583
5	Bolivia	1.268	2.037	32	Mexico	2.583	2.037
6	Canada	4.151	4.151	33	Morocco	1.607	3.274
7	Chile	2.583	3.274	34	Netherlands	4.151	4.151
8	Colombia	1.485	1.268	35	New Zealand	4.151	3.951
9	Costa Rica	2.583	2.583	36	Norway	4.151	4.151
10	Cote d'Ivoire	2.386	1.810	37	Panama	1.607	2.037
11	Cyprus	1.607	3.274	38	Paraguay	1.607	1.607
12	Denmark	4.151	4.151	39	Peru	1.268	2.037
13	Dominican Rep.	2.037	1.607	40	Philippines	1.268	1.705
14	Ecuador	2.583	1.864	41	Portugal	3.274	3.274
15	Egypt	1.882	2.583	42	Sierra Leone	2.583	2.294
16	El Salvador	1.268	1.920	43	Singapore	3.025	3.274
17	Finland	4.151	4.151	44	South Africa	2.037	1.810
18	France	3.274	3.274	45	Spain	2.583	3.274
19	Ghana	1.268	1.672	46	Sri Lanka	1.268	2.037
20	Greece	2.037	2.908	47	Sweden	4.151	4.151
21	Guatemala	1.268	1.739	48	Switzerland	4.151	3.274
22	Honduras	1.268	1.427	49	Syria	1.456	3.274
23	Iceland	4.151	4.151	50	Thailand	2.037	1.810
24	India	1.958	2.583	51	Trinidad and To- bago	2.583	1.722
25	Ireland	2.583	4.151	52	United Kingdom	3.835	3.687
26	Israel	1.607	3.274	53	United States	4.151	3.274
27	Italy	3.274	2.583	54	Uruguay	2.037	1.810

Table A.64: Percentage change of quinquepartite decomposition indices, 1984–2005

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
pcrdbofgdp regression 3 and invprofile1 and laworder1											
1	Argentina	0.69	0.70	1.0	1.6	0.0	-6.7	7.0	-0.7	0.3	0.0
2	Australia	0.79	0.83	46.3	4.2	9.1	14.2	2.0	11.3	0.3	-0.9
3	Austria	0.95	0.87	37.7	-8.1	21.1	5.4	11.6	5.1	0.1	0.0
4	Belgium	0.87	0.99	46.3	13.0	6.3	9.1	9.6	5.8	0.1	-3.9
5	Bolivia	1.00	0.43	-4.6	-56.7	0.0	-22.3	5.2	77.6	0.7	50.7
6	Canada	0.80	0.71	37.6	-12.2	15.3	7.7	7.7	17.1	0.1	0.0
7	Chile	0.33	0.53	114.7	59.5	0.0	19.4	11.0	-6.9	0.8	8.3
8	Colombia	0.54	0.63	22.0	17.5	0.0	11.9	7.5	-5.4	0.1	-8.8
9	Costa Rica	0.74	0.58	16.0	-21.6	0.0	16.0	8.2	17.5	0.3	0.0
10	Cote d'Ivoire	0.39	1.00	-14.4	156.5	9.2	-39.5	1.1	-38.3	-0.3	-18.8
11	Cyprus	0.51	0.51	61.1	-0.8	7.6	3.2	5.3	13.1	0.2	22.4
12	Denmark	0.80	0.75	48.1	-6.7	15.3	13.3	-0.1	21.6	0.1	0.0
13	Dominican Rep.	0.67	0.78	26.7	17.0	0.0	26.6	12.3	-12.4	0.8	-13.7
14	Ecuador	0.44	0.49	-21.1	10.6	0.0	-16.2	8.7	-10.1	0.1	-13.0
15	Egypt	0.48	0.48	64.6	-1.5	0.0	3.4	17.2	24.0	0.0	11.3
16	El Salvador	0.70	0.53	30.9	-24.0	0.0	10.4	13.6	12.1	0.5	22.0
17	Finland	0.67	0.86	59.3	28.0	9.4	6.5	9.3	-2.4	0.1	0.0
18	France	1.00	0.94	37.4	-5.7	5.5	6.2	25.2	3.6	0.2	0.0
19	Ghana	0.42	0.39	25.1	-7.9	13.6	-18.8	2.6	11.6	1.3	26.9
20	Greece	0.91	0.92	37.5	1.2	0.0	6.2	12.9	1.8	0.4	10.8
21	Guatemala	1.00	0.75	0.3	-24.8	0.0	1.8	4.4	13.6	0.4	10.1
22	Honduras	0.68	0.40	-3.9	-41.4	0.0	28.7	11.5	6.4	0.3	6.9
23	Iceland	0.85	0.80	42.9	-5.5	18.2	0.0	11.4	14.8	0.0	0.0
24	India	0.43	0.33	115.7	-24.4	0.0	90.8	11.3	12.6	0.4	18.9
25	Ireland	0.61	0.79	102.5	29.7	15.1	12.6	4.8	7.4	0.2	6.9
26	Israel	0.89	0.79	28.7	-10.9	1.9	7.0	6.3	2.4	0.3	21.3

(continued on next page)

Table A.64 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
27	Italy	0.95	1.00	39.4	5.0	7.4	9.1	15.8	1.7	0.1	-3.9
28	Jamaica	0.50	0.59	51.9	16.2	0.0	17.8	18.4	-12.5	0.9	6.2
29	Japan	0.66	0.70	40.9	6.3	18.1	7.4	10.2	-5.2	0.0	0.0
30	Kenya	0.41	0.47	-0.5	14.6	9.7	-13.4	3.1	-15.1	0.9	3.4
31	Malaysia	0.37	0.46	79.3	22.4	0.0	14.2	17.8	12.2	0.1	-3.0
32	Mexico	1.00	0.88	-10.8	-11.7	0.0	-5.1	15.8	2.1	0.6	-10.4
33	Morocco	0.43	0.27	24.4	-36.2	0.0	6.1	23.4	10.2	0.2	34.8
34	Netherlands	0.88	0.74	19.6	-16.4	17.5	0.0	6.4	14.4	0.0	0.0
35	New Zealand	0.71	0.60	15.5	-16.2	5.9	6.0	3.6	20.0	0.3	-1.5
36	Norway	0.89	0.95	61.8	7.4	20.1	3.8	16.3	3.8	0.0	0.0
37	Panama	0.54	0.48	15.1	-10.8	0.0	6.2	11.0	-0.2	0.4	9.2
38	Paraguay	0.63	0.54	-16.2	-13.8	0.0	-6.8	3.4	0.8	0.1	0.0
39	Peru	0.68	0.46	-19.0	-31.8	0.0	-22.6	5.6	5.2	0.4	37.6
40	Philippines	0.41	0.40	8.7	-4.2	0.0	-3.6	2.8	-11.0	0.9	27.5
41	Portugal	0.55	0.56	63.7	0.4	11.1	16.5	14.2	10.0	0.2	0.0
42	Sierra Leone	0.73	0.87	-28.5	18.3	11.7	-41.7	2.4	-0.5	0.8	-9.7
43	Singapore	0.81	1.00	110.1	22.9	24.8	7.9	25.3	0.5	0.0	0.8
44	South Africa	0.51	0.43	7.8	-17.3	0.0	-2.6	28.4	6.4	0.2	-2.2
45	Spain	0.96	0.73	37.3	-24.2	10.8	10.4	27.8	11.0	0.1	4.1
46	Sri Lanka	0.48	0.33	77.7	-31.4	0.0	29.1	2.3	32.8	0.1	47.6
47	Sweden	0.69	0.81	52.7	17.6	7.0	5.7	10.7	3.6	0.1	0.0
48	Switzerland	0.89	0.74	8.1	-17.2	32.9	0.0	-1.7	0.0	0.0	0.0
49	Syria	0.92	0.59	-4.4	-35.4	0.0	-12.9	3.3	2.3	0.2	60.3
50	Thailand	0.24	0.34	132.6	40.5	0.0	45.5	15.3	1.3	0.0	-2.6
51	Trinidad and To- bago	0.50	0.97	74.4	94.7	0.0	-3.7	9.9	-7.8	0.3	-8.4
52	United Kingdom	0.86	0.86	65.4	-0.2	13.7	16.1	8.5	16.1	0.1	-0.4
53	United States	0.74	0.82	48.8	11.6	15.6	2.7	0.3	15.0	0.0	-2.6

(continued on next page)

Table A.64 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
54	Uruguay	0.40	0.64	54.1	60.4	0.0	3.8	5.7	-9.0	0.3	-4.1
	Average	0.68	0.67	36.5	2.9	6.6	5.4	9.9	5.8	0.3	6.3

Table A.65: Mean percentage changes of quinquepartite decomposition indices (country groupings) INST1 is Investment Profile, INST2 is Law and Order

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
OECD*	0.82	0.81	42.6	0.0	12.5	7.0	10.1	8.1	0.1	-0.1
Asian Tigers**	0.52	0.62	90.7	23.0	10.7	18.7	17.2	2.2	0.0	-1.2
Latin America	0.63	0.59	21.4	3.3	0.0	4.0	9.0	4.3	0.4	6.4
Africa	0.48	0.56	11.2	18.1	6.3	-15.2	11.2	-0.2	0.5	6.5
Non-OECD	0.58	0.57	32.2	4.9	2.5	4.3	9.7	4.1	0.4	10.7
ALL	0.68	0.67	36.5	2.9	6.6	5.4	9.9	5.8	0.3	6.3

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

Production Frontiers in 1984 and 2005

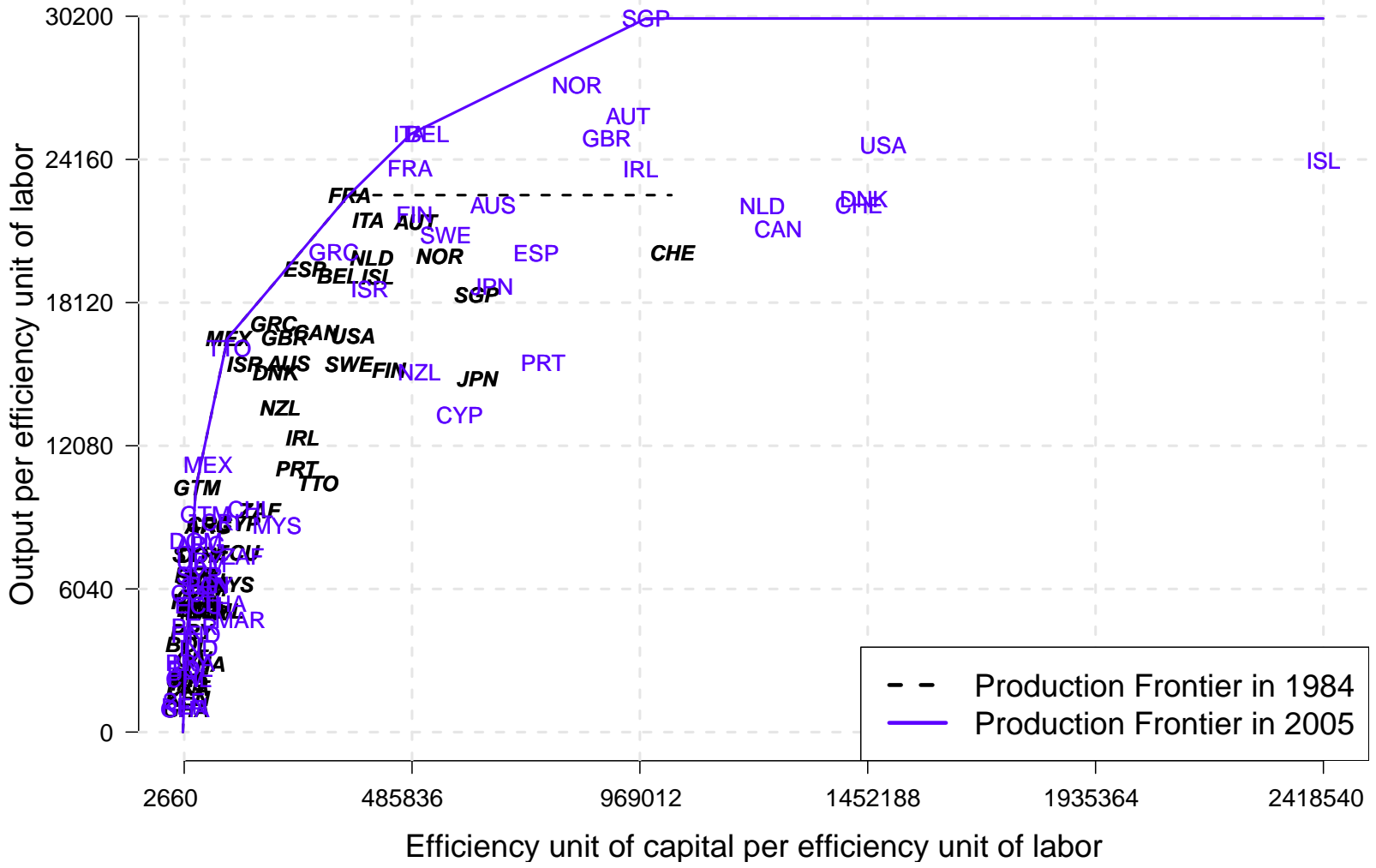


Figure A.63: Production frontiers in 1984 and 2005, INST1 is Investment Profile, INST2 is Law and Order

Notes: The bold italic abbreviations show the 1984 observations and the normal font abbreviations show the 2005 observations. The dotted line represents the 1984 production frontier and the solid line presents the 2005 production frontier.

Appendix E.2 INST1 is Investment Profile, INST2 is Democratic Accountability

Table A.66: INST is Investment Profile

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	1.009	1.017	28	Jamaica	1.011	1.024
2	Australia	1.024	1.032	29	Japan	1.029	1.030
3	Austria	1.027	1.032	30	Kenya	1.014	1.025
4	Belgium	1.026	1.030	31	Malaysia	1.020	1.024
5	Bolivia	1.009	1.017	32	Mexico	1.016	1.029
6	Canada	1.026	1.032	33	Morocco	1.016	1.024
7	Chile	1.007	1.030	34	Netherlands	1.025	1.032
8	Colombia	1.021	1.023	35	New Zealand	1.023	1.032
9	Costa Rica	1.014	1.022	36	Norway	1.026	1.030
10	Cote d'Ivoire	1.017	1.013	37	Panama	1.016	1.026
11	Cyprus	1.024	1.032	38	Paraguay	1.021	1.022
12	Denmark	1.023	1.030	39	Peru	1.014	1.021
13	Dominican Rep.	1.011	1.024	40	Philippines	1.013	1.024
14	Ecuador	1.013	1.014	41	Portugal	1.016	1.032
15	Egypt	1.016	1.017	42	Sierra Leone	1.010	1.020
16	El Salvador	1.012	1.021	43	Singapore	1.029	1.032
17	Finland	1.027	1.032	44	South Africa	1.019	1.029
18	France	1.017	1.032	45	Spain	1.024	1.032
19	Ghana	1.006	1.022	46	Sri Lanka	1.018	1.019
20	Greece	1.013	1.027	47	Sweden	1.024	1.032
21	Guatemala	1.014	1.026	48	Switzerland	1.029	1.032
22	Honduras	1.014	1.020	49	Syria	1.012	1.016
23	Iceland	1.022	1.029	50	Thailand	1.021	1.022
24	India	1.017	1.025	51	Trinidad and To- bago	1.018	1.030
25	Ireland	1.022	1.032	52	United Kingdom	1.022	1.032
26	Israel	1.014	1.026	53	United States	1.029	1.031
27	Italy	1.022	1.032	54	Uruguay	1.016	1.025

Table A.67: INST is Democratic Accountability

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	1.226	1.284	28	Jamaica	1.248	1.248
2	Australia	1.395	1.395	29	Japan	1.395	1.320
3	Austria	1.363	1.320	30	Kenya	1.181	1.292
4	Belgium	1.320	1.395	31	Malaysia	1.320	1.284
5	Bolivia	1.159	1.248	32	Mexico	1.248	1.395
6	Canada	1.388	1.395	33	Morocco	1.117	1.320
7	Chile	1.117	1.284	34	Netherlands	1.395	1.395
8	Colombia	1.248	1.284	35	New Zealand	1.395	1.395
9	Costa Rica	1.320	1.357	36	Norway	1.395	1.395
10	Cote d'Ivoire	1.181	1.117	37	Panama	1.128	1.395
11	Cyprus	1.181	1.395	38	Paraguay	1.057	1.117
12	Denmark	1.395	1.395	39	Peru	1.226	1.320
13	Dominican Rep.	1.181	1.320	40	Philippines	1.170	1.320
14	Ecuador	1.248	1.248	41	Portugal	1.320	1.395
15	Egypt	1.237	1.123	42	Sierra Leone	1.117	1.284
16	El Salvador	1.087	1.320	43	Singapore	1.248	1.117
17	Finland	1.395	1.395	44	South Africa	1.320	1.320
18	France	1.376	1.395	45	Spain	1.320	1.395
19	Ghana	1.057	1.320	46	Sri Lanka	1.248	1.248
20	Greece	1.320	1.395	47	Sweden	1.395	1.395
21	Guatemala	1.057	1.320	48	Switzerland	1.395	1.395
22	Honduras	1.117	1.248	49	Syria	1.072	1.057
23	Iceland	1.395	1.395	50	Thailand	1.181	1.281
24	India	1.237	1.395	51	Trinidad and To- bago	1.117	1.248
25	Ireland	1.395	1.395	52	United Kingdom	1.395	1.395
26	Israel	1.344	1.395	53	United States	1.395	1.395
27	Italy	1.395	1.357	54	Uruguay	1.187	1.320

Table A.68: Percentage change of quinquepartite decomposition indices, 1984–2005

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
pcrdbofgdp regression 3 and invprofile1 and demaccount1											
1	Argentina	0.69	0.75	1.0	8.4	0.0	-12.1	3.7	-1.4	0.5	3.0
2	Australia	0.85	0.86	46.3	1.5	6.8	14.9	2.0	14.8	0.3	0.0
3	Austria	0.95	0.90	37.7	-4.8	14.0	7.5	11.8	6.1	0.1	-0.5
4	Belgium	0.96	0.99	46.3	2.8	6.2	14.3	9.9	5.6	0.1	1.0
5	Bolivia	0.91	0.49	-4.6	-46.7	11.4	-18.4	6.4	75.1	0.7	5.1
6	Canada	0.87	0.71	37.6	-18.6	15.3	13.8	7.8	19.2	0.1	0.1
7	Chile	0.37	0.55	114.7	47.1	0.0	36.9	9.1	-9.0	1.0	6.3
8	Colombia	0.51	0.54	22.0	5.9	0.0	13.6	6.2	-6.4	0.2	1.9
9	Costa Rica	0.86	0.57	16.0	-34.5	0.1	27.3	5.5	28.7	0.5	1.9
10	Cote d'Ivoire	0.59	1.00	-14.4	69.9	13.0	-35.2	2.8	-30.3	-0.2	-3.7
11	Cyprus	0.46	0.50	61.1	7.8	8.6	5.5	4.9	17.5	0.2	5.4
12	Denmark	0.85	0.75	48.1	-12.6	15.3	14.9	-0.1	27.7	0.3	0.0
13	Dominican Rep.	0.76	0.78	26.7	2.8	0.4	30.3	5.5	-17.7	0.8	7.6
14	Ecuador	0.44	0.52	-21.1	18.4	0.0	-25.6	6.6	-16.1	0.1	0.0
15	Egypt	0.54	0.58	64.6	7.0	0.5	7.3	11.4	37.3	0.0	-6.8
16	El Salvador	0.68	0.53	30.9	-22.5	0.5	16.2	11.2	13.3	0.6	14.2
17	Finland	0.68	0.94	59.3	38.1	1.5	6.6	9.2	-2.5	0.1	0.0
18	France	1.00	0.95	37.4	-4.7	4.9	5.4	24.8	3.8	0.3	0.3
19	Ghana	0.35	0.34	25.1	-1.6	9.5	-13.8	7.7	8.0	1.0	14.7
20	Greece	0.81	0.88	37.5	8.9	0.5	7.2	13.9	1.6	0.2	0.9
21	Guatemala	1.00	0.66	0.3	-34.2	0.0	3.8	3.4	21.8	0.8	15.7
22	Honduras	0.64	0.38	-3.9	-39.8	1.3	24.5	9.1	7.4	0.4	7.5
23	Iceland	0.87	0.80	42.9	-7.9	15.3	1.3	11.2	19.5	0.0	0.0
24	India	0.52	0.41	115.7	-21.8	6.9	86.9	5.2	18.7	0.6	9.9
25	Ireland	0.56	0.80	102.5	41.4	14.6	11.2	4.6	7.3	0.2	0.0
26	Israel	0.77	0.80	28.7	3.9	1.8	8.9	5.8	3.7	0.4	1.4

(continued on next page)

Table A.68 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
27	Italy	0.95	0.94	39.4	-1.5	10.8	8.5	16.1	1.7	0.1	-0.4
28	Jamaica	0.44	0.55	51.9	25.5	0.0	30.4	8.4	-14.8	0.6	0.0
29	Japan	0.66	0.69	40.9	4.9	20.5	9.0	9.3	-5.7	0.0	-0.8
30	Kenya	0.44	0.43	-0.5	-3.0	9.6	-10.1	10.1	-11.3	0.7	5.8
31	Malaysia	0.39	0.44	79.3	13.2	0.0	18.3	12.7	19.5	0.1	-0.6
32	Mexico	1.00	0.80	-10.8	-20.3	0.0	-8.0	9.3	2.0	0.6	8.5
33	Morocco	0.42	0.28	24.4	-32.2	0.0	15.6	17.6	19.1	0.6	12.7
34	Netherlands	0.92	0.74	19.6	-19.5	15.3	1.9	6.3	19.0	0.0	0.0
35	New Zealand	0.76	0.64	15.5	-16.3	2.5	5.3	3.6	22.9	0.3	0.0
36	Norway	0.89	0.98	61.8	10.2	14.4	5.4	16.0	4.8	0.1	0.0
37	Panama	0.51	0.43	15.1	-16.0	0.0	12.0	5.2	-0.4	0.7	15.9
38	Paraguay	0.75	0.55	-16.2	-26.7	11.8	-6.6	3.8	0.8	0.1	4.6
39	Peru	0.61	0.54	-19.0	-10.9	2.1	-25.3	5.0	7.1	0.5	5.4
40	Philippines	0.37	0.37	8.7	-1.0	10.5	-3.6	4.1	-11.2	0.9	10.5
41	Portugal	0.57	0.52	63.7	-7.4	14.6	21.4	14.1	10.3	0.2	0.8
42	Sierra Leone	1.00	0.96	-28.5	-4.5	11.3	-42.3	2.6	-0.5	0.9	13.2
43	Singapore	0.81	1.00	110.1	22.9	25.7	11.5	23.1	0.7	0.1	-1.8
44	South Africa	0.47	0.38	7.8	-18.1	0.0	-4.0	24.3	10.1	0.3	0.0
45	Spain	0.90	0.69	37.3	-24.0	14.1	10.8	26.8	11.7	0.1	0.9
46	Sri Lanka	0.41	0.39	77.7	-5.2	9.2	26.1	2.6	32.6	0.1	0.0
47	Sweden	0.74	0.87	52.7	16.3	3.4	10.5	10.9	3.6	0.1	0.0
48	Switzerland	0.89	0.74	8.1	-17.2	32.9	0.0	-1.7	0.0	0.0	0.0
49	Syria	1.00	1.00	-4.4	0.0	8.5	-15.5	2.2	2.9	0.3	-1.0
50	Thailand	0.26	0.31	132.6	17.9	0.0	65.1	12.1	2.7	0.1	3.8
51	Trinidad and To- bago	0.49	0.89	74.4	80.2	0.0	-4.7	9.1	-10.1	0.3	3.2
52	United Kingdom	0.90	0.83	65.4	-7.4	15.3	22.0	8.5	16.7	0.3	0.0
53	United States	0.79	0.82	48.8	3.7	15.3	3.7	0.3	19.7	0.0	0.0

(continued on next page)

Table A.68 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
54	Uruguay	0.41	0.63	54.1	54.7	0.0	7.3	2.9	-16.7	0.7	7.6
	Average	0.69	0.67	36.5	0.6	7.3	7.7	8.6	7.2	0.3	3.2

Table A.69: Mean percentage changes of quinquepartite decomposition indices (country groupings) INST1 is Investment Profile, INST2 is Democratic Accountability

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
OECD*	0.83	0.81	42.6	-1.6	11.5	8.5	9.7	9.5	0.2	0.5
Asian Tigers**	0.53	0.61	90.7	14.7	11.6	26.0	14.3	4.3	0.1	0.2
Latin America	0.63	0.59	21.4	0.7	1.7	6.9	6.3	3.9	0.5	6.3
Africa	0.54	0.57	11.2	2.5	6.3	-11.8	10.9	4.6	0.5	5.1
Non-OECD	0.59	0.58	32.2	2.1	4.5	7.2	7.8	5.7	0.5	5.1
ALL	0.69	0.67	36.5	0.6	7.3	7.7	8.6	7.2	0.3	3.2

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

Appendix E.3 INST1 is Investment Profile, INST2 is Bureaucratic Quality

Table A.70: INST is Investment Profile

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	1.009	1.017	28	Jamaica	1.011	1.024
2	Australia	1.024	1.032	29	Japan	1.029	1.030
3	Austria	1.027	1.032	30	Kenya	1.014	1.025
4	Belgium	1.026	1.030	31	Malaysia	1.020	1.024
5	Bolivia	1.009	1.017	32	Mexico	1.016	1.029
6	Canada	1.026	1.032	33	Morocco	1.016	1.024
7	Chile	1.007	1.030	34	Netherlands	1.025	1.032
8	Colombia	1.021	1.023	35	New Zealand	1.023	1.032
9	Costa Rica	1.014	1.022	36	Norway	1.026	1.030
10	Cote d'Ivoire	1.017	1.013	37	Panama	1.016	1.026
11	Cyprus	1.024	1.032	38	Paraguay	1.021	1.022
12	Denmark	1.023	1.030	39	Peru	1.014	1.021
13	Dominican Rep.	1.011	1.024	40	Philippines	1.013	1.024
14	Ecuador	1.013	1.014	41	Portugal	1.016	1.032
15	Egypt	1.016	1.017	42	Sierra Leone	1.010	1.020
16	El Salvador	1.012	1.021	43	Singapore	1.029	1.032
17	Finland	1.027	1.032	44	South Africa	1.019	1.029
18	France	1.017	1.032	45	Spain	1.024	1.032
19	Ghana	1.006	1.022	46	Sri Lanka	1.018	1.019
20	Greece	1.013	1.027	47	Sweden	1.024	1.032
21	Guatemala	1.014	1.026	48	Switzerland	1.029	1.032
22	Honduras	1.014	1.020	49	Syria	1.012	1.016
23	Iceland	1.022	1.029	50	Thailand	1.021	1.022
24	India	1.017	1.025	51	Trinidad and To- bago	1.018	1.030
25	Ireland	1.022	1.032	52	United Kingdom	1.022	1.032
26	Israel	1.014	1.026	53	United States	1.029	1.031
27	Italy	1.022	1.032	54	Uruguay	1.016	1.025

Table A.71: INST is Bureaucratic Quality

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	1.931	2.405	28	Jamaica	1.730	2.405
2	Australia	2.995	2.995	29	Japan	2.995	2.995
3	Austria	2.684	2.995	30	Kenya	1.795	1.931
4	Belgium	2.995	2.995	31	Malaysia	2.405	2.405
5	Bolivia	1.245	1.931	32	Mexico	1.931	2.405
6	Canada	2.995	2.995	33	Morocco	2.116	1.931
7	Chile	2.195	2.405	34	Netherlands	2.995	2.995
8	Colombia	2.405	1.931	35	New Zealand	2.995	2.995
9	Costa Rica	1.931	1.931	36	Norway	2.995	2.995
10	Cote d'Ivoire	2.405	1.245	37	Panama	1.245	1.931
11	Cyprus	2.405	2.995	38	Paraguay	1.245	1.551
12	Denmark	2.995	2.995	39	Peru	1.551	1.931
13	Dominican Rep.	1.931	1.551	40	Philippines	1.551	2.405
14	Ecuador	1.931	1.931	41	Portugal	2.078	2.405
15	Egypt	1.551	1.931	42	Sierra Leone	1.931	1.245
16	El Salvador	1.245	1.931	43	Singapore	2.684	2.995
17	Finland	2.995	2.995	44	South Africa	2.995	1.931
18	France	2.995	2.405	45	Spain	2.405	2.405
19	Ghana	1.245	1.931	46	Sri Lanka	1.931	1.931
20	Greece	1.931	2.405	47	Sweden	2.995	2.995
21	Guatemala	1.245	1.931	48	Switzerland	2.995	2.995
22	Honduras	1.245	1.931	49	Syria	1.364	1.551
23	Iceland	2.995	2.995	50	Thailand	2.155	1.931
24	India	2.116	2.405	51	Trinidad and To- bago	1.931	2.405
25	Ireland	2.684	2.995	52	United Kingdom	2.995	2.995
26	Israel	2.078	2.995	53	United States	2.995	2.995
27	Italy	2.405	2.155	54	Uruguay	1.551	1.931

Table A.72: Percentage change of quinquepartite decomposition indices, 1984–2005

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
pcrdbofgdp regression 3 and invprofile1 and bureaucqual1											
1	Argentina	0.65	0.62	1.0	-4.4	0.0	-9.6	5.2	-1.1	0.4	11.8
2	Australia	0.83	0.85	46.3	2.8	7.9	13.5	2.0	13.6	0.3	0.0
3	Austria	0.95	0.93	37.7	-2.8	12.4	4.4	11.5	7.3	0.0	1.0
4	Belgium	0.94	0.97	46.3	3.9	7.9	12.7	9.9	5.3	0.1	0.0
5	Bolivia	1.00	0.44	-4.6	-56.4	4.0	-21.8	7.4	71.6	0.7	45.0
6	Canada	0.85	0.71	37.6	-17.2	16.0	13.4	7.9	17.0	0.1	0.0
7	Chile	0.31	0.54	114.7	72.7	0.2	16.6	10.4	-7.5	0.8	3.4
8	Colombia	0.42	0.50	22.0	18.7	0.0	9.8	9.0	-4.5	0.1	-10.2
9	Costa Rica	0.79	0.59	16.0	-25.3	0.0	19.2	7.1	21.1	0.4	0.0
10	Cote d'Ivoire	0.38	1.00	-14.4	162.3	31.0	-34.6	1.4	-37.7	-0.3	-39.5
11	Cyprus	0.46	0.50	61.1	9.1	8.9	3.7	5.0	16.9	0.3	6.2
12	Denmark	0.83	0.75	48.1	-10.0	15.7	14.1	-0.1	24.6	0.2	0.0
13	Dominican Rep.	0.65	0.79	26.7	21.0	0.0	29.5	9.8	-15.4	0.8	-13.7
14	Ecuador	0.45	0.47	-21.1	4.6	0.1	-20.2	8.0	-12.6	0.1	0.0
15	Egypt	0.51	0.50	64.6	-3.0	0.0	4.7	10.8	33.3	0.0	9.8
16	El Salvador	0.70	0.50	30.9	-28.6	0.2	12.9	11.4	13.2	0.6	27.7
17	Finland	0.68	0.91	59.3	34.0	3.9	7.1	9.3	-2.3	0.1	0.0
18	France	1.00	0.99	37.4	-0.7	3.9	6.3	25.2	3.6	0.2	-3.5
19	Ghana	0.42	0.31	25.1	-26.6	25.4	-17.6	4.8	9.9	1.2	41.5
20	Greece	0.89	0.93	37.5	4.6	1.4	5.8	12.0	2.8	0.4	6.1
21	Guatemala	1.00	0.65	0.3	-34.6	0.0	2.7	3.5	17.6	0.5	22.1
22	Honduras	0.68	0.35	-3.9	-48.8	0.4	20.7	9.2	7.4	0.4	31.4
23	Iceland	0.87	0.80	42.9	-8.0	16.4	1.4	11.4	18.3	0.0	0.0
24	India	0.40	0.33	115.7	-18.7	1.6	93.0	10.2	13.7	0.4	7.7
25	Ireland	0.58	0.84	102.5	44.0	12.5	8.6	4.8	8.1	0.2	1.4
26	Israel	0.82	0.77	28.7	-5.8	3.8	7.9	6.1	2.9	0.3	11.3

(continued on next page)

Table A.72 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
27	Italy	0.99	1.00	39.4	1.3	6.5	11.4	15.9	1.6	0.1	-1.7
28	Jamaica	0.45	0.46	51.9	3.2	0.0	25.7	16.1	-8.2	0.3	9.5
29	Japan	0.66	0.69	40.9	5.0	19.6	6.7	10.3	-4.6	0.0	0.0
30	Kenya	0.38	0.38	-0.5	0.3	17.5	-12.3	4.8	-14.0	0.8	5.9
31	Malaysia	0.37	0.44	79.3	19.7	0.6	12.8	18.9	11.0	0.1	0.0
32	Mexico	1.00	0.72	-10.8	-27.5	0.0	-6.4	16.5	1.5	0.4	10.8
33	Morocco	0.35	0.28	24.4	-18.4	0.0	14.0	21.0	16.1	0.5	-5.2
34	Netherlands	0.92	0.74	19.6	-19.2	16.1	4.4	6.4	14.6	0.1	0.0
35	New Zealand	0.74	0.62	15.5	-16.8	4.6	5.9	3.7	20.6	0.2	0.0
36	Norway	0.89	1.00	61.8	12.9	15.1	3.0	15.0	5.0	0.0	0.0
37	Panama	0.57	0.45	15.1	-21.2	0.0	8.2	9.0	-0.3	0.5	23.6
38	Paraguay	0.77	0.54	-16.2	-30.3	2.9	-6.5	4.2	0.7	0.1	18.8
39	Peru	0.60	0.48	-19.0	-21.1	0.2	-21.9	8.1	4.9	0.4	15.3
40	Philippines	0.34	0.29	8.7	-16.1	1.3	-3.7	2.5	-11.2	0.9	44.4
41	Portugal	0.60	0.58	63.7	-2.9	9.3	20.3	14.7	7.7	0.2	3.5
42	Sierra Leone	0.96	1.00	-28.5	4.0	54.6	-40.7	4.6	-0.4	0.7	-28.5
43	Singapore	0.81	1.00	110.1	22.9	25.3	7.1	25.6	0.4	0.0	1.0
44	South Africa	0.45	0.40	7.8	-10.9	1.1	-3.2	26.7	7.9	0.2	-9.7
45	Spain	0.95	0.76	37.3	-20.1	9.5	10.2	27.8	11.4	0.2	0.0
46	Sri Lanka	0.34	0.34	77.7	-1.1	1.7	29.7	2.4	33.0	0.1	0.0
47	Sweden	0.74	0.83	52.7	12.4	6.3	11.3	11.1	3.3	0.1	0.0
48	Switzerland	0.89	0.74	8.1	-17.2	29.7	0.0	-1.5	2.3	0.0	0.0
49	Syria	0.96	0.94	-4.4	-1.9	1.3	-17.8	1.3	3.3	0.3	11.4
50	Thailand	0.22	0.32	132.6	43.3	0.1	42.8	15.3	1.7	0.0	-3.3
51	Trinidad and To- bago	0.52	0.88	74.4	68.4	1.0	-3.7	9.9	-8.0	0.3	5.1
52	United Kingdom	0.88	0.88	65.4	-0.0	12.7	14.9	8.6	17.2	0.3	0.0
53	United States	0.79	0.82	48.8	4.2	16.2	5.9	0.3	15.7	0.0	0.0

(continued on next page)

Table A.72 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
54	Uruguay	0.42	0.60	54.1	43.0	0.0	5.1	4.6	-12.0	0.4	10.9
	Average	0.68	0.66	36.5	1.9	7.9	6.1	9.6	6.4	0.3	5.0

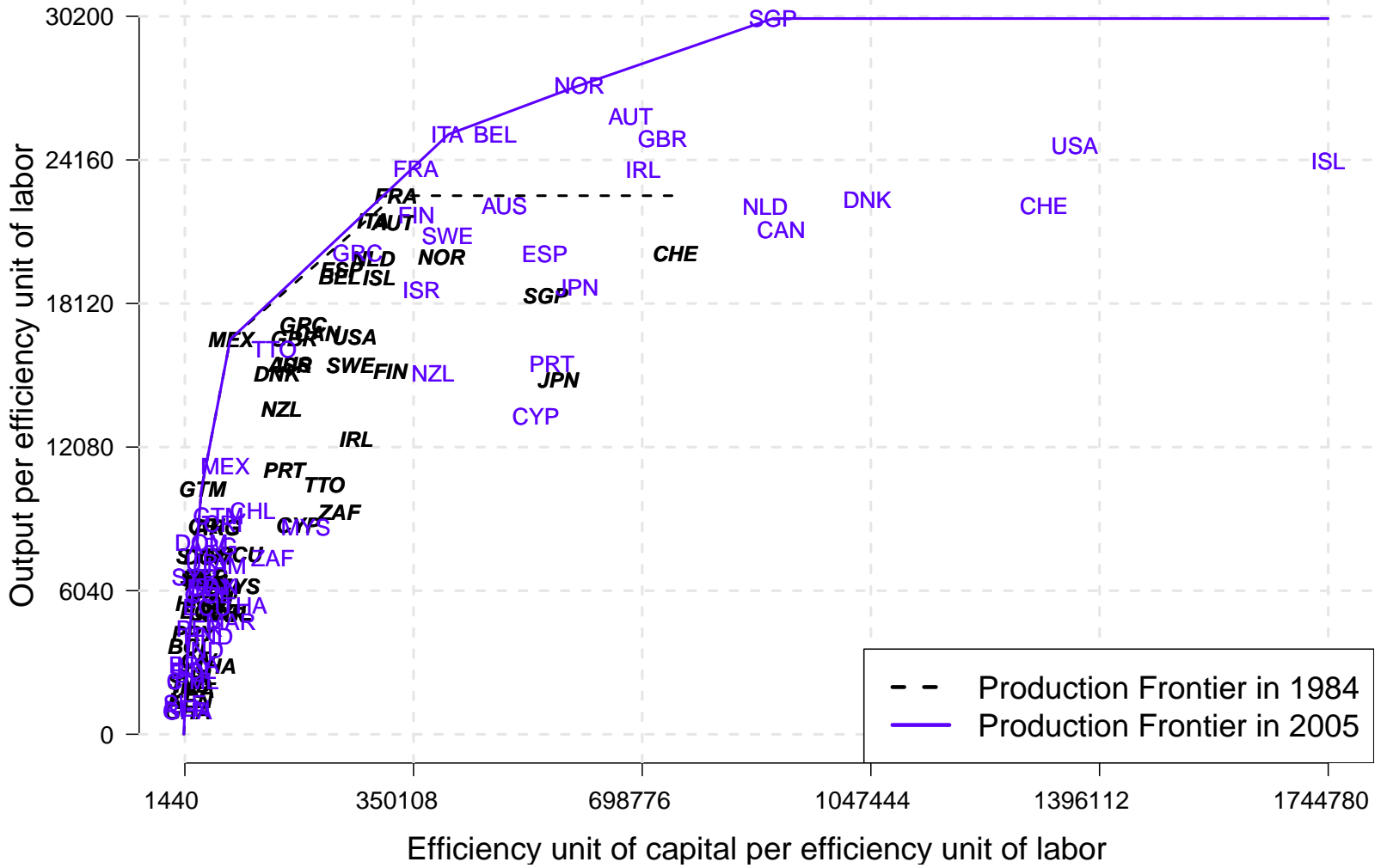
Table A.73: Mean percentage changes of quinquepartite decomposition indices (country groupings) INST1 is Investment Profile, INST2 is Bureaucratic Quality

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
OECD*	0.84	0.82	42.6	-0.8	11.1	8.0	10.1	8.8	0.1	0.8
Asian Tigers**	0.52	0.61	90.7	22.7	11.4	17.4	17.5	2.1	0.0	-0.6
Latin America	0.62	0.55	21.4	-2.4	0.6	4.2	8.3	4.2	0.4	12.5
Africa	0.49	0.55	11.2	15.4	18.5	-12.8	10.6	2.1	0.4	-3.7
Non-OECD	0.57	0.55	32.2	3.8	5.7	4.8	9.2	4.8	0.4	7.9
ALL	0.68	0.66	36.5	1.9	7.9	6.1	9.6	6.4	0.3	5.0

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

Production Frontiers in 1984 and 2005



Appendix E.4 INST1 is Law and Order, INST2 is Democratic Accountability

Table A.74: INST is Law and Order

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	2.037	2.037	28	Jamaica	1.607	1.810
2	Australia	4.151	4.030	29	Japan	3.274	3.274
3	Austria	4.151	4.151	30	Kenya	1.672	1.739
4	Belgium	4.151	3.274	31	Malaysia	3.025	2.583
5	Bolivia	1.268	2.037	32	Mexico	2.583	2.037
6	Canada	4.151	4.151	33	Morocco	1.607	3.274
7	Chile	2.583	3.274	34	Netherlands	4.151	4.151
8	Colombia	1.485	1.268	35	New Zealand	4.151	3.951
9	Costa Rica	2.583	2.583	36	Norway	4.151	4.151
10	Cote d'Ivoire	2.386	1.810	37	Panama	1.607	2.037
11	Cyprus	1.607	3.274	38	Paraguay	1.607	1.607
12	Denmark	4.151	4.151	39	Peru	1.268	2.037
13	Dominican Rep.	2.037	1.607	40	Philippines	1.268	1.705
14	Ecuador	2.583	1.864	41	Portugal	3.274	3.274
15	Egypt	1.882	2.583	42	Sierra Leone	2.583	2.294
16	El Salvador	1.268	1.920	43	Singapore	3.025	3.274
17	Finland	4.151	4.151	44	South Africa	2.037	1.810
18	France	3.274	3.274	45	Spain	2.583	3.274
19	Ghana	1.268	1.672	46	Sri Lanka	1.268	2.037
20	Greece	2.037	2.908	47	Sweden	4.151	4.151
21	Guatemala	1.268	1.739	48	Switzerland	4.151	3.274
22	Honduras	1.268	1.427	49	Syria	1.456	3.274
23	Iceland	4.151	4.151	50	Thailand	2.037	1.810
24	India	1.958	2.583	51	Trinidad and To- bago	2.583	1.722
25	Ireland	2.583	4.151	52	United Kingdom	3.835	3.687
26	Israel	1.607	3.274	53	United States	4.151	3.274
27	Italy	3.274	2.583	54	Uruguay	2.037	1.810

Table A.75: INST is Democratic Accountability

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	1.226	1.284	28	Jamaica	1.248	1.248
2	Australia	1.395	1.395	29	Japan	1.395	1.320
3	Austria	1.363	1.320	30	Kenya	1.181	1.292
4	Belgium	1.320	1.395	31	Malaysia	1.320	1.284
5	Bolivia	1.159	1.248	32	Mexico	1.248	1.395
6	Canada	1.388	1.395	33	Morocco	1.117	1.320
7	Chile	1.117	1.284	34	Netherlands	1.395	1.395
8	Colombia	1.248	1.284	35	New Zealand	1.395	1.395
9	Costa Rica	1.320	1.357	36	Norway	1.395	1.395
10	Cote d'Ivoire	1.181	1.117	37	Panama	1.128	1.395
11	Cyprus	1.181	1.395	38	Paraguay	1.057	1.117
12	Denmark	1.395	1.395	39	Peru	1.226	1.320
13	Dominican Rep.	1.181	1.320	40	Philippines	1.170	1.320
14	Ecuador	1.248	1.248	41	Portugal	1.320	1.395
15	Egypt	1.237	1.123	42	Sierra Leone	1.117	1.284
16	El Salvador	1.087	1.320	43	Singapore	1.248	1.117
17	Finland	1.395	1.395	44	South Africa	1.320	1.320
18	France	1.376	1.395	45	Spain	1.320	1.395
19	Ghana	1.057	1.320	46	Sri Lanka	1.248	1.248
20	Greece	1.320	1.395	47	Sweden	1.395	1.395
21	Guatemala	1.057	1.320	48	Switzerland	1.395	1.395
22	Honduras	1.117	1.248	49	Syria	1.072	1.057
23	Iceland	1.395	1.395	50	Thailand	1.181	1.281
24	India	1.237	1.395	51	Trinidad and To- bago	1.117	1.248
25	Ireland	1.395	1.395	52	United Kingdom	1.395	1.395
26	Israel	1.344	1.395	53	United States	1.395	1.395
27	Italy	1.395	1.357	54	Uruguay	1.187	1.320

Table A.76: Percentage change of quinquepartite decomposition indices, 1984–2005

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
pcrdbofgdp regression 3 and laworder1 and demaccount1											
1	Argentina	0.68	0.68	1.0	-0.4	0.0	-6.2	7.3	-0.7	0.0	1.5
2	Australia	0.79	0.79	46.3	0.5	11.4	15.9	2.0	11.4	-0.8	0.0
3	Austria	0.95	0.86	37.7	-9.1	22.1	5.0	11.3	6.8	0.0	-0.6
4	Belgium	0.89	0.97	46.3	9.5	7.1	10.8	9.7	5.8	-4.0	0.9
5	Bolivia	1.00	0.38	-4.6	-61.8	1.7	-22.8	4.2	85.7	53.3	7.3
6	Canada	0.80	0.71	37.6	-12.0	15.3	4.2	7.7	20.6	0.0	0.1
7	Chile	0.35	0.53	114.7	53.8	0.0	19.1	11.6	-6.1	7.3	4.3
8	Colombia	0.52	0.56	22.0	7.9	0.0	9.1	13.9	-2.1	-8.6	1.7
9	Costa Rica	0.71	0.56	16.0	-21.6	0.0	15.4	9.5	15.8	0.0	1.1
10	Cote d'Ivoire	0.36	1.00	-14.4	179.9	11.6	-40.7	0.8	-39.4	-20.7	-4.5
11	Cyprus	0.52	0.50	61.1	-4.8	9.2	3.9	5.3	11.5	21.5	4.5
12	Denmark	0.79	0.75	48.1	-6.0	15.3	9.3	-0.1	25.1	0.0	0.0
13	Dominican Rep.	0.66	0.75	26.7	13.3	0.0	17.5	12.7	-8.6	-14.0	7.3
14	Ecuador	0.45	0.48	-21.1	7.1	0.0	-15.1	9.0	-9.3	-12.2	0.0
15	Egypt	0.47	0.49	64.6	3.7	0.0	3.0	24.9	15.7	9.9	-2.9
16	El Salvador	0.69	0.51	30.9	-25.4	0.1	9.0	13.2	12.3	20.7	4.8
17	Finland	0.67	0.85	59.3	26.8	10.4	7.0	9.1	-2.5	0.0	0.0
18	France	1.00	0.94	37.4	-6.4	5.9	6.6	25.4	3.5	0.0	0.2
19	Ghana	0.46	0.35	25.1	-24.6	16.3	-19.0	1.9	12.4	26.5	21.4
20	Greece	0.91	0.92	37.5	0.8	0.0	5.9	13.2	1.6	10.3	1.5
21	Guatemala	1.00	0.73	0.3	-27.4	0.0	1.6	4.4	13.0	8.8	6.1
22	Honduras	0.65	0.38	-3.9	-41.0	0.2	20.4	11.3	6.5	7.0	6.5
23	Iceland	0.85	0.80	42.9	-5.5	18.7	0.0	11.2	14.6	0.0	0.0
24	India	0.40	0.31	115.7	-22.5	0.7	76.6	10.4	13.4	16.9	6.9
25	Ireland	0.61	0.79	102.5	30.1	15.3	10.6	4.9	7.3	8.5	0.0
26	Israel	0.89	0.79	28.7	-10.8	2.2	7.0	6.3	2.1	20.3	1.0

(continued on next page)

Table A.76 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
27	Italy	0.95	1.00	39.4	5.0	7.8	9.4	15.6	1.8	-3.9	-0.4
28	Jamaica	0.49	0.58	51.9	16.7	0.0	16.3	19.3	-9.9	4.1	0.0
29	Japan	0.66	0.68	40.9	3.9	21.7	9.5	9.5	-6.1	0.0	-1.0
30	Kenya	0.41	0.43	-0.5	6.0	10.9	-13.5	3.1	-15.1	3.4	8.1
31	Malaysia	0.37	0.46	79.3	24.5	0.0	12.9	19.6	10.3	-2.7	-0.5
32	Mexico	1.00	0.84	-10.8	-16.4	0.0	-4.9	16.4	2.1	-10.0	5.1
33	Morocco	0.43	0.27	24.4	-36.9	0.0	5.3	24.5	8.9	30.5	5.9
34	Netherlands	0.88	0.74	19.6	-16.4	17.9	0.0	6.2	14.2	0.0	0.0
35	New Zealand	0.71	0.59	15.5	-16.5	6.5	6.3	3.6	19.9	-1.6	0.0
36	Norway	0.89	0.91	61.8	2.3	24.4	4.4	15.7	5.2	0.0	0.0
37	Panama	0.54	0.46	15.1	-16.2	0.0	5.8	11.5	-0.2	8.6	7.6
38	Paraguay	0.65	0.54	-16.2	-17.5	1.1	-7.2	2.3	0.8	0.0	5.0
39	Peru	0.63	0.42	-19.0	-33.6	0.0	-18.7	11.6	5.4	22.1	4.6
40	Philippines	0.39	0.34	8.7	-13.7	0.9	-3.9	1.7	-11.9	30.1	11.3
41	Portugal	0.56	0.52	63.7	-6.2	14.6	20.4	14.3	9.5	0.0	1.0
42	Sierra Leone	0.76	0.76	-28.5	-0.3	16.1	-40.5	2.5	-0.5	-9.6	12.6
43	Singapore	0.81	1.00	110.1	22.9	24.8	10.8	23.3	0.9	1.4	-2.0
44	South Africa	0.51	0.43	7.8	-17.4	0.0	-2.4	29.0	5.9	-2.0	0.0
45	Spain	0.97	0.68	37.3	-29.2	14.2	13.7	28.2	10.5	4.6	0.9
46	Sri Lanka	0.45	0.28	77.7	-36.8	1.1	32.2	6.4	29.6	52.7	0.0
47	Sweden	0.68	0.79	52.7	15.1	8.3	6.6	10.7	3.7	0.0	0.0
48	Switzerland	0.89	0.74	8.1	-17.2	32.9	0.0	-1.7	0.0	0.0	0.0
49	Syria	0.92	0.60	-4.4	-34.2	0.2	-12.8	3.4	2.3	58.6	-0.8
50	Thailand	0.24	0.34	132.6	39.5	0.0	42.7	16.4	1.1	-2.3	1.6
51	Trinidad and To- bago	0.53	0.97	74.4	84.3	0.0	-3.1	10.4	-6.6	-7.2	2.1
52	United Kingdom	0.85	0.83	65.4	-2.2	15.3	16.6	8.5	16.6	-0.6	0.0
53	United States	0.74	0.82	48.8	11.6	15.7	0.0	0.3	14.9	0.0	0.0

(continued on next page)

Table A.76 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
54	Uruguay	0.40	0.62	54.1	54.0	0.0	3.5	5.9	-8.3	-3.8	3.5
	Average	0.67	0.65	36.5	0.5	7.4	4.9	10.4	5.9	6.0	2.5

Table A.77: Mean percentage changes of quinquepartite decomposition indices (country groupings) INST1 is Law and Order, INST2 is Democratic Accountability

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
OECD*	0.82	0.80	42.6	-1.7	13.7	7.2	10.1	8.5	0.1	0.4
Asian Tigers**	0.52	0.62	90.7	22.7	11.6	19.0	17.2	1.5	-0.9	-0.5
Latin America	0.62	0.57	21.4	-0.5	0.2	2.8	9.9	5.5	5.4	4.0
Africa	0.49	0.53	11.2	15.8	7.9	-15.4	12.4	-1.7	5.4	5.8
Non-OECD	0.57	0.55	32.2	2.1	3.0	3.3	10.6	4.2	10.0	3.9
ALL	0.67	0.65	36.5	0.5	7.4	4.9	10.4	5.9	6.0	2.5

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

Appendix E.5 INST1 is Law and Order, INST2 is Bureaucratic Quality

Table A.78: INST is Law and Order

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	2.037	2.037	28	Jamaica	1.607	1.810
2	Australia	4.151	4.030	29	Japan	3.274	3.274
3	Austria	4.151	4.151	30	Kenya	1.672	1.739
4	Belgium	4.151	3.274	31	Malaysia	3.025	2.583
5	Bolivia	1.268	2.037	32	Mexico	2.583	2.037
6	Canada	4.151	4.151	33	Morocco	1.607	3.274
7	Chile	2.583	3.274	34	Netherlands	4.151	4.151
8	Colombia	1.485	1.268	35	New Zealand	4.151	3.951
9	Costa Rica	2.583	2.583	36	Norway	4.151	4.151
10	Cote d'Ivoire	2.386	1.810	37	Panama	1.607	2.037
11	Cyprus	1.607	3.274	38	Paraguay	1.607	1.607
12	Denmark	4.151	4.151	39	Peru	1.268	2.037
13	Dominican Rep.	2.037	1.607	40	Philippines	1.268	1.705
14	Ecuador	2.583	1.864	41	Portugal	3.274	3.274
15	Egypt	1.882	2.583	42	Sierra Leone	2.583	2.294
16	El Salvador	1.268	1.920	43	Singapore	3.025	3.274
17	Finland	4.151	4.151	44	South Africa	2.037	1.810
18	France	3.274	3.274	45	Spain	2.583	3.274
19	Ghana	1.268	1.672	46	Sri Lanka	1.268	2.037
20	Greece	2.037	2.908	47	Sweden	4.151	4.151
21	Guatemala	1.268	1.739	48	Switzerland	4.151	3.274
22	Honduras	1.268	1.427	49	Syria	1.456	3.274
23	Iceland	4.151	4.151	50	Thailand	2.037	1.810
24	India	1.958	2.583	51	Trinidad and To- bago	2.583	1.722
25	Ireland	2.583	4.151	52	United Kingdom	3.835	3.687
26	Israel	1.607	3.274	53	United States	4.151	3.274
27	Italy	3.274	2.583	54	Uruguay	2.037	1.810

Table A.79: INST is Bureaucratic Quality

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	1.931	2.405	28	Jamaica	1.730	2.405
2	Australia	2.995	2.995	29	Japan	2.995	2.995
3	Austria	2.684	2.995	30	Kenya	1.795	1.931
4	Belgium	2.995	2.995	31	Malaysia	2.405	2.405
5	Bolivia	1.245	1.931	32	Mexico	1.931	2.405
6	Canada	2.995	2.995	33	Morocco	2.116	1.931
7	Chile	2.195	2.405	34	Netherlands	2.995	2.995
8	Colombia	2.405	1.931	35	New Zealand	2.995	2.995
9	Costa Rica	1.931	1.931	36	Norway	2.995	2.995
10	Cote d'Ivoire	2.405	1.245	37	Panama	1.245	1.931
11	Cyprus	2.405	2.995	38	Paraguay	1.245	1.551
12	Denmark	2.995	2.995	39	Peru	1.551	1.931
13	Dominican Rep.	1.931	1.551	40	Philippines	1.551	2.405
14	Ecuador	1.931	1.931	41	Portugal	2.078	2.405
15	Egypt	1.551	1.931	42	Sierra Leone	1.931	1.245
16	El Salvador	1.245	1.931	43	Singapore	2.684	2.995
17	Finland	2.995	2.995	44	South Africa	2.995	1.931
18	France	2.995	2.405	45	Spain	2.405	2.405
19	Ghana	1.245	1.931	46	Sri Lanka	1.931	1.931
20	Greece	1.931	2.405	47	Sweden	2.995	2.995
21	Guatemala	1.245	1.931	48	Switzerland	2.995	2.995
22	Honduras	1.245	1.931	49	Syria	1.364	1.551
23	Iceland	2.995	2.995	50	Thailand	2.155	1.931
24	India	2.116	2.405	51	Trinidad and To- bago	1.931	2.405
25	Ireland	2.684	2.995	52	United Kingdom	2.995	2.995
26	Israel	2.078	2.995	53	United States	2.995	2.995
27	Italy	2.405	2.155	54	Uruguay	1.551	1.931

Table A.80: Percentage change of quinquepartite decomposition indices, 1984–2005

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
pcrdbofgdp regression 3 and laworder1 and bureaucqual1											
1	Argentina	0.66	0.62	1.0	-5.9	0.0	-6.0	7.4	-0.7	0.0	7.1
2	Australia	0.78	0.80	46.3	3.3	14.7	10.4	1.9	10.4	-0.6	0.0
3	Austria	0.95	0.87	37.7	-8.3	22.8	4.2	13.1	2.7	0.0	0.9
4	Belgium	0.87	0.95	46.3	9.0	14.4	5.3	9.3	4.4	-2.3	0.0
5	Bolivia	1.00	0.30	-4.6	-70.2	0.0	-19.0	9.8	72.7	47.6	41.3
6	Canada	0.80	0.71	37.6	-11.6	20.9	6.5	7.5	12.5	0.0	0.0
7	Chile	0.31	0.52	114.7	66.9	1.4	9.7	11.8	-5.9	7.0	2.7
8	Colombia	0.48	0.54	22.0	13.8	0.0	4.4	14.1	-2.1	-3.4	-4.8
9	Costa Rica	0.70	0.57	16.0	-18.3	0.0	13.4	9.2	14.7	0.0	0.0
10	Cote d'Ivoire	0.28	1.00	-14.4	254.1	9.4	-32.3	6.8	-35.0	-20.0	-41.3
11	Cyprus	0.51	0.49	61.1	-2.9	10.3	2.3	5.3	12.9	20.1	3.0
12	Denmark	0.78	0.75	48.1	-4.7	19.0	11.2	-0.1	17.5	0.0	0.0
13	Dominican Rep.	0.63	0.76	26.7	20.4	0.0	16.1	13.5	-6.0	-4.9	-10.7
14	Ecuador	0.45	0.46	-21.1	2.7	0.3	-13.6	9.2	-8.6	-11.2	0.0
15	Egypt	0.47	0.46	64.6	-2.9	0.0	2.6	26.7	13.4	8.6	5.9
16	El Salvador	0.70	0.51	30.9	-27.8	0.0	9.0	14.7	11.5	19.9	8.6
17	Finland	0.67	0.83	59.3	23.0	15.3	2.8	10.6	-1.3	0.0	0.0
18	France	1.00	0.93	37.4	-6.9	12.2	5.5	24.7	4.2	0.0	-4.1
19	Ghana	0.42	0.28	25.1	-32.8	7.7	-19.1	4.0	10.1	26.8	47.2
20	Greece	0.96	0.90	37.5	-6.6	6.2	5.1	12.7	2.3	8.5	5.2
21	Guatemala	1.00	0.72	0.3	-27.8	0.0	1.3	4.8	11.5	6.9	9.8
22	Honduras	0.68	0.37	-3.9	-45.5	0.0	16.1	12.2	6.1	6.6	19.6
23	Iceland	0.85	0.80	42.9	-5.5	22.9	0.0	12.9	9.0	0.0	0.0
24	India	0.28	0.29	115.7	3.7	0.0	33.2	10.4	13.5	16.9	6.6
25	Ireland	0.62	0.79	102.5	27.8	19.6	11.8	4.8	8.2	3.6	0.9
26	Israel	0.90	0.73	28.7	-19.2	7.2	4.9	6.3	2.3	18.7	9.6

(continued on next page)

Table A.80 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
27	Italy	0.99	1.00	39.4	1.3	11.8	11.4	14.9	1.9	-4.1	-1.7
28	Jamaica	0.50	0.52	51.9	5.5	0.0	15.2	19.8	-8.3	2.6	11.0
29	Japan	0.66	0.68	40.9	3.7	21.3	4.0	10.5	-2.5	0.0	0.0
30	Kenya	0.31	0.35	-0.5	13.1	2.6	-12.2	3.6	-13.6	3.1	5.8
31	Malaysia	0.37	0.44	79.3	20.9	3.1	12.1	23.4	6.6	-2.5	0.0
32	Mexico	1.00	0.79	-10.8	-21.0	0.0	-4.7	17.1	2.0	-7.6	7.4
33	Morocco	0.40	0.28	24.4	-30.5	0.5	5.3	25.4	7.8	27.8	-2.1
34	Netherlands	0.88	0.74	19.6	-16.4	22.6	0.0	7.2	8.8	0.0	0.0
35	New Zealand	0.70	0.57	15.5	-17.8	11.7	3.7	3.5	18.3	-0.9	0.0
36	Norway	0.89	0.94	61.8	6.3	22.9	2.9	17.4	2.4	0.0	0.0
37	Panama	0.57	0.47	15.1	-18.4	0.0	4.5	12.9	-0.2	6.7	12.4
38	Paraguay	0.63	0.46	-16.2	-28.0	0.0	-6.9	3.0	0.8	0.0	20.4
39	Peru	0.63	0.41	-19.0	-35.2	0.0	-15.2	15.4	2.9	9.7	13.1
40	Philippines	0.34	0.23	8.7	-34.1	0.0	-3.8	6.0	-6.8	18.1	47.0
41	Portugal	0.59	0.57	63.7	-3.2	12.7	15.6	14.4	9.3	0.0	3.9
42	Sierra Leone	0.50	0.87	-28.5	74.2	9.4	-40.1	2.3	-0.5	-10.0	-31.8
43	Singapore	0.81	1.00	110.1	22.9	25.5	6.1	26.4	0.3	0.5	0.8
44	South Africa	0.50	0.43	7.8	-14.2	3.1	-2.2	29.3	5.7	-2.0	-6.9
45	Spain	1.00	0.74	37.3	-25.5	13.4	8.7	27.8	11.5	5.0	0.0
46	Sri Lanka	0.34	0.27	77.7	-20.8	0.0	18.9	6.8	18.7	48.8	0.0
47	Sweden	0.69	0.78	52.7	13.5	15.2	2.8	10.5	2.8	0.0	0.0
48	Switzerland	0.89	0.74	8.1	-17.2	32.9	0.0	-1.7	0.0	0.0	0.0
49	Syria	0.85	0.59	-4.4	-30.6	0.0	-12.0	3.7	2.1	37.7	7.3
50	Thailand	0.22	0.34	132.6	51.9	0.0	35.5	16.3	1.0	-2.1	-1.8
51	Trinidad and To- bago	0.55	0.94	74.4	72.5	3.6	-2.8	10.5	-6.2	-6.6	3.8
52	United Kingdom	0.84	0.85	65.4	1.0	18.2	13.2	8.2	13.4	-0.3	0.0
53	United States	0.74	0.82	48.8	11.6	21.9	2.1	0.3	9.0	-2.0	0.0

(continued on next page)

Table A.80 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
54	Uruguay	0.41	0.61	54.1	47.3	0.0	2.9	6.4	-7.0	-3.2	6.1
	Average	0.66	0.64	36.5	3.0	8.5	2.8	11.2	4.8	5.0	3.8

Table A.81: Mean percentage changes of quinquepartite decomposition indices (country groupings) INST1 is Law and Order, INST2 is Bureaucratic Quality

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
OECD*	0.82	0.80	42.6	-2.0	17.0	5.6	10.3	6.7	-0.0	0.6
Asian Tigers**	0.52	0.62	90.7	24.8	12.5	14.4	19.2	1.4	-1.0	-0.3
Latin America	0.62	0.55	21.4	-3.0	0.3	1.8	10.9	4.7	4.9	8.8
Africa	0.41	0.52	11.2	37.3	4.7	-14.0	14.0	-1.7	4.9	-3.3
Non-OECD	0.54	0.53	32.2	6.4	2.6	0.9	11.8	3.6	8.4	5.9
ALL	0.66	0.64	36.5	3.0	8.5	2.8	11.2	4.8	5.0	3.8

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

Appendix E.6 INST1 is Democratic Accountability, INST2 is Bureaucratic Quality

Table A.82: INST is Democratic Accountability

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	1.226	1.284	28	Jamaica	1.248	1.248
2	Australia	1.395	1.395	29	Japan	1.395	1.320
3	Austria	1.363	1.320	30	Kenya	1.181	1.292
4	Belgium	1.320	1.395	31	Malaysia	1.320	1.284
5	Bolivia	1.159	1.248	32	Mexico	1.248	1.395
6	Canada	1.388	1.395	33	Morocco	1.117	1.320
7	Chile	1.117	1.284	34	Netherlands	1.395	1.395
8	Colombia	1.248	1.284	35	New Zealand	1.395	1.395
9	Costa Rica	1.320	1.357	36	Norway	1.395	1.395
10	Cote d'Ivoire	1.181	1.117	37	Panama	1.128	1.395
11	Cyprus	1.181	1.395	38	Paraguay	1.057	1.117
12	Denmark	1.395	1.395	39	Peru	1.226	1.320
13	Dominican Rep.	1.181	1.320	40	Philippines	1.170	1.320
14	Ecuador	1.248	1.248	41	Portugal	1.320	1.395
15	Egypt	1.237	1.123	42	Sierra Leone	1.117	1.284
16	El Salvador	1.087	1.320	43	Singapore	1.248	1.117
17	Finland	1.395	1.395	44	South Africa	1.320	1.320
18	France	1.376	1.395	45	Spain	1.320	1.395
19	Ghana	1.057	1.320	46	Sri Lanka	1.248	1.248
20	Greece	1.320	1.395	47	Sweden	1.395	1.395
21	Guatemala	1.057	1.320	48	Switzerland	1.395	1.395
22	Honduras	1.117	1.248	49	Syria	1.072	1.057
23	Iceland	1.395	1.395	50	Thailand	1.181	1.281
24	India	1.237	1.395	51	Trinidad and To- bago	1.117	1.248
25	Ireland	1.395	1.395	52	United Kingdom	1.395	1.395
26	Israel	1.344	1.395	53	United States	1.395	1.395
27	Italy	1.395	1.357	54	Uruguay	1.187	1.320

Table A.83: INST is Bureaucratic Quality

#	Country	1984	2005	#	Country	1984	2005
1	Argentina	1.931	2.405	28	Jamaica	1.730	2.405
2	Australia	2.995	2.995	29	Japan	2.995	2.995
3	Austria	2.684	2.995	30	Kenya	1.795	1.931
4	Belgium	2.995	2.995	31	Malaysia	2.405	2.405
5	Bolivia	1.245	1.931	32	Mexico	1.931	2.405
6	Canada	2.995	2.995	33	Morocco	2.116	1.931
7	Chile	2.195	2.405	34	Netherlands	2.995	2.995
8	Colombia	2.405	1.931	35	New Zealand	2.995	2.995
9	Costa Rica	1.931	1.931	36	Norway	2.995	2.995
10	Cote d'Ivoire	2.405	1.245	37	Panama	1.245	1.931
11	Cyprus	2.405	2.995	38	Paraguay	1.245	1.551
12	Denmark	2.995	2.995	39	Peru	1.551	1.931
13	Dominican Rep.	1.931	1.551	40	Philippines	1.551	2.405
14	Ecuador	1.931	1.931	41	Portugal	2.078	2.405
15	Egypt	1.551	1.931	42	Sierra Leone	1.931	1.245
16	El Salvador	1.245	1.931	43	Singapore	2.684	2.995
17	Finland	2.995	2.995	44	South Africa	2.995	1.931
18	France	2.995	2.405	45	Spain	2.405	2.405
19	Ghana	1.245	1.931	46	Sri Lanka	1.931	1.931
20	Greece	1.931	2.405	47	Sweden	2.995	2.995
21	Guatemala	1.245	1.931	48	Switzerland	2.995	2.995
22	Honduras	1.245	1.931	49	Syria	1.364	1.551
23	Iceland	2.995	2.995	50	Thailand	2.155	1.931
24	India	2.116	2.405	51	Trinidad and To- bago	1.931	2.405
25	Ireland	2.684	2.995	52	United Kingdom	2.995	2.995
26	Israel	2.078	2.995	53	United States	2.995	2.995
27	Italy	2.405	2.155	54	Uruguay	1.551	1.931

Table A.84: Percentage change of quinquepartite decomposition indices, 1984–2005

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
pcrdbofgdp regression 3 and demaccount1 and bureaucqual1											
1	Argentina	0.64	0.59	1.0	-6.5	0.0	-8.7	5.8	-1.0	2.1	10.6
2	Australia	0.82	0.83	46.3	1.3	9.3	13.9	2.0	13.6	0.0	0.0
3	Austria	0.96	0.90	37.7	-6.6	14.9	6.4	11.5	7.2	-0.4	1.4
4	Belgium	0.95	0.95	46.3	0.8	9.3	13.7	10.0	5.2	0.9	0.0
5	Bolivia	1.00	0.38	-4.6	-61.6	7.5	-22.1	5.9	78.9	6.3	47.4
6	Canada	0.85	0.71	37.6	-16.9	16.4	11.4	7.9	18.2	0.1	0.0
7	Chile	0.33	0.54	114.7	63.8	0.3	16.9	11.2	-6.5	4.4	3.0
8	Colombia	0.41	0.48	22.0	15.7	0.0	8.8	10.0	-4.1	1.2	-9.2
9	Costa Rica	0.74	0.56	16.0	-24.3	0.0	17.7	8.9	18.0	1.3	0.0
10	Cote d'Ivoire	0.35	1.00	-14.4	186.6	33.9	-36.7	1.2	-38.2	-4.7	-40.9
11	Cyprus	0.47	0.49	61.1	3.2	10.6	4.1	5.1	15.3	5.5	6.0
12	Denmark	0.82	0.75	48.1	-9.3	15.9	12.1	-0.1	25.9	0.0	0.0
13	Dominican Rep.	0.64	0.73	26.7	14.8	0.0	21.3	10.9	-11.9	6.4	-12.5
14	Ecuador	0.45	0.45	-21.1	0.5	0.1	-18.3	8.3	-11.4	0.0	0.0
15	Egypt	0.48	0.50	64.6	4.4	0.0	3.6	16.4	25.2	-3.4	8.2
16	El Salvador	0.69	0.48	30.9	-30.6	0.3	11.1	12.0	12.9	13.5	17.9
17	Finland	0.68	0.90	59.3	32.7	5.0	7.0	9.3	-2.3	0.0	0.0
18	France	1.00	0.98	37.4	-1.8	5.0	6.3	25.2	3.6	0.2	-3.5
19	Ghana	0.46	0.28	25.1	-40.3	30.3	-18.2	4.7	10.0	19.0	43.4
20	Greece	0.90	0.92	37.5	2.9	2.1	5.7	12.1	2.7	1.5	5.9
21	Guatemala	1.00	0.63	0.3	-37.0	0.0	2.3	3.7	16.0	9.0	18.6
22	Honduras	0.65	0.34	-3.9	-48.4	0.7	18.3	9.7	7.2	7.3	23.9
23	Iceland	0.87	0.80	42.9	-7.7	17.0	1.2	11.4	17.4	0.0	0.0
24	India	0.37	0.30	115.7	-17.9	2.7	76.9	10.0	13.8	7.3	7.7
25	Ireland	0.58	0.80	102.5	36.9	16.2	10.7	4.8	8.2	0.0	1.4
26	Israel	0.82	0.76	28.7	-6.9	4.7	7.8	6.1	2.8	1.1	11.1

(continued on next page)

Table A.84 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
27	Italy	0.98	1.00	39.4	1.7	7.1	11.1	15.9	1.6	-0.4	-1.7
28	Jamaica	0.44	0.46	51.9	5.1	0.0	22.8	17.2	-7.2	0.0	8.3
29	Japan	0.66	0.67	40.9	2.8	23.0	8.3	9.8	-5.3	-1.0	0.0
30	Kenya	0.37	0.35	-0.5	-7.5	20.6	-12.7	4.3	-14.2	7.4	6.1
31	Malaysia	0.37	0.45	79.3	21.1	0.9	12.0	20.9	8.8	-0.4	0.0
32	Mexico	1.00	0.68	-10.8	-31.7	0.0	-3.8	20.3	1.4	3.5	7.6
33	Morocco	0.36	0.28	24.4	-22.1	0.0	11.2	22.5	12.6	9.1	-4.7
34	Netherlands	0.91	0.74	19.6	-19.2	16.9	1.7	6.3	17.1	0.0	0.0
35	New Zealand	0.74	0.61	15.5	-17.1	5.5	5.9	3.7	20.4	0.0	0.0
36	Norway	0.89	0.96	61.8	8.6	18.2	4.2	15.0	5.2	0.0	0.0
37	Panama	0.56	0.42	15.1	-26.0	0.0	7.3	9.9	-0.3	9.6	20.7
38	Paraguay	0.80	0.52	-16.2	-35.3	6.2	-6.8	3.4	0.8	4.7	19.9
39	Peru	0.58	0.42	-19.0	-28.2	0.0	-15.2	13.4	3.0	2.5	11.1
40	Philippines	0.32	0.24	8.7	-24.5	1.7	-3.9	2.8	-7.6	6.9	45.1
41	Portugal	0.60	0.56	63.7	-6.3	11.4	21.0	14.8	7.4	0.8	4.2
42	Sierra Leone	1.00	0.96	-28.5	-3.8	54.8	-42.3	4.3	-0.4	11.3	-28.2
43	Singapore	0.81	1.00	110.1	22.9	25.2	9.0	24.4	0.7	-2.0	2.0
44	South Africa	0.46	0.40	7.8	-11.8	1.6	-3.0	27.1	7.5	0.0	-9.3
45	Spain	0.96	0.73	37.3	-23.4	11.6	11.8	28.0	11.0	1.1	0.0
46	Sri Lanka	0.31	0.29	77.7	-4.3	2.4	31.8	4.7	31.4	0.0	0.0
47	Sweden	0.74	0.83	52.7	12.1	7.2	10.8	11.0	3.3	0.0	0.0
48	Switzerland	0.89	0.74	8.1	-17.2	32.9	0.0	-1.7	0.0	0.0	0.0
49	Syria	0.96	0.95	-4.4	-1.3	2.8	-18.4	1.0	3.4	-1.2	11.8
50	Thailand	0.22	0.32	132.6	42.8	0.2	38.8	16.3	1.5	2.2	-2.9
51	Trinidad and To- bago	0.55	0.89	74.4	62.7	1.3	-3.2	10.3	-7.0	2.2	4.4
52	United Kingdom	0.87	0.83	65.4	-4.7	16.2	17.5	8.6	17.0	0.0	0.0
53	United States	0.79	0.82	48.8	4.4	16.8	3.4	0.3	17.7	0.0	0.0

(continued on next page)

Table A.84 (Continued)

#	Country	eff1	eff2	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
54	Uruguay	0.41	0.57	54.1	37.2	0.0	4.5	5.1	-10.7	4.5	9.6
	Average	0.68	0.64	36.5	-0.3	9.0	5.5	10.1	6.4	2.6	4.5

Table A.85: Mean percentage changes of quinquepartite decomposition indices (country groupings) INST1 is Democratic Accountability, INST2 is Bureaucratic Quality

Country group	TE _b	TE _c	PROD	EFF	TECH	KACC	HACC	FKACC	INSTCH1	INSTCH2
OECD*	0.84	0.81	42.6	-2.6	12.6	8.2	10.3	8.9	0.3	0.7
Asian Tigers**	0.52	0.61	90.7	22.4	12.3	17.0	17.9	1.5	-0.3	-0.2
Latin America	0.62	0.53	21.4	-6.1	1.0	3.5	9.1	4.8	4.7	10.9
Africa	0.50	0.54	11.2	15.1	20.2	-14.0	11.5	0.4	5.5	-3.6
Non-OECD	0.56	0.53	32.2	1.3	6.5	3.6	9.9	4.7	4.2	7.2
ALL	0.68	0.64	36.5	-0.3	9.0	5.5	10.1	6.4	2.6	4.5

* OECD countries as of 1990.

** Japan, Malaysia, Singapore, and Thailand.

References

- FAN, Y. AND A. ULLAH, "On Goodness-of-fit Tests for Weakly Dependent Processes Using Kernel Method," *Journal of Nonparametric Statistics* 11 (1999), 337–360.
- HALL, P. AND M. YORK, "On the calibration of Silverman's test for multimodality," *Statistica Sinica* 11 (2001), 515–536.
- HUBER, P. J., *Robust statistics* (New-York: John Wiley and Sons, 1981).
- LI, Q., "Nonparametric Testing of Closeness between Two Unknown Distribution Functions," *Econometric Reviews* 15 (1996), 261–274.
- PAGAN, A. AND A. ULLAH, *Nonparametric Econometrics* (Cambridge University Press, 1999).
- SHEATHER, S. J. AND M. C. JONES, "A Reliable Data Based Bandwidth Selection Method for Kernel Density Estimation," *Journal of Royal Statistical Society, Series B* 53 (1991), 683–990.
- WHITE, H., "A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity," *Econometrica* 48 (1980), 817–830.