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Sugar

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GOVERNMENT REGULATION OF
SUGAR IN WORLD WAR II

By

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Government Regulation of Sugar in World War II

Conclusions

1. During the war period less sugar was made available to the United States than during the immediately preceding pre-war years. Governmental regulatory bodies have not attempted effectively to increase the production of sugar in this country, and in our island possessions. The decrease in supplies was not as much as it might have been because of increased output in Cuba.

2. The establishment of a price ceiling for sugar in a situation characterized by a decreasing supply and an increasing demand resulted in a rationing program to reduce consumption. This rationing program was simple enough to be effectively administered, and was fair to consumers in that it treated them all equally. It accomplished its purpose of keeping requirements in balance with supplies.

3. The situation in 1944 is such that the present allocation of sugar can be at least continued and possibly increased. This is a real achievement when it is considered that it has been done in a period of war during such a relatively short space of time.

Government Regulation of Sugar in World War II

Introduction

Sugar is a basic food commodity which is sold in large volume at a relatively low price. It is perhaps for this reason that governments all over the world have made it their business to promote the home production of sugar by subsidy and by tariff and also by the regulation of exports and imports. That these measures had a tendency to raise the price of the product to the public without violent objection on its part is evidence of a public feeling, rightly or wrongly, that the cost of the governmental intervention was worth the price.

Our own country has been no exception to this general policy. For years we have had a tariff on sugar imports, and in 1934 the passage of the Jones-Costigan Act and the Sugar Act of 1937 resulted in a program of governmental control of the commodity that would not have been dreamed of even a few years before. This program was not designed to make the United States self-sufficient so far as sugar was concerned. Its primary purpose was to limit supplies of sugar to current needs and to set a price which was considered "fair" to both producer and consumer. To accomplish these ends the production of our suppliers was drastically reduced in some cases, and a period of stability in production was substituted for a preceding period of annual increase.

Upon the outbreak of war in December, 1941 it was natural that this governmental control of sugar would be intensified. Sugar was the first commodity to be subject to rationing by government. The problems involved in an immediate drastic reduction

of supplies and an increase in demand that always accompanies a period of war were very much the opposite of those faced in the preceding period of regulation. To complicate the situation further, sugar was needed not only as a food but also as a basic raw material for the production of alcohol.

It is the purpose of this report to discuss the sugar situation during the war period and to evaluate in general terms the situation in 1944.

Production

As was stated previously, governmental control in the late 1930's had been directed toward the stabilization of production on the part of our usual suppliers. Chart 1 presents annually the production¹ of those areas normally supplying sugar to the United States. An examination of this chart makes it apparent that production through the years 1936 to 1941 fluctuated about a level of 8 million raw tons. Output during the period 1935 to date reached a peak in 1938 and declined rather steadily until 1941 to a level one million tons below the peak figure. Governmental control, then, had been successful in the limitation of production during the immediate pre-war period. Production in 1942 (largely grindings from the crop in 1941) was slightly above that in 1941, but in 1943 declined very sharply to a level below 7 million tons, the smallest output in many years. Estimated output in 1944, largely because of a sharply increased crop in Cuba, has risen 850 thousand tons above the 1943 figure.

An analysis of production by areas of supply does much to explain the fluctuations in total output. Production on the part of the United States and its possessions (Chart 1) was also stabilized in the period 1936-1941, fell off sharply in 1942 with the cutting off of the Philippine Island production, and declined further in 1943. Estimated production in 1944 is even below that of the preceding year.

¹Production here refers wherever possible to grindings. The crops are harvested, depending on the area of supply, between September and June, and grinding, of course, follows the harvesting.

Our domestic production maintained a fairly stable level until 1942, but declined over 600 thousand tons in 1943 to a point below that reached in 1935 (Chart 2). The obvious reason for this decrease was the sharp downturn in beet production to a level obtaining in the 1920's. It is somewhat disconcerting to realize that an industry, subsidized for decades by governmental policy, should let the public down in an emergency by producing less rather than more. That such will always be the case, however, is obvious to the student of economics who recognizes that individual producers will produce those commodities at any moment of time that have the greatest profit possibilities. Without question, farmers in 1943 could produce other things more profitably than they could produce sugar beets, and they did so. The surprising thing is that government, with a record of long continued support to the industry, did not elect to increase that support in time of war. It is encouraging to note that some increase in beet output is looked for in 1944. Our mainland cane sugar producers have kept their production at a level somewhat below 500 thousand tons. Unlike the beet producers, we have had here no sharp curtailment of output. In fact, estimated volume for 1944 is at the highest level since 1939.

Sugar production from our island possessions fluctuated about a level of 3 million tons in the period 1936-1941 (Chart 3). It was to be expected that output¹ in 1942 would be reduced by approximately one million tons with the fall of the Philippines. Production declines even further, however, in 1943, and it is estimated that it will be reduced again in 1944. Production in Puerto Rico, as was true of other areas, seemed stabilized in the immediate pre-war period. Output in 1942 reached a new high record of 1148 thousand tons, and production continued in 1943 at a level above one million tons. Estimated production in 1944 is only 700 thousand tons, an output lower than that of any year back to 1929. Again, as in the

¹Output in the Philippines is that of centrifugal sugar only, and does not include relatively low grade sugars raised in the Islands but consumed domestically.

case of domestic beet production, there are reasons for this very sharp decline—lack of fertilizer, rising costs with fixed prices, shipping difficulties, etc.—but the fact remains that in an American possession, production of its major commodity has declined in a period of war. In Hawaii, production during the war years has receded to a level below 900 thousand tons, and it is estimated that production in 1944 will be only 850 thousand tons, the lowest output of any year since 1927. In these islands, it is to be noted that while production has not declined greatly, it has not increased in response to the demands of the war period.

Sugar is also produced by the Virgin Islands, but the volume is so small that it need not be considered in this discussion.

In contrast to declining production of sugar in the United States and in its possessions during the war period is the sharply increased output in Cuba (Chart 4). Here also United States Government policy was directed toward a limitation of production in the late 1930s, and this factor, along with others, was responsible for a decline in output in 1941 to the lowest level since 1934. With the advent of war, however, production was increased over one million tons from 1941 to 1942. Output declined greatly in 1943, but in 1944 it is estimated that production will reach 4200 thousand tons.¹ That production in areas normally supplying the United States is as high as it must be attributed to Cuba's efforts.

Conclusion.

The conclusion is inescapable that we as a nation which did so much in the pre-war period to limit production have done nothing since the war started to increase our own sugar output. This record is in direct contrast to that of our production of other basic food commodities, and of our production of all types of war goods. This outstanding exception in an era when production records of essential goods and

¹This figure is exclusive of 800 thousand tons for high test molasses to be used in the production of alcohol. Incidentally, some current estimates of the 1944 output run as high as 5600 thousand tons inclusive of the high test molasses. The figure in the text above is considered conservative.

commodities have consistently broken old high records must be ascribed to governmental policy. What the reasons are for such a policy is not clear. It may be that the philosophy of limitation so vigorously propounded by government in the pre-war period is still so strong that producers have not yet been able to change their point of view or that they fear the post-war aftermath and prefer not to make a change; but government has conquered in the production of other goods where such feelings on the part of producers have existed. Some students of the problem state that government has deliberately fostered a policy of reduction in sugar output on the basis that sugar was not an essential food. Still other students claim that the subsidy program is not sufficient to increase supplies in the face of rising costs of output and price ceilings. These reasons may or may not be valid; their validity or non-validity is beyond the bounds of this discussion. The fact remains that government has decided to give us a reduced output of sugar in time of war, and that a continuation of the former production level or an increase in that level must come from foreign sources of supply, especially Cuba.

Receipts

Not all sugar produced in our island possessions and in Cuba comes into the United States. These areas consume some of their own production and they may also export to countries other than our own. Further, in time of war, shipping generally becomes scarce, and there is a lack of shipping bottoms to transport sugar from outlying areas to the United States. This fact becomes very apparent upon an examination of Chart 5, where may be noted the sharp decrease in receipts in 1942 to a level even below that of 1935. Production in 1942, it will be remembered, was greater than in 1941 (Chart 1).

In general, receipts of sugar from areas of supply fluctuate in about the same way as production. Exceptions occur, of course, when countries decrease or increase

their stocks, and a striking example of this is seen in 1941 when receipts reached a level slightly below 8 million tons as compared with a normal level of about 7 million tons. With receipts in such large volume we were in a good position relatively at the start of the war. Following the sharp decline in 1942, there was an increase to approximately 6500 thousand tons in 1943, and with some increase in production in 1944 it is likely that receipts will rise also this year.

As was true of production, receipts from the United States and its possessions have decreased even during the war period. An analysis of receipts from our island possessions showing the movements in detail may be seen in Chart 6. That total receipts increased in 1943 can be ascribed to the increased receipts from Cuba (Chart 7). Receipts from that island during the late 1930's had fluctuated about a level slightly less than two million tons, but rose in 1941 to almost three million tons. The shipping problem in 1942 reduced receipts sharply, but in 1943 they increased very substantially to a level above three million tons, and it is estimated that they will exceed four million tons in 1944.

Receipts from countries other than Cuba have fluctuated widely about a level of 100 thousand tons. Receipts in 1941 prior to the outbreak of the war were very large (Chart 8), and, because of the shipping situation, declined drastically in 1942. In 1943 receipts were somewhat above 100 thousand tons, but not much increase in this figure can be expected with price ceilings for the product and increased shipping charges.

Conclusion.

As is to be expected, the conclusion from the analysis of receipts is exactly the same as that drawn from the analysis of production data. Receipts from our own country and our possessions have declined because of our production policy. A continuation of the former receipts level or an increase in that level must come from foreign sources, especially Cuba.

Deliveries

Deliveries of sugar to consumers were kept at a very stable level during the period 1935 through 1938 (Chart 9). The fact that receipts of sugar during the same period rose substantially meant that we had a building up of stocks of sugar. In 1939 deliveries increased somewhat to 7 million tons, rose again slightly in 1940, and advanced sharply to over 8 million tons in 1941 when consumers undoubtedly built up their own stocks to a point that might allow them to continue using sugar in the future despite an expected future decrease in supplies. Deliveries declined drastically in 1942, but in 1943 rose again to a level that slightly exceeded that obtaining in the period 1935-1938. Annual deliveries in the period 1941-1943 averaged 100 thousand tons above those of the pre-war period, but this high level of deliveries in the face of lower receipts was made possible only by a decline in stocks.

Deliveries of sugar received from the United States and its possessions decreased in 1943, and are expected to decrease further in 1944. Deliveries by domestic beet producers declined in 1942 and 1943 more than those from mainland cane producers increased (Chart 10). The deliveries from output of our island possessions which had remained fairly stable in the period 1935-1941 fell sharply in 1942 with the partial cessation of deliveries of Philippine sugar and declined further in 1943 (Chart 11). Puerto Rico deliveries in 1943 fell to a point below that obtaining in the period since 1935, and will undoubtedly decline further in 1944. Deliveries based on Cuban sugar, which declined in the period 1935-1939, increased sharply in the years 1940 and 1941, and following the sharp decline in 1942 advanced to a very high level in 1943 (Chart 12). Deliveries from other foreign countries fluctuated greatly over the period 1935 to date, but the level in 1942 and 1943 was considerably above the recent low point reached in 1939 (Chart 13).

Conclusion.

Deliveries of sugar by producers, despite sharp fluctuations in the war period, have held up fairly well at the level existing in the immediate pre-war period. This was accomplished by increased deliveries of foreign sugars and by a reduction of stocks on hand.

Consumption

It is obvious from the above discussion that government intended to do very little to increase output from our own sources of supply, and that any increase in receipts was to come primarily from Cuba. With a limited supply policy in operation and with an increasing demand for sugar that always occurs in war time, we were faced with a situation that would result normally in advancing prices for sugar. War time policy has been directed, however, to a stabilized price level so far as it can be achieved, and the establishment of price ceilings for sugar made necessary the rationing of sugar. In other words, governmental authorities elected to control consumption in the face of an increased demand that they did not want to meet by encouraging an increased supply.

With this type of policy it was necessary to make the rationing program flexible to allow for any difficulties that might occur because of shipping problems, sudden changes in demand on the part of our armed forces or of our allies, or because of needs for sugar for other war purposes than those of food. A coupon system was instituted for consumers that has changed somewhat since it was put into effect in May, 1942, and allotments to industrial users and to institutional users were based on a percentage of consumption in the months of 1941; these allotments have also changed over the war period. Special allotments have been given to domestic consumers for canning purposes and to some industrial users, but as is consistent with good administrative policy an attempt was made to keep the rationing program simple

and uniform. The effects of rationing on consumption may be noted from the following table:

ESTIMATED UNITED STATES SUGAR CONSUMPTION, 1941 and 1943 1/

(Unit: 1,000 short tons, raw value)

	1941	1943 <u>2/</u>	<u>1943</u> 1941(%)
Home use	4,472 <u>3/</u>	1,656	67
Home canning	<u>3/</u>	850	
Institutional (including restaurants)	<u>3/</u>	480	
Wholesalers & retailers inventory	0	205	
Armed forces	130	804	618
Lend-Lease & other exports	70	450	643
Industrial use			
Baking	688	541	79
Beverages	388	292	75
Extracts & Syrups	288	217	75
Confections	662	512	77
Canned fruit & vegetables	205	173	84
Preserves, Jams, etc.	125	158	126
Pickled fruit & vegetables	55	43	78
Salad dressing	32	24	75
Dairy	85	59	69
Ice Cream	151	113	75
Meat Packing	27	37	137
Tobacco	20	16	80
Grain mill products	27	23	85
Drugs & medicines	25	21	84
Miscellaneous	50	53	106
Population shifts	-	89	-
Corn sugar replacement	-	110	-
Total - Industrial use	<u>2,828</u>	<u>2,481</u>	<u>88</u>
TOTAL - Estimated Sugar Consumption	<u>7,500</u>	<u>6,927</u>	<u>92</u>

1/ Based on OPA data. Consumption for 1942 not shown because no comparable information is available for first 3 months.

2/ Includes an estimated recovery of 137,000 tons from frozen stocks and 74,000 tons non-civilian provisional use.

3/ Home use, home canning and institutional use combined.

Of the most importance is the fact that rationing did decrease total consumption, from 7500 thousand tons in 1941 to 6927 thousand tons in 1943, a decline of 8 per cent. As was to be expected, not all categories showed the same decline in consumption. Sugar for direct use by the individual in the home, for home canning, and for institutions and restaurants declined approximately one-third in 1943 from 1941. Industrial use of sugar, which includes sugar used in the production of goods for war purposes, declined 12 per cent, but it must be remembered that such use results in goods for the ultimate consumer, so that his use actually was not cut by as much as one-third. Use of sugar for war purposes, of course, increased sharply.

It is to be presumed that the amount of sugar made available for war purposes was adequate to meet war needs. The differences in the reductions in other categories raises the question as to whether the rationing program as carried out in 1943 is sound.

Objection has been raised in some quarters to the ration for home canning. It is contended that the allowance for this purpose is too large, and that sugar used in this connection could be better used in other ways. In 1943 there was made available to individuals through ration stamps 10 pounds of sugar for home canning. In addition to this allotment persons could apply to their local ration boards for an additional amount of sugar not to exceed 15 pounds per person. According to the American Institute of Public Opinion which made a survey of home canning in 1943, 75 per cent of the persons interviewed did some home canning in this year. On the assumption that all people who canned used a full allotment of sugar, there would be consumed for this purpose 1254 thousand raw tons. The survey also states, however, that of the amount canned 46 per cent was vegetables, and these latter do not require much sugar. Use of this figure applied to 1254 thousand tons results in a

use of sugar for home canning purposes of 677 thousand tons. The actual use may well be less than this since not all persons canned the maximum amount possible.

The above estimate is admittedly rough, but if its approximate accuracy is accepted along with the estimate in the table there has been allocated to the public 175 to 200 thousand tons of sugar for a purpose for which it was not used. This amount is large when compared with industrial usage, for example. When compared with total consumption for the year it amounts to 3 per cent only. More important still, when the sugar for home canning is combined with that for home use, institutional consumption, and restaurant consumption, the amount consumed in 1943 is only 67 per cent of that consumed in 1941. That there may be a "leak", in the allocation for home canning may be admitted. That the "leak" is serious when looked at from an overall civilian standpoint is to be doubted. It would appear that the government rationing program in this respect, so simple both from the point of view of administration and of the public, has been eminently successful in accomplishing its purpose with a minimum of friction or of waste.

Reductions in industrial categories were not uniform. Analysis of changes here are difficult as the consumption data include amounts used under special order for war purposes. This latter point is to be noted particularly in those industries which used more sugar in 1943 than in 1941, but the same point can be made with respect to other industries in the industrial classification. Taking the figures as a whole it seems apparent that the allocation procedure of applying the same percentage of 1941 consumption to all industries has worked out fairly consistently.

The effects of the allocation policy on sugar consumption of some of the leading users of sugar for the years 1937, 1939, 1941, and 1943, years for which data

are available, may be seen in the following table:

Industrial Consumption for Sugar by Selected Industries for Selected Years

Industry	1937 (thousand raw short tons)	1939	1941	1943	1943	1943
					1937 (per cent)	1939
Bread and Bakery Products	574	614	688	541	94	88
Confectionery and related products	580	579	662	512	88	88
Canning and preserving	335	321	385	374	112	117
Flavoring extracts and syrups	179	246	288	217	121	88
Beverages	174	266	388	292	168	110

Source: "Census of Manufactures" for 1937 and 1939; OPA estimates for 1941 and 1943.

Sugar consumption in 1943 for the bakery and confectionery industries was less than that in 1937, whereas consumption for the other three was not only greater than that in 1937 but for two of them, canning and preserving and beverages, greater than in 1939.

Evidence of the above sort always raises the question as to whether any rationing policy based on a fixed period of time is fair. Different industries are at different stages of their development, some can substitute other raw materials in their production and others can not, and demands increase in war time for some products and not for others. To take into consideration all these elements a differentiated allocation policy would be necessary, and it would take the wisdom of a Solomon to arrive at the correct program. Good administration demanded a simple horizontal allocation program, and for this purpose one year was necessary as a base. Further, it was important from a business point of view that individual industries maintain their relative competitive positions, and to do this it was essential that all industries be treated alike on as recent a base period as possible. The year chosen, 1941, was a recent year, the most recent for which we had data, and it was also a year of the largest consumption on record. It was a year ideally

suited for selection both from an administrative and an industrial point of view.

Conclusion.

With no attempt made to increase production, government, with a policy of price ceilings for sugar, was forced to ration consumption in an era of expanding demands. For a rationing program to be effective it must be simple and easy to handle from the point of view of administration and must be fair to the many types of consumers. The discussion above would indicate that the government has been successful in both respects in its sugar rationing program.

Stocks of sugar on hand have decreased almost 400 thousand tons from the end of 1941 to the end of 1943. While it is true that stocks in 1941 were relatively high it is obvious that governmental authorities have not pursued a hoarding policy. It would appear that government has attempted to keep at as high a level as possible the use of sugar as a food. During the war period, however, sugar was demanded as a raw material for alcohol which was needed in great quantities for the rubber program. Other commodities also can serve as raw materials for alcohol, and in some cases supplies of these commodities are in much greater abundance relative to normal consumption than is sugar. Further, a given quantity of alcohol production will require a much larger proportion of total civilian sugar consumption than of total civilian grain consumption, for example. Under these circumstances good economic policy would require as little use as possible of a scarce food for non-food purposes when other commodities are available in relative abundance.

The Situation in 1944

Whether the present rationing program for sugar to consumers can continue throughout 1944 will depend naturally on the demands for sugar for military and lend-lease purposes on the one hand and the production and volume of sugar receipts on the other. Data pertaining to receipts and requirements must of necessity take

the form of estimates. The estimates used below are conservative -- requirements are believed to be stated in terms of the maximum amounts necessary and receipts are given in terms of the minimum amounts of sugar that may be expected to be available.

Demands for military purposes will undoubtedly be greater in 1944 than in 1943, and the increase for the lend-lease program will be even more than that for the military services. Sugar for home use should be approximately the same as last year, and the amount required by institutions and restaurants should not show much change from the volume consumed a year ago. The allocation for home canning differs slightly from what it was in 1943. In that year all ration stamp holders could receive 10 pounds of sugar for this purpose, and an amount of 15 pounds in addition upon application to their local ration boards. This year only 5 pounds can be received by the use of stamps, and an additional 20 pounds upon approval of an application to the local ration board. It will be remembered that there was undoubtedly some "leakage" of sugar because of the program in 1943. The new allocation plan may well cut down some uses of sugar designed to be used for canning purposes, but the estimate below assumes the same amount used as that of a year ago. Industrial use will undoubtedly increase somewhat with a continuation of the 80 per cent of 1941 allocation instituted in August 1943, and with additional requirements of goods for the armed services. It is also possible that some sugar will be needed for the production of alcohol, and official estimates allow for a reserve of 200 thousand tons for this purpose in addition to a diversion of 800 thousand tons of Cuban production of sugar in the form of high-test molasses. A summary of these requirements follows:

Estimated Requirements of Sugar in 1944*
(Unit: 1000 short tons raw value)

Military	934
Lend-lease	767
Home use	1656
Home canning	850
Institutions and restaurants	480
Industrial use	2551
Reserve for alcohol production	<u>200</u>
Total	7438

*Based on official government estimates.

Estimated receipts of sugar in 1944 will undoubtedly be larger than in 1943. The estimated increase in production in Cuba more than offsets the anticipated decline in total output from our own country and our island possessions, and with an improved shipping situation this increased output should result in increased receipts. The size of the Cuban receipts may well be greater than the figure listed below, and additional receipts during the course of the year may become available because of changes in governmental policy, especially as it affects the lend-lease program. A summary of these receipts follows:

Estimated Receipts of Sugar in 1944*
(Unit: 1000 short tons raw value)

Domestic Beet Mills	1200
Mainland Cane Mills	525
Puerto Rico	700
Hawaii	785
Cuba	4200
Other Imports	<u>100</u>
Total	7510

*Based on official government estimates.

Conclusion.

These estimates of requirements and receipts indicate that present consumption levels are in line with present receipts. For the first time during the war it

will not be necessary to reduce stocks of sugar on hand during the year in order to meet present rationed consumer requirements. In fact, the use of sugar for food alone could result in a large increase in stocks, or in additional allocations to consumers under the flexible rationing program. Whether this should be done is beyond the limits of this discussion. Of importance here is the fact that a degree of stability has been achieved during a period of war within a relatively short period of time.

Evanston, Ill.

August 30, 1944.

Table 1. - Production of Raw Sugar in Areas Normally Supplying
the United States: Annually, 1935-44
(Unit: 1000 short tons raw value)

	Domestic Beet	Mainland Cane	Puerto Rico	Hawaii	Philippine ¹ / Islands	Virgin Islands	Cuba	Total Excluding Cuba	Total Including Cuba
1935	1265	369	773	987	700	2	2883	4096	6979
1936	1411	428	926	1042	979	4	2904	4790	7694
1937	1364	456	996	944	1118	8	3379	4886	8265
1938	1748	548	1077	941	1055	4	3380	5373	8753
1939	1779	542	852	994	1089	6	3094	5262	8356
1940	1802	302	1019	977	1049	7	3127	5156	8283
1941	1669	420	932	947	1035	8	2734	5011	7745
1942	1677	473	1148	870	—	2	3804	4170	7974
1943	1072	460	1039	896	—	4	(p)3250	3471	6721
1944	(e)1200	(e)525	(e)700	(e)850	—	(e)4	(e)4200*	3279	7479

¹/ Production of centrifugal sugar only. Data do not include low-grade sugars not consumed in the United States.

(e) Estimate

(p) Preliminary

*Does not include 800 thousand tons for alcohol.

Sources: "The World Sugar Situation," Bureau of Agricultural Economics, United States Department of Agriculture, September, 1943; mimeographed releases for Sugar Statistics for Calendar Years, United States Department of Agriculture and War Food Administration.

Table 2. - Sugar Production in the United States and Receipts
of Sugar from Offshore Areas: Annually, 1935-44
(Unit: 1000 short tons raw value)

Year	United States	Puerto Rico	Hawaii	Philippine Islands	Virgin Islands	Cuba	Others	Sweepings	United States & Possessions	Total
1935	1634	846	966	755	3	1936	71	1	4205	6212
1936	1839	899	965	958	4	1968	70	3	4668	6706
1937	1820	903	972	977	8	2155	146	1	4681	6982
1938	2296	894	911	981	4	1945	145	1	5087	7177
1939	2321	962	905	978	6	1919	78	1	5173	7170
1940	2104	865	991	992	0	1958	56	0	4952	6966
1941	2089	936	911	846	5	2902	249	0	4787	7938
1942	2150	834	773	24	0	1842	61	1	3782	5685
1943	1532	642	866	0	3	3319	114	0	3043	6476
1944	(e)1725	(e)700	(e)785	(e)0	(e)0	(e)4200	(e)100	-	(e)3210	(e)7510

(e) Estimate

Source: Same as for Table 1. In addition, "Statistics on Receipts and Distribution of Sugar in the United States, 1934-1939," Sugar Agency, Agricultural Conservation and Adjustment Administration, United States Department of Agriculture, Statistical Bulletin No. 77.

Table 3. - Estimated Distribution, as to Source, of Recorded Deliveries in Continental United States: Annually, 1935-43
(Unit: 1000 short tons raw value)

	1935	1936	1937	1938	1939	1940	1941	1942	1943
Mainland Cane	274	420	434	423	566	444	386	408	438
Domestic Beet	1479	1365	1245	1449	1810	1552	1953	1703	1526
Total Domestic	1753	1785	1680	1872	2377	1996	2338	2111	1964
Puerto Rico	820	892	869	846	1034	837	1010	757	681
Hawaii	1014	960	959	921	876	1017	912	786	801
Philippine Islands	923	954	963	962	978	946	854	91	7
Virgin Islands	0	0	0	0	0	0	6	0	0
Total	2757	2806	2791	2729	2888	2800	2782	1634	1489
Tot. U. S. & Poss.	4510	4591	4471	4601	5265	4796	5120	3745	3453
Cuba	2195	2094	2142	1955	1652	2218	2794	1844	3240
Other Foreign Countries	48	86	133	153	83	55	226	86	116
Total	6754	6771	6746	6709	7000	7069	8140	5675	6809

Source: "The World Sugar Situation," Bureau of Agricultural Economics, United States Department of Agriculture, September, 1943, p. 28. Data for 1943 estimated by the same method as that used for preceding years.

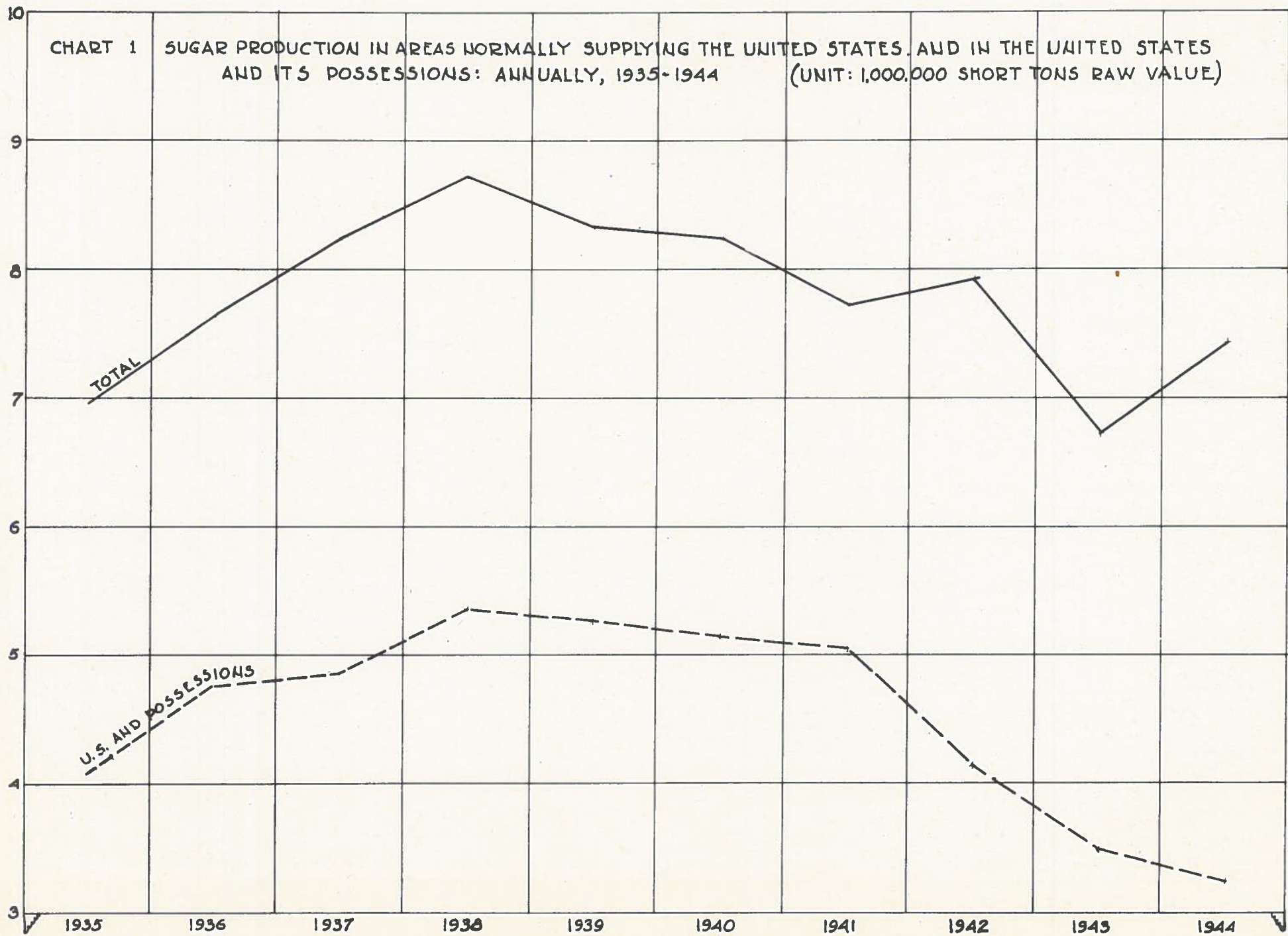
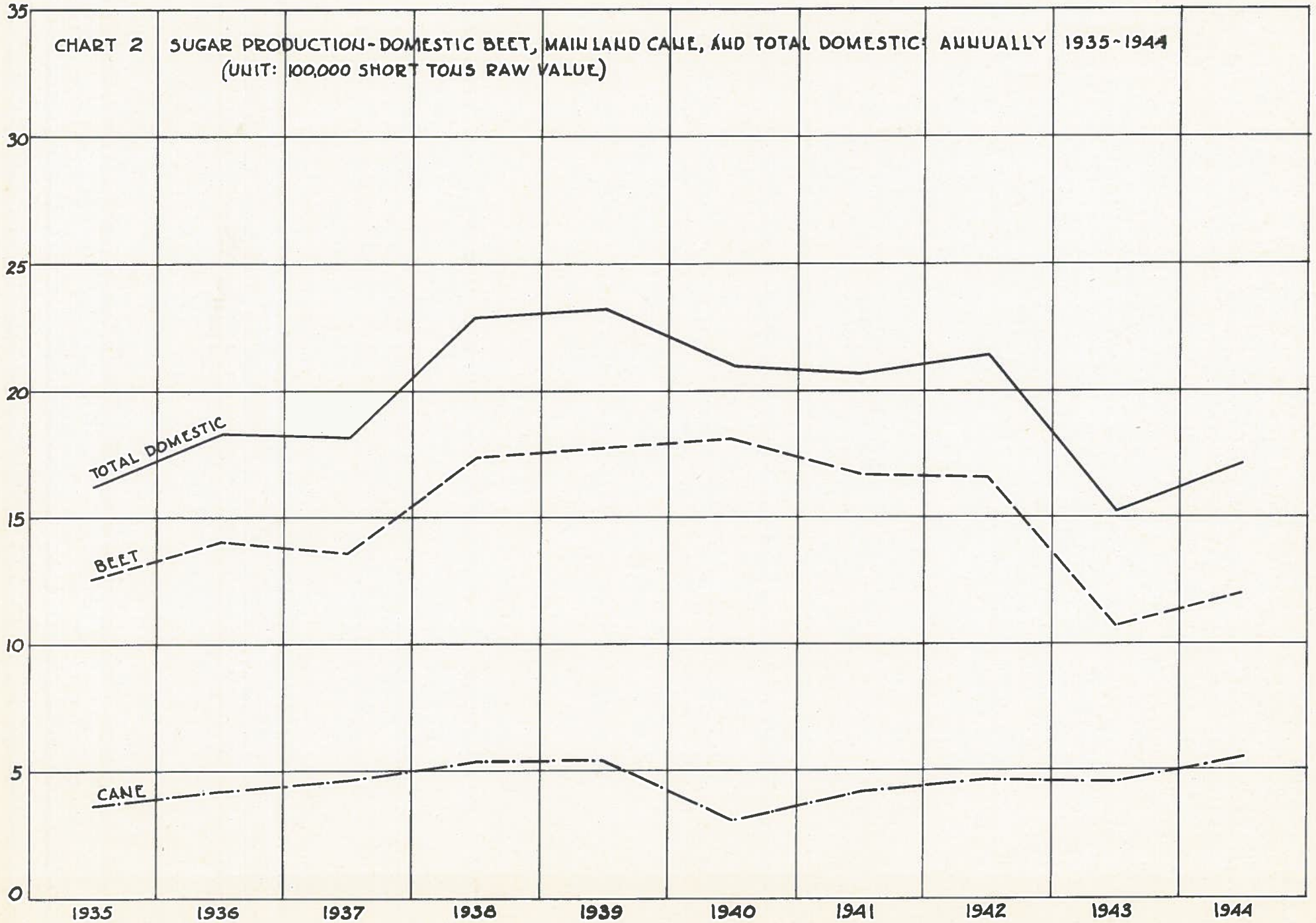
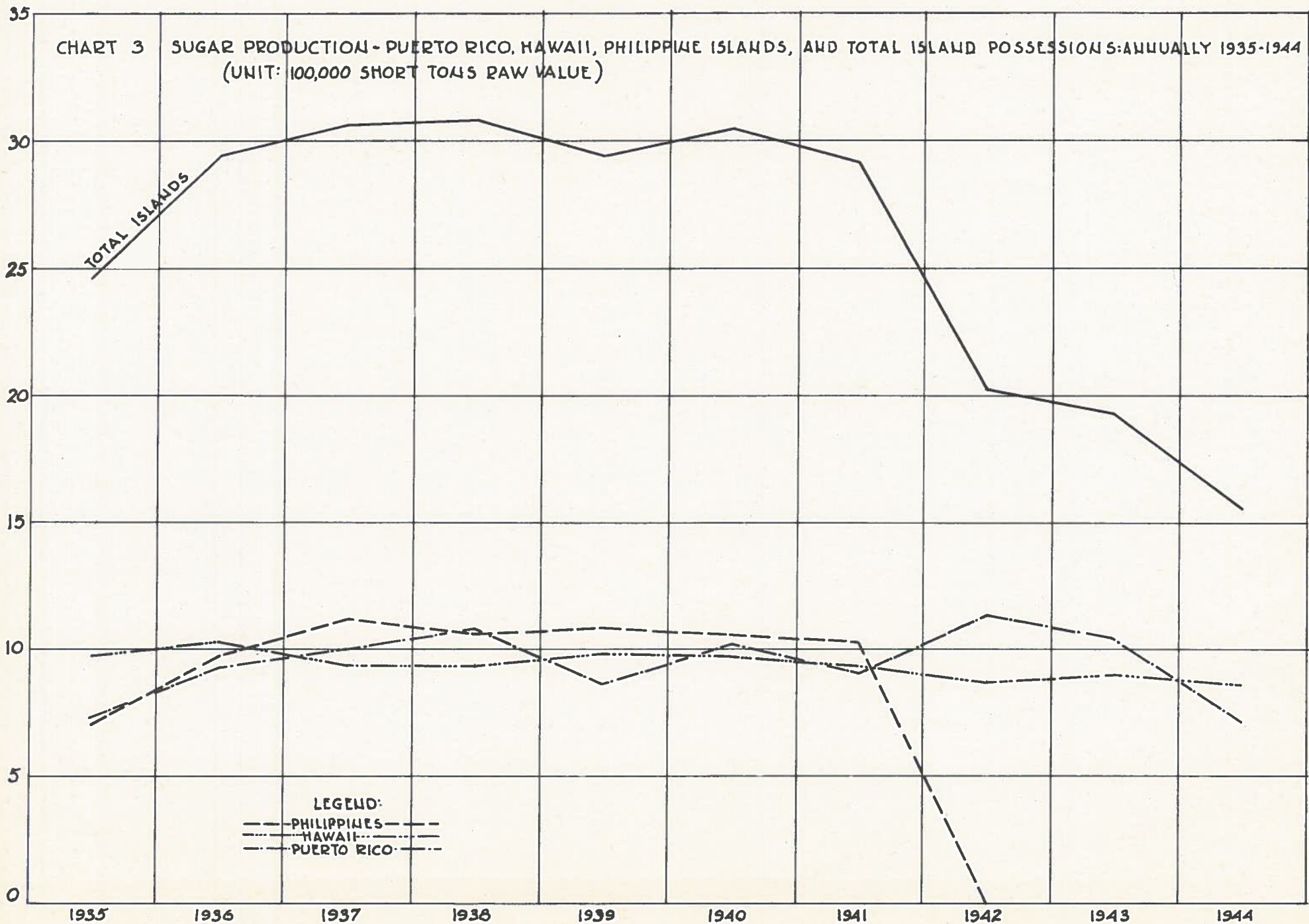


CHART 2

SUGAR PRODUCTION-DOMESTIC BEET, MAINLAND CANE, AND TOTAL DOMESTIC ANNUALLY 1935-1944
(UNIT: 100,000 SHORT TONS RAW VALUE)



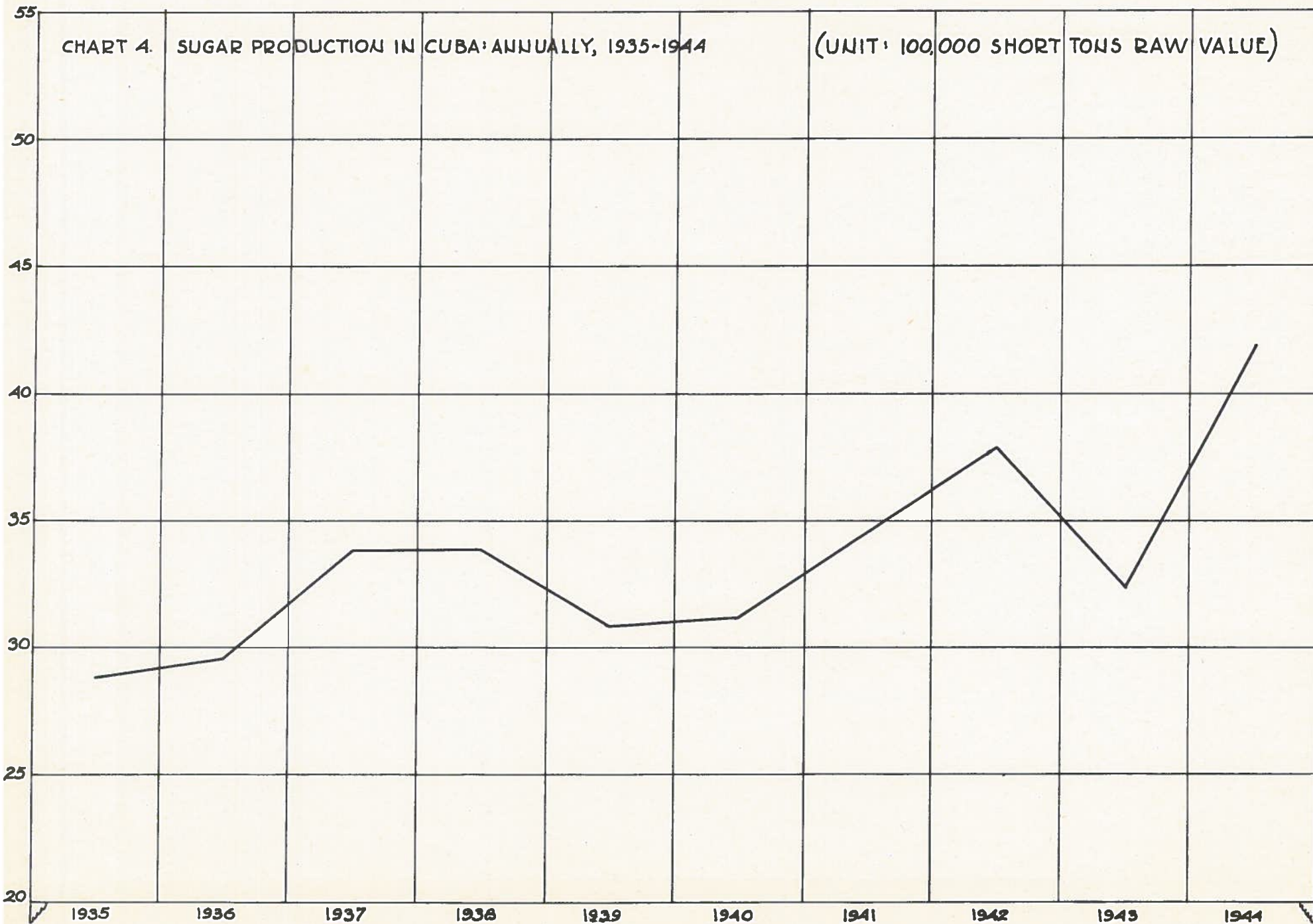
SOURCE: TABLE 1, APPENDIX.



SOURCE: TABLE 1 APPENDIX

CHART 4. SUGAR PRODUCTION IN CUBA: ANNUALLY, 1935-1944

(UNIT: 100,000 SHORT TONS RAW VALUE)



SOURCE: TABLE 1. APPENDIX.

CHART 5 SUGAR RECEIPTS FROM ALL SOURCES AND FROM THE UNITED STATES AND ITS POSSESSIONS: ANNUALLY, 1935-1943
(UNIT: 1,000,000 SHORT TONS RAW VALUE)

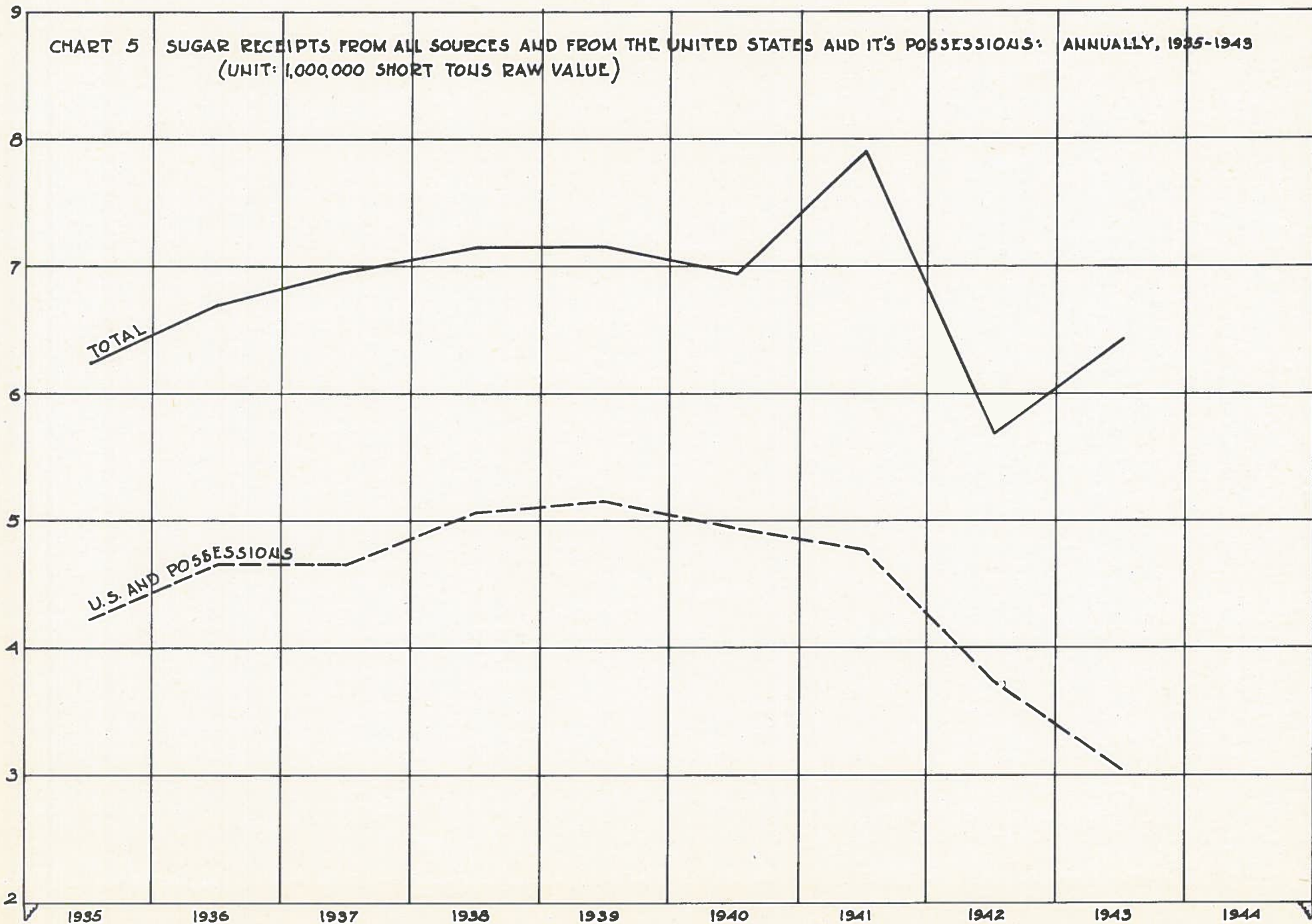


CHART 6. SUGAR RECEIPTS FROM PUERTO RICO, HAWAII, PHILIPPINE ISLANDS AND TOTAL ISLAND POSSESSIONS: ANNUALLY 1935-1943
 (UNIT: 100,000 SHORT TONS RAW VALUE)

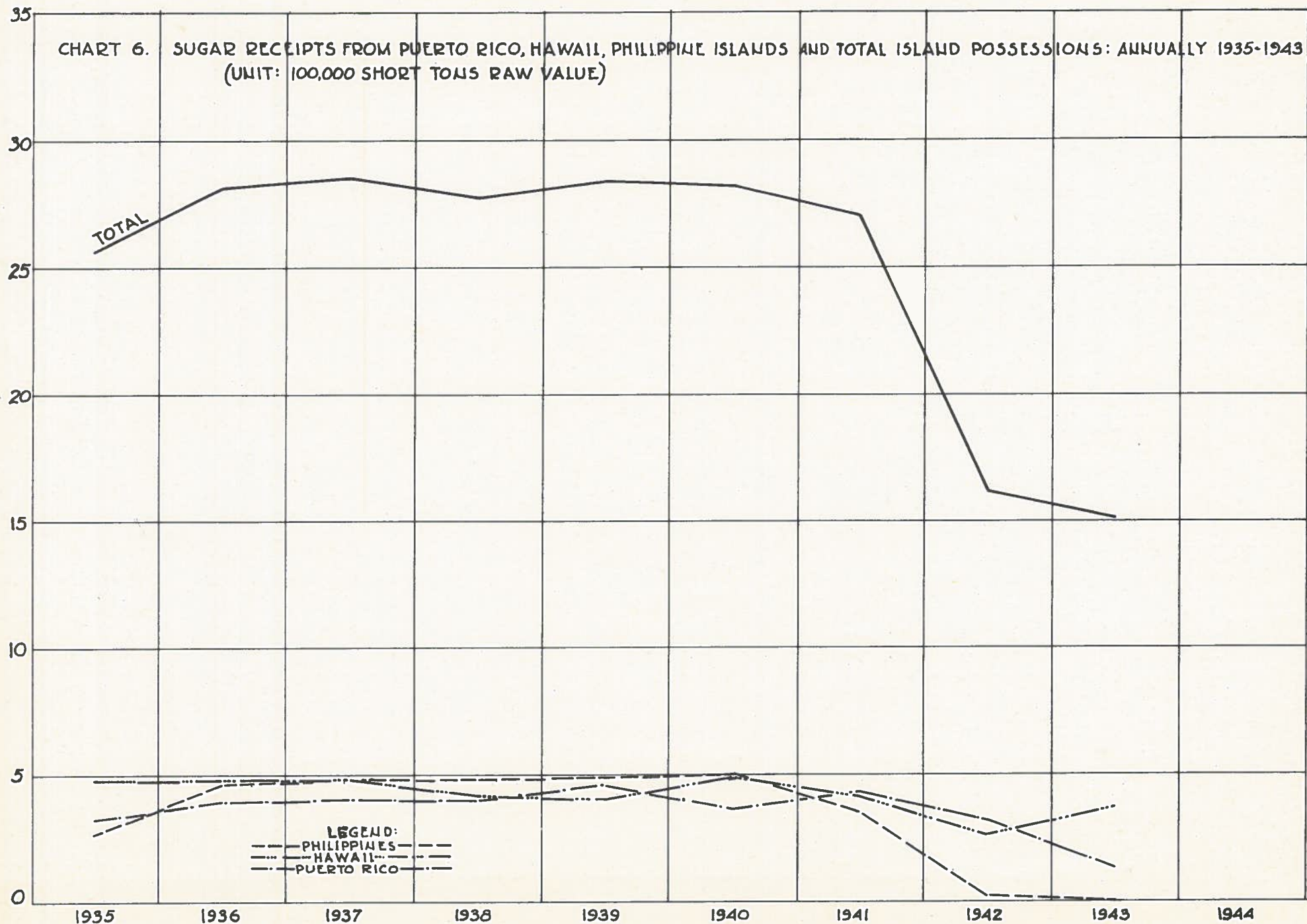
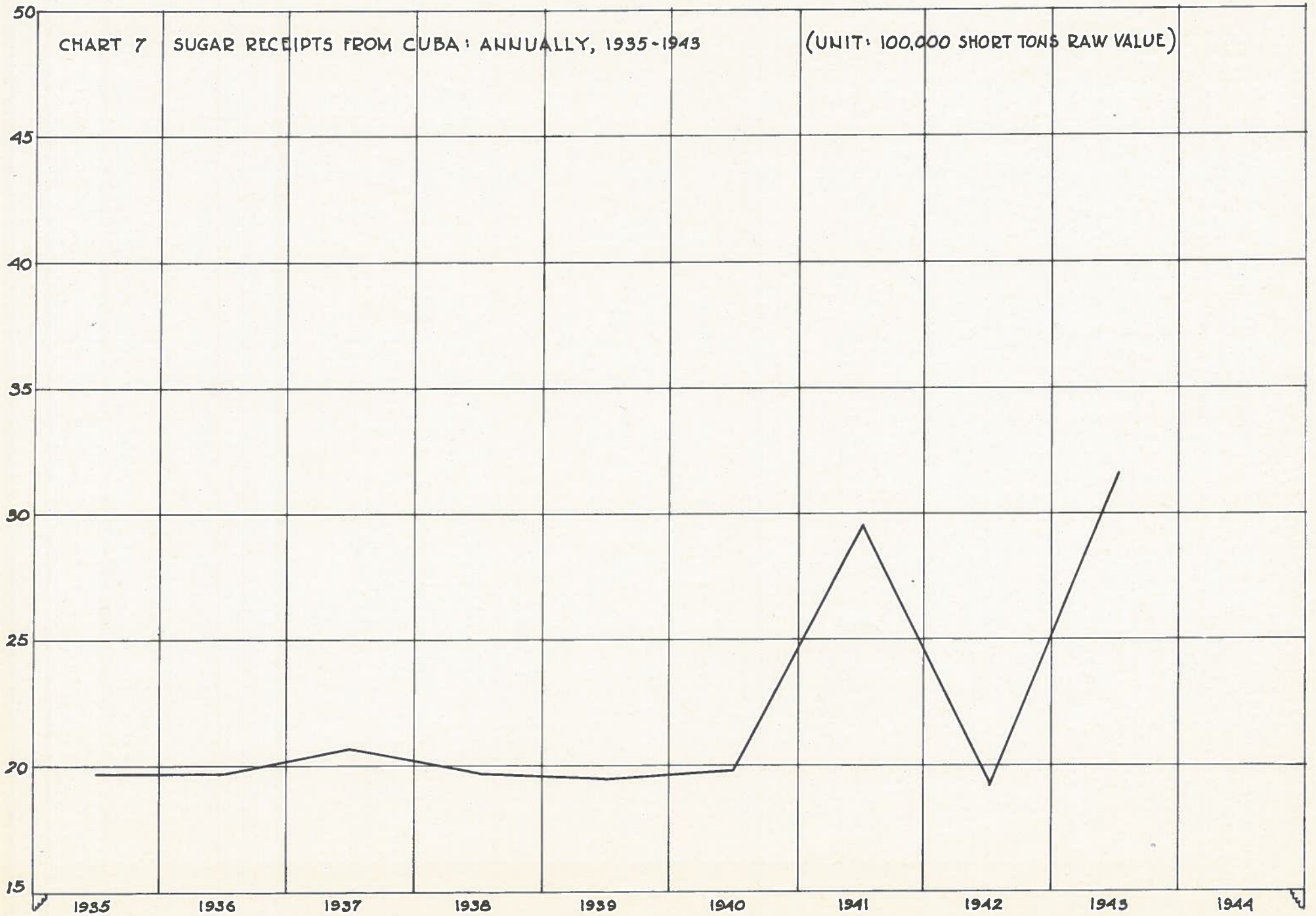


CHART 7 SUGAR RECEIPTS FROM CUBA: ANNUALLY, 1935-1943

(UNIT: 100,000 SHORT TONS RAW VALUE)



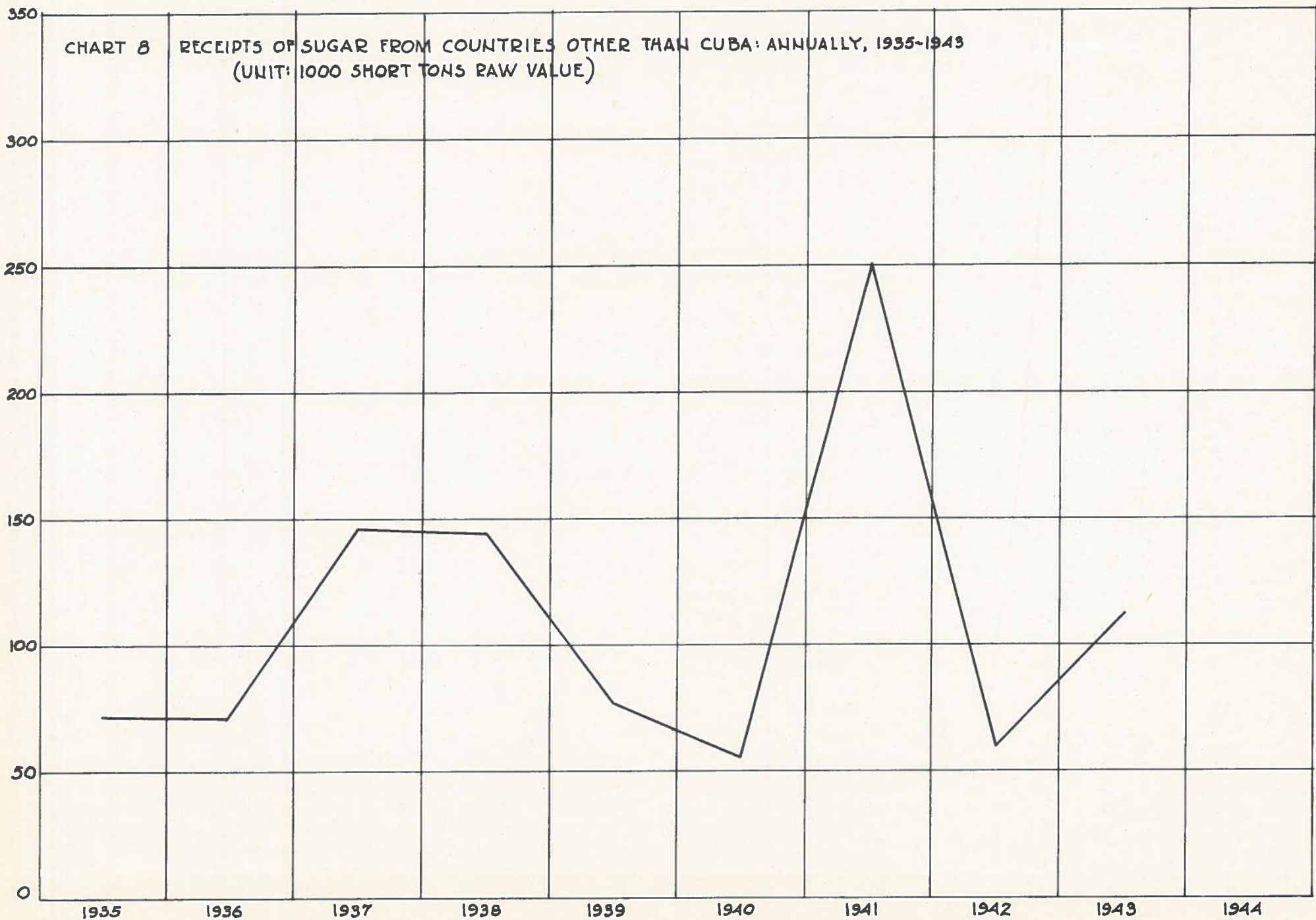
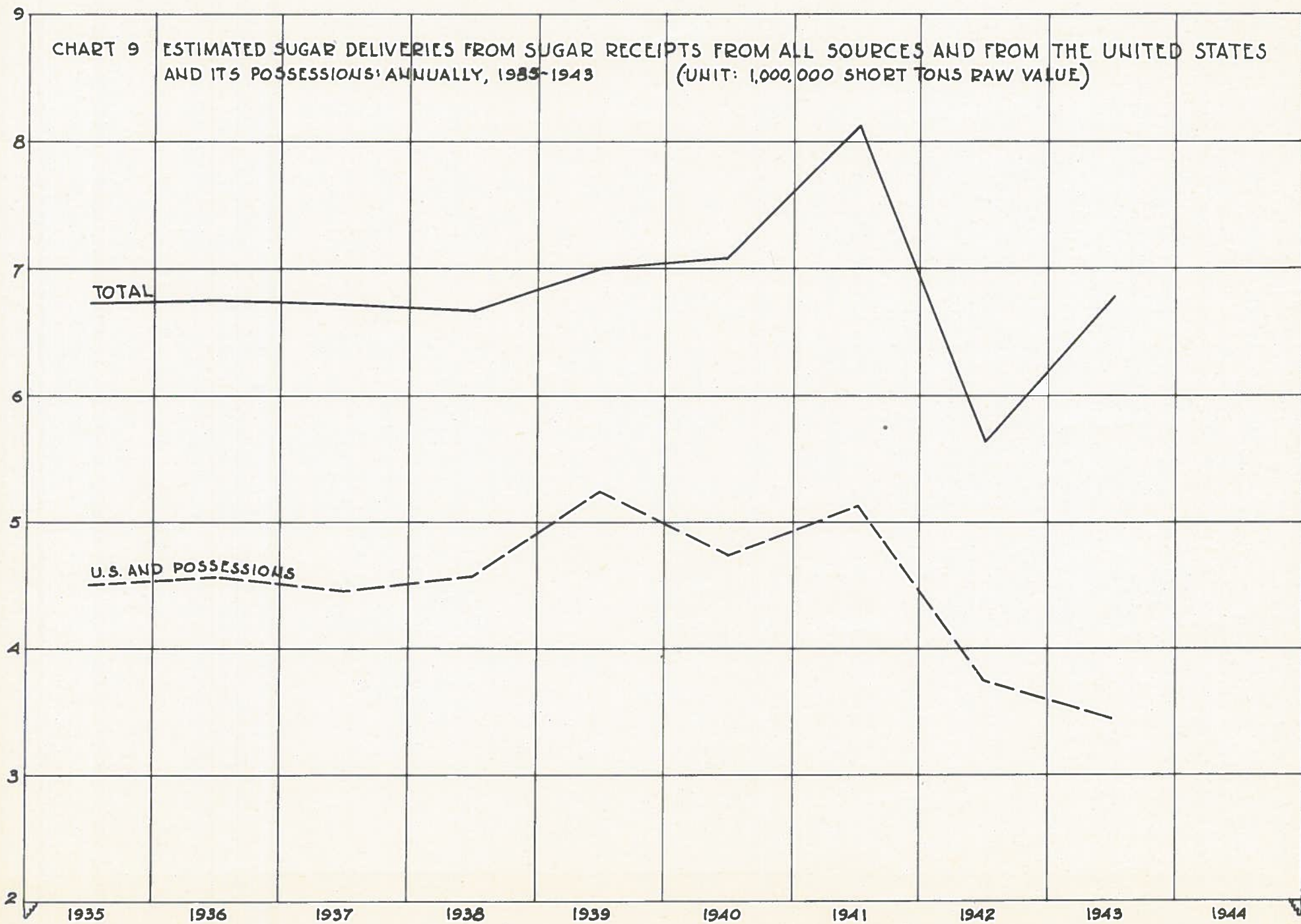


CHART 8 RECEIPTS OF SUGAR FROM COUNTRIES OTHER THAN CUBA: ANNUALLY, 1935-1943
(UNIT: 1000 SHORT TONS RAW VALUE)

SOURCE: TABLE 2 APPENDIX

CHART 9 ESTIMATED SUGAR DELIVERIES FROM SUGAR RECEIPTS FROM ALL SOURCES AND FROM THE UNITED STATES AND ITS POSSESSIONS: ANNUALLY, 1935-1943 (UNIT: 1,000,000 SHORT TONS RAW VALUE)



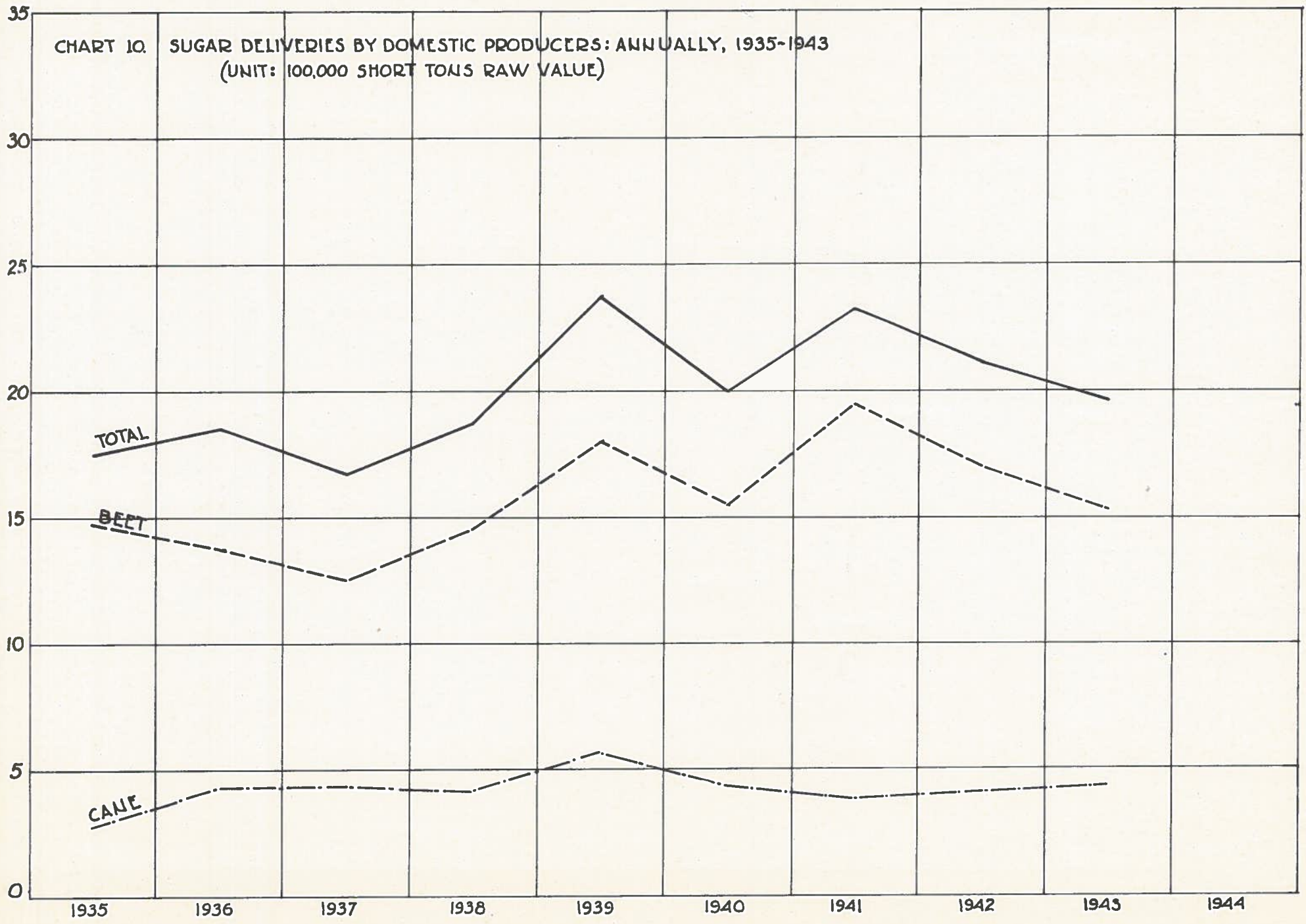


CHART 11. SUGAR DELIVERIES FROM ISLAND POSSESSIONS: ANNUALLY, 1935-1943
 (UNIT: 100,000 SHORT TONS RAW VALUE)

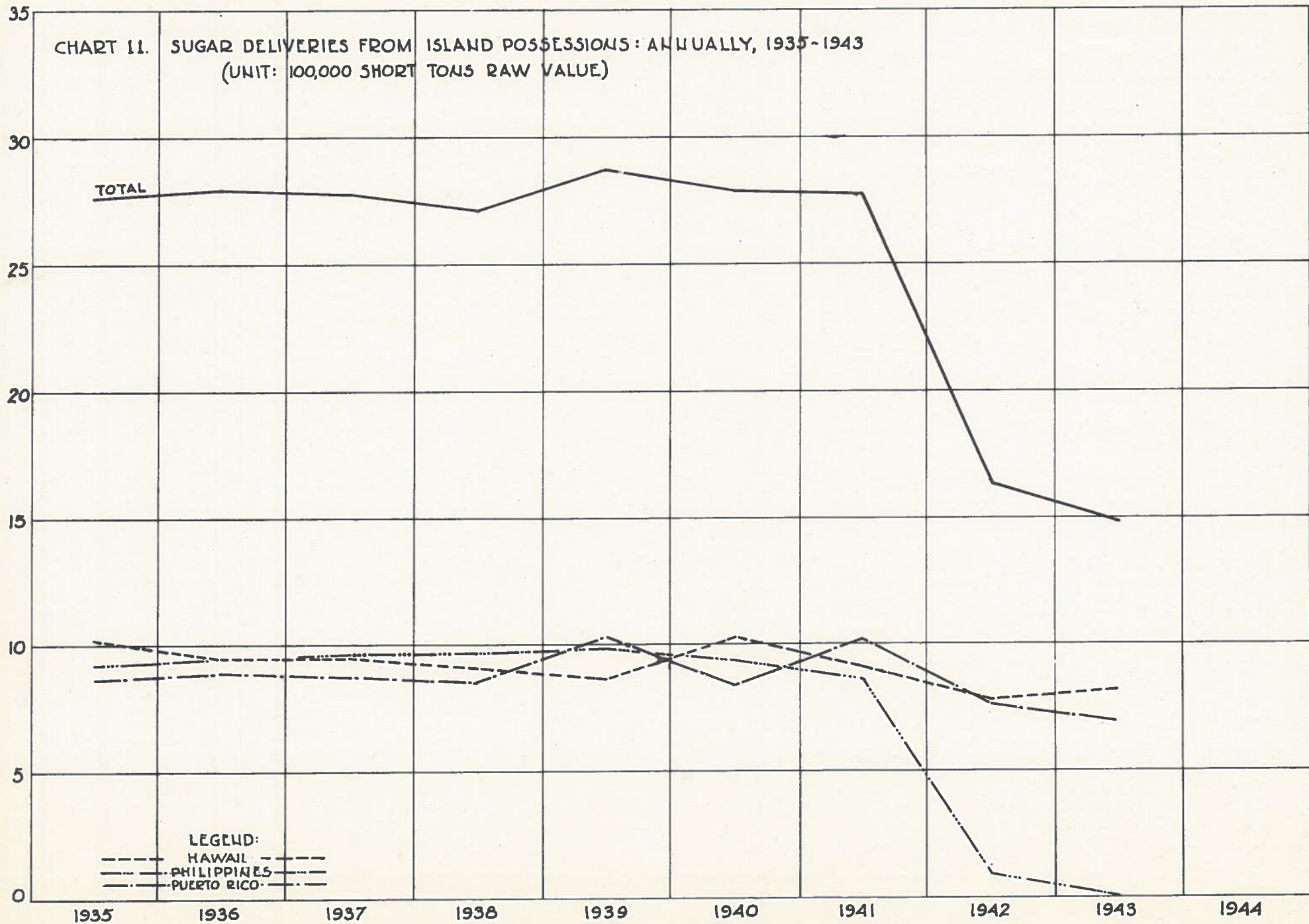


CHART 12

ESTIMATED SUGAR DELIVERIES FROM CUBAN SUGAR RECEIPTS: ANNUALLY, 1935-1943
(UNIT: 100,000 SHORT TONS RAW VALUE)

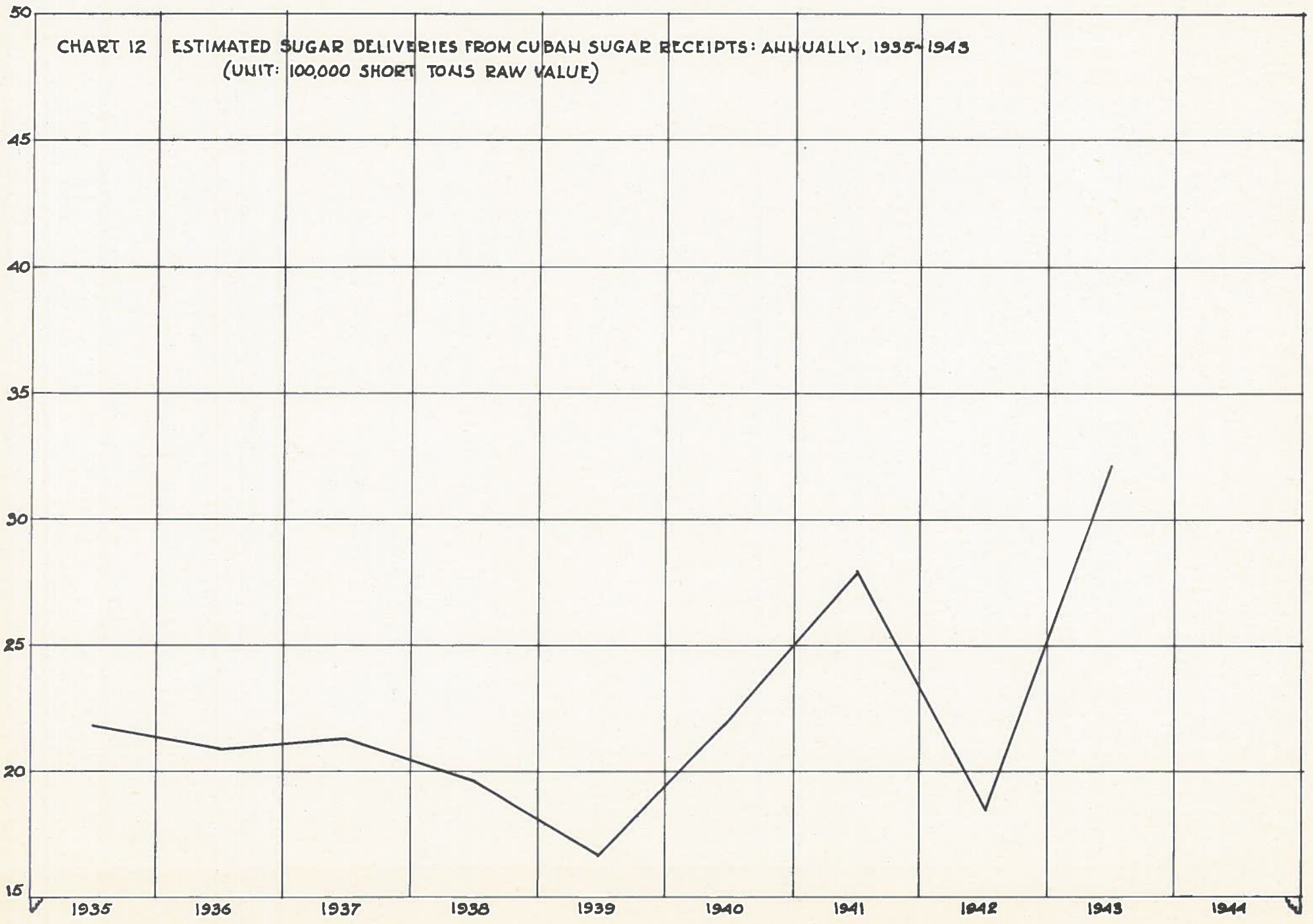


CHART 13

ESTIMATED SUGAR DELIVERIES FROM SUGAR RECEIPTS OF FOREIGN COUNTRIES OTHER THAN CUBA:
ANNUALLY, 1935-1943
(UNIT: 1,000 SHORT TONS RAW VALUE)

