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Appendix E

Data on Variability, Sampling Error, and Coverage

The first part of this Appendix presents the basic data on the variability of price movements within and among minor classes and estimates of sampling error for minor and major classes. The second contains detailed information on coverage and shifts in coverage.

VARIABILITY AND SAMPLING ERRORS

Two assumptions must be kept in mind as the basis for these measurements and their interpretation. One is that the commodities which are covered in the minor class indexes are completely covered — the prices for individual commodities are assumed to be known precisely and not subject to sampling error. The other is that commodities and minor classes have been selected for the sample randomly, either with equal probabilities or with probability proportional to size.

Table E-1 gives weighted and unweighted standard deviations for minor classes, where they were computed. They could not be calculated for uncovered classes or for classes in which there was only one covered commodity. The latter are divided into two groups: those with only one commodity, for which, by our assumption, there is no variance, and those with one covered commodity and one or more uncovered ones, for which we cannot measure the variance. These standard deviations are measures of the homogeneity of classes rather than of the accuracy of the indexes, although homogeneity does, of course, affect accuracy. They are descriptive of the covered commodities within each class and do not require any assumption of randomness in the sampling procedure. A large standard deviation implies a heterogeneous stratum but it may not, if coverage is high, imply inaccuracy in the estimation of the mean. The two standard deviations in Table E-1 are:

$$\text{Unweighted: } \sigma_u = \sqrt{\frac{\Sigma\left(\frac{P_1}{P_0}\right)^2}{N} - \left(\frac{\Sigma\frac{P_1}{P_0}}{N}\right)^2}$$

$$\text{Weighted: } \sigma_w = \sqrt{\frac{\Sigma P_0 Q_0 \left(\frac{P_1}{P_0}\right)^2}{\Sigma P_0 Q_0} - \left(\frac{\Sigma P_1 Q_0}{\Sigma P_0 Q_0}\right)^2}$$

The σ_u is appropriate for an unweighted index or for an assumption that the commodity weights among the covered items are irrelevant to the uncovered ones; that is, each commodity, no matter how large, is only a

single observation of the mean. The weighted standard deviation is appropriate for use with a weighted index and, in general, for the assumption that the importance of different price behavior patterns in the uncovered items would match that among the covered commodities. Equality of the two standard deviations implies no correlation between the weight or importance of a commodity and its distance from the mean. The usual case—namely that σ_u is greater than σ_w means that the correlation is negative; and σ_w greater than σ_u implies that the importance of a commodity is positively correlated with exceptional behavior (distance from the mean).

Standard errors of the mean (the mean being the Laspeyres price index) are given in Table E-2. These do involve inference from the standard deviations. They are measures of the accuracy of the minor class indexes, under the assumption that the commodities sampled are representative of all commodities in their groups. In other words, samples are treated as if they had been drawn randomly. Since only the weighted standard errors are shown here, the assumption implied is that the sample was drawn with probability proportional to size (value) rather than, as in the unweighted indexes, equal probability of representation for each commodity.

Two sets of standard errors are computed. The first, with no finite sampling adjustment, takes account of the number of commodities drawn from each class but not of the proportion of total value covered. It treats the samples as if they included only a small part of the whole class. It answers the question, "How accurate an estimate of the mean could be made with a sample of this size from a large population?" The second set takes account not only of the number of items but also of their share in the total value of the class. It makes use of the fact (or assumption) that the mean is known precisely for a substantial part of the total (the sample) and that, in effect, the estimation applies only to the remaining, often small, fraction of the total value.

The two measures of standard error can be described in terms of the standard deviations of Table E-1, where N is the number of covered commodities in the minor class.

Without finite sampling adjustment:

$$\sigma_m \text{ (unadjusted)} = \frac{\sigma_w}{\sqrt{N-1}}$$

With finite sampling adjustment (where f is the coverage ratio):

$$\sigma_m \text{ (adjusted)} = \frac{\sigma_w}{\sqrt{N-1}}\sqrt{1-f}$$

Coefficients of variation, presented in Table E-3, are the ratios of standard errors to the means they apply to. In this case the means are the Laspeyres price indexes. Only the weighted measures are shown, but the relationship between weighted and unweighted coefficients would be the same as in Table E-1.

The variance of a major class mean can be calculated from the variance within minor classes (already computed) and the variance among minor classes, as follows:

$$Var_{\bar{\bar{T}}} = \frac{1}{n-1}\left[\left(\frac{V-v}{V}\right)\sum_{i=1}^{n}\frac{V_i(\bar{T}_i-\bar{\bar{T}})^2}{v} + \sum_{i=1}^{n}\frac{1}{m_i}\cdot\frac{V_i}{v}\left(\frac{V_i-v_i}{V}\right)S_i^2\right]$$

where:

n = number of sampled minor classes

N = number of minor classes

m_i = number of sampled commodities in minor class i

M_i = number of commodities in minor class i

V_{ij} = value of commodity j in minor class i

v_i = value of sampled commodities in minor class $i = \sum_{j=1}^{m_i} V_{ij}$

V_i = value of all commodities in minor class $i = \sum_{j=1}^{M_i} V_{ij}$

v = value of sampled minor classes $= \sum_{i=1}^{n} V_i$

V = value of all minor classes $= \sum_{i=1}^{N} V_i$

T_{ij} = value of price relative for commodity j in minor class i

$\bar{T}_i$ = means of minor class $i = \sum_{j=1}^{m_i} \frac{V_{ij}\,T_{ij}}{v_i}$

$\bar{\bar{T}}$ = major class mean $= \sum_{i=1}^{n} \frac{V_i\bar{T}_i}{v}$

S_i^2 = minor class variance $= \frac{1}{v_i}\sum_{j=1}^{m_i} V_{ij}\,(T_{ij}-\bar{T}_i)^2$

The S_i^2 is the square of the weighted standard deviation of Table E-1.

These computations are carried out in Table E-4 and the coefficients of variation derived from these variances are shown in Chapter 5, Table 18.

MEASURES OF COVERAGE AND CHANGE IN COVERAGE

Tables E-5 through E-8 give basic data on coverage for all major and intermediate classes. The figures show, for the earliest year of each period, the ratio of the value of covered commodities to the value of all commodities in the class. For the last year of each period they show the ratio of the value of those commodities which were covered in the first year to the value of all the commodities which were part of the class in the first year. Thus, for within-period comparisons, changes in coverage due to increasing availability of data are eliminated.

For each period, the table reveals whether the commodities covered in the initial year grew in value at a faster or slower rate than the uncovered ones. In order to see the trend of coverage as a whole (not just that for fixed groups of commodities) one must follow the movement from the right-hand column of one period to the right-hand column of the next. Export Class 115 in Table E-5 illustrates the two uses of the table. By 1889, the commodities covered in 1879 had fallen from 91 to 89 per cent of the total value of the class. But those commodities which actually were covered in 1889 formed 97 per cent of the total value of the class in that year.

It should be noted that these tables show the proportion of total value in covered commodities, not that contained in covered minor classes. These changes in coverage do not indicate the possibility of bias in the total or major class indexes, because they include the effects of both shifts in the weight or importance of minor classes and shifts within them. Only the latter, as is pointed out in Chapter 5, would suggest bias because they indicate that covered commodities possessed different characteristics (possibly different price changes) from uncovered products. Tables E-9 through E-12 are intended to reveal such shifts. They show the actual end-year coverage ratios for commodities covered in the initial year (first columns of Tables E-5 through E-8) as percentages of the ratios that would have existed if values of covered and uncovered items had grown at the same rate within each minor class.[1] Thus, a ratio over 100 per cent indicates that covered commodities grew at a more rapid rate than uncovered commodities.

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[1] The computation of the hypothetical ratios is performed by applying the initial year coverage ratio to the end-year value for each minor class.

TABLE E–1

Standard Deviations for Minor Class Price Indexes

Minor Class	Weighted Standard Deviations				Unweighted Standard Deviations			
	1879	1889	1899	1913	1879	1889	1899	1913
			A. ᴇxᴘᴏʀᴛs					
001	.057	.076	.092	.091	.152	.195	.163	.181
002ᵃ								
003ᵇ								
004	c	c	c	b	c	c	c	b
005	.133	.052	.041	.053	.107	.113	.077	.091
006	.067	.294	.216	.090	.081	.258	.215	.107
007	d	d	d	.075	d	d	d	.220
008	0	.029	.079	.181	0	.057	.080	.207
009	.029	.032	.066	.087	.047	.031	.064	.206
010ᵃ								
011	.078	.030	.043	.034	.119	.068	.153	.114
012	.035	0	.032	.029	.037	0	.034	.040
013	.027	.022	.073	.008	.058	.030	.191	.017
014	.040	.038	.083	.058	.119	.133	.263	.185
015	.057	.268	.110	.047	.065	.270	.108	.044
016	c	c	d	.079	c	c	d	.087
017ᵃ								
018	d	d	.072	.100	d	d	.068	.102
019	.077	.150	.235	.051	.077	.196	.224	.091
020ᵃ								
021	b	b	b	.320	b	b	b	.326
022	0	.019	d	d	0	.033	d	d
023	b	.124	.063	b	b	.259	.096	b
024	d	.094	.066	.118	d	.117	.094	.300
025	b	d	d	d	b	d	d	d
026	.045	.304	.118	.122	.159	.310	.112	.187
027	b	b	b	.129	b	b	b	.153
028	d	.039	.081	.135	d	.040	.081	.129
029	d	d	d	.083	d	d	d	.120
030ᵇ								
031	c	c	c	a	c	c	c	a
032	.122	.304	.121	.424	.233	.270	.115	.488
033	.254	.117	.045	.010	.257	.155	.144	.016
034	.060	.288	b	b	.068	.393	b	b
035	c	c	b	.494	c	c	b	.498
036	a	a	a	.242	a	a	a	.539
037	a	.169	.248	a	a	.337	.248	a
038	b	d	.196	.373	b	d	.200	.403
039	.385	.222	.052	.265	.438	.289	.094	.203
040	.326	.030	.378	.315	.297	,031	.390	.293
041	.158	.008	.201	.082	.166	.009	.300	.173
042	.024	b	.009	b	.148	b	.071	b
043	c	c	b	.007	c	c	b	.005
044	.012	.089	.055	.057	.010	.098	.055	.052
045	.046	.148	.138	.144	.053	.183	.201	.207
046	a	b	c	c	a	b	c	c
047	c	c	c	b	c	c	c	b

(continued)

TABLE E–1 (continued)

Minor Class	Weighted Standard Deviations				Unweighted Standard Deviations			
	1879	1889	1899	1913	1879	1889	1899	1913
048	a	d	d	.003	a	d	d	0
049	c	a	a	b	c	a	a	b
050ᵃ								
051ᵃ								
052	.030	.046	.163	.180	.032	.070	.238	.207
053	.017	.073	.114	.199	.049	.200	.129	.175
054	c	c	b	.221	c	c	b	.225
055	a	a	d	.020	a	a	d	.018
056ᵃ								
057	.144	.194	.349	.010	.145	.195	.080	.010
058	c	c	b	b	c	c	b	b
059ᵇ								
060	c	b	b	.018	c	b	b	.021
061	.079	.093	.181	.122	.228	.158	.187	.120
062	c	c	c	.098	c	c	c	.128
063	a	a	d	d	a	a	d	d
064	a	a	.168	.173	a	a	.169	.188
065ᵃ								
066	.210	.056	.095	.017	.345	.230	.157	.140
067	a	a	a	.049	a	a	a	.105
068	c	a	b	b	c	a	b	b
069	.305	.191	.119	.102	.426	.303	.122	.113
070	.218	.251	.127	.106	.303	.246	.157	.106
071	.161	.155	.150	.211	.152	.158	.336	.220
072	c	c	b	b	c	c	b	b
073	a	b	b	.174	a	b	b	.176
074	a	a	.325	.345	a	a	.336	.362
075	.174	.065	.137	.080	.185	.064	.237	.092
076	c	c	c	.084	c	c	c	.159
077ᵃ								

B. IMPORTS

Minor Class	1879	1889	1899	1913	1879	1889	1899	1913
001	d	.254	.007	.051	d	.226	.029	.107
002	a	.089	.032	.346	a	.154	.067	.349
003	c	c	c	b	c	c	c	b
004	.031	.038	.090	.045	.278	.046	.136	.113
005	.168	.121	.195	.174	.181	.121	.265	.160
006	b	.413	.622	.315	b	.533	.578	.362
007	.173	.099	.088	.295	.165	.119	.105	.265
008	b	b	b	.114	b	b	b	.119
009ᵇ								
010ᵇ								
011	c	b	b	.145	c	b	b	.123
012	.019	0	.011	.064	.089	.014	.021	.093
013	.237	.115	.249	.123	.237	.126	.276	.129
014	.041	.056	.129	.169	.109	.084	.130	.274
015	c	.120	.250	.138	c	.120	.238	.135
016	.037	b	b	.046	.042	b	b	.190
017	c	a	d	.011	c	a	d	.013

(continued)

TABLE E–1 (continued)

Minor Class	Weighted Standard Deviations				Unweighted Standard Deviations			
	1879	1889	1899	1913	1879	1889	1899	1913
018	c	c	.222	b	c	c	.222	b
019	.024	.121	.018	d	.055	.187	.101	d
020	a	d	b	c	a	d	b	c
021	.191	.058	.147	.072	.270	.073	.127	.142
022	b	.147	.083	.290	b	.155	.099	.275
023	c	b	b	c	c	b	b	c
024	b	b	.194	.051	b	b	.225	.070
025	d	d	d	.146	d	d	d	.149
026	b	d	.162	.231	b	d	.176	.295
027	b	a	a	.137	b	a	a	.295
028	a	a	d	d	a	a	d	d
029	b	b	b	.028	b	b	b	.030
030[a]								
031	c	a	.094	1.246	c	a	.126	1.273
032	c	b	d	.106	c	b	d	.107
033	b	b	.012	.136	b	b	.015	.277
034	a	a	d	b	a	a	d	b
035	c	a	a	a	c	a	a	a
036	b	b	d	.130	b	b	d	.819
037[a]								
038	b	b	b	.271	b	b	b	.305
039	.135	d	d	.322	.140	d	d	.241
040	.520	.139	.206	.332	.676	.189	.261	.386
041	.216	.476	.340	.087	.210	.450	.284	.115
042	c	c	c	c	c	c	c	c
043	c	d	d	.196	c	d	d	.264
044	.205	d	d	.563	.223	d	d	1.338
045[b]								
046	c	b	.035	.012	c	b	.038	.012
047	a	a	.125	.101	a	a	.118	.118
048	c	b	b	b	c	b	b	b
049	c	b	b	b	c	b	b	b
050	c	b	.118	.185	c	b	.155	.197
051	.260	.112	.215	.344	.275	.119	.167	.310
052	c	a	d	.202	c	a	d	.178
053	.056	.035	.069	.074	.059	.195	.121	.133
054	b	.072	.060	.019	b	.102	.088	.028
055	b	d	c	b	b	d	c	b
056	.019	.154	.068	.119	.025	.147	.066	.170
057	b	d	d	b	b	d	d	b
058	c	a	d	.024	c	a	d	.026
059	.065	.068	.136	.077	.063	.093	.123	.085
060[a]								
061[a]								
062	.210	.174	.131	.108	.211	.173	.124	.142
063	d	d	d	.113	d	d	d	.245
064	a	a	.205	.107	a	a	.206	.107
065	c	b	b	.030	c	b	b	.042

(continued)

TABLE E-1 (concluded)

Minor Class	Weighted Standard Deviations				Unweighted Standard Deviations			
	1879	1889	1899	1913	1879	1889	1899	1913
066	a	a	.108	.023	a	a	.165	.094
067	b	b	d	d	b	b	d	d
068	c	c	c	b	c	c	c	b
069	c	c	a	d	c	c	a	d
070	c	b	b	b	c	b	b	b
071	c	c	c	b	c	c	c	b
072	c	c	d	d	c	c	d	d
073	d	d	a	d	d	d	a	d
074	c	.268	.153	.379	c	.296	.147	.651
075	b	.136	.018	d	b	.169	.031	d
076	.261	.390	.155	.180	.296	.335	.170	.230
077	a	.174	.221	.342	a	.244	.357	.590
078	.117	.108	.224	.124	.162	.176	.301	.256
079	a	a	d	d	a	a	d	d
080	c	b	b	d	c	b	b	d
081	.142	.188	.091	.221	.256	.170	.150	.388
082	.206	.233	.151	.147	.266	.286	.259	.144
083a								
084	c	c	b	.013	c	c	b	.014
085	a	a	.134	.056	a	a	.170	.060
086	.206	.538	.314	.232	.234	.205	.388	.303
087	a	.076	.062	.056	a	.090	.177	.135
088a								
089a								
090a								
091	c	c	c	c	c	c	c	c

[a] Uncovered class.
[b] One-commodity class, complete coverage.
[c] Class not listed separately in this year.
[d] One covered commodity, incomplete coverage.

TABLE E-2

STANDARD ERRORS OF MEAN FOR WEIGHTED MINOR CLASS PRICE INDEXES

Minor Class	Without Finite Sampling Adjustment				With Finite Sampling Adjustment			
	1879	1889	1899	1913	1879	1889	1899	1913
				A. EXPORTS				
001	.033	.044	.053	.053	.001	.003	.006	.020
002a								
003	b	b	b	b	0	0	0	0
004	c	c	c	b	c	c	c	0
005	.067	.026	.020	.024	0	0	.001	0
006	.067	.208	.153	.064	.025	.092	.070	.039
007	d	d	d	.043	d	d	d	.025

(continued)

TABLE E–2 (continued)

Minor Class	Without Finite Sampling Adjustment				With Finite Sampling Adjustment			
	1879	1889	1899	1913	1879	1889	1899	1913
008	0	.017	.046	.128	0	0	0	0
009	.029	.022	.038	.035	0	.002	.006	.009
010[a]								
011	.078	.021	.025	.017	0	0	0	0
012	.035	0	.032	.021	.003	0	.012	0
013	.019	.022	.073	.008	.007	.012	.045	.004
014	.028	.022	.041	.026	.007	.003	.007	.006
015	.057	.268	.078	.033	0	0	0	0
016	c	c	d	.056	c	c	d	0
017[a]								
018	d	d	.051	.050	d	d	.037	.028
019	.077	.106	.166	.029	0	.019	.045	.005
020[a]								
021	b	b	b	.320	0	0	0	0
022	0	.019	d	d	0	0	d	d
023	b	.124	.063	b	0	0	0	0
024	d	.066	.066	.083	d	.020	.033	.034
025	b	d	d	d	0	d	d	d
026	.045	.304	.084	.086	0	.043	.011	.017
027	b	b	b	.129	0	0	0	.065
028	d	.039	.081	.078	d	.008	.029	.036
029	d	d	d	.048	d	d	d	.018
030	b	b	b	b	0	0	0	0
031	c	c	c	a	c	c	c	a
032	.122	.215	.086	.424	.038	.042	.016	.201
033	.254	.068	.023	.006	.067	.007	.003	.001
034	.060	.288	b	b	0	0	0	0
035	c	c	b	.494	c	c	0	0
036	a	a	a	.171	a	a	a	.133
037	a	.169	.248	a	a	0	0	a
038	b	d	.196	.264	0	d	.125	0
039	.385	.128	.030	.132	.258	.040	.011	.049
040	.230	.030	.378	.223	0	.007	.083	.034
041	.158	.008	.201	.082	0	0	.052	.023
042	.024	b	.009	b	0	0	0	0
043	c	c	b	.007	c	c	0	.002
044	.012	.089	.055	.033	.004	.036	.024	.018
045	.046	.105	.098	.083	.038	.031	.046	.039
046	a	b	c	c	a	b	c	c
047	c	c	c	b	c	c	c	0
048	a	d	d	.003	a	d	d	0
049	c	a	a	b	c	a	a	0
050[a]								
051[a]								
052	.030	.033	.073	.050	.020	.019	.026	.020
053	.017	.052	.081	.115	.013	.036	.056	.077
054	c	c	b	.221	c	c	0	0
055	a	a	d	.011	a	a	d	.008
056[a]								

TABLE E–2 (continued)

Minor Class	Without Finite Sampling Adjustment				With Finite Sampling Adjustment			
	1879	1889	1899	1913	1879	1889	1899	1913
057	.144	.194	.349	.010	0	0	0	0
058	c	c	b	b	c	c	0	0
059	b	b	b	b	0	0	0	0
060	c	b	b	.018	c	0	0	0
061	.056	.065	.128	.070	.005	.003	.013	.013
062	c	c	c	.098	c	c	c	.043
063	a	a	d	d	a	a	d	d
064	a	a	.097	.061	a	a	.080	.050
065[a]								
066	.210	.056	.067	.006	.035	.008	009.	.001
067	a	a	a	.035	a	a	a	.020
068	c	a	b	b	c	a	0	0
069	.216	.191	.042	.031	.135	.067	0	0
070	.126	.125	.045	.025	.107	.084	.026	.013
071	.080	.078	.061	.041	.064	.056	.044	.027
072	c	c	b	b	c	c	0	0
073	a	b	b	.174	a	0	0	.006
074	a	a	.123	.096	a	a	.090	.062
075	.100	.037	.079	.030	.055	.028	.060	.021
076	c	c	c	.034	c	c	c	0
077[a]								
			B. IMPORTS					
001	d	.147	.005	.051	d	.048	.001	.015
002	a	.089	.032	.155	a	0	.032	.057
003	c	c	c	b	c	c	c	0
004	.022	.038	.090	.026	.006	.003	0	0
005	.168	.121	.195	.123	0	.056	.133	.080
006	b	.292	.440	.182	0	.142	.232	.096
007	.077	.057	.062	.093	.031	.034	.038	.063
008	b	b	b	.057	0	0	0	.006
009	b	b	b	b	0	0	0	0
010	b	b	b	b	0	0	0	0
011	c	b	b	.084	c	0	0	.022
012	.019	0	.011	.026	.012	0	.007	.013
013	.237	.057	.112	.062	.197	.033	.060	.024
014	.041	.032	.129	.097	.017	.010	.064	.046
015	c	.120	.177	.098	c	.064	.126	.053
016	.037	b	b	.023	0	0	0	0
017	c	a	d	.011	o	a	d	.009
018	c	c	.222	b	c	c	0	0
019	.024	.121	.018	d	0	.028	.002	d
020	a	d	b	c	a	d	0	c
021	.135	.029	.066	.042	0	0	0	.025
022	b	.104	.059	.167	0	0	0	.070
023	c	b	b	c	c	0	0	c
024	b	b	.194	.036	0	0	0	.017
025	d	d	d	.146	d	d	d	.031
026	b	d	.115	.070	0	d	0	.010

(continued)

TABLE E–2 (continued)

Class	Without Finite Sampling Adjustment				With Finite Sampling Adjustment			
Class	1879	1889	1899	1913	1879	1889	1899	1913
027	b	a	a	.097	0	a	a	.051
028	a	a	d	d	a	a	d	d
029	b	b	b	.028	0	0	0	.022
030a								
031	c	a	.094	.881	c	a	.067	.568
032	c	b	d	.106	c	0	d	.046
033	b	b	.012	.096	0	0	0	.031
034	a	a	d	b	a	a	d	0
035	c	a	a	a	c	a	a	a
036	b	b	d	.092	0	0	d	.020
037a								
038	b	b	b	.192	0	0	0	0
039	.135	d	d	.114	0	d	d	.017
040	.520	.062	.092	.105	.215	.031	.053	.049
041	.153	.238	.170	.044	.041	.057	.090	.023
042	c	c	c	c	c	c	c	c
043	c	d	d	.196	c	d	d	.028
044	.205	d	d	.563	0	d	d	0
045	b	b	b	b	0	0	0	0
046	c	b	.035	.012	c	0	0	0
047	a	a	.072	.045	a	a	.055	.038
048	c	b	b	b	c	0	0	0
049	c	b	b	b	c	0	0	0
050	c	b	.118	.185	c	0	0	0
051	.184	.079	.107	.154	0	.014	.020	.053
052	c	a	d	.143	c	a	d	0
053	.056	.035	.034	.037	.024	.015	.017	.026
054	b	.051	.042	.013	0	0	0	0
055	b	d	c	b	0	d	c	0
056	.014	.109	.048	.084	.006	.059	.019	.038
057	b	d	d	b	0	d	d	0
058	c	a	d	.024	c	a	d	0
059	.046	.048	.078	.077	.020	.038	.033	.053
060a								
061a								
062	.210	.123	.093	.044	.128	.004	.072	.025
063	d	d	d	.113	d	d	d	.029
064	a	a	.205	.107	a	a	.167	.088
065	c	b	b	.022	c	0	0	0
066	a	a	.108	.016	a	a	.078	.013
067	b	b	d	d	0	0	d	d
068	c	c	c	b	c	c	c	0
069	c	c	a	d	c	c	a	d
070	c	b	b	b	c	0	0	0
071	c	c	c	b	c	c	c	0
072	c	c	d	d	c	c	d	d
073	d	d	a	d	d	d	a	d
074	c	.268	.108	.170	c	0	0	.048
075	b	.136	.018	d	0	.056	.004	d
076	.131	.195	.069	.090	.102	.162	.052	.078

(continued)

TABLE E–2 (concluded)

Minor Class	Without Finite Sampling Adjustment				With Finite Sampling Adjustment			
	1879	1889	1899	1913	1879	1889	1899	1913
077	a	.174	.156	.129	a	0	0	.022
078	.067	.076	.091	.051	.032	.040	.032	.014
079	a	a	d	d	a	a	d	d
080	c	b	b	d	c	0	0	d
081	.071	.094	.046	.099	.018	.030	.020	.056
082	.206	.164	.087	.073	.182	.123	.058	.063
083ᵃ								
084	c	c	b	.013	c	c	0	.006
085	a	a	.134	.032	a	a	.099	.008
086	.078	.170	.095	.053	.055	.106	.070	.032
087	a	.076	.062	.032	a	.047	.037	.027
088ᵃ								
089ᵃ								
090ᵃ								
091	c	c	c	c	c	c	c	c

a Uncovered class.
b One-commodity class, complete coverage.
c Class not listed separately in this year.
d One covered commodity, incomplete coverage.

TABLE E–3

COEFFICIENTS OF VARIATION FOR WEIGHTED MINOR CLASS INDEXES

Minor Class	Without Finite Sampling Adjustment				With Finite Sampling Adjustment			
	1879	1889	1899	1913	1879	1889	1899	1913
			A. EXPORTS					
001	.030	.060	.067	.064	.001	.004	.007	.025
002ᵃ								
003	b	b	b	b	0	0	0	0
004	c	c	c	b	c	c	c	0
005	.054	.023	.027	.031	0	0	.001	0
006	.053	.180	.182	.102	.020	.079	.083	.063
007	d	d	d	.053	d	d	d	.031
008	0	.015	.047	.146	0	0	0	0
009	.036	.021	.063	.038	0	.002	.010	.010
010ᵃ								
011	.083	.017	.045	.019	0	0	0	0
012	.037	0	.051	.032	.003	0	.018	0
013	.006	.019	.066	.013	.002	.010	.041	.006
014	.025	.017	.052	.030	.006	.002	.009	.007
015	.053	.189	.127	.051	0	0	0	0
016	c	c	d	.079	c	c	d	0
017ᵃ								
018	d	d	.050	.072	d	d	.036	.040

(continued)

TABLE E–3 (continued)

Minor Class	Without Finite Sampling Adjustment				With Finite Sampling Adjustment			
	1879	1889	1899	1913	1879	1889	1899	1913
019	.075	.075	.181	.052	0	.013	.049	.009
020[a]								
021	b	b	b	.245	0	0	0	0
022	0	.017	d	d	0	0	d	d
023	b	.084	.055	b	0	0	0	0
024	d	.082	.064	.236	d	.025	.032	.096
025	b	d	d	d	0	d	d	d
026	.037	.245	.083	.096	0	.035	.011	.019
027	b	b	b	.116	0	0	0	.058
028	d	.043	.105	.098	d	.009	.038	.045
029	d	d	d	.068	d	d	d	.025
030	b	b	b	b	0	0	0	0
031	c	c	c	a	c	c	c	a
032	.087	.149	.169	.416	.027	.029	.032	.197
033	.233	.061	.032	.008	.006	.006	.005	.001
034	.045	.234	b	b	0	0	0	0
035	c	c	b	.226	c	c	0	0
036	a	a	a	.079	a	a	a	.062
037	a	.152	.372	a	a	0	0	a
038	b	d	.293	.176	0	d	.187	0
039	.340	.121	.055	.148	.228	.038	.019	.055
040	.253	.030	.651	.319	0	.007	.144	.048
041	.144	.004	.244	.106	0	0	.063	.030
042	.024	b	.018	b	0	0	0	0
043	c	c	b	.015	c	c	0	.004
044	.012	.058	.079	.078	.004	.024	.035	.042
045	.057	.075	.099	.097	.047	.022	.047	.046
046	a	b	c	c	a	0	c	c
047	c	c	c	b	c	c	c	0
048	a	d	d	.006	a	d	d	0
049	c	a	a	b	c	a	a	0
050[a]								
051[a]								
052	.035	.031	.107	.091	.024	.018	.038	.036
053	.018	.044	.148	.187	.013	.031	.012	.126
054	c	c	b	.236	c	c	0	0
055	a	a	d	.023	a	a	d	.016
056[a]					.			
057	.169	.158	.423	.021	0	0	0	0
058	c	c	b	b	c	c	0	0
059	b	b	b	b	0	0	0	0
060	c	b	b	.018	c	0	0	0
061	.047	.057	.142	.089	.004	.003	.015	.016
062	c	c	c	.085	c	c	c	.038
063	a	a	d	d	a	a	d	d
064	a	a	.118	.099	a	a	.097	.081
065[a]								
066	.164	.082	.064	.006	.027	.012	.009	.001
067	a	a	a	.040	a	a	a	.022
068	c	a	b	b	c	a	0	0
069	.134	.155	.045	.053	.084	.054	0	0

(continued)

TABLE E–3 (continued)

Minor Class	Without Finite Sampling Adjustment				With Finite Sampling Adjustment			
	1879	1889	1899	1913	1879	1889	1899	1913
070	.094	.093	.057	.025	.080	.062	.033	.013
071	.080	.069	.060	.057	.064	.050	.033	.038
072	c	c	b	b	c	c	0	0
073	a	b	b	.177	a	0	0	.006
074	a	a	.137	.166	a	a	.101	.108
075	.087	.034	.098	.044	.048	.026	.074	.030
076	c	c	c	.039	c	c	c	0
077a								

B. IMPORTS

	1879	1889	1899	1913	1879	1889	1899	1913
001	d	.129	.008	.050	d	.042	.002	.015
002	a	.112	.049	.238	a	0	.049	.088
003	c	c	c	b	c	c	c	0
004	.019	.030	.106	.030	.005	.003	0	0
005	.177	.133	.321	.158	0	.062	.218	.102
006	b	.248	.278	.173	0	.121	.147	.092
007	.067	.051	.083	.092	.027	.030	.050	.062
008	b	b	b	.097	0	0	0	.011
009	b	b	b	b	0	0	0	0
010	b	b	b	b	0	0	0	0
011	c	b	b	.111	c	0	0	.028
012	.017	0	.015	.038	.010	0	.010	.018
013	.430	.061	.117	.093	.357	.035	.063	.037
014	.030	.034	.199	.110	.013	.010	.098	.052
015	c	.140	.186	.174	c	.075	.132	.093
016	.027	b	b	.021	0	0	0	0
017	c	a	d	.025	c	a	d	.019
018	c	c	.189	b	c	c	0	0
019	.023	.083	.015	d	0	.019	.001	d
020	a	d	b	c	a	d	0	c
021	.151	.030	.063	.050	0	0	0	.031
022	b	.158	.058	.228	0	0	0	.096
023	c	b	b	c	c	0	0	c
024	b	b	.170	.060	0	0	0	.028
025	d	d	d	.154	d	d	d	.032
026	b	d	.163	.081	0	d	0	.011
027	b	a	a	.099	0	a	a	.052
028	a	a	d	d	a	a	d	d
029	b	b	b	.075	0	0	0	.058
030a								
031	c	a	.116	.350	c	a	.083	.226
032	c	b	d	.103	c	0	d	.044
033	b	b	.014	.172	0	0	0	.056
034	a	a	d	b	a	a	d	0
035	c	a	a	a	c	a	a	a
036	b	b	d	.037	0	0	d	.008
037a								
038	b	b	b	.261	0	0	0	0
039	.119	d	d	.140	0	d	d	.021
040	.304	.065	.138	.151	.126	.033	.080	.071
041	.138	.206	.255	.053	.037	.049	.135	.028

(continued)

TABLE E–3 (concluded)

Minor Class	Without Finite Sampling Adjustment				With Finite Sampling Adjustment			
	1879	1889	1899	1913	1879	1889	1899	1913
042	c	c	c	c	c	c	c	c
043	c	d	d	.581	c	d	d	.084
044	.140	d	d	.553	0	d	d	0
045	b	b	b	b	0	0	0	0
046	c	b	.052	.023	c	0	0	0
047	a	b	.096	.059	a	a	.073	.050
048	c	b	b	b	c	0	0	0
049	c	b	b	b	c	0	0	0
050	c	b	.196	.181	c	0	0	0
051	.221	.059	.124	.139	0	.011	.024	.048
052	c	a	d	.281	c	a	d	0
053	.045	.032	.040	.067	.019	.014	.020	.047
054	b	.040	.065	.019	0	0	0	0
055	b	d	c	b	0	d	c	0
056	.012	.106	.062	.122	.005	.057	.025	.055
057	b	d	d	b	0	d	d	0
058	c	a	d	.040	c	a	d	0
059	.041	.050	.080	.094	.018	.039	.033	.065
060[a]								
061[a]								
062	.167	.113	.109	.062	.101	.004	.085	.035
063	d	d	d	.188	d	d	d	.048
064	a	a	.427	.184	a	a	.347	.151
065	c	b	b	.036	c	0	0	0
066	a	a	.082	.031	a	a	.059	.024
067	b	b	d	d	0	0	d	d
068	c	c	c	b	c	c	c	0
069	c	c	a	d	c	c	a	d
070	c	b	b	b	c	0	0	0
071	c	c	c	b	c	c	c	0
072	c	c	d	d	c	c	d	d
073	d	d	a	d	d	d	a	d
074	c	.437	.112	.244	c	0	0	.070
075	b	.172	.022	d	0	.071	.005	d
076	.110	.195	.087	.188	.087	.162	.065	.164
077	a	.134	.171	.177	a	0	0	.030
078	.082	.093	.126	.048	.039	.048	.045	.014
079	a	a	d	d	a	a	d	d
080	c	b	b	d	c	0	0	d
081	.056	.108	.044	.136	.015	.034	.020	.077
082	.146	.112	.087	.097	.130	.084	.058	.084
083[a]								
084	c	c	b	.012	c	c	0	.006
085	a	a	.139	.037	a	a	.102	.009
086	.061	.149	.108	.072	.043	.093	.080	.043
087	a	.072	.044	.070	a	.044	.026	.059
088[a]								
089[a]								
090[a]								
091	c	c	c	c	c	c	c	c

[a] Uncovered class.   [b] One-commodity class, complete coverage.
[c] Class not listed separately in this year.   [d] One covered commodity, incomplete coverage.

TABLE E–4

CALCULATION OF VARIANCE FOR SELECTED MAJOR ECONOMIC CLASSES

Major Class	Year	$\sum_{i=1}^{n} \dfrac{V_i(\bar{Y} - \bar{\bar{Y}})^2}{v}$ (1)	$\dfrac{V - v}{V}$ (2)	$\sum_{i=1}^{n} \dfrac{1}{m_i} \dfrac{V_i}{v}\left(\dfrac{V_i - v_i}{V_i}\right) S_i^2$ (3)	$n - 1$ (4)	$Var\ \bar{\bar{Y}}$ $\dfrac{[(1) \times (2)] + (3)}{(4)}$ (5)
		A. EXPORTS				
201						
	1879	.00595	.00087	0	4	.00000(25)
	1889	.01744	.00210	.00009	4	.00003
	1899	.00049	.01496	.00016	4	.00004
	1913	.00185	.00800	.00018	5	.00004
203						
	1879	.12518	.00233	.00002	12	.00003
	1889	.02966	.02446	.00002	12	.00006
	1899	.02277	.03139	.00021	13	.00007
	1913	.01601	.03475	.00008	13	.00005
212						
	1879	.00547	.03661	.00101	7	.00017
	1889	.05346	.02114	.00012	10	.00012
	1899	.01756	.01207	0	10	.00002
	1913	.02282	.00675	.00027	10	.00004
213						
	1879	.02750	.11096	.00053	7	.00051
	1889	.04235	.06460	.00038	8	.00039
	1899	.03400	0	.00116	14	.00008
	1913	.05038	.00693	.00069	15	.00007
215						
	1879	.01364	.12558	.00199	9	.00041
	1889	.02915	.10623	.00271	10	.00058
	1899	.03786	.08254	.00120	13	.00033
	1913	.11291	.05923	.00096	17	.00045
		B. IMPORTS				
201						
	1879	.07929	.00741	.00013	7	.00010
	1889	.30417	0	.00110	9	.00012
	1899	.07049	0	.00242	9	.00027
	1913	.05021	0	.00104	10	.00010
203						
	1879	.01413	.00032	.00129	6	.00022
	1889	.05025	.01446	.00071	9	.00016
	1899	.04656	0	.00100	11	.00009
	1913	.02292	0	.00011	9	.00001
212						
	1879	.04212	.02196	.00211	12	.00025
	1889	.05316	.03042	.00012	17	.00010
	1899	.04198	.02998	.00082	20	.00010
	1913	.45021	.00416	.00201	21	.00018
213						
	1879	.04602	.04597	.00108	9	.00036
	1889	.02628	.09265	.00391	12	.00053
	1899	.01264	.14743	.00183	13	.00028
	1913	.04009	.01267	.00056	17	.00006
220						
	1879	.00522	.29233	.00307	6	.00077
	1889	.01685	.41095	.00523	9	.00135
	1899	.04916	.17995	.00263	15	.00077
	1913	.02942	.13589	.00156	16	.00035

TABLE E–5
COVERAGE RATIOS FOR INTERMEDIATE EXPORT CLASSES: EARLIEST AND BASE YEARS
OF EACH PERIOD
(per cent)

Export Class	1913–1923		1899–1913		1889–1899		1879–1889	
	1923	1913	1913	1899	1899	1889	1889	1879
101	81.5	61.0	69.9	98.6	97.5	99.2	99.2	98.6
102	94.6	95.6	91.3	98.1	97.7	98.5	98.5	99.8
103	96.4	96.7	93.5	98.2	97.8	98.4	98.8	99.8
104	94.7	95.2	91.6	98.5	97.8	98.7	98.8	99.8
105	96.4	96.3	93.6	98.4	98.0	98.6	99.0	99.8
106	90.3	87.7	85.1	92.9	90.9	97.8	91.4	88.4
107	96.7	96.9	92.2	94.7	93.3	98.5	94.6	92.7
108	95.4	95.9	91.5	93.9	92.6	97.1	94.2	92.5
109	85.4	90.8	90.5	93.4	90.6	97.0	96.2	93.7
110	87.7	91.3	91.0	93.4	91.3	97.1	96.3	94.6
111	86.8	90.3	90.2	92.7	90.9	96.6	93.5	91.0
112	88.1	90.6	90.6	92.9	91.2	96.7	93.9	91.4
113	93.1	94.2	91.6	94.1	92.5	98.0	95.3	93.3
114	79.9	81.2	57.2	85.8	85.8	92.0	90.3	83.8
115	82.3	85.1	95.0	96.8	98.3	97.4	89.1	91.2
116	79.5	84.2	66.7	91.9	94.3	97.3	93.7	93.2
117	81.1	84.7	71.3	90.5	91.0	95.2	91.6	91.1
118	79.0	84.4	84.6	87.9	88.8	89.8	48.7	54.0
119	90.0	92.5	90.3	91.7	92.0	92.7	79.0	71.6
120	97.0	97.7	97.0	97.8	97.6	99.4	99.5	99.4
121	75.3	74.6	63.4	78.1	77.5	83.9	81.7	76.1
122	63.4	75.9	80.9	71.6	59.3	60.3	63.7	49.6
123	70.8	79.4	86.5	94.4	96.0	94.3	72.6	76.1
124	99.0	98.9	99.2	99.1	99.3	99.6	98.6	98.0
125	99.0	99.0	99.3	99.1	99.2	99.5	98.7	98.1
126	99.3	99.0	96.0	86.5	69.9	96.1	92.1	93.2
127	78.1	79.8	80.6	44.4	44.4	77.0	77.0	89.1
128	77.1	85.3	79.2	88.9	80.2	81.3	84.9	71.5
129	98.4	98.3	98.6	97.3	97.5	99.0	98.1	97.7
130	98.5	98.4	97.2	97.5	97.6	99.0	98.2	97.9
131	78.4	86.0	80.3	88.8	79.4	82.1	85.1	72.7
132	99.0	98.9	99.1	98.8	98.6	99.6	98.6	98.0
133	99.0	99.0	99.2	98.8	98.7	99.5	98.7	98.1
134	77.2	84.7	79.4	84.4	76.5	80.6	83.6	75.8
135	94.3	95.7	94.6	95.2	93.1	96.9	96.5	95.3
136	94.9	95.9	95.0	95.5	93.7	97.0	96.7	95.6
137	67.9	71.0	62.4	69.0	64.2	67.5	63.2	63.7
138	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
139	98.6	96.9	92.9	99.1	99.1	99.8	99.8	99.2
140	99.0	98.2	95.1	99.3	99.3	99.8	99.8	99.3
141	99.1	99.1	99.5	98.3	91.1	96.6	95.6	96.2
142	62.7	62.0	44.4	47.5	—	—	—	—
143	62.6	65.7	51.5	54.8	34.4	41.9	35.0	38.2
144	99.2	85.2	96.2	96.1	95.9	62.5	56.0	76.9
145	91.6	95.5	93.8	90.9	80.0	55.6	30.6	49.2
146	62.5	65.8	49.7	52.7	33.2	40.1	33.5	36.6
147	66.3	64.5	55.0	61.3	48.9	64.2	63.4	67.7

TABLE E-6

COVERAGE RATIOS FOR MAJOR EXPORT CLASSES: EARLIEST AND BASE YEARS
OF EACH PERIOD
(per cent)

Export Class	1913–1923		1899–1913		1889–1899		1879–1889	
	1923	1913	1913	1899	1899	1889	1889	1879
201	93.9	93.9	90.2	98.2	97.6	98.6	98.7	99.8
202	95.9	95.3	92.6	98.2	97.8	98.6	91.2	99.8
203	92.0	93.3	90.9	93.4	91.9	96.9	93.9	92.0
204	92.3	93.3	91.0	93.5	92.0	96.9	94.1	92.1
205	93.6	94.6	91.6	96.0	94.8	98.2	96.5	97.1
206	94.5	95.1	92.5	96.1	95.0	98.2	96.8	97.2
207	92.6	93.5	90.7	95.4	94.3	97.5	95.6	96.4
208	93.8	94.1	91.7	95.6	94.6	97.6	96.0	96.6
209	96.6	97.1	96.1	96.9	96.0	98.9	97.6	97.4
210	94.0	94.7	93.4	95.5	94.1	97.2	96.2	96.1
211	98.5	96.5	98.3	97.1	97.3	96.4	95.0	97.2
212	98.6	96.8	97.1	97.3	97.4	96.5	95.4	97.4
213	86.3	91.7	88.1	89.8	79.7	77.7	76.2	66.8
214	66.7	65.7	56.4	63.1	52.3	65.0	63.6	67.1
215	67.2	66.0	56.8	63.8	53.1	66.0	64.7	67.9
216	94.3	94.7	94.6	94.5	91.1	93.8	92.5	93.5
217	94.7	95.0	94.0	94.8	91.7	94.0	92.9	93.9
218	94.1	94.5	93.6	95.2	93.2	95.6	94.2	95.4
219	84.5	85.7	82.3	88.2	84.2	91.1	89.7	92.3
220	83.2	85.6	80.3	87.5	83.3	90.7	88.3	91.5
221	75.1	74.6	68.9	71.2	60.0	63.4	60.0	66.5
222	74.3	75.5	69.6	72.9	63.2	68.1	65.9	67.6

TABLE E-7

COVERAGE RATIOS FOR INTERMEDIATE IMPORT CLASSES: EARLIEST AND BASE YEARS
OF EACH PERIOD
(per cent)

Import Class	1913–1923		1899–1913		1889–1899		1879–1889	
	1923	1913	1913	1899	1899	1889	1889	1879
101	84.1	91.7	94.4	94.4	94.4	91.2	32.3	19.9
102	73.6	67.1	49.1	63.5	57.4	76.5	84.9	87.2
103	97.5	99.0	99.0	98.6	98.5	99.2	100.0	100.0
104	94.1	91.2	88.8	94.1	92.7	95.5	96.9	97.6
105	89.7	89.3	90.5	94.7	93.5	95.9	97.3	97.6
106	92.2	91.3	89.1	94.0	92.7	95.3	94.3	94.6
107	89.4	89.5	90.7	94.7	93.5	95.7	94.9	94.8
108	71.1	79.6	84.7	80.7	69.2	66.4	49.5	39.3
109	78.5	76.5	50.5	64.4	63.4	68.9	83.8	85.8
110	96.8	89.1	86.6	96.5	96.6	93.3	99.4	99.4
111	96.8	88.8	87.3	96.6	96.7	93.4	99.3	99.4
112	96.8	89.0	87.7	96.6	96.7	93.6	99.3	99.3
113	93.7	87.6	88.0	96.6	96.3	92.9	98.8	99.0

(continued)

TABLE E-7 (concluded)

Import Class	1913–1923		1899–1913		1889–1899		1879–1889	
	1923	1913	1913	1899	1899	1889	1889	1879
114	91.6	95.0	91.4	89.9	47.8	42.1	83.0	85.9
115	93.8	93.6	96.6	95.8	55.8	49.9	100.0	100.0
116	74.1	87.8	96.6	94.8	60.8	54.9	100.0	100.0
117	72.5	83.3	86.2	81.5	52.7	42.4	85.6	89.6
118	95.9	82.0	88.0	94.1	96.2	92.6	93.5	94.4
119	96.0	84.0	86.8	91.8	94.6	91.4	93.8	94.8
120	94.1	93.2	96.2	97.6	96.1	97.4	100.0	100.0
121	65.1	56.2	62.8	61.8	39.5	44.4	40.9	37.5
122	98.8	96.3	96.3	95.9	95.9	93.8	94.1	96.9
123	100.0	100.0	82.6	83.4	51.0	37.2	100.0	100.0
124	57.3	63.0	70.7	83.0	73.8	57.2	55.6	79.9
125	98.1	95.2	96.2	96.5	95.9	95.2	96.3	97.8
126	62.6	57.7	64.7	69.6	52.8	52.1	49.9	61.4
127	86.5	77.7	80.4	81.5	71.3	64.8	65.3	70.2
128	95.3	87.9	92.5	95.1	73.1	68.3	97.0	97.5
129	97.0	91.1	94.2	95.7	83.9	83.8	96.6	97.6
130	95.7	90.1	94.7	96.0	84.9	85.5	96.9	97.8
131	96.8	91.4	93.7	99.4	90.3	83.8	96.5	97.7
132	95.5	90.4	94.1	99.4	90.9	85.4	97.0	97.8
133	82.0	71.8	51.9	54.2	73.3	79.8	61.7	64.9
134	88.2	77.8	62.2	56.7	74.9	81.3	—	—
135	54.5	66.6	65.1	65.8	98.6	98.0	78.2	80.4
136	91.8	88.3	90.9	92.6	85.4	85.7	93.8	94.7
137	90.9	87.6	91.6	93.0	86.2	85.7	94.4	94.9
138	92.3	86.1	68.2	52.2	42.2	41.3	69.0	69.7
139	67.6	55.9	64.7	68.2	45.3	46.8	45.2	56.2
140	78.7	78.4	69.5	57.8	67.0	62.5	73.0	75.1
141	92.1	88.3	87.4	92.0	85.6	77.3	89.9	91.3
142	91.3	87.7	88.2	90.8	86.3	78.9	90.7	91.6
143	97.2	99.9	—	—	—	—	—	—
144	78.0	80.5	26.1	23.5	—	—	—	—
145	91.7	92.6	100.0	100.0	100.0	100.0	—	—
146	90.3	89.3	86.5	86.0	59.8	85.7	79.6	90.7
147	20.1	19.2	29.7	49.0	19.8	24.3	7.4	15.5
148	88.9	95.0	68.3	96.2	85.8	80.8	83.0	85.2
149	80.8	78.0	61.5	57.3	60.5	77.9	70.6	74.5
150	26.3	9.8	20.4	36.7	18.2	22.5	13.3	21.3

TABLE E-8

COVERAGE RATIOS FOR MAJOR IMPORT CLASSES: EARLIEST AND BASE YEARS OF EACH PERIOD

(per cent)

Import Class	1913–1923		1899–1913		1889–1899		1879–1889	
	1923	1913	1913	1899	1899	1889	1889	1879
201	92.2	91.2	89.3	94.1	92.8	95.3	93.6	94.3
202	89.5	89.5	90.8	94.7	93.5	95.8	94.2	94.5
203	93.2	87.1	86.8	95.6	95.3	92.3	97.0	96.8
204	93.2	87.4	87.2	95.6	95.3	92.5	97.0	96.8
205	93.1	89.7	88.6	95.5	94.7	94.1	96.5	96.5
206	91.7	88.8	89.6	95.7	95.0	94.6	96.7	96.6
207	92.8	89.4	88.1	95.0	94.2	93.8	95.3	95.4
208	91.5	88.6	89.2	95.2	94.5	94.2	95.6	95.5
209	94.5	90.2	91.6	97.2	91.0	90.0	95.6	96.1
210	87.6	82.1	83.4	88.1	82.2	77.5	81.1	84.4
211	91.6	89.3	87.8	92.9	85.4	85.5	93.4	94.5
212	90.7	88.6	88.6	93.3	86.2	86.7	94.1	94.7
213	86.2	81.2	64.6	57.1	57.8	68.3	70.9	74.2
214	89.7	86.2	78.6	79.5	74.6	77.6	82.9	84.6
215	89.2	85.9	79.4	80.2	75.5	78.7	83.8	85.0
216	90.3	87.0	82.1	86.1	83.1	85.9	89.4	90.6
217	58.5	46.3	54.8	61.0	40.3	42.2	39.7	49.9
218	59.0	47.1	55.6	61.6	41.1	43.3	40.9	50.7
219	84.4	79.1	77.0	80.8	73.9	74.1	75.9	79.5
220	56.7	42.7	50.2	60.6	40.4	42.9	40.5	50.1
221	81.8	76.0	72.7	78.6	68.8	71.7	70.4	74.7
222	69.4	68.2	56.0	58.6	53.0	62.1	55.4	59.8
223	71.1	66.4	60.8	62.4	54.6	55.7	52.9	59.8

TABLE E-9

INTERMEDIATE EXPORT CLASS COVERAGE AT END OF EACH PERIOD AS PER CENT OF CALCULATED COVERAGE ASSUMING NO CHANGE WITHIN MINOR CLASSES

Export Class	Per Cent			
	1923	1913	1899	1889
101	102.7	101.1	99.4	99.7
102	101.4	100.1	98.9	99.2
103	100.6	100.3	99.2	99.4
104	101.8	100.2	99.0	99.4
105	100.9	100.4	99.2	99.5
106	103.4	96.3	96.9	108.5
107	102.9	97.7	97.4	104.6
108	102.1	98.7	97.4	104.2
109	98.3	101.1	93.7	103.6
110	98.9	101.3	94.3	103.4
111	98.8	101.6	94.4	103.7
112	99.3	101.6	94.7	103.5

(continued)

TABLE E–9 (concluded)

Export Class	Per Cent			
	1923	1913	1899	1889
113	101.3	99.3	96.1	104.1
114	98.9	67.8	97.3	105.7
115	94.7	97.9	101.4	96.7
116	98.1	72.1	95.7	101.3
117	98.1	79.8	99.0	101.7
118	89.2	101.0	101.3	89.8
119	95.6	100.5	100.7	97.2
120	101.0	98.6	99.5	99.9
121	100.2	83.8	93.0	107.7
122	83.0	103.1	102.0	129.0
123	86.9	95.4	100.9	94.5
124	99.7	99.8	100.1	99.8
125	99.6	99.9	100.2	99.8
126	100.3	107.4	84.4	98.7
127	100.0	100.0	100.0	100.0
128	91.4	89.1	97.2	116.2
129	99.7	99.8	100.1	99.9
130	99.6	98.4	100.2	99.8
131	92.0	90.3	96.2	115.5
132	99.7	100.0	99.8	99.8
133	99.8	100.0	99.9	99.8
134	92.2	90.2	97.3	113.5
135	98.3	98.0	99.3	101.3
136	98.4	98.1	99.4	101.2
137	95.3	90.0	98.8	107.0
138	100.0	100.0	100.0	100.0
139	101.1	93.9	99.3	100.5
140	100.8	95.8	99.4	100.5
141	99.9	101.1	94.4	103.2
142	88.4	81.7	—	—
143	87.4	88.5	77.5	86.5
144	104.6	100.0	100.0	100.0
145	87.6	100.6	95.2	103.2
146	87.4	88.5	77.5	86.5
147	94.4	90.2	89.3	97.6

TABLE E–10

MAJOR EXPORT CLASS COVERAGE AT END OF EACH PERIOD AS PER CENT OF
CALCULATED COVERAGE ASSUMING NO CHANGE WITHIN MINOR CLASSES

Export	*Per Cent*			
Class	1923	1913	1899	1889
201	101.8	100.1	99.0	99.3
202	100.9	100.4	99.2	99.5
203	100.9	100.0	96.2	104.0
204	101.0	100.0	96.2	104.0
205	101.5	99.6	97.4	102.3
206	101.2	99.8	97.6	102.1
207	101.2	100.0	97.4	102.3
208	102.1	100.2	97.6	102.1
209	100.4	99.9	98.2	101.0
210	100.1	98.8	98.2	101.7
211	100.6	99.9	100.1	99.8
212	100.4	98.6	100.1	99.8
213	97.2	96.4	95.7	114.6
214	94.6	90.2	91.5	99.2
215	94.8	90.4	91.7	99.3
216	99.5	98.7	98.7	101.3
217	99.5	97.9	98.9	101.2
218	100.4	99.1	98.0	101.7
219	101.3	97.1	97.1	101.4
220	98.1	97.1	97.2	101.4
221	97.2	94.8	92.4	98.2
222	96.4	93.9	94.1	103.3

TABLE E–11

INTERMEDIATE IMPORT CLASS COVERAGE AT END OF EACH PERIOD AS PER CENT
OF CALCULATED COVERAGE ASSUMING NO CHANGE WITHIN MINOR CLASSES

Import	*Per Cent*			
Class	1923	1913	1899	1889
101	94.7	100.5	102.9	174.6
102	107.1	73.7	87.3	97.6
103	99.2	100.1	99.7	100.0
104	100.4	96.3	98.5	99.6
105	99.3	96.9	98.6	99.6
106	99.9	96.6	98.7	100.3
107	98.8	97.1	98.9	100.3
108	91.3	131.5	104.1	120.0
109	103.6	74.7	92.2	97.6
110	101.6	94.6	103.7	99.9
111	101.5	95.0	104.1	99.9
112	101.5	95.2	104.0	99.9
113	100.6	100.0	103.8	99.9
114	97.5	99.6	92.1	100.0

(continued)

TABLE E-11 (concluded)

Import Class	Per Cent			
	1923	1913	1899	1889
115	98.1	102.4	92.0	100.0
116	99.6	102.6	91.2	100.0
117	99.3	102.5	91.6	100.0
118	101.6	94.5	99.8	95.8
119	100.9	98.0	100.2	96.0
120	98.7	98.2	98.2	100.0
121	113.3	90.3	95.2	102.9
122	99.9	100.0	100.4	100.0
123	115.0	90.8	102.2	100.0
124	87.0	86.2	147.7	69.1
125	99.7	99.4	99.6	100.0
126	104.1	89.1	117.9	77.2
127	101.6	94.7	106.4	86.8
128	100.5	98.6	96.3	98.1
129	100.0	99.0	98.0	99.2
130	99.6	99.1	98.2	99.2
131	99.9	99.8	105.7	99.3
132	99.6	99.8	105.3	99.4
133	111.7	99.3	98.9	93.2
134	106.8	99.5	99.1	—
135	101.9	104.1	95.5	99.7
136	100.1	99.4	97.8	99.3
137	99.7	99.4	97.9	99.4
138	102.7	98.4	100.3	96.6
139	125.7	93.7	117.9	77.2
140	102.5	100.6	97.1	98.1
141	100.5	99.9	104.3	99.0
142	100.2	99.9	104.0	99.0
143	101.5	—	—	—
144	102.0	101.1	—	—
145	98.6	100.0	100.0	—
146	101.5	99.8	78.1	89.3
147	125.0	66.3	87.5	56.3
148	93.9	91.5	100.0	100.0
149	102.7	102.9	81.6	93.0
150	117.6	61.1	78.3	63.4

TABLE E-12

MAJOR IMPORT CLASS COVERAGE AT END OF EACH PERIOD AS PER CENT OF
CALCULATED COVERAGE ASSUMING NO CHANGE WITHIN MINOR CLASSES

Import Class	Per Cent			
	1923	1913	1899	1889
201	100.1	103.5	98.7	100.3
202	99.1	97.2	98.8	100.3
203	100.3	99.4	104.1	100.3
204	100.3	99.5	104.1	100.4
205	100.3	98.0	101.5	100.1
206	99.8	98.2	101.5	100.1
207	100.2	97.9	101.8	100.3
208	99.8	98.1	101.7	100.3
209	99.9	99.0	101.0	98.7
210	102.9	98.3	106.1	96.4
211	99.4	98.5	97.9	99.3
212	99.1	98.5	98.1	99.4
213	102.2	103.0	84.7	93.9
214	100.3	99.9	93.5	97.0
215	100.1	99.9	93.8	97.3
216	100.1	99.2	97.3	98.8
217	129.4	90.1	112.0	76.4
218	128.6	90.5	111.5	77.4
219	103.3	97.9	98.8	94.9
220	128.6	90.5	111.5	77.4
221	103.3	98.1	99.3	95.0
222	101.1	96.1	83.2	90.5
223	107.5	96.1	96.1	86.2