

Online Appendix

High-End Variety Exporters Defying Gravity: Micro Facts and Aggregate Implications

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1 Price dispersion

We expect the price dispersion to be higher among Comité Colbert (vertically differentiated) products than among homogenous products. We identify homogenous goods using the Rauch nomenclature. We consider both homogenous and reference-priced goods. To assess the level of price dispersion, we plot the kernel density of the logarithm of the ratio of individual unit values over the median product-level unit value. The formula is given by:

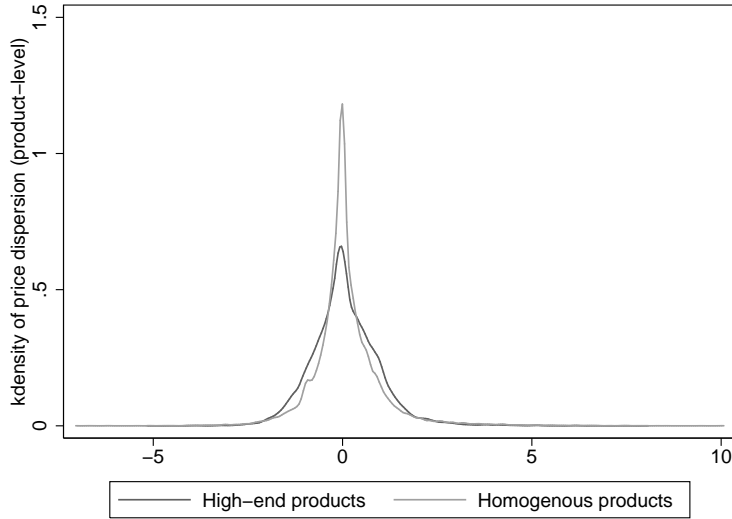
$$\text{disp}_{fk} = \log \left(\frac{uv_{fk}}{\text{med}_k(uv_{fk})} \right)$$

with uv_{fk} the unit value of product k sold by firm f , and $\text{med}_k(uv_{fk})$ the median unit value of product k . Considering these log-ratios allows us to compare the dispersion across product categories. To be consistent with our paper, we consider products at the 6-digit level. To avoid bias driven by geographic or temporal composition, we focus on the price dispersion of French exports to Germany in 2005. Our results are robust if one considers other years or other destination countries. The kernel density is presented in Figure 1. We see that high-end

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Figure 1: Dispersion of high-end vs homogenous products



export prices deviate substantially more from the median price than homogenous export prices. We have also computed the mean absolute dispersion for high-end products and homogenous products ($Mean(|disp_{fk}|)$). The mean absolute dispersion is .57 for homogenous products and .66 for high-end ones. This shows that the prices of high-end products are more dispersed than the prices of homogenous goods.

2 List of HS6 products and their price premia

High-end firms are French exporters for which at least 85% of exports over the period 2000-2006 correspond to high-end variety exports. For a given product, high-end variety exports correspond to flows which unit value, on average, is at least as high as the unit value observed for that product among Colbert firms.

Practically, for the identification of high-end exporters, we first estimate the following regression for each hs6 separately:

$$\text{luv}_{ict} = \mu_{ct} + u_i + \epsilon_{ict}$$

where, for a given hs6 product, luv_{ict} is the log of the export unit value of firm i to country c at time t , μ_{ct} is a country-year fixed effect capturing all the pricing-to-market or discrimination

effects that might affect firm-level prices to country c at time t , as well as all aggregate changes in unit values over time, and ϵ_{ict} is an i.i.d. disturbance term. Finally, u_i is a firm fixed effect that captures the invariant part of firm-hs6 product unit values observed from 2000 to 2006. It can be interpreted as an average price premium across destinations for a given firm and a given product as compared to the other firms exporting the same product.

Then, a firm is said to export high-end varieties of a given HS6 product if its fixed effect is at least equal to the first quartile of the fixed effects measured for this same HS6 product among Colbert firms. This threshold corresponds to the minimum value of the average ratio between firm-level price and the average price of other exporters to a given market for a given firm-product to be considered as a high-end variety.

We present the list of products and price premia in the following table. The HS6 product lines for which there is no premium are HS6 products that are not exported by Colbert firms but that correspond to low-end varieties of broader product categories (same product code) exported by Colbert firms. We include them in our final sample.

Product code	HS6 rev.2	Description	Premia
1	90210	Tea, green (unfermented) in packages ≤ 3 kg	0.151
2	90230	Tea, black (fermented or partly) in packages ≤ 3 kg	-0.235
3	90240	Tea, black (fermented or partly) in packages ≥ 3 kg	-0.090
4	170490	Sugar confectionery not chewing gum, no cocoa content	0.596
5	180631	Chocolate, cocoa preps, block, slab, bar, filled, ≥ 2 k	0.864
6	180632	Chocolate, cocoa prep, block/slab/bar, not filled, ≥ 2 k	0.514
7	180690	Chocolate/cocoa food preparations nes	0.717
8	190590	Communion wafers, rice paper, bakers wares nes	0.859
9	200710	Homogenised jams, jellies, etc	0.532
10	200791	Citrus based jams jellies marmalade, etc.	0.479
11	200799	Jams, fruit jellies, purees and pastes, except citrus	0.768
12	210690	Food preparations nes	0.772

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Product code	HS6 rev.2	Description	Premia
13	220410	Grape wines, sparkling	0.418
14	220421	Grape wines nes, fortified wine or must, pack \leq 2l	0.397
15	220820	Spirits obtained by distilling grape wine, grape marc	-0.419
16	330300	Perfumes and toilet waters	0.256
17	330410	Lip make-up preparations	-0.059
18	330420	Eye make-up preparations	-0.376
19	330430	Manicure or pedicure preparations	0.336
20	330491	Powders, for skin care and make-up	-0.177
21	330499	Beauty, makeup and suntan preparations nes	0.209
22	420211	Trunks, suit-cases/etc, outer surface leather	0.390
22	420212	Trunks, suit-cases, etc, outer surface plastic/textil	0.335
22	420219	Trunks, suit-cases and similar containers, outer nes	1.150
23	420221	Handbags with outer surface of leather	0.193
23	420222	Handbags with outer surface plastics, textile materia	0.274
23	420229	Handbags, of vulcanised fibre or paperboard	-0.831
24	420231	Articles for pocket or handbag, leather outer surface	-0.208
24	420232	Articles for pocket or handbag, plastic, textile oute	0.209
24	420239	Articles for pocket or handbag, nes	1.223
25	420291	Containers nes, outer surface of leather	0.368
26	420292	Containers nes, outer surface plastic or textile	-0.260
27	420299	Gun, musical instrument, camera, etc cases, nes	-0.611
28	420310	Articles of apparel of leather or composition leather	0.101
29	420329	Leather, composition gloves & mittens except sports	1.613
30	420330	Belts and bandoliers of leather or composition leathe	0.577
31	420340	Clothing accessories nes, of leather or composition	-0.056
32	420500	Articles of leather and composition leather, nes	0.543
33	430310	Articles of apparel & clothing accessories of furskin	0.594

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Product code	HS6 rev.2	Description	Premia
34	430390	Articles of furskin except clothing and accessories	-0.722
35	480890	Paper crepe, crinkle, embossed, perforated, not kraft	-0.493
36	481910	Cartons, boxes & cases, of corrugated paper or board	0.196
37	481920	Cartons, boxes & cases, folding, non-corrugated paper	-0.030
38	481930	Sacks and bags, of paper, having a width ≥ 40 cm	-0.014
39	481940	Sacks and bags, of paper, nes, including cones	0.043
40	481950	Containers, packing, nes of paper	0.447
41	481960	Office box files, letter trays etc., of paper	-0.024
42	490110	Brochures, leaflets and similar, in single sheets	-0.767
43	490199	Printed reading books, except dictionaries etc	-0.107
44	491110	Trade advertising material, catalogues etc.	-0.189
45	491191	Pictures, designs and photographs	-1.007
46	491199	Printed matter, nes	-0.625
47	500710	Woven fabric of noil silk	-1.363
48	500720	Woven fabric $\geq 85\%$ silk (except noil silk)	-0.838
49	520811	Plain weave cotton, $\geq 85\% \leq 100$ g/m ² , unbleached	0.868
50	520812	Plain weave cotton, $\geq 85\%$ 100-200g/m ² , unbleached	0.606
51	520822	Plain weave cotton, $\geq 85\%$ 100-200g/m ² , bleached	0.378
52	520829	Woven cotton nes, $\geq 85\% \leq 200$ g/m ² , bleached	0.408
53	520832	Plain weave cotton, $\geq 85\%$ 100-200g/m ² , dyed	0.313
54	520839	Woven cotton nes, $\geq 85\% \leq 200$ g/m ² , dyed	-0.162
55	520842	Plain weave cotton, $\geq 85\%$ 100-200g/m ² , yarn dyed	-0.097
56	520849	Woven cotton nes, $\geq 85\% \leq 200$ g/m ² , yarn dyed	0.064
57	520852	Plain weave cotton, $\geq 85\%$ 100-200g/m ² , printed	-0.385
58	520859	Woven cotton nes, $\geq 85\% \leq 200$ g/m ² , printed	-0.035
59	520931	Plain weave cotton, $\geq 85\% \geq 200$ g/m ² , dyed	0.127
60	520932	Twill weave cotton, $\geq 85\% \geq 200$ g/m ² , dyed	0.033

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Product code	HS6 rev.2	Description	Premia
61	520939	Woven cotton nes, $\geq 85\%$ $\geq 200\text{g/m}^2$, dyed, nes	-0.138
62	520941	Plain weave cotton, $\geq 85\%$ $\geq 200\text{g/m}^2$, yarn dyed	1.094
63	520942	Denim cotton $\geq 85\%$ $\geq 200\text{g/m}^2$	0.091
64	520943	Twill cotton except denim, $\geq 85\%$ $\geq 200\text{g/m}^2$, yarn dyed	-0.708
65	520949	Woven cotton nes, $\geq 85\%$ $\geq 200\text{g/m}^2$, yarn dyed, nes	-0.969
66	520951	Plain weave cotton, $\geq 85\%$ $\geq 200\text{g/m}^2$, printed	0.432
67	520959	Woven cotton nes, $\geq 85\%$ $\geq 200\text{g/m}^2$, printed, nes	0.166
68	521132	Twill weave cotton, $\leq 85\%$ +manmade fibre, $\geq 200\text{g}$, dyed	0.117
69	521139	Woven cotton nes, $\leq 85\%$ +manmade fibre, $\geq 200\text{g/m}^2$, dyed	0.336
70	521149	Woven cotton nes, $\leq 85\%$ +manmade fibre, $\geq 200\text{g}$, yarn dye	-0.449
71	521151	Plain weave cotton , $\leq 85\%$ +manmade fibre, $\geq 200\text{g}$, prin	1.158
72	521159	Woven cotton nes, $\leq 85\%$ +manmade fibre, $\geq 200\text{g}$, printed	-0.394
73	521225	Woven cotton fabric, $\geq 200\text{g/m}^2$, printed, nes	-0.359
74	530911	Woven fabric, $\geq 85\%$ flax, unbleached or bleached	0.188
75	530919	Woven fabric, $\geq 85\%$ flax, except unbleached or bleache	0.129
76	530929	Woven fabric of flax, $\leq 85\%$ flax, except unbl/bleached	-0.094
77	551219	Woven fabric $\geq 85\%$ polyester staple fibres, nes	-0.468
78	551229	Woven fabric $\geq 85\%$ acrylic staple fibres, nes	0.404
79	551299	Woven fabric $\geq 85\%$ synthetic staple fibre nes	0.582
80	551612	Woven fabric $\leq 85\%$ artificial staple fibres, dyed	0.459
81	551613	Woven fabric $\leq 85\%$ artificial staple fibre, yarn dyed	0.126
82	551624	Woven fabric $\leq 85\%$ artif staple + manmade fil, printed	-0.321
83	551642	Woven fabric $\leq 85\%$ artificial staple+cotton, dyed	-0.187
84	551643	Woven fabric $\leq 85\%$ artificial staple+cotton, yarn dyed	-1.223
85	551644	Woven fabric $\leq 85\%$ artificial staple+cotton, printed	-0.481
86	551692	Woven fabric $\leq 85\%$ artificial staples, dyed, nes	-0.016
87	551693	Woven fabric $\leq 85\%$ artificial staples, yarn dyed, nes	0.159

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Product code	HS6 rev.2	Description	Premia
88	551694	Woven fabric $\leq 85\%$ artificial staples, printed, nes	0.380
89	610421	Womens, girls ensembles, of wool or hair, knit	0.817
89	610422	Womens, girls ensembles, of cotton, knit	-
89	610423	Womens, girls ensembles, synthetic fibres, knit	-
89	610429	Womens, girls ensembles, of material nes, knit	-
90	610431	Womens, girls jackets & blazers, of wool or hair, knit	0.426
90	610432	Womens, girls jackets & blazers, of cotton, knit	0.793
90	610433	Womens, girls jackets, blazers, synthetic fibres, kni	0.626
90	610439	Womens, girls jackets & blazers, material nes, knit	0.885
91	610441	Womens, girls dresses, of wool or hair, knit	0.555
91	610442	Womens, girls dresses, of cotton, knit	-0.204
91	610443	Womens, girls dresses, of synthetic fibres, knit	1.463
91	610444	Womens, girls dresses, of artificial fibres, knit	-
91	610449	Womens, girls dresses, of material nes, knit	0.792
92	610451	Womens, girls skirts, of wool or hair, knit	0.491
92	610452	Womens, girls skirts, of cotton, knit	-
92	610453	Womens, girls skirts, synthetic fibres, knit	0.373
92	610459	Womens, girls skirts, of material nes, knit	0.745
93	610461	Womens, girls trousers & shorts, of wool hair, knit	0.603
93	610462	Womens, girls trousers & shorts, of cotton, knit	0.690
93	610463	Womens, girls trousers, shorts, synthetic fibres, kni	0.537
93	610469	Womens, girls trousers & shorts, material nes, knit	0.487
94	610510	Mens, boys shirts, of cotton, knit	0.181
95	610520	Mens, boys shirts, of manmade fibres, knit	0.253
96	610590	Mens, boys shirts, of materials nes, knit	-
97	611010	Pullovers, cardigans etc of wool or hair, knit	-
98	611020	Pullovers, cardigans etc of cotton, knit	0.567

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Product code	HS6 rev.2	Description	Premia
99	611030	Pullovers, cardigans etc of manmade fibres, knit	1.070
100	611090	Pullovers, cardigans etc of material nes knit	0.603
101	611241	Womens, girls swimwear, synthetic fibres, knit	1.336
101	611249	Womens, girls swimwear, of material nes, knit	0.093
102	611410	Garments nes, of wool or fine animal hair, knit	-0.241
103	611420	Garments nes, of cotton, knit	0.222
104	611430	Garments nes, of manmade fibres, knit	0.457
105	611490	Garments nes, of materials nes, knit	-0.106
106	620311	Mens, boys suits, of wool or hair, not knit	0.543
106	620312	Mens, boys suits, synthetic fibres, not knit	1.402
106	620319	Mens, boys suits, of material nes, not knit	0.080
107	620321	Mens, boys ensembles, of wool or hair, not knit	-0.480
107	620322	Mens, boys ensembles, of cotton, not knit	-
107	620323	Mens, boys ensembles, synthetic fibres, not knit	-
107	620329	Mens, boys ensembles, of material nes, not knit	-
108	620331	Mens, boys jackets & blazers, wool or hair, not knit	0.341
108	620332	Mens, boys jackets & blazers, of cotton, not knit	0.786
108	620333	Mens, boys jackets, blazers, synthetic fibre, not kni	-
108	620339	Mens, boys jackets & blazers, material nes, not knit	0.963
109	620341	Mens, boys trousers & shorts, wool or hair, not knit	0.493
109	620342	Mens, boys trousers & shorts, of cotton, not knit	1.042
109	620343	Mens, boys trousers shorts, synthetic fibre, not knit	0.696
109	620349	Mens, boys trousers & shorts, material nes, not knit	0.776
110	620411	Womens, girls suits, of wool or hair, not knit	-0.070
110	620412	Womens, girls suits, of cotton, not knit	0.400
110	620413	Womens, girls suits, synthetic fibres, not knit	0.967
110	620419	Womens, girls suits, of material nes, not knit	-0.058

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Product code	HS6 rev.2	Description	Premia
111	620421	Womens, girls ensembles, of wool or hair, not knit	0.317
111	620422	Womens, girls ensembles, of cotton, not knit	0.871
111	620423	Womens, girls ensembles, synthetic fibres, not knit	1.333
111	620429	Womens, girls ensembles, material nes, not knit	1.106
112	620431	Womens, girls jackets, blazers, wool or hair, not kni	0.680
112	620432	Womens, girls jackets & blazers, of cotton, not knit	0.268
112	620433	Womens, girls jackets, blazers, synth fibres, not kni	0.962
112	620439	Womens, girls jackets & blazers, material nes,not kni	0.375
113	620441	Womens, girls dresses, of wool or hair, not knit	0.587
113	620442	Womens, girls dresses, of cotton, not knit	1.188
113	620443	Womens, girls dresses, synthetic fibres, not knit	0.565
113	620444	Womens, girls dresses, of artificial fibres, not knit	0.784
113	620449	Womens, girls dresses, of material nes, not knit	1.002
114	620451	Womens, girls skirts, of wool or hair, not knit	0.569
114	620452	Womens, girls skirts, of cotton, not knit	0.605
114	620453	Womens, girls skirts, synthetic fibres, not knit	0.651
114	620459	Womens, girls skirts, of material nes, not knit	0.741
115	620461	Womens, girls trousers, shorts, wool or hair, not kni	-0.194
115	620462	Womens, girls trousers & shorts, of cotton, not knit	0.654
115	620463	Womens, girls trousers, shorts, synth fibres, not kni	0.355
115	620469	Womens, girls trousers, shorts, material nes, not kni	0.397
116	620510	Mens, boys shirts, of wool or hair, not knit	-
117	620520	Mens, boys shirts, of cotton, not knit	0.260
118	620530	Mens, boys shirts, of manmade fibres, not knit	-
119	620590	Mens, boys shirts, of material nes, not knit	0.327
120	620910	Babies garments, accessories of wool or hair, not kni	-
121	620920	Babies garments, accessories of cotton, not knit	0.715

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Product code	HS6 rev.2	Description	Premia
122	620930	Babies garments, accessories synthetic fibre, not kni	-
123	620990	Babies garments, accessories of material nes, not kni	0.982
124	621010	Garments made up of textile felts and nonwoven fabric	1.240
125	621040	Mens, boys garments nes, made up of impregnated fabri	1.015
126	621050	Womens, girls garments nes, of impregnated fabric	0.647
129	621111	Mens, boys swimwear, not knit	0.291
130	621112	Womens, girls swimwear, not knit	-0.018
127	621131	Mens, boys garments nes, of wool or hair, not knit	-
127	621132	Mens, boys garments nes, of cotton, not knit	0.953
127	621133	Mens, boys garments nes, of manmade fibres, not knit	0.607
127	621139	Mens, boys garments nes, of material nes, not knit	0.894
128	621141	Womens, girls garments nes, of wool or hair, not knit	0.481
128	621142	Womens, girls garments nes, of cotton, not knit	0.010
128	621143	Womens, girls garments nes, manmade fibres, not knit	0.113
128	621149	Womens, girls garments nes, material nes, not knit	-0.010
131	621210	Brassieres and parts thereof	0.003
132	621290	Corsets, braces and parts thereof	-0.125
133	621410	Shawls, scarves, etc, of silk etc, not knit	0.046
134	621420	Shawls, scarves, etc, of wool or hair, not knit	0.235
135	621430	Shawls, scarves, etc, synthetic fibres, not knit	0.787
136	621440	Shawls, scarves, etc, of artificial fibres, not knit	0.330
137	621490	Shawls, scarves, etc, of material nes, not knit	0.579
138	630210	Bed linen, of textile knit or crochet materials	0.822
138	630221	Bed linen, of cotton, printed, not knit	0.782
138	630222	Bed linen, of manmade fibres, printed, not knit	-
138	630229	Bed linen, of material nes, printed, not knit	-0.229
138	630231	Bed linen, of cotton, nes	1.044

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Product code	HS6 rev.2	Description	Premia
138	630232	Bed linen, of manmade fibres, nes	0.112
138	630239	Bed linen, of material nes, nes	0.753
139	630240	Table linen, of textile knit or crochet materials	0.610
139	630251	Table linen, of cotton, not knit	0.220
139	630252	Table linen, of flax, not knit	-0.198
139	630253	Table linen, of manmade fibres, not knit	-
139	630259	Table linen, of material nes, not knit	-
140	630260	Toilet or kitchen linen, of cotton terry towelling	-0.187
140	630291	Toilet or kitchen linen, of cotton, nes	0.674
140	630292	Toilet or kitchen linen, of flax	-
140	630293	Toilet or kitchen linen, of manmade fibres	-
140	630299	Toilet or kitchen linen, of material nes	-0.307
141	640319	Sports footwear, except ski, uppers of leather	0.818
141	640320	Footwear, soles/uppers leather, strap instep & big to	0.337
141	640330	Footwear, wood base, uppers leather, no inner sole	-
141	640340	Footwear, uppers of leather with metal toe-cap, nes	-
141	640351	Footwear, soles, uppers of leather, over ankle, nes	0.708
141	640359	Footwear, outer soles and uppers of leather, nes	0.698
141	640391	Boots, sole rubber or plastic upper leather, nes	0.552
141	640399	Footwear, sole rubber, plastics uppers of leather, ne	0.913
142	640510	Footwear, nes, uppers leather	0.614
142	640520	Footwear, nes, upper textile material	1.457
142	640590	Footwear, nes	1.433
143	691110	Tableware and kitchenware of porcelain or china	0.175
144	691190	Household & toilet articles nes of porcelain or china	0.048
145	691200	Ceramic housewares, except of porcelain or china	0.531
146	691310	Statuettes & ornamental articles of porcelain or chin	-0.033

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Product code	HS6 rev.2	Description	Premia
147	691390	Ceramic statuettes, ornamental articles, not porcelai	0.685
148	701310	Glass-ceramic ware for table kitchen, etc	0.713
149	701321	Drinking glasses of lead crystal	0.123
149	701329	Drinking glasses, except lead crystal or glass cerami	0.530
150	701331	Lead crystal table, kitchen glass (not drink glasses)	0.242
150	701332	Table, kitchenware of low expansion glass (Pyrex etc)	-
150	701339	Glass table or kitchenware, except low expansion glas	0.396
151	701391	Glassware except kitchen, table ware, of lead crystal	-0.611
151	701399	Glassware, not kitchen or table ware, not lead crista	-0.272
152	710110	Pearls natural, not permanently mounted or set	-
153	710121	Pearls cultured unworked	-
154	710122	Pearls cultured worked, not mounted or set	-1.086
155	710239	Diamonds (jewellery) worked but not mounted or set	-1.181
156	710391	Rubies, sapphires and emeralds worked but not set	1.357
156	710399	Precious & semi-precious stones, nes, worked, not set	-0.116
157	711311	Jewellery and parts, silver, including plated silver	-0.538
158	711319	Jewellery and parts of precious metal except silver	-2,369
159	711320	Jewellery, parts, base metal clad with precious metal	-0.654
160	711411	Silver wares, silver ware plated with precious metal	-0.169
161	711419	Gold/silversmith wares of/clad with precious metal ne	-1.131
162	711420	Gold, silversmith wares, base clad with precious meta	-0.205
163	711711	Cuff-links and studs of base metal, plated or not	-
164	711719	Imitation jewellery nes of base metal including plate	-0.553
165	711790	Imitation jewellery nes	-1.174
166	732391	Table/kitchen articles, parts, unenamelled cast iron	-
166	732392	Table/kitchen articles, parts, enamelled cast iron	-
166	732393	Table/kitchen articles, parts, stainless steel	0.709

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Product code	HS6 rev.2	Description	Premia
166	732394	Table/kitchen articles, parts, enamelled iron or steel	0.043
166	732399	Table/kitchen articles, parts, of iron or steel, nes	0.276
167	741819		0.693
168	821110	Sets of different knives, cutlery sets	0.510
169	821191	Table knives	0.427
170	821193	Pocket/pen/other knives with folding blades	0.021
171	821510	Cutlery sets plated with precious metal	1.153
172	821520	Cutlery sets, articles, not plated with precious metal	0.888
173	821591	Cutlery not in sets, plated with precious metal	-0.796
174	821599	Cutlery not in sets, not plated with precious metal	0.030
175	910111	Wrist-watch, precious metal, battery, with hands	-0.648
176	910112	Wrist-watch, precious metal, battery, opto/electric	-
177	910119	Wrist-watch, precious metal, battery, other	-
178	910121	Wrist-watch, precious metal, automatic wound	-
179	910129	Wrist-watch, precious metal, hand wound	-
180	910191	Pocket-watch, precious-metal case, battery	-
181	910199	Pocket-watch, precious-metal case, non-battery	-
182	940150	Seats of cane, osier, bamboo or similar materials	-
182	940161	Seats with wooden frames, upholstered nes	0.010
182	940169	Seats with wooden frames, nes	0.565
182	940171	Seats with metal frames, upholstered nes	1.172
182	940179	Seats with metal frames, nes	0.402
182	940180	Seats nes	0.038
183	940310	Office furniture, metal, nes	0.684
184	940320	Furniture, metal, nes	-0.051
183	940330	Office furniture, wooden, nes	0.733
185	940350	Bedroom furniture, wooden, nes	1.190

See next page ...

continued from previous page

Product code	HS6 rev.2	Description	Premia
184	940360	Furniture, wooden, nes	-0.136
184	940370	Furniture, plastic, nes	0.134
184	940380	Furniture of cane, materials nes	-0.136
186	940390	Furniture parts nes	0.436
188	940510	Chandeliers, other electric ceiling or wall lights	-0.524
189	940520	Electric table, desk, bedside and floor lamps	-0.057
190	940540	Electric lamps, lighting fittings, nes	-0.029
191	940550	Non-electrical lamps and lighting fittings	-0.214
192	940560	Illuminated signs, illuminated nameplates etc	-0.452
187	940591	Lamp and lighting fitting parts of glass	0.011
187	940592	Lamp and lighting fitting parts of plastics	-
187	940599	Lamp and lighting fitting parts except glass/plastic	0.027
193	960810	Ball point pens	0.130
193	960820	Felt tipped, other porous-tipped pens and markers	0.605
193	960831	Indian ink drawing pens	-
193	960839	Fountain pens, stylograph pens and other pens, nes	0.513
193	960840	Propelling or sliding pencils	0.652
193	960850	Sets of articles of mixed types of pens/pencils	-1.041
194	960860	Refills for ball point pens	1.094
195	960891	Pen nibs, nib points nes	0.510
196	960899	Duplicating stylos, pen/pencil holders, pen parts	-0.749
197	961310	Pocket lighters, gas-fuelled, non-refillable	1.081
197	961320	Pocket lighters, gas-fuelled, refillable	1.326
197	961330	Table lighters	-
197	961380	Lighters, nes	-0.136
198	961390	Parts of lighters, other than flints/wicks	0.979

Table 2: End

3 Methodological appendix

This appendix describes different robustness checks regarding our measure of high-endness. It also compares our measure to other measures used in the literature.

3.1 Robustness tests

Alternative procedures to identify high-end firms. We implemented three alternative procedures to identify high-end firms. The main message is that our findings are robust to these alternative ways of identifying high-end exporters.

The first two procedures we implement are the following. As for the benchmark procedure, for each hs6 product separately, we first regressed firm-country-year unit values on country-year fixed effects and firm-year fixed effects. Then:

- Method 1. For each hs6 product, we computed the firm average fixed effect and we applied our baseline procedure using these firm-level average fixed effects. A firm is defined as a high-end exporter when 85% of its sales correspond to trade flows for which the firm-hs6 average fixed effect is at least equal to the first quartile of the average fixed effects measured for this same hs6 product among Colbert firms. The overlap between the two lists of high-end variety exporters is huge: 85% of the firms identified as high-end exporters with this approach are also identified as high-end exporters with our baseline method.
- Method 2. We authorized the set of high-end exporters to vary each year. A firm is then defined as a high-end exporter in a given year if at least 85% of its sales correspond to trade flows for which the firm-hs6 fixed effect in that year is at least equal to the first quartile of the fixed effects measured for the same hs6 product and the same year among Colbert firms. The overlap between the two lists of high-end variety exporters is less impressive but still very large: 70% of the firm-year pairs identified as high-end exporters with this approach correspond to firms that are also identified as high-end exporters with our baseline method.

We then checked that our descriptive analysis of the geographic distribution of exports for high- and low-end variety exporters holds. The graphs we obtain are actually very similar to those of Figure 2 in the paper. Moreover, the share of high-end exports in the overall exports of

our sample is in both cases comprised between 30 and 38% over the period, as in our baseline analysis. We also ran the baseline estimation based on these two alternative methods to identify high-end exporters. The results based on the first method (method 1) are reported in Table 3. The results based on method 2 are presented in Table 4. The main message is that our findings are robust to these alternative ways of identifying high-end exporters, although less strikingly so for Method 2. With method 2, the premium in terms of distance elasticity is less marked than with our baseline regression; this suggests that allowing firms to switch variety type from one year to the other makes the results more noisy as we might pick some outlier/artifact observations.

Table 3: Determinants of Exports for High- and Low-End Varieties - alternative definition (1)

Dimensions	Product Category, High-end/Low-end, Destination					
	(1)	(2)	(3)	(4)	(5)	(6)
	Exports	# firms	X/firm	Exports	# firms	X/firm
GDP/cap (log)	0.624*** (7.286)	0.429*** (7.247)	0.195*** (4.433)	-	-	-
- × HighEnd	0.248*** (4.681)	-0.001 (-0.038)	0.249*** (6.048)	0.177*** (3.738)	-0.038 (-1.207)	0.216*** (5.787)
Pop. (log)	0.595*** (9.773)	0.590*** (7.482)	0.281*** (7.172)	-	-	-
- × HighEnd	0.030 (0.754)	-0.059** (-2.416)	0.088*** (3.102)	-0.001 (-0.030)	-0.080*** (-3.808)	0.079** (2.488)
Distance (log)	-0.785*** (-7.369)	-0.703*** (-10.819)	-0.083 (-1.349)	-	-	-
- × HighEnd	0.684*** (8.507)	0.486*** (11.095)	0.198*** (3.576)	0.725*** (8.898)	0.511*** (12.253)	0.213*** (3.783)
Observations	17,838	17,838	17,838	17,838	17,838	17,838
R^2	0.324	0.494	0.145	0.633	0.765	0.485
Product-Variety type FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	No	No	No	Yes	Yes	Yes

This table presents product-variety type-destination country level regressions of the log of exported values (col. 1-4), the number of exporting firms (col.2-5), and the average value of exports per firm (col. 3-6) on the log of GDP per capita, the log of population, and the log of distance. These variables are interacted with a dummy equal to one for high-end variety trade flows (including varieties exported by the Comité Colbert). The data are for the year 2005. T-stat computed from standard errors clustered at the country level are reported between parentheses. *, **, and *** indicate significance at the 10, 5, and 1 percent level.

Also, using Colbert firms as a benchmark to identify high-end variety exporters comes at a cost: we have to focus on products in which Colbert firms are active. As an alternative, we could conserve in our sample all the products and choose an arbitrary threshold for the definition of high-end variety export flows. This is what we propose in Method 3.

Table 4: Determinants of Exports for High- and Low-End Varieties - alternative definition (2)

Dimensions	Product Category, High-end/Low-end, Destination					
	(1)	(2)	(3)	(4)	(5)	(6)
	Exports	# firms	X/firm	Exports	# firms	X/firm
GDP/cap (log)	0.607*** (7.273)	0.414*** (7.127)	0.193*** (4.415)	-	-	-
- × HighEnd	0.223*** (5.259)	0.034 (1.168)	0.189*** (5.581)	0.187*** (4.550)	0.015 (0.564)	0.172*** (5.234)
Pop. (log)	0.595*** (9.910)	0.588*** (7.425)	0.275*** (7.313)	-	-	-
- × HighEnd	0.022 (0.650)	-0.023 (-1.082)	0.045* (1.867)	0.009 (0.240)	-0.040** (-2.011)	0.048* (1.737)
Distance (log)	-0.795*** (-7.562)	-0.714*** (-11.005)	-0.080 (-1.335)	-	-	-
- × HighEnd	0.583*** (7.897)	0.430*** (10.237)	0.153*** (3.294)	0.613*** (8.050)	0.452*** (10.889)	0.161*** (3.329)
Observations	18,704	18,704	18,704	18,704	18,704	18,704
R^2	0.321	0.491	0.136	0.622	0.752	0.471
Product-Variety type FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	No	No	No	Yes	Yes	Yes

This table presents product-variety type-destination country level regressions of the log of exported values (col. 1-4), the number of exporting firms (col.2-5), and the average value of exports per firm (col. 3-6) on the log of GDP per capita, the log of population, and the log of distance. These variables are interacted with a dummy equal to one for high-end variety trade flows (including varieties exported by the Comité Colbert). The data are for the year 2005. T-stat computed from standard errors clustered at the country level are reported between parentheses. *, **, and *** indicate significance at the 10, 5, and 1 percent level.

- Method 3. We follow the exact same procedure as before. The only difference is that now, instead of using Colbert firms as a benchmark, we assume that firms in the top 20% in terms of unit values (net of country fixed effects) are the high-end variety exporters.

Results are a bit obscured. First, while Colbert firms still appear much bigger than the others in all dimensions, low-price variety exporters appear now bigger than high-price ones (Colbert firms excluded) in terms of number of products, number of countries, number of transactions or value of exports: the figures are respectively 9 vs 4.2, 6.7 vs 4.2, 24.7 vs 11.1 and 4.6 million vs 3.9 million. In terms of average distance of exports, low-price variety exporters still export to closer countries than high-price ones, but the difference is less striking (2,544km vs 3,199km).¹ All these elements are more in line with models where firms are heterogeneous in terms of productivity, high-price firms being low-productivity firms. This suggests that the

¹Median values for these variables are respectively equal to 3 vs 3, 3 vs 2, 6 vs 2, 0.14 million vs 0.08 million, and 1,301km vs 1,506km.

identification of high-end variety exporters is much fuzzier when considering all sectors and using an arbitrary threshold in terms of unit values. Does the method make a difference for our econometric results? Table 5 displays the results of the baseline estimation on this new sample. Qualitatively, the results are the same with this method as with the method using information on Colbert firms. Quantitatively, the results are substantially different. In particular, high-end exports identified on the basis of unit values only are 53% less sensitive to distance as low-end ones. As a reminder, the difference raises to 90% in the sample defining high-end exporters from information on Colbert firms.

These results suggest that using Colbert brands as a benchmark is really key to pick up firms with very specific characteristics. The fuzzier approach based on an arbitrary threshold in terms of unit values gives less marked results for two reasons. First, the price threshold for being high-end certainly changes across products. Second, there is more room for "high-endness" differentiation in some products than in others. Information on Colbert firms allows us to focus on these products.

3.2 Comparisons

Quality rating of Champagne producers. Quality has been emphasized recently as an important dimension of differentiation in the trade literature. In Table 6 we present a comparison of our definition of high-end variety exporters to a well-known measure of quality. We focus on champagne exporters and use, as in Crozet, Head & Mayer (2012), Juhlin's rating as a measure of quality.² While high-end exporters represent a very small share of one- to three-star champagne producers, 49% and 87.5% of four- and five-star champagne exporters are high-end variety exporters according to our measure. These figures confirm for the champagne industry that quality and our definition of high-end varieties are positively correlated.

KSW measure of quality. We also follow the approach developed by Khandelwal, Schott & Wei (2013) (hereafter KSW). The KSW method assumes that the underlying preferences are CES. This method allows us to pick out a measure of quality for each firm - quality being defined as any attribute of a firm that shifts its sales controlling for price.

We adopt the following procedure:

²We thank the authors for sharing with us their data on Juhlin's ratings.

Table 5: Determinants of Exports for High- and Low-End Varieties - alternative definition (3)

Dimensions	Product Category, High-end/Low-end, Destination					
	(1)	(2)	(3)	(4)	(5)	(6)
	Exports	# firms	X/firm	Exports	# firms	X/firm
GDP/cap (log)	0.447*** (7.127)	0.201*** (5.403)	0.246*** (7.102)	-	-	-
- × HighEnd	0.068* (1.679)	0.043** (2.155)	0.025 (0.784)	0.033 (0.976)	0.023 (1.324)	0.010 (0.383)
Pop. (log)	0.665*** (11.334)	0.240*** (8.255)	0.425*** (10.932)	-	-	-
- × HighEnd	-0.057** (-2.013)	-0.035** (-2.109)	-0.022 (-1.219)	-0.091*** (-3.830)	-0.055*** (-4.157)	-0.036** (-2.285)
Distance (log)	-0.692*** (-6.987)	-0.547*** (-9.655)	-0.145*** (-2.843)	-	-	-
- × HighEnd	0.371*** (7.680)	0.237*** (8.656)	0.134*** (3.863)	0.442*** (8.588)	0.274*** (9.366)	0.168*** (4.751)
Observations	232,980	232,980	232,980	232,980	232,980	232,980
R^2	0.249	0.398	0.129	0.556	0.678	0.492
Product-Variety type FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	No	No	No	Yes	Yes	Yes

This table presents product-variety type-destination country level regressions of the log of exported (col. 1-4), the number of exporting firms (col.2-5), and the average value of exports per firm (col. 3-6) on the log of GDP per capita, the log of population, and the log of distance. These variables are interacted with a dummy equal to one for high-end variety trade flows. High-end exports are product-level exports made up by high-end variety exporters. Here we use an alternative definition of high-exporters: firms whose unit values are in the top 20%. The data are for the year 2005. T-stat computed from standard errors clustered at the country level are reported between parentheses. *, **, and *** indicate significance at the 10, 5, and 1 percent level.

Table 6: Share of High-End Variety Champagne Exporters by Quality Range (Juhlin's Rating)

Juhlin's rate	Share of high-end variety exporters (%)
1*	4.3
2*	10.0
3*	13.8
4*	49.0
5*	87.5

- First, we estimate firm-level quality as the residual of the following equation

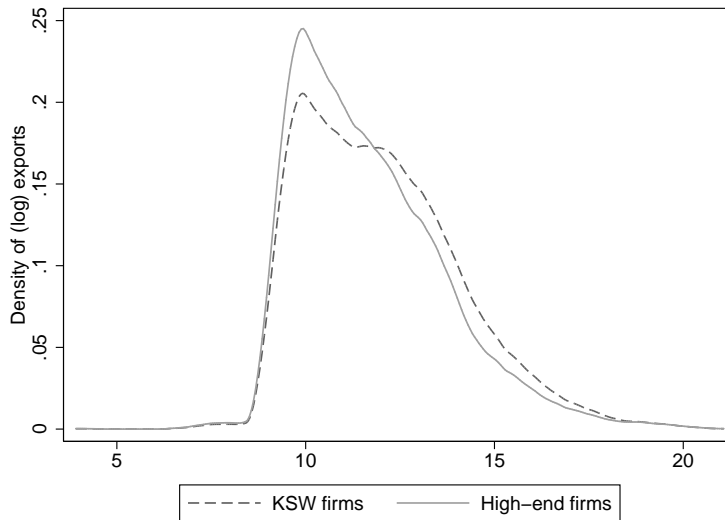
$$\log(q_{fkct}) + \sigma_k \log(uv_{fkct}) = FE_{kct} + (\sigma_k - 1)\lambda_{fk} + \epsilon_{fkct}$$

where q_{fkct} and uv_{fkct} are the quantity and price charged by firm f for product k sold to

country c at time t , FE_{kct} is a country-product-time fixed effect, λ_{fk} is the log of the firm-product-specific demand shifter and σ_k is the product-specific elasticity of substitution. We observe the prices and quantities, and calibrate σ_k using the Broda and Weinstein (2003) data. The firm-product log quality is simply the firm-product fixed effects estimated from this equation divided by $\sigma_k - 1$.

- A firm product is classified as high quality if λ_{fk} is at least equal to the first quartile of this same quality measure estimated for the same hs6 product among Colbert firms. A firm is then said to be a high-end variety exporter if at least 85% of the value of its exports corresponds to high-quality exports.

Figure 2: Distribution of firms' exports (log)



The correlation between this KSW measure and the measure used in the paper reaches 81%. The main difference between the two measures is that we identify more high-quality firms than high-end firms (9,913 vs 8,253). Among high-end firms, 94% are also identified as exporting high-quality varieties. An interesting difference between high-end firms and KSW firms is their size. The median value of exports of high-end firms is 82,000 euros vs 127,000 for KSW firms. The distribution of the log of exports of KSW and high-end firms is plotted in Figure 2. This figure confirms that KSW firms are larger than high-end ones. Notice that our method does not impose any restriction on the size of firms. It only compares the prices of firms relative to

the prices of firms exogeneously identified as high-end. By contrast, the KSW method considers that high-quality firms are firms that sell greater quantities, conditional on prices. Hence, firms selling very large quantities at a relatively low price are likely to be considered as high-quality firms.

In Table 7 of this letter, we present the results of the baseline regression in which luxury firms are firms producing high-quality goods - as defined by KSW. The estimated coefficients are in line with those estimated with our high-end measure. The effects are slightly less marked however. For instance, while high-quality varieties are less sensitive to distance than low-quality ones, they are still significantly impacted by this variable with an elasticity to distance of -0.20 (column 1). This contrasts with our results for high-end varieties whose elasticity to distance is below -0.08. To sum up, these results show that our measure of high-endness is very much correlated with a measure of quality *à la* KSW. Still, this correlation is not perfect. More specifically, our method allows us to identify a population of firms, which is partly composed of smaller firms and turns out to be even less sensitive to distance.

3.3 Alternative samples of countries

In Table 8, we remove China, Japan, and the US in columns 1-2, 3-4, and 5-6 respectively. In the last two columns we remove the three countries together. We find that the results are robust to dropping these countries and similar in magnitude to the ones presented for the full sample in Table 2 of the paper. Even in the most restrictive exercise (columns 7-8), we estimate coefficients very close to the ones estimated in the baseline table. For instance, the effect of distance on the value of exports was -0.79 and the coefficient on the interaction of distance with the high-end dummy was .71 in the baseline (Table 2, column 1). Once China, Japan and the US are excluded, we find that the coefficient on distance is -0.82 and the coefficient on the interaction of distance and high-end is .69.

Table 7: Determinants of Exports for High- and Low- (KSW) Quality Varieties

Dimensions	Product Category, High-end/Low-end, Destination					
	(1)	(2)	(3)	(4)	(5)	(6)
	Exports	# firms	X/firm	Exports	# firms	X/firm
GDP/cap (log)	0.601*** (7.067)	0.425*** (7.133)	0.176*** (3.999)	-	-	-
- × KSW	0.277*** (5.784)	0.005 (0.157)	0.271*** (7.083)	0.211*** (4.878)	-0.029 (-0.954)	0.240*** (6.877)
Pop. (log)	0.588*** (9.759)	0.282*** (7.453)	0.306*** (7.103)	-	-	-
- × KSW	0.030 (0.772)	-0.055** (-2.318)	0.085*** (3.173)	0.002 (0.041)	-0.075*** (-3.572)	0.077*** (2.651)
Distance (log)	-0.778*** (-7.347)	-0.706*** (-10.794)	-0.072 (-1.189)	-	-	-
- × KSW	0.561*** (7.795)	0.452*** (11.199)	0.110** (2.138)	0.603*** (8.273)	0.480*** (12.391)	0.123** (2.357)
Observations	18,264	18,264	18,264	18,264	18,264	18,264
R^2	0.320	0.491	0.140	0.624	0.760	0.478
Product-Variety type FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	No	No	No	Yes	Yes	Yes

This table presents product-variety type-destination country level regressions of the log of exported values (col. 1-4), the number of exporting firms (col.2-5), and the average value of exports per firm (col. 3-6) on the log of GDP per capita, the log of population, and the log of distance. These variables are interacted with a dummy equal to one for high quality variety trade flows. High-quality trade flows are identified using the KSW procedure developed above. The data are for the year 2005. T-stat computed from standard errors clustered at the country level are reported between parentheses. *, **, and *** indicate significance at the 10, 5, and 1 percent level.

Table 8: Baseline regression with alternative samples

Dimensions	Product Category, High-end/Low-end, Destination							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Exports	# firms	Exports	# firms	Exports	# firms	Exports	# firms
GDP/cap (log)	0.623*** (7.384)	0.428*** (7.244)	0.613*** (6.947)	0.416*** (6.865)	0.606*** (6.890)	0.414*** (6.796)	0.584*** (6.498)	0.394*** (6.435)
- × HighEnd	0.238*** (4.171)	-0.002 (-0.057)	0.237*** (3.924)	-0.003 (-0.075)	0.228*** (3.768)	-0.001 (-0.016)	0.214*** (3.274)	-0.004 (-0.107)
Pop. (log)	0.614*** (10.000)	0.288*** (7.315)	0.585*** (9.488)	0.272*** (7.133)	0.577*** (9.254)	0.269*** (6.932)	0.582*** (8.685)	0.261*** (6.246)
- × HighEnd	0.008 (0.181)	-0.063** (-2.438)	0.015 (0.354)	-0.060** (-2.448)	0.006 (0.149)	-0.059** (-2.311)	-0.007 (-0.158)	-0.062** (-2.183)
Distance (log)	-0.786*** (-7.463)	-0.701*** (-10.844)	-0.807*** (-7.390)	-0.718*** (-10.749)	-0.807*** (-7.439)	-0.714*** (-10.679)	-0.821*** (-7.336)	-0.731*** (-10.680)
- × HighEnd	0.711*** (8.526)	0.491*** (11.111)	0.711*** (8.124)	0.492*** (10.844)	0.703*** (8.203)	0.495*** (11.020)	0.693*** (7.634)	0.493*** (10.636)
Sample	w/o China	w/o China	w/o Japan	w/o Japan	w/o the US	w/o the US	w/o CN, JP, US	
Observations	17,597	17,597	17,512	17,512	17,485	17,485	16,920	16,920
R ²	0.327	0.495	0.318	0.496	0.304	0.489	0.300	0.493
Product-Variety type FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

This table presents product-variety type-destination country level regressions of the log of exported values (col. 1-3-5-7), and the number of exporting firms (col.2-4-6-8) on the log of GDP per capita, the log of population, and the log of distance. These variables are interacted with a dummy equal to one for high-end variety trade flows (including varieties exported by the Comité Colbert). The data are for the year 2005. We exclude French exports to China in columns 1-2, to Japan in columns 3-4, to the US in columns 5-6, and to these three countries in columns 7-8. T-stat computed from standard errors clustered at the country level are reported between parentheses. *, **, and *** indicate significance at the 10, 5, and 1 percent level.

4 List of Colbert firms

Table 9: List of Members of the Comité Colbert

Baccarat 1764	Hôtel Le Bristol 1924
Berluti 1895	Hôtel du Palais 1893
Bernardaud 1863	Hôtel Plaza Athénée 1911
Champagne Bollinger 1829	Hôtel Ritz 1898
Bonpoint 1975	Jean Patou Paris 1925
Boucheron 1858	Jeanne Lanvin 1889
Breguet 1775	John Lobb 1899
Bussière 1924	Champagne Krug 1843
Caron 1904	Lacoste 1933
Cartier 1847	Lancôme 1935
Celine 1945	Le Meurice 1835
Chanel 1912	Lencôme 1957
Parfums Chanel 1924	Leonard 1943
Château Cheval Blanc 1832	Longchamp 1948
Château Lafite-Rothschild 1855	Lorenz Bäumer Joaillier 1992
Château d'Yquem 1593	Louis Vuitton 1854
Chloé 1952	La Maison du Chocolat 1977
Christian Dior Couture 1947	Martell 1715
Parfums Christian Dior 1948	Mellerio dits Meller 1613
Christian Liaigre 1985	Oustau de Baumanière 1945
Christoffle 1830	Champagne Perrier-Jouët 1811
D. Porthault 1924	Pierre Balmain 1945
Dalloyau 1682	Pierre Frey 1935
Delisle 1895	Pierre Hardy 1999
Diane de Selliers Editeur 1992	Pierre Hermé Paris 1996
Ercuis 1867	Potel et Chabot 1820
Eres 1968	Puiforcat 1820
Faïencerie de Gien 1821	Cognac Rémy Martin 1724
Flammarion Beaux Livres 1875	Robert Haviland & C. Parlon 1924
Editions de Parfums Frédéric Malle 2000	Rochas 1925
George V 1928	Saint-Louis 1586
Givenchy 1952	S.T. Dupont 1872
Parfums Givenchy 1957	Tailleurvent 1946
Guerlain 1828	Van Cleef & Arpels 1906
Hédiard 1854	Champagne Veuve Clicquot Ponsardin 1772
Hermès 1837	Yves Delorme 1845
Parfums Hermès 1948	Yves Saint Laurent 1962
Hervé Van der Straeten 1985	Yves Saint Laurent Parfums 1962

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