THE STRUCTURE OF WOOL AND WOOL TEXTILE PRODUCTION,

TRADE AND CONSUMPTION 1958-69

by

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THE STRUCTURE OF WOOL AND WOOL TEXTILE PRODUCTION, TRADE AND CONSUMPTION 1964-68*

INTRODUCTION

In the pages which follow we have set out, in the form of charts and tables, the results of an attempt to measure the disposition of wool produced by the major producing and consuming countries in the post-war period. Our aim is to present a picture of the structure of the world wool market, by tracing through the major flows of wool from the point of raw production to its final use in the form of wool type textiles measured in clean fibre content; and to identify the growing points of world demand for wool.

The paper is mainly descriptive and no attempt is made at analysis, though the data presented was assembled in the course of an analysis of factors affecting wool prices. In such an analysis we would be concerned, as with the analysis of prices of other agricultural products, with the interaction of supply and demand. But unlike other New Zealand export products, for example meat, in which we confine our attention to one particular type of meat in a few particular countries, we are concerned, except in exceptional circumstances, with wool as a whole because of the infinite possibilities of substitution possible between different grades and types. And we have to take as our market the world as a whole,

^{*} This paper brings the data in Research Report 55 up to 1968.

since nearly every country in the world consumes wool in greater or smaller quantities, if only in the form of small quantities of imported wool textiles.

For many of these smaller wool markets there are not available the necessary economic data for incorporation in a world demand analysis for wool, and in such an analysis we therefore have to group together the important countries making up a "wool world". We have done this by identifying a group of 21 countries known henceforth as the "21 country group", consisting of countries which produce and consume the major proportion of the world's wool (outside the Communist blocs). This group, or "wool world", we can regard as a largely self-contained unit producing, trading and consuming raw wool and wool textiles," but exporting some of its wool supplies to the countries of the outside world, either in the form of small quantities of raw wool or of wool textiles.

The countries which make up this 21 country group are as follows, divided into four sub groups:

The 5 Wool Producers	The 5 Wool Textile Exporters	The 4 Wool Textile Importers	The 7 Western European Countries
Argentina Australia New Zealand Sth Africa Uruguay	United Kingdom Belgium France Italy Japan	West Germany Netherlands Canada Sweden	Austria Denmark Finland Ireland Norway Switzerland Greece

Though it is a very important wool consumer, the United

States has been excluded from this 21 country group, largely

^{*} In this bulletin wool textiles and wool-type textiles should be interpreted as wool and wool-mixture textiles.

because we have found, in other work, that the U.S. trends in wool textile consumption have been quite different from those in other countries, possibly because of differences in the rate of development and competition of synthetic fibres.

Apart from the United States, the rest of the world, mainly small countries importing quantities of raw wool or wool textiles from the 21 countries, have been lumped together into a group called "Other Countries".

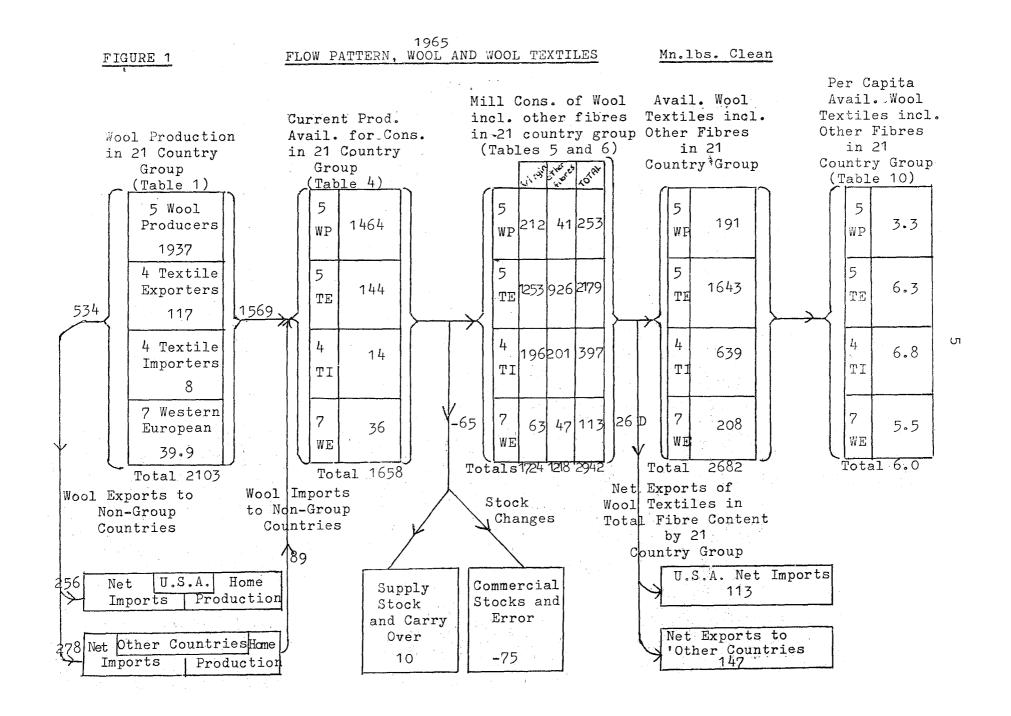
In the next section we proceed to show the flows of wool arranged according to this grouping of countries for the year 1965. In succeeding sections, the charts give the annual development over the last 21 years in each of the major constituents of these flows and the tables, show the data for the last 5 years. I. STRUCTURE OF WOOL & WOOL TEXTILE PRODUCTION, TRADE, AND CONSUMPTION IN 1965

Taking the grouping of countries given above the structure of the "world" wool market in one year 1965 is given in Figure 1. All measurements are in million lb. clean.

Figure 1 shows blocks of countries between which there are shown flows of wool and wool-type textiles with the relevant quantities indicated. Only <u>inter-group</u> and no <u>intra-group</u> flows are shown. That is to say since we are considering the 21 country group as one virtually self-contained bloc only the flows to and from outside countries are shown. To show the trade flows between each of the 21 countries would confuse the picture far too much.

This chart shows raw wool production in the 21 country group in 1965 was 2103 million lb. From this exports of wool (534 mn. lb.) flowed to the U.S.A. and "Other Countries" from which there was also a small inward import flow of wool (89 mn.lb.). From the balance of wool available was deducted wool added to (10 mn.lb.) government and official stockpiles giving wool available for mill consumption. However there was an addition of 75 mn.lb. representing an estimated decrease in commerical stocks and errors. (This figure must be regarded as only a very tentative estimate of commerical stock increase as it has been calculated as a residual from comparing available supplies with mill consumption. These two figures come from different sources so that the residual is partly reduction in commercial stocks and errors".)

This left 1724 mn.lb. of wool available for mill consumption



during 1965. In addition there were 1218 mn.lb. of other fibres consumed in wool-type textile industries, giving total fibre content of wool textile output of 2942 mn.lb.

From this 260 mn.lb. fibre content of wool textile exports were sent to the United States and "Other Countries", leaving 2682 mn.lb. fibre content of wool textiles for consumption in 21 countries. When divided by each country's population this gives per capita consumption, or more accurately per capita availability, of wool textiles.

This chart gives a picture of the whole flow in 1965 of wool and wool textiles.

In the following sections we take each of these major sections, viz., wool production, mill consumption etc., and present (in the tables numbered at the head of each block in Figure 1), the graphs for the whole period 1948/68 and the data for the last 5 years.

II. WOOL PRODUCTION

Table I and Figure 2 give the trends in wool production measured in lbs. clean equivalent, in the main country groupings. For countries in the southern hemisphere, production for the season spanning two calendar years, e.g. 1947/48, is included with calendar year production in the second year, i.e. 1948, in the northern hemisphere.

The total production in the 21 or 22 country groups reflects very closely the trend and fluctuations in the 5 major producers, where production has again started rising after the stagnation in 1964-1966 and in 1968.

The steady decline in the U.S.A. and the 16 Wool Textile Producers' production continues unabated.

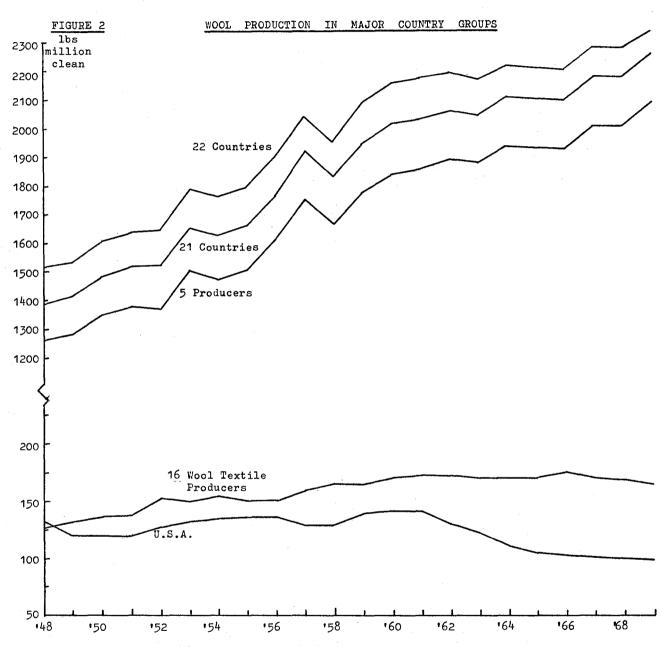




TABLE I : RAW WOOL - CLEAN HOME PRODUCTION (mn. 1bs.)

	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u> *	<u>1969</u> * Provisional
Argentina Australia New Zealand South Africa Uruguay	247 915 434 170 115	253 956 442 177 115	230 1009 439 148 111	237 931 488 171 104	256 995 498 152 106	246 998 504 154 108	228 1075 522 156 112
Total: 5 Wool Producers	1881	1943	1937	1931	2007	2010	2093
U.K. Belgium France Italy Japan Total: 5 Wool Textile	83.8 0.4 18.5 13.2 1.8 117.7	83.8 0.4 21.4 13.4 1.1 120.1	85.3 0.4 22.5 13.7 0.9	86.6 0.4 23.8 14.1 0.7 125.6	85.0 0.4 22.1 13.7 0.7 121.9	85.8 0.4 20.4 13.7 0.7 121.0	0.4 19.1 13.2 0.7
Producers				-	-		-
W.Germany Netherlands Canada Sweden Total: 4 Wool	3.7 1.8 4.0 . 0.4	3.5 1.3 3.5 0.4	3.3 1.3 3.3 0.4	3.1 2.6 3.1 0.4	3.1 2.6 2.6 0.4	2.8 2.6 2.6 0.4	3.1 2.6 2.1 0.4
Textile Importers	9.9	8,7	8.3	9.2	8.7	8.4	8.2
Austria Denmark Finland Ireland Norway Switzerland Greece Total: 7 West-	0.7 0.2 0.4 17.4 7.5 0.7 14.1 41.0	0.7 0.2 0.2 17.2 7.5 0.7 14.1 40.6	0.7 0.4 0.2 17.4 9.3 0.7 11.2	0.7 0.4 0.2 17.2 8.2 0.7 12.6 40.0	0.7 0.4 0.2 16.5 8.2 0.7 12.6	0.7 0.4 0.2 15.8 8.2 0.7 12.6 38.6	0.7 0.4 0.2 14.5 8.2 0.7 12.6
ern Europe	41.0	40.6	39.9	40,0	39.3	30.0	37.3
Total: 21 Countries	2050	2112	2108	2106	2177	2178	2257
U.S.A.	123.7	112.2	106.0	103.4	101.5	97.6	91.6
Total: 22 Countries	2173	2224	2214	2209	2278	2276	2349

III. TRADE IN RAW WOOL

Figure 3 and Table II on which it is based, give the trends in trade in raw wool from the 21 country group. This is divided into exports from the group to the U.S.A. and exports to other countries. The latter has risen very rapidly - about fourfold since the early fifties. Total exports of the 21 country group to the U.S.A. and "Other Countries" show a rapid increase in 1968 over the static 1965 to 1967 level. Also shown are the imports into the 21 country group from "Other Countries". These imports have shown a slowly rising trend over the period, the fluctuations around this trend being quite closely correlated with levels of mill consumption in the 21 country group.

Table III gives the greater detail underlying the figures in Table II by showing the exports and imports of each of the 21 countries with the non 21 country group.

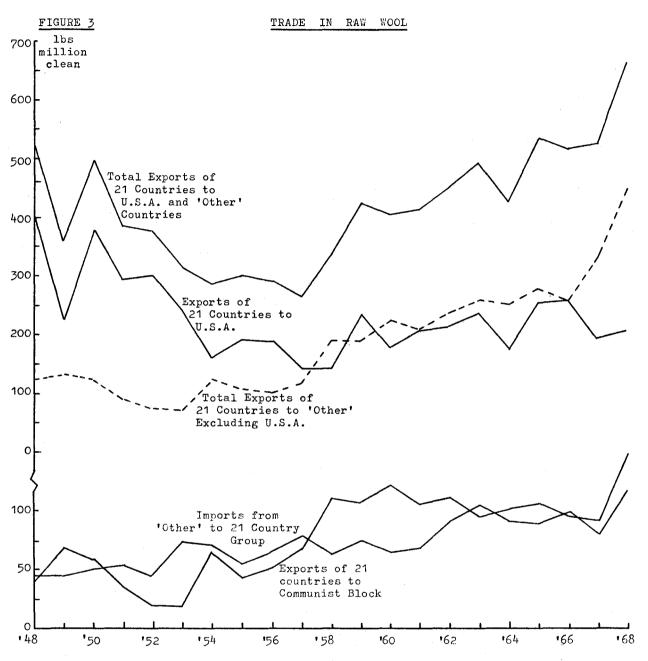


TABLE II : TRADE IN RAW WOOL 21 COUNTRIES (million lbs. clean)

	1964	1965	1966	1967	1968
5 Wool Producers Exports to USA Exports to other Total Exports to Non-21	157.3 223.3 380.6	231.9 241.0 472.9	241.6 223.0 464.6	179.5 301.1 480.6	192,0 412.5 604.5
5 Textile Exprs.	200.0	472.9	404.0	400.0	004.5
Exports to USA Exports to other Total Exports Imports from	14.9 20.2 35.1	16.8 26.6 43.4	13.1 26.8 39.9	12.6 25.2 37.8	13.3 31.7 45.0
Other	69.2	69.6	79.9	63.9	99.1
4 Textile Imprs. Exports to USA Exports to Other Total Exports Imports from	4.5 3.6 8.1	5.6 3.8 9.4	2.4 4.5 6.9	2.3 4.4 6.7	0.8 2.9 3.7
Other	19.8	15,6	14.1	11.9	15.8
7 Western Europe Exports to USA = Total Exports	0.6	1.2	1.5	2.0	3.1
(Other Zero)	4.1	6.7	5.9	4.5	6.7
Imports from Other	3.9	4.3	5.1	5.5	3.4
Total 21 Countries Exports to USA Exports to Other	177.3	255.5	258.6	196.4	209.2
non-Communist	148.8	170.3	164.4	240.0	302.1
Exports to Other Communist	102.4	107.8	95.8	92.8	151.7
Total Exports to Other Total Exports	251.2 428.5	278.1 533.6	260.2 518.8	332.8 529.2	453.8 663.0
Total Imports from Other	92.9	89.5	99.1	81.4	118.3

TABLE III	: NET TRADE IN RAW WOOL, WITH	THE
NON 21	COUNTRY GROUP (mn.lb. Clean)	M denotes Imports

							o 1001		l denot C denot		
		<u>19</u>	964	<u>19</u>	965	19	66	19	67	<u>19</u>	68
		М	X	М	X	Μ	Х	М	X	Μ	Х
(1)	Argentina Australia New Zealand Sth Africa Uruguay		57.5 188.9 101.5 24.8 7.9		88.3 216.9 103.5 26.8 37.4		99.1 189.8 114.2 25.7 35.8		86.4 239.0 114.9 34.5 5.8		98.2 205.0 247.6 25.6 28.1
5	Wool		380.6		472.9		464.6		480.6		604.5
(2)	Producers U.K. Belgium France Italy Japan	42.5 11.8 8.0 4.5 2.4	12.4 6.3 12.6	35.8 20.3 6.8 4.5	19.5 8.5 12.4 3.1	25.6 7.6 7.8	15.8 9.5 11.8 2.4	22.2 6.1	14.0 8.6 12.9 1.9	60.2 20.4 5.6 8.0 4.9	17.1 7.9 18.3 1.3 0.4
5	Wool Text. Exp.	69.2	35.1	69.6	43.4	79.9	39.9	63.9	37.8	99.1	45.0
(3)	Net Trade (Imp.) West Germany Netherlands Canada Sweden	34.1		26.2 8.9 3.7 1.7 1.3	2.1 5.1 1.5	40.0 8.0 3.4 2.5		26.1 7.4 3.0 1.2 0.3	1.2 2.8	54.1 10.2 2.8 1.4 1.4	1.7 0.9 0.2 0.9
4	Wool Text.									4 - 0	
(4)	Austria Denmark Finland Greece Ireland Norway	19.8 11.7 0.6 0.6 - 0.3 1.0 0.5 0.9		15.6 6.2 0.6 0.5 0.5 0.9 0.3 1.5	0.4 0.3 0.1 6.2 0.2	0.4 0.2	0.3 0.4 5.3 0.5	11.9 5.2 0.8 0.3 0.3 0.4 1.4 0.2 2.1	6.7 0.1 0.5 - 5.1 0.8	15.8 12.1 0.5 - 0.3 1.8 0.1 0.1 0.6	3.7 0.3 0.1 - 8.3 - 0.9 0.2
(5)	7 Western Europe	3,9	4.7	4.3	7.9	5.1	7.4	5.5	6.5	3.4	9.8
	Net Trade (Imp.)		0.7		3.6		2.3		0.9		6.4
	21 Countries: Exports Imports Net Exports	92.9	428,5 335.6	89.2	533.6 444.1	99.1	518.8 419.7	81,3	531.6 450.3	118.3	663.0 544.7

IV. SUPPLY STOCKS AND WOOL AVAILABLE FOR MILL CONSUMPTION

Wool production in the 21 country group, less exports to, plus imports from, countries outside the group, plus wool released from or absorbed by official stockpiles and grower carryovers, gives the amount of wool available for mill consumption in the These figures are graphed in the top half of Figure 4 group. based on the data given in Table IV. Wool Supplies available have fluctuated very markedly mainly due to the fluctuations in net releases from supply stocks. The major reason for these latter fluctuations, in recent years, has been the continual cyclical movement in carryover stocks in South America, and latterly in New Zealand where the principal force has been the New Zealand Wool For example in New Zealand 204 mn. lbs. of wool were Commission. absorbed into stockpiles and carryovers in 1967, while in 1968 wool was released at the rate of 29 mn.lbs.

Figure 4 also shows the levels of mill consumption in the 21 country group. There is apparent in the diagram a high degree of concordance year by year between the amount of wool available for consumption and the amount consumed due to the elasticity imparted to supply by the absorption and release of wool from supply stocks. Without this it is likely that price fluctuations, induced by the confrontation of fluctuating mill consumption with steady wool production, would be much greater than they already are.

The residual difference between supplies of wool available for consumption with amounts actually consumed should <u>in theory</u> represent the annual changes in commercial stocks. This would be

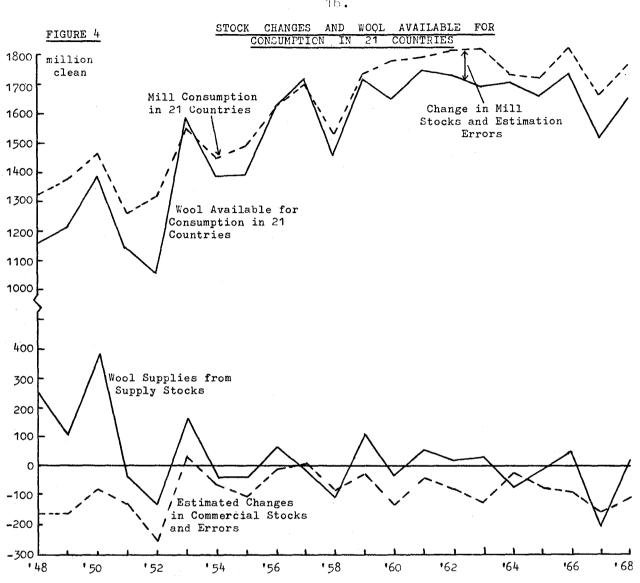
true if all statistical series had been measured without any errors; or, if the errors were consistent, such as would occur if the clean yields used were consistently too high or low. We are certainly not entitled to make this assumption and the difference between supplies and consumption represents the combined effect of <u>errors</u> and changes in commercial stocks.

V. MILL CONSUMPTION OF RAW WOOL

Figure 5 gives the statistics of mill consumption of raw wool in the five wool producers, the U.S.A., the sixteen wool textile producers and the 21 and 22 country groups.

The marked cyclical fluctuation which characterised mill consumption for most of the period, and which is responsible for fluctuations in prices, seemed to have become much less marked between 1959 and 1963, but appears to be once again evidencing itself.

Table V gives the mill consumption statistics for individual countries.



16.

TABLE IV : AVAILABLE SUPPLIES OF WOOL (PRODUCTION PLUS SUPPLY STOCKS AND CARRYOVERS, mn.lbs. Clean)

1. Production in	<u>1963</u>	1964	1965	1966	<u>1967</u> • Pr	<u>1968</u> * rovisional
22 Countries 2. Net Exports to	2050	2112	2108	2106	2177	2178
USA & Other 3. Production less	389	336	444	420	450	545
Exports 4. Net Releases	1661	1776	1664	1686	1727	1633
from (+) or additions to (-) supply stocks (Details given below)	+ 27	- 68	- 10	+ 49	-204	+ 29
5. Wool Available for Consumption	1688	1708	1654	1735	1523	1662
6. Mill Consumption	1812	1729	1724	1821	1668	1764
7. Difference equals errors in Est'n + Changes in Commercial						
stocks	-124	- 21	- 70	- 86	-145	-102
Composition of Changes						
Releases from or Additi (+)	ons_to (_)		<u>'s in</u> :			
Australia	+ 3	- 8	- 11	+ 13	+ 6	+ 9
New Zealand	+ 1	- 3	- 9	+ 4	+ 4	+ 5
South Africa	-	- 1 	- 1	+ 1		-
Argentina & Uruguay	+ 9	<u>- 55</u>	+ 11	+ 30	<u> </u>	+ 20
Total	+ 13	- 67	- 10	+ 48	- 33	+ 34
Releases from(+) or Add Joint Organisation	itions t	<u>o(-) Sta</u>	ockpiles			
Stocks	-	-	-	_		-
U.K. Stockpiles		5 m				
(BWMB & Strategic)	+ 14	1	+1	-	- 7	+ 7
NZ Wool Commission Sth.Afr.Wool Comm.	960 696	6-00 6005	- 1	+ 1	-161 - 3	- 11 - 1
<u>Total</u>	+ 14	_ 1	0	+ 1	-171	- 5
		- 1			- 1 / 1	
<u>Total Wool Available fr</u>	om(+) or	absorbe	ed by(-)	(Carryo	vers & S	tockpiles)
	+ 27	- 68	- 10	+ 49	-204	+ 29

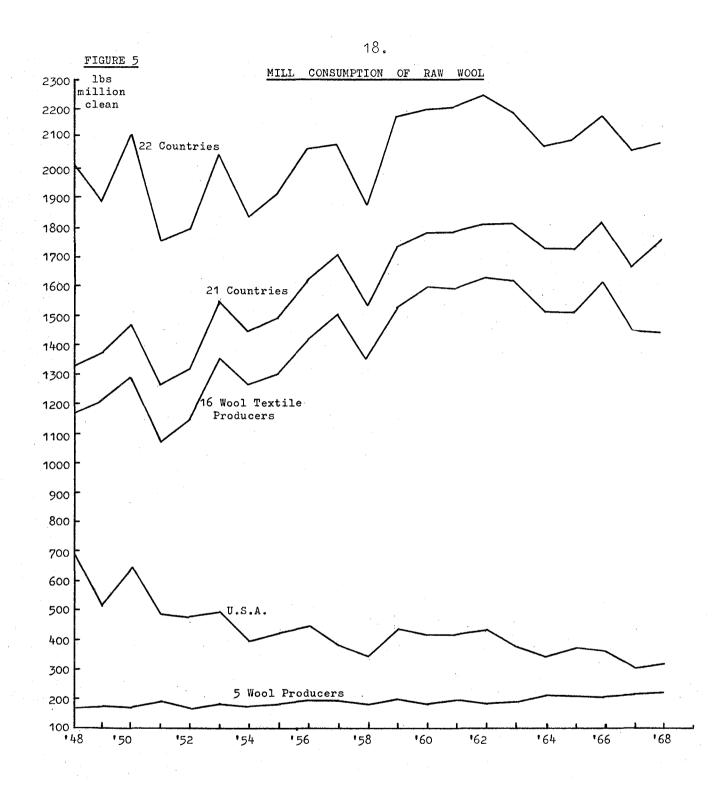


TABLE V : MILL CONSUMPTION OF RAW WOOL (mn.lbs. Clean)

				*1	Provisional
	1964	<u>1965</u>	<u>1966</u>	1967	<u>1968</u> *
Argentina Australia New Zealand South Africa Uruguay Total: 5 Wool	53 77 11 26 49	52 78 14 28 40	46 72 16 25 48	47 76 16 28 48	48 73 15 33 51
Producers	216	212	207	215	220
U.K. Belgium France Italy Japan Total: 5 Wool Text. Exprs.	418 95 245 185 310 1253	403 98 237 189 326 1253	388 96 263 242 367 1356	360 81 217 218 354 1230	391 88 239 211 371 1300
W. Germany Netherlands Canada Sweden Total: 4 Wool Text. Importers	142 22 17 11 192	147 21 18 10 196	150 22 18 10 200	122 20 16 9 167	149 18 17 8 192
Austria Denmark Finland Ireland Norway Switzerland Greece Total: 7 Western Europe	16 5 12 12 10 10 68	13 5 11 10 11 10 63	14 5 4 9 8 8 10 58	10 5 4 10 8 9 11 57	7 5 4 11 7 8 12 54
Total: 21 Countries	1729	1724	1821	1669	1766
U.S.A.	346	374	360	303	318
Total: 22 Countries	2075	2098	2181	1972	2084

VI. MILL CONSUMPTION OF FIBRES OTHER THAN VIRGIN WOOL

Figure 6 shows the mill consumption of fibres other than virgin wool for the sixteen textile producers and for the 21 and 22 country groups.

These fibres include noils, wastes, broken tops, recovered and re-used wool, shoddy, synthetic fibres, hair, cotton and silk. The data for individual countries is shown in Table VI.

Of greater significance than the <u>absolute</u> level of non wool fibres used is the <u>ratio</u> of wool to total fibres used in the wool textile industry. Trends in this ratio are shown in Figure 7.

Very noticeable is the marked fall in the proportion of wool following the high wool prices of 1963/64 and the partial reversal of the ratio in the 21 country group, possibly influenced by the lower wool prices since then. The decline in the wool ratio in the U.S.A. shows some signs of levelling off after the almost continued fall since the early fifties.

Trends in <u>total</u> fibres consumed in the wool textile industry a measure of the <u>total activity</u> of the industry are shown in Figure 8 and Table VII. This shows the severity of the decline in wool textile activity in 1967, paralleled only by a similar recession in 1958.

As a result of this work, and A.E.R.U. investigations into per capita fibre availability levels of cotton, wool, synthetics and artificial fibres, it is now clear that there was a general textile recession in 1958 whereas in 1967 wool and wool-mixture textiles only were affected.

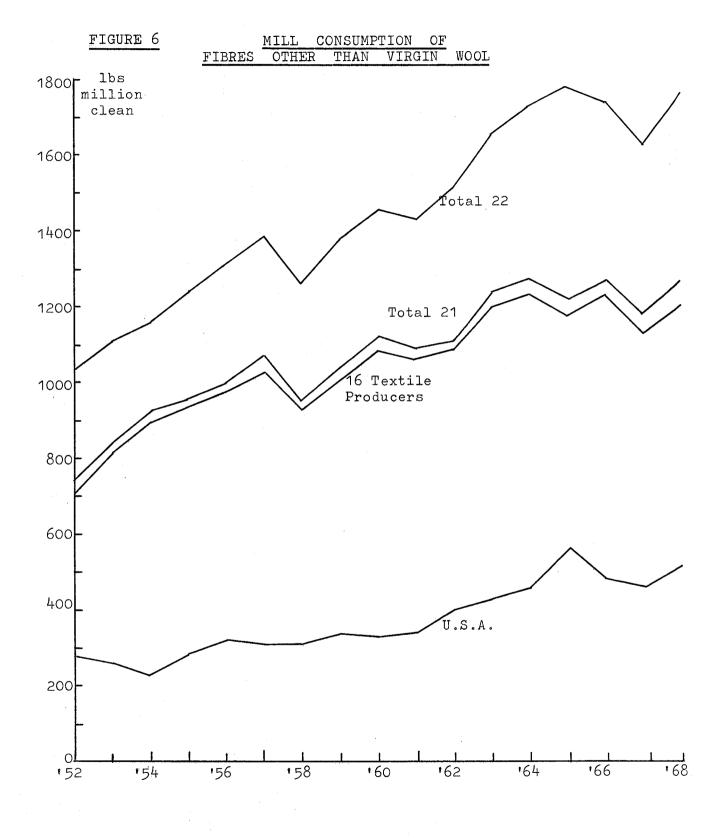


TABLE VI : MILL CONSUMPTION OF FIBRES OTHER THAN VIRGIN WOOL (Million lbs. clean wool equivalent) *Provisional

				*	Provisional
	<u> 1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u> *
Argentina Australia New Zealand South Africa Uruguay	- 25 3 12 -	- 25 3 13 -	- 26 4 12 -	- 25 3 12	28 6 13
Total: 5 Producers	40	41	42	40	47
U.K. Belgium France Italy Japan	264 41 236 288 136	258 40 214 269 145	260 43 248 360 84	250 37 208 349 78	274 54 220 358 80
Total: 5 W.T. Exporters	966	926	995	922	986
W. Germany Netherlands Canada Sweden	145 30 26 21	129 27 26 19	117 22 26 20	103 17 18 22	120 8 18 14
Total: 4 W.T. Importers	221	201	185	160	160
Austria Denmark Finland Greece Ireland Norway Switzerland	6 7 4 3 4 12	9 7 4 3 4 16	10 8 5 14 9 9 16	5 2 6 13 9 9 17	5 2 6 14 11 8 17
Total: 7 W. Europe	45	50	71	61	63
Total: 21	1272	1218	1293	1183	1256
<u>U.S.A.</u>	462	565	476	456	514
Total: 22	1728	1783	1769	1639	1770

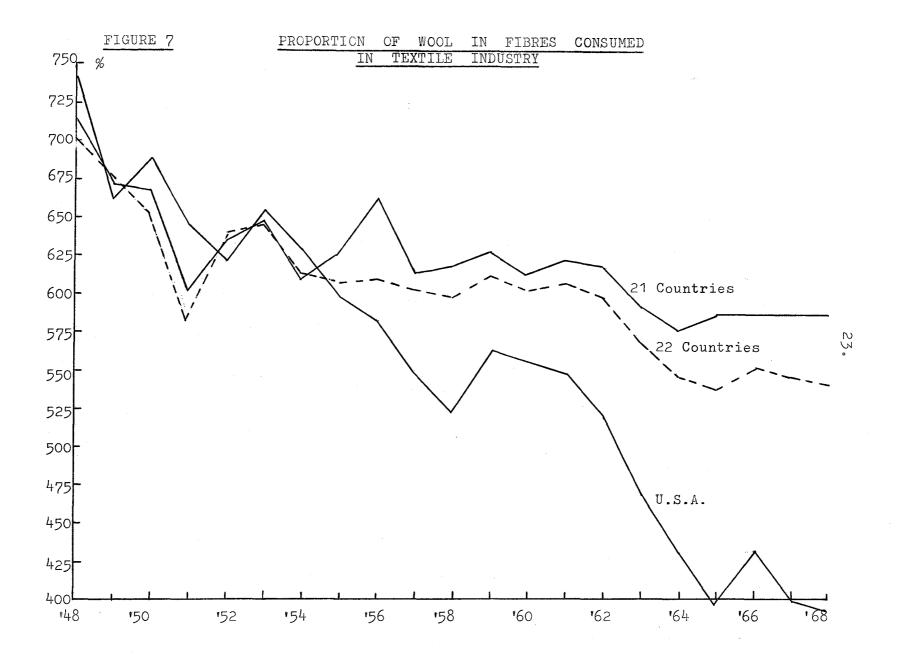
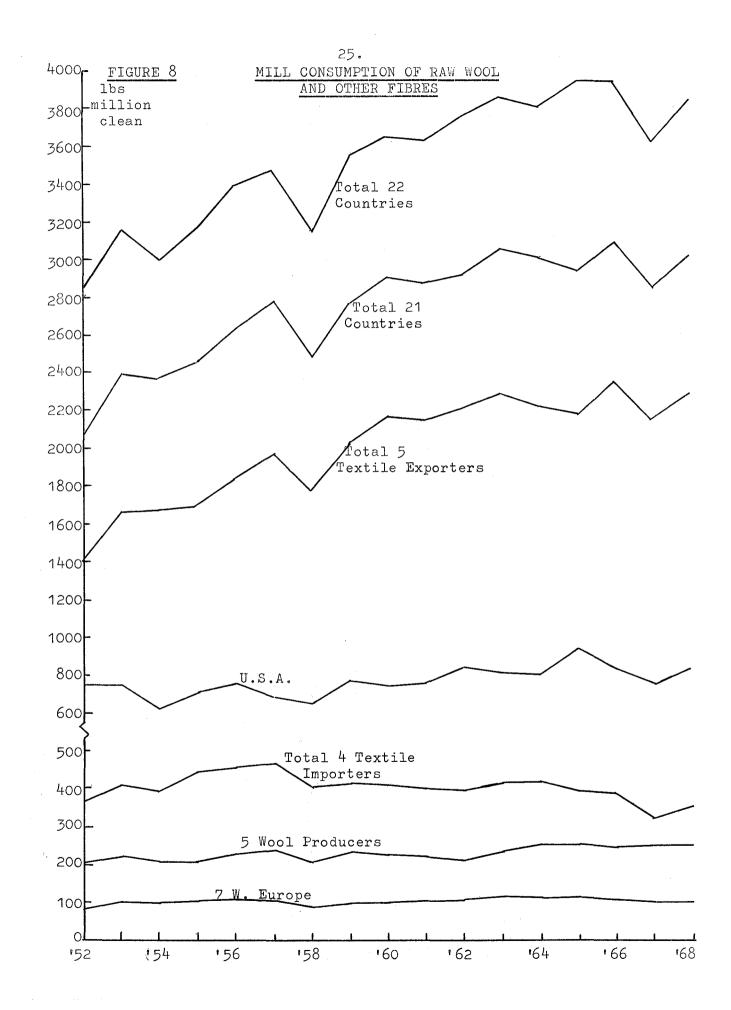


TABLE VII: MILL CONSUMPTION OF RAW WOOL AND OTHER FIBRES (mn.lbs. clean)

	1964	<u>1965</u>	1966	<u>1967</u>	Provisional <u>1968</u> *
Argentina Australia New Zealand South Africa Uruguay	53 102 14 38 49	52 103 17 41 40	46 98 20 37 48	47 101 19 40 48	48 101 21 46 51
Total: 5 Producers	256	253	249	255	267
U.K. Belgium France Italy Japan	682 136 481 473 446	661 1 <i>3</i> 8 451 458 471	648 1 <i>3</i> 9 511 602 451	610 118 425 567 432	665 142 459 569 451
<u>Total: 5 W.T. Exporters</u>	2219	2179	2351	2152	2286
W. Germany Netherlands Canada Sweden	287 52 43 32	276 48 44 29	267 44 44 30	225 37 34 31	269 26 35 22
Total: 4 W.T. Importers	414	397	385	327	352
Austria Denmark Finland Ireland Norway Greece Switzerland	22 12 10 15 16 14 22	22 12 10 14 - 14 14 27	24 13 9 18 17 24 24	15 7 10 19 17 24 26	12 7 10 22 15 26 25
Total: 7 W. Europe	111	113	129	118	117
Total: 21	3001	2942	3114	2852	3022
U.S.A.	808	939	836	759	832
Total: 22	3801	3881	3950	3611	3854



VII. NET TRADE OF WOOL-TYPE TEXTILES

Of the wool and other fibres consumed at mill level in the 21 Country Group, a proportion is shipped throughout the world as exports of textiles both to countries within and without the group. Table VIII shows the net exports (shown as negative quantities) and net imports of each country, the total net exports of the 21 countries, the net imports of the U.S.A. from the 21 Country Group, and Other Countries, and the net exports of 22 countries. All these trade flows are measured in lb. of fibre content by converting <u>Wool Intelligence</u> data with F.A.O. conversion factors. Figure 9 shows the main trends for the respective groups.

The rate of increase in net exports of wool textiles by 21 Country Group is similar in nature to the fast rate of increase in net exports of raw wool to countries outside the group, though in both cases there has been a marked decline in recent years.

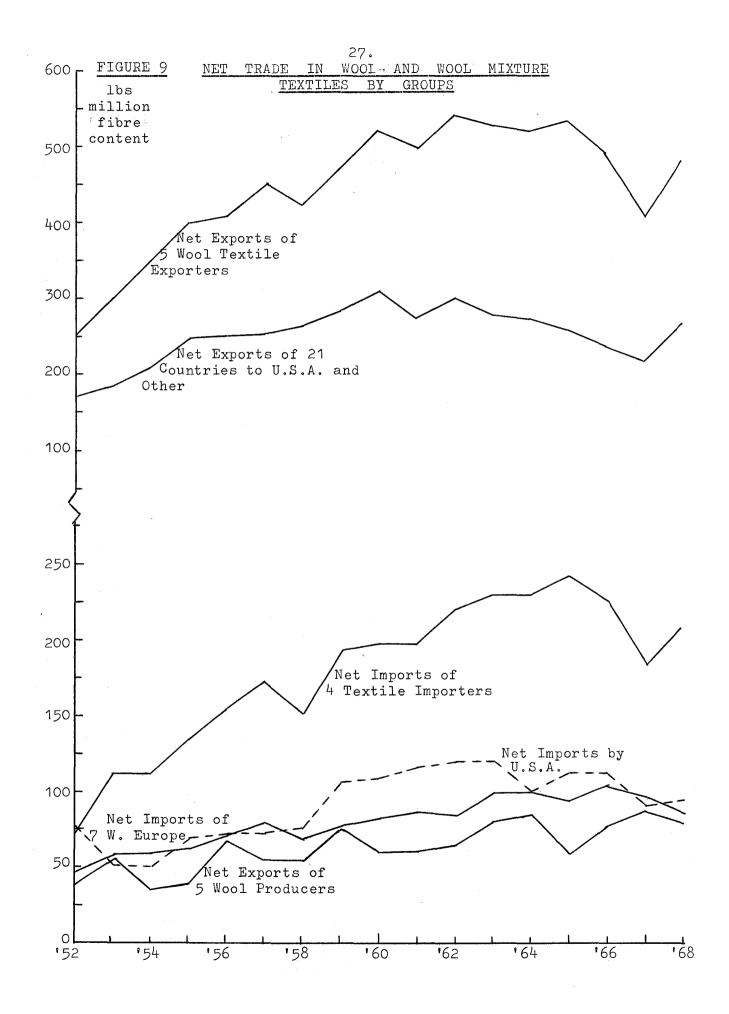


TABLE VIII : NET TRADE BY COUNTRIES OF WOOL-TYPE TEXTILES (mn.lbs. fibre content)

				*	Provisional
	<u>1964</u>	<u>1965</u>	1966	<u>1967</u>	<u>1968</u> *
Argentina Australia New Zealand South Africa Uruguay	- 18.09 - 34.42 5.26 0.81 - 38.53	- 12.98 - 23.22 5.70 - 1.60 - 29.57	- 11.19 - 28.50 5.84 - 6.49 - 35.99	- 14.40 - 27.50 3.94 - 8.26 - 38.43	- 13.49 - 22.02 2.17 - 5.30 - 43.00
Total: 5 Producers	- 84.97	- 61.67	- 76.33	- 84.65	- 81.64
U.K. Belgium France Italy Japan	-168.05 - 66.12 -102.79 -112.31 - 72.11	-154.58 - 67.01 -114.86 -127.74 - 71.39	-139.14 - 54.42 -111.70 -123.51 - 63.90	-108.66 - 49.42 -101.83 -104.84 - 46.52	-130.82 - 49.31 -102.84 -129.81 - 70.40
Total: 5 W.T. Exporters	-521.38	-535.58	-492.67	-411.27	-483.18
West Germany Netherlands Canada Sweden	135.96 39.24 33.65 22.52	152.39 33.89 33.28 22.71	137.35 37.6 31.02 20.84	104.16 25.25 30.14 22.98	125.51 31.26 33.81 21.11
<u>Total: 4 W.T. Importers</u>	231.37	242.27	226.81	182.53	211.69
Austria Denmark Finland Ireland Norway Switzerland Greece	18.54 20.69 13.27 5.82 7.29 21.04 12.12	16.92 23.01 11.36 4.00 6.07 18.13 15.34	17.63 20.14 14.24 3.46 7.95 21.79 17.78	16.30 18.83 13.46 4.61 8.61 20.40 13.91	21.15 15.43 11.92 7.18 7.79 21.23
Total: 7 W. Europe	98.77	94.83	102.99	96.12	84.70
<u>Total: 21</u>	-276.21	-260,15	-239.20	-217.27	-268.43
U.S.A.	101.94	113.18	114.66	93.37	96.49
Total: 22	-174.27	-146.97	-124.54	-123.90	-171.94

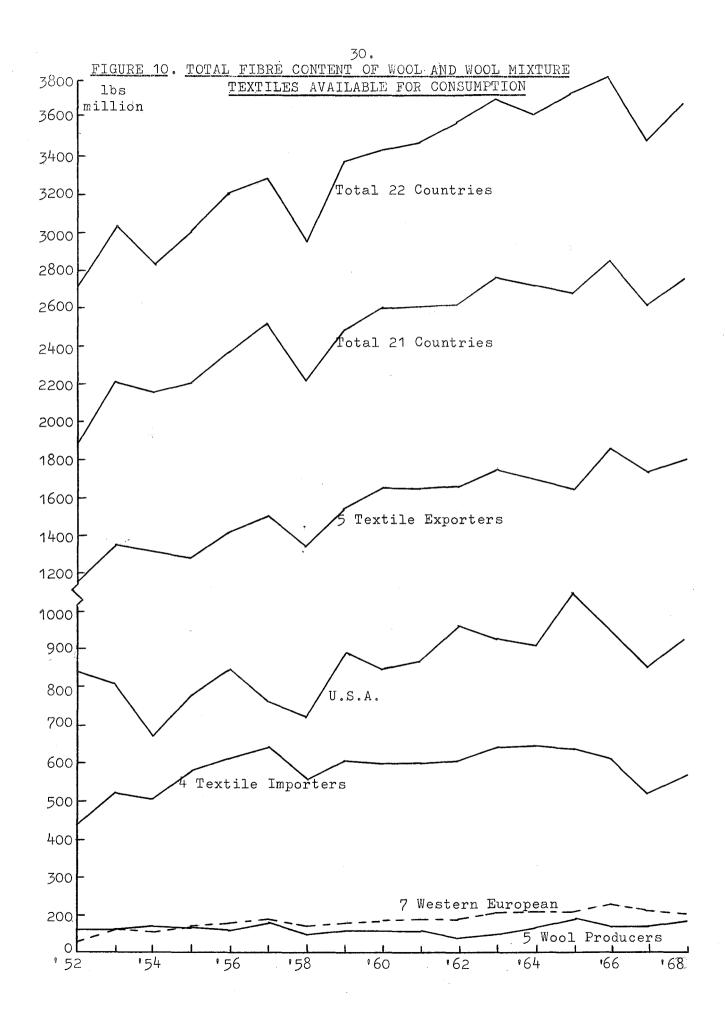
VIII. WOOL-TYPE TEXTILES AVAILABLE FOR CONSUMPTION

After allowing for net trade in wool-type textiles, the balance represents the quantity <u>available</u> for domestic consumption.

These figures, given in Table IX, are graphed in Figure 10.

The appearance of cyclical fluctuation in the figures, while representing to some extent similar changes in consumer demand, must be interpreted with care. The figures only represent amounts <u>available</u> for consumption. Adjustment for inventory changes (on which we have no data) would need to be made before the figures could be taken as a measure of annual consumption, though they provide a valid representation of general trends.

The marked fall in wool-type textiles available for consumption (and therefore presumably in consumption itself) in 1967 is apparent in all countries as an underlying feature of the 1967/68 recession.



(mn.lbs. fibre content)							
	<u>1964</u>	<u>1965</u>	1966	1967	*Provisional <u>1968</u> *		
Argentina Australia New Zealand South Africa Uruguay	34.91 67.58 19.26 38.81 10.47	39.02 79.78 22.70 39.40 10.43	34.81 69.50 25.84 30.51 12.01	32.60 73.50 22.94 31.74 9.57	34.51 78.98 23.17 40.70 8.00		
<u>Total: 5 Producers</u>	171.03	191.33	172.67	170.35	185.36		
U.K. Belgium France Italy Japan	513.95 70.88 378.21 360.69 373.89	506.42 70.99 336.14 330.26 399.61	508.86 84.58 399.30 478.49 387.10	501.34 68.58 323.17 462.16 385.48	534.18 92.69 356.16 439.19 380.60		
<u> Total: 5 W.T. Exporters</u>	1697.62	1643.42	1858.33	1740.73	1802.82		
West Germany Netherlands Canada Sweden	422.96 91.24 76.65 54.52	428.39 81.89 77.28 51.71	404.35 81.60 75.02 50.84	329.16 62.25 64.14 53.98	394.51 57.26 68.81 43.11		
Total: 4 W.T. Importers	645.75	639.27	611.81	509.53	563.69		
Austria Denmark Finland Ireland Norway Switzerland Greece	40.54 32.69 23.27 20.82 23.29 43.04 26.12	38.92 35.01 21.36 18.00 20.07 45.13 29.34	41.63 33.14 23.24 21.46 24.95 45.79 41.78	31.30 25.83 23.46 23.61 25.61 46.40 37.91	33.15 22.43 21.92 29.18 22.79 46.23 26.00		
Total: 7 W. Europe	209.77	207.83	231.99	214.12	201.70		
<u>Total: 21</u>	2724.79	2681.85	2874.80	2634.73	2753.57		
<u>U.S.A.</u>	909.94	1052.18	950.66	852.37	928.49		
<u>Total: 22</u>	3626.73	3734.03	3825.46	3487.10	3682.06		

TABLE IX : WOOL TEXTILES INCLUDING OTHER FIBRES AVAILABLE FOR CONSUMPTION (mn.lbs. fibre content)

IX. PER CAPITA AVAILABILITY OF WOOL-TYPE TEXTILES

The figures of Table IX, after division by population in each country, give the wool-type textiles available for consumption per capita set out in Table X and graphed in Figure 11.

Of salient importance here is the fact that while most groups of countries show a slowly rising trend (with very marked cycles) in per capita availability, the trend in the five raw wool producing countries has been consistently downwards with much the same pattern as that shown in the United States - possibly due to the high levels of protection afforded wool textile industries, and therefore higher prices charged for wool textiles, in these countries.

Per capita availability of wool-type textiles in all countries is increasing again after the sharp decline in 1967 but has still not reached its former 1966 level.

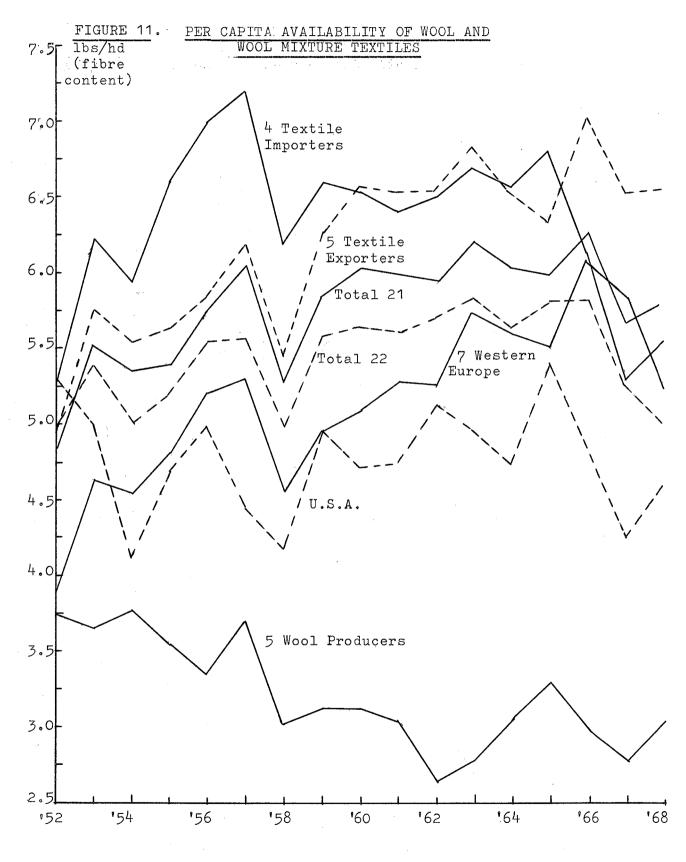


TABLE X : PER CAPITA AVAILABILITY OF WOOL TEXTILES INCLUDING FIBRES OTHER THAN VIRGIN WOOL (Fibre content, lbs. per head)

(Fibre co:	ntent, lb	s. per he	ead)		**
	1964	1965	<u>1966</u>	<u>1967</u>	*Provisional <u>1968</u> *
Argentina Australia New Zealand South Africa Uruguay	1.59 6.08 7.42 2.22 3.90	1.75 7.04 7.46 2.15 3.84	1.52 5.99 9.66 1.67 4.37	1.40 6.22 8.42 1.69 3.44	1.46 6.56 8.42 2.12 2.84
Total: 5 Producers	3.06	3.29	2.96	2.79	3.07
U.K. Belgium France Italy Japan	9.51 7.56 7.81 7.06 3.86	9.63 7.50 6.85 6.40 4.07	9.30 8.88 8.12 9.20 3.92	9.10 7.16 6.52 8.83 3.86	9.66 9.64 7.13 8.33 3.76
Total: 5 W.T. Exporters	6.53	6.33	7.03	6.53	6.56
West Germany Netherlands Canada Sweden	7.14 7.52 3.98 7.12	7.81 6.66 3.89 6.69	6.78 6.55 3.74 6.65	5.50 4.94 3.14 6.86	6.56 4.49 3.31 5.49
<u>Total: 4 W.T. Importers</u>	6.56	6.80	6.12	5.06	5.55
Austria Denmark Finland Ireland Norway Switzerland Greece	5.62 6.93 5.08 7.27 6.30 7.33 3.07	5.36 7.36 4.63 6.37 5.39 7.59 3.43	5.71 6.91 5.01 7.44 6.65 7.63 4.85	4.27 5.34 5.03 8.14 6.77 7.64 4.35	4.51 4.60 4.68 10.03 5.97 7.52 2.95
Total: 7 W. Europe	5.60	5.51	6.11	5.59	5.23
<u>Total: 21</u>	6.03	5.98	6.24	5.67	5.87
<u>U.S.A.</u>	4.74	5.41	4.83	4.28	4.62
Total: 22	5.74	5.81	5.82	5.25	5.49

X. ANNUAL CHANGES IN THE SOURCES AND USES OF WOOL FROM 1952 TO 1968

We can broadly summarise the trends shown in the preceding tables and charts by setting down the changes each year from 1952 to 1968 in the 21 Country Group.

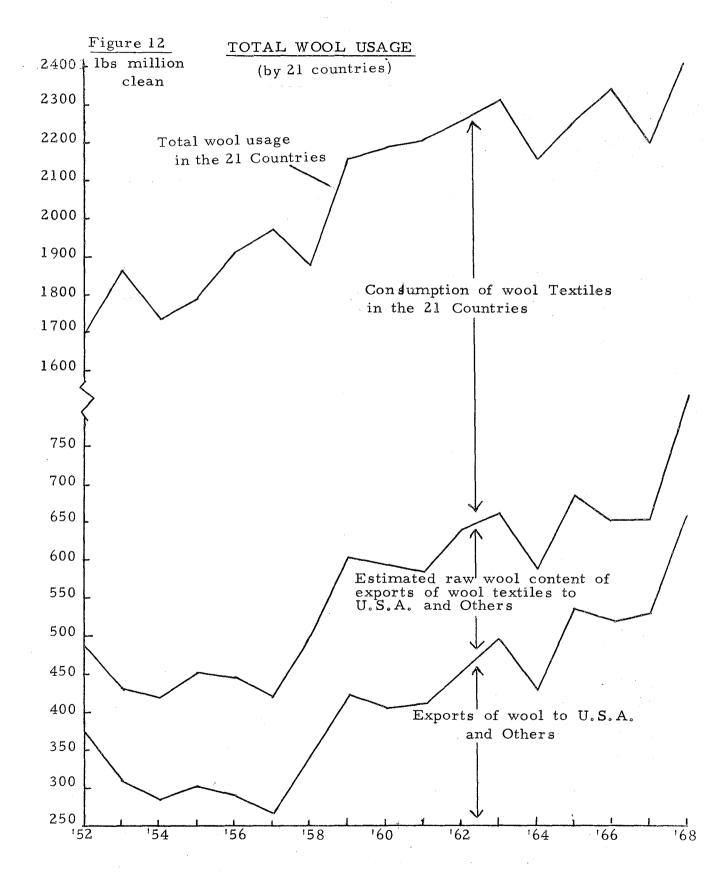
Table XI shows for each year over the period 1952 to 1968, the sources of wool supplies in the 21 Country Group, and the way in which these supplies were used as between <u>virgin wool</u> content of textile consumption in 21 countries, exports of raw wool and of wool textiles, and in between each year the change in these variables is shown.

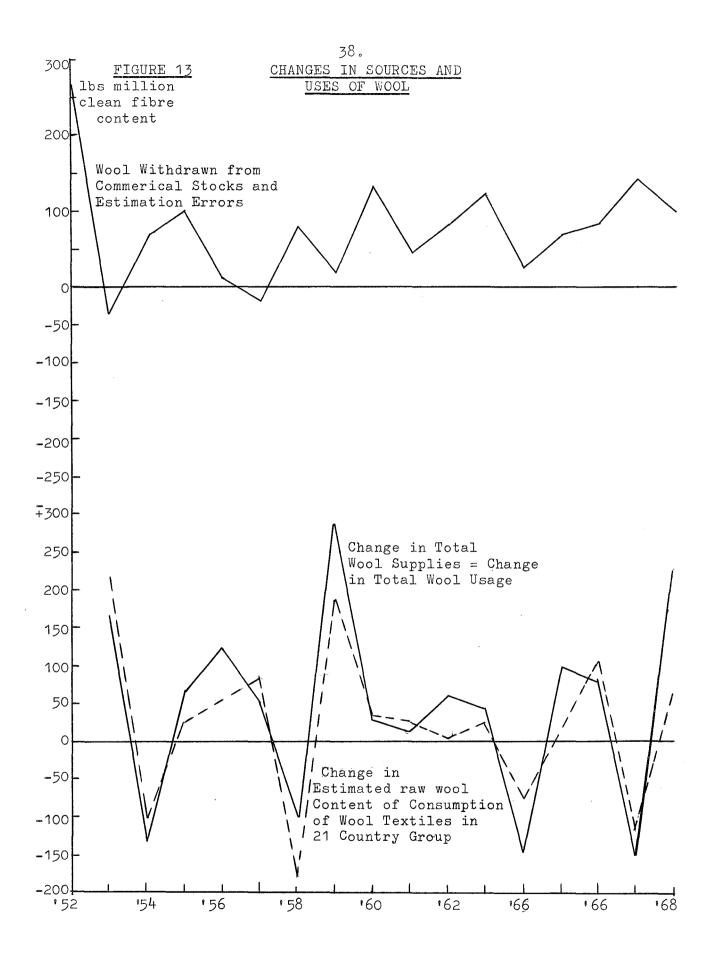
Figure 12 shows the same information in graphical form and highlights the preponderant influence of wool textile consumption in the 21 Country Group, together with the steady upward trend in exports of wool and wool textiles to non group countries.

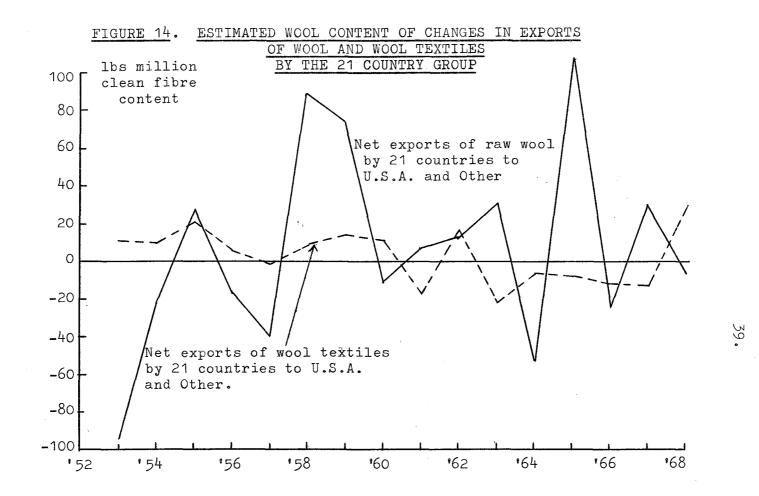
A more detailed picture of the annual fluctuation in the uses of wool over the period is shown in Figures 13 and 14.

TABLE XI : CHANGES IN SCURCES & USES OF WOOL (millions of lbs, clean)

	1963 Change	1964 Change	1965 Change	1966 Change	1967 Change	<u>1968</u>
Sources of Wool: Wool from production, imports & supply stocks	2182 - 45	2137 + 50	2187 + 67	2254 -212	2042 +273	2315
Wool withdrawn from Comm. Stocks & Est. Errors	124 -103	21 + 49	70 + 16	86 + 59	145 - 43	102
Total Wool Supplies	2306 -148	2158 + 99	2257 + 83	2340 -153	2187 +230	2417
Uses of Wool Supplies: Exports of Wool to U.S.A. Exports of Wool to other Countries	236 - 59 259 - 8	177 + 79 251 + 27	256 + 3 278 - 18	259 - 63 260 + 73	196 + 1 <i>3</i> 333 +121	209 454
Estimated Raw Wool Content of: 1. Net Exports of Wool textiles to U.S.A. 2. Net Exports of wool textiles	71 - 12 95 + 6	59 + 7 101 - 15	66 + 1 86 - 13	67 - 12 73 - 1	55 + 1 72 + 29	56 101
to Other Countries 3. Consumption of wool textiles in 21 Countries	95 + 8 1646 - 76	1570 + 2	1572 +109	1681 -139	1542 + 67	1609
Errors Unaccounted for	- 1 - 1	1	- 1 + 1	11	- 11 + 1	- 12
Total Wool Usage	2306 -148	2158 + 99	2257 + 83	2340 -153	2187 +230	2417







BIBLIOGRAPHY

- 1. AMERICAN CARPET INSTITUTE INC. Basic Facts About the Carpet and Rug Indunstry. N.Y.
- 2. COMMONWEALTH ECONOMIC COMMITTEE. Wool Intelligence. London.
- 3. FOOD AND AGRICULTURAL ORGANIZATION OF THE UNITED NATIONS. Monthly Bulletin of Agricultural Economics and Statistics. Rome.
- FOOD AND AGRICULTURAL ORGANIZATION OF THE UNITED NATIONS.
 1968. Per Caput Fiber Consumption in Selected Countries, 1960-1966. Commodity Series: Bulletin. Rome.
- 5. FOOD AND AGRICULTURAL ORGANIZATION OF THE UNITED NATIONS. Production Yearbook. Rome.
- 6. INTERNATIONAL WOOL SECRETARIATE & WOOL BUREAU INC. World Wool Digest. London; N.Y.
- 7. ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT. Commodity Trade. Statistical Bulletin Foreign Trade Series C. Paris.
- 8. UNITED NATIONS. STATISTICAL OFFICE. Commodity Trade Statistics. Statistical Papers. Series D. N.Y.
- 9. UNITED NATIONS. STATISTICAL OFFICE. Monthly Bulletin of Statistics. N.Y.
- 10. UNITED STATES. DEPARTMENT OF AGRICULTURE. Wool Situation. Washington.