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PRELIMINARY ANALYSIS OF THE IMPACTS OF SENEGAL'S INDUSTRIAL POLICY ON SELECTED BRANCHES OF INDUSTRY

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Introduction

Senegal's New Industrial Policy (NIP) has been in process since 1986. To have an idea about quantitative effects of this policy on the activities of certain branches, USAID/Senegal, as part of its plan for following up Senegal's policy reforms, established a plan for evaluation and monitoring of the effects of reduction of the customs tariff rate and the elimination of quantitative restriction on imports of certain products. A historical data base has been created for the period 1982-1986 from the Ministry of Finance Statistics Department's quarterly industry survey. This data base has been cleaned up to make it consistent for comparison purposes and has been updated in order to measure the impacts of the NIP. This evaluation and monitoring plan has been prepared by the American consulting firm, TvT Associates.

The following is only a partial analysis of the effects of the NIP on certain branches for the following reasons:

(1) Data availability: As long as the Statistics Department is the only institution allowed to do data collection, any analysis of the effects of the NIP will be based on their surveys. The main constraint resulting from these surveys is the delay in data availability. Very often, quarterly data have been published six months late. Consequently, till now the Mission has not yet obtained complete information on all branches for 1987. Our conclusions will be partial until we get information at least for a year after the NIP started.

(2) Modification of the survey form: Since the second quarter of 1987, the Statistics Department has been sending a new form (designed by UNIDO for the Ministry of Industry) to firms for the quarterly survey. This form does not include all the information we need to update the historical database: the revised form dropped (a) the entry on production (which the new form derives from sales and inventory changes) and (b) information on consumption of inputs. As a result of the Mission's complaint about missing useful information for our evaluation and monitoring plan, a new column on industrial production has been inserted into the form. However, until now the column on consumption of inputs is missing. Consequently key information for 1987 is missing in the Mission's database and our evaluation schedule has been perturbed.

The following analysis concerns production, sales, exports and corresponding price data. Two important variables for an analysis like this, inputs and imports, will not be examined in view of the reasons indicated above. The data are from 19 industrial branches, consisting of 33 firms which are involved in manufactured food, textiles, and building materials production. Since the analysis is a comparison of the evolution of indexes before and after the NIP, we have established the average for the period 1982-1985 of the corresponding quarterly figures as the base of the index for each quarter. For each branch we have made graphs presented in the Annex to this report, of indexes for the period 1982-1987. The graphs are reproduced from Vol II of the TvT Associates report of June 17, 1988 on Technical Assistance to the Senegal AEPRP-I (Monitoring) Project. 1/.

The analysis by branch follows. Some of the backgroun information included in the discussion is taken from the GOS statement submitted to the 1987 industry sector meeting organized by the World Bank and UNIDO. 2/

Canned Tuna

The SNDS and SAPAL are the two firms concerned by this analysis. These two firms are sufficiently representative of the branch since, in 1985 for instance, their production was 90 percent of the total of the branch. The canned tuna are produced essentially for exports. In fact, about 98 percent of the total production is exported to EEC countries.

In general, the evolution of output and sales indexes is consistent. During 1982-1984, production and sales were quite close. From 1985 to 1987, production was adapted to the evolution of sales, with a quarter lag. The trend line rate of growth of the production was positive (1.7 percent) for the period 1982-1986. When data for 1987 are added, the trend line rate of growth becomes negative (-0.2 percent) since there was a reduction of the activity of this branch in 1987. This evolution is quite apparent from the attached graphs. The trend for sales also indicates a reduction in demand.

At this phase of the analysis it is difficult to attribute the lack of growth to the NIP since the sales index started declining in the first quarter of 1986. This tendency was reinforced in 1987.

The sales and exports indexes show an evolution consistent with the statement that this product is essentially for export.

There were no special measures of the NIP which might have bad effects on this sector. On the contrary, the NIP should have a positive effect on this branch because of the export subsidy and the reduction of the import duty on imported inputs (for packaging).

Despite the above negative evolution, it appears from the graph of price indexes that this branch is still profitable. One conclusion is that this branch needs a better marketing policy in order to maintain its market share.

1/ TvT Associates, First Quarterly Activity Report, Technical Assistance to the Senegal AEPRP-I (Monitoring) Project, A.I.D. contract No. AFR-0291-C-00-8012-00, June 17, 1988, Vol. II.

2/ République du Sénégal, Ministère du Plan et de la Coopération et Ministère du Développement Industriel et de l'Artisanat, Réunion Sectorielle sur l'Industrie, Rapport général et Annexe A: Les secteurs de l'industrie sénégalaise, Vienne, 30 novembre-1er décembre 1987.

Frozen Fish

Several firms are involved in production of frozen fish. The most important are: Africamer, Amerger, Senepesca, Adripêche, Sardinafric). Frozen fish are essentially for export; 80 to 85 percent of the production is sold in other African countries while the rest is exported to Europe. Since this production is mainly for export, the branch benefits from export subsidies which are 15 percent of the export value (f.o.b.). Like most of the industrial branches in Senegal, this branch is suffering from under-utilization of the production capacity, which has a direct negative effect on production costs.

The following analysis concerns the activities of three firms: Amerger, Adripêche, and Crustavif. This sample has been chosen because their survey forms are available relatively quickly.

It appears from the attached graphs of the indexes that there is consistency between sales and production. During 1982-1986, output was correlated to sales. Since the first quarter of 1987, the sales and output indexes have decreased considerably. In fact the production index decreased from 70.64 (fourth quarter of 1986) to 27.0 (the second quarter of 1987), a reduction of almost two thirds. A similar trend is apparent concerning the sales index. An explanation could be sudden reduction of the fish catch because the sales price and the export price have been multiplied by more than three without any increase in output. This is not acceptable except in case of shortage of input. Also the reduction of the input index of about 60 percent during the same period confirms our conjecture. The cost price index maintained almost the same trend.

In this case too, it will be difficult to say in which way the NIP reinforced this trend. The NIP should have relatively positive effect on this branch.

Condensed Milk

The firms involved in milk and milk products production and whose main production is condensed milk are the following: SIPL, CODIPRAL, and SAPROLAIT.

This branch is operating essentially for the local market. It also benefits from the protection system in force (no authorization for import of milk and milk products, and reduced import duties on import of powdered milk). However, the constraint for firms producing condensed milk containing sugar is that they have to buy that input (sugar) at a price much higher than the world price.

The general trend in this branch is also a reduction of sales and output indexes since the first quarter of 1987, apart from a slight increase during the last quarter. The sales index reached the lowest level in the first quarter of 1987 (compared to sales during 1985-1987). We do not have enough information on prices and consumption of input in the same period to try to explain the evolution of sales and production.

At this phase of the analysis, the apparent trend is reduction of sales and production. But it is difficult to show in which way the NIP affected this process. However our conjecture is that the condensed milk producers reduced their production activity during the first quarter of 1987 to see the market reaction to the removal of the quantitative restriction on import of condensed milk (announced on March 1, 1987). After they saw that their sales reached the previous amount, they started increasing their production. If the trend apparent during the fourth quarter of 1987 continues, one may conclude that this branch is maintaining its market share despite the elimination of quantitative restriction on import.

Unrefined Peanut Oil

The activity of producing unrefined peanut oil is one of the most important industrial activities in Senegal. Peanut products contribute significantly to the overall value added generated by the economy and are one of sectors earning foreign exchange. With respect to employment, about 3,000 workers are involved in the process of producing unrefined peanut oil.

The main constraint of this branch is the under-utilization of production capacity: from 1982-1986, only 40 percent (on average) of the industry's 920,000 MT of capacity has been used. This constraint, linked to the availability of the main input (peanuts), generated high production costs.

Another major problem for this activity is the evolution of the price of unrefined peanut oil in the world market, and the competition from vegetable oil. Since 1984, this branch is facing financial difficulties. The peanut oil perequation system has been abandoned (in 1985) and a fund for supporting peanut products prices was created in 1986.

The firms involved in this production have the monopoly for all cooking oil marketing in the local market. The export tax on peanut products has been eliminated temporarily for peanut oil and peanut cake but is still in force for other peanut products.

It appears from the attached graphs, that during the period 1982-1986, production was quite close to both the consumption of input and the export levels. As long as peanut oil is mainly for export, the evolution of exports can reflect the general trend of overall sales. During 1986-1987, production increased as result of two successive good rainfall seasons. Unfortunately the export price decreased considerably during this period. As it appears on the attached graphs, the input price has been much higher than the world price since 1986. Of course, this evolution has no link with the measures taken under the NIP.

Refined Peanut Oil

Refined peanut oil production is controlled by the same firms as those involved in unrefined peanut oil production. Consequently the structural constraints of this branch are similar to those mentioned above.

The attached graphs show that the production of refined peanut oil has not been adapted to the evolution of sales. In fact, the amount sold is almost the same from year to year while the output seems to be correlated to the main input (unrefined peanut oil); the periods of substantial production are the same as for unrefined peanut oil.

Refining activity does not concern peanut oil only. Other vegetable oils production is a significant part of the activity of this branch. Consequently our conclusion concerning this branch may be biased because it was difficult to differentiate between refined peanut oil and other vegetable oil, so for certain quarters the two categories are combined.

This branch has the monopoly for selling all cooking oil in the internal market, so it is not concerned directly by removal of quantitative restriction on imports. However, it might benefit from reduction of the customs tariff rate concerning the import of certain inputs. Unfortunately, the data are not consistent enough to conclude anything concerning this branch.

Wheat Flour

The Grands Moulins de Dakar (GMD) and the Moulins Sentenac are operating in this branch. 7/8 of the country's annual needs for wheat are met by the GMD while only the 1/8 is under control of Sentenac.

The wheat flour produced is sold mainly in the local market apart from a small amount exported to neighboring countries. Given the system of protection in force since the signature of the special agreement on wheat flour production and sales, these firms are in a monopolistic situation. The main constraint for this branch is the under-utilization of production capacity.

During the 1982-1986 period, production and sales were quite close. Since the second quarter of 1987, the trend has been a slight increase of the production of wheat flour (starting from 88.2 in the second quarter, the index reached 97.0 in the third quarter and 117.6 in the fourth quarter) while, the graph of the sales index shows a sudden reduction of the volume of sales which reached its lowest level of the 1982-1987 period. This might be a mistake in the data because there was no special event in Senegal that could explain such a low level of the demand for wheat flour. Of course, as we will see later, there is a slight reduction of the activity of certain branches using wheat flour as an input, but that should not be the only reason because it was observed only in one quarter.

This branch is not concerned directly by the measures taken as part of the NIP. However, it might be affected implicitly as result of modification of the activities of the firms using wheat flour as an input. The evolution of the sales and input price indexes shows that this branch has been profitable since 1985.

Biscuits

This branch is controlled by three firms. It main constraint is first the high cost of its inputs (sugar and wheat flour) and the competition from similar products coming from Ivory Coast. Despite the Regional Cooperation Tax (TCR), biscuits imported from Ivory Coast are much cheaper than those produced in Senegal. This branch is suffering from the government's decision to give monopolies for sugar and wheat flour marketing to two Senegalese companies. Thus the firms producing biscuits are forced to buy their main inputs at a price much higher than the world price.

Two of the firms operating in this branch will be taken into account for this analysis - Biscuiterie de Médine and Biscuiterie Alimentaire Africaine. Their output was quite closely correlated to the inputs used as well to the sales. The general tendency in this branch is a reduction of the production. A possible explanation of this evolution is apparent on the input and wholesale prices. These prices increased considerably since 1985 so local producers lost their market share which might benefit competing producers. However, this negative trend cannot be attributed to the NIP since there was no special measure concerning this branch.

Sugar and Confectionery

The sugar company of Senegal (CSS) is one of the biggest in the country with a large number of workers (4,500 permanent workers and 2,100 seasonal workers in 1985). When it was created in 1970, it obtained a special agreement from the Government for a monopoly for importing and marketing of sugar in Senegal, a tax exoneration on imported inputs, and an advantageous price perequation.

For the purposes of this analysis, we have little information on sugar producing activities. Only sales data are available. Thus it appears from the graph that the amount of sugar sold has been decreasing since the fourth quarter of 1986. The sales index reached its lowest level of the period 1982-1987 during the fourth quarter of 1987.

One explanation is smuggling into Senegal. Another possible explanation for this trend is the evolution of the activities of firms consuming sugar. We noted above that the activities of milk producing firms is decreasing; we may expect a similar evolution for the biscuit producers because the competing producers (from Ivory Coast) are getting their inputs (sugar and wheat flour) at prices very much lower than in Senegal.

The sales price has remained stable since 1983.

Yarn and Thread

As part of the textile branch, yarn and thread are suffering from competition from neighboring countries, particularly from Ivory Coast. The firms involved in this production are the following: la Cotonnière du Cap-Vert (CCV), l'Industrie Cotonnière Africaine (ICOTAF), SOTIBA SIMPAFRIC, and SOSEFIL.

This branch benefits from some protection, but since there is a regional cooperation agreement between Senegal and other CEAO member countries, yarn and thread are permanently facing competition from those countries.

The output index shows a considerable change of the evolution of the production during 1987. In fact, the index rose to its highest level in the first quarter of 1987 and decreased to its lowest level two quarters later. However, one cannot say that the global production in 1987 was lower than the previous years.

There is a bit of perturbation in sales policy. In fact, production has not been close to sales since 1985.

Information about prices shows that this branch has made profits regularly since 1986. The measures taken concerning the branch were in force in January 1988, so it is too early to talk about the effects of the NIP on this branch.

Printed and Dyed Cloth

The company SOTIBA-SIMPAFRIC is the most important firm involved in this activity. For example in 1985, SOTIBA realized 91% of its value added from printed cloth and 9% from dyed cloth. A significant part of the production is exported (53 % of value added comes from exports).

The main constraint for this sector are the age of equipment, the weight of the wage and salary bill in production cost, and competition from neighboring countries and from imported second hand clothes (friperies).

The evolution of the output index does not show any dramatic trend except a considerable decrease in the last quarter of 1987. There are considerable seasonal fluctuations in production. However, sales are almost stable, with some decline since mid-1986 due to a significant extent to the decrease in exports that appears in the exports index. This latter index is decreasing much more rapidly than sales index.

A possible explanation of this trend might be a reduction of the internal and external demand (from CEAO countries) as result of a reduction of the overall purchase power of households. The NIP did not have a direct impact on this industrial activity during 1987, since the measures concerning the textile industry were taken on January 1, 1988.

Unbleached Cloth

The firms producing unbleached cloth are the same as those involved in production of printed and dyed cloth. Thus the main constraints for the activity are the same as those mentioned above.

Unfortunately, data available are not consistent enough to analyze the evolution of the branch.

Sawn Lumber

The firms concerned by sawn lumber production are established in the Dakar region (five firms) and Casamance (two firms). Like most of the enterprises in Senegal, they are facing competition from similar products coming from Ivory Coast. This branch is also benefiting from the protection system in force since its main input imported from Ivory Coast is exonerated from the import duty. The firms established in the Dakar region do not want to change the source of their input since otherwise they will support an extra cost equal to 55 percent of the value as duty on imports (Senegal being a member country of the ECOA). Those firms established in Casamance use local wood as an input. They are facing a law limiting wood cutting.

The general trend in this sector is a reduction of production activity. In fact since the first quarter of 1986, its appears on the graph for index of production that this branch is reducing its activity. On the contrary there is no apparent trend from the sale index which is consistent with the production. Sales had a very unstable evolution. At this step, consistent data are not available to conclude anything concerning this branch.

Petroleum products

The activity of producing petroleum product is under the control of one firm (SAR) which is in monopolistic situation concerning the imports and production of these products. The production is sold mainly in the local market; also there is some export to neighbouring countries.

Our data base does not include information consistent enough to reach any conclusion concerning this branch. However, it appears from the graph that the wholesale price has been higher than the import price since mid-1985.

Soap

Soap production is controlled by two firms: NSOA and SAF. Three-fourths of the market needs are met by NSOA while only one-fourth is produced by SAF. These two firms have a monopolistic situation in the local market because of their low production cost compared to the cost of the European soap (which is of higher quality) and to those from the neighbouring countries.

In contrast to most Senegalese enterprises, this branch is not facing a serious problem of under-utilization of the production capacity. The production of household soap is sold mainly in the local market.

The graphs of output and sales indexes show that production has been adapted to the evolution of sales during the period 1982-mid-1986. Since the fourth quarter of 1986 sales are decreasing while production goes up, except in the last quarter of 1987 (in this quarter there is a positive correlation between the two indexes, but output is three times higher than sales). The tendency observed during the fourth quarter of 1987 would be a result of some mistakes in the raw data because it is not consistent with the evolution of the price indexes during the same period. In fact firms ought not to increase their production while the production cost is increasing and the wholesale price is going down.

At this step of the analysis, it is not possible to discern the impact of the NIP on this branch. The elimination of quantitative restrictions on import of household soap has been in force since January 1, 1988.

Plastic and Rubber Shoes

The BATA and SENEPLAST firms are the main producers of plastic and rubber shoes. The under-utilization of production capacity, the strong smuggling of shoe parts and shoes and the low quality of the local product compared to the imported shoes are the major constraints on this branch.

The measures taken under the NIP concerning directly this branch are the following: suppression of quantitative restriction for part of shoes (on January 1, 1987) and for shoes (on January 1, 1988). The information available is not consistent enough to analyze the evolution of this branch. In fact there is no information concerning sales. Output data change considerably from quarter to quarter (during the historical period) and only data for two quarters are available in 1987. However, the output index registrated a reduction of 28 percent six months after the measures have taken place. BATA, the main firm involved in this activity and which used only 50 percent of its production capacity, closed down in the first part of 1988. Unfortunately the overall production cost and input price index do not permit consistent analysis; the output price has fluctuated considerably while the input price has increased since 1986. Also the comparison of import and input prices indexes (see graphs) indicate that the increase of the overall input price does not come from the imported inputs. The import price index decreased during 1985-1986. In any event, it is necessary to have more reliable data about this branch before concluding anything concerning this activity.

Paint

The firms involved in paint production (SAEC and SEIGNEURIE) are among those which are likely suffer from possible bad effects of removing quantitative restrictions. In fact, this branch used to have very small value added and the concerned firms survived mainly because of the system of protection in force in Senegal (there was a strong tariff protection and authorization was needed before importing any kind of paint). Despite this protection there was a considerable smuggling which covered about 10 percent of the demand. The quantitative restriction on import of paint was eliminated on July 1, 1987.

As it appears on graphs of output and sales indexes, output has been quite close to the amount sold. As one might expect, just after the measure was applied (in the third quarter of 1987), the output index decreased considerably from 126 (in the third quarter 1987) to 90 (in the fourth quarter). Particularly for this branch one might expect a positive effect of the custom tariff reduction because about 85 percent of the input of this branch is imported. In fact this effect is quite apparent: the cost price index decreased from 144 in the first quarter of 1987 to 96 in the fourth, which is equivalent to a reduction of 33 percent.

Despite the relatively low sales prices since the third quarter of 1937 (maybe as result of competition from imported products and the consequence of low production cost) the paint sold decreased of about 45 percent during the fourth quarter of 1987. So, if this trend carries on, this branch will have some difficulties. Unless it improves its productivity and reduces considerably its producing cost in order to face competition from imported paint, it will be obliged to close down.

Cement

Cement production is controlled by only one company (SOCOCIM), which is in a monopoly situation since 1981. Despite the important investment realized in this branch in order to modernize equipment and increase productivity, the production cost of the cement is still higher than the world price. Also, since 1985 (as it appears on the attached graphs) this branch is facing a drastic reduction of the demand for cement which could be due to the conjunction of a reduction of internal demand (as the result of a shortage of overall purchasing power of households), and external demand (essentially from neighbouring countries which either got their own producing company or prefer buying from other suppliers at a lower price). SOCOCIM was the supplier of cement for construction of the Manantali dam.

This branch is not concerned by measures to eliminate quantitative restriction on imports so this apparent reduction of demand might be explained as discussed above. However, as indicated by the graphs of output and sales price indexes the branch is still profitable because the wholesale price is much higher than the production cost.

Construction Materials

As for cement, other construction materials production is faced with a considerable reduction of the overall demand in the economy. This branch benefited from tariff protection and quantitative restrictions on imports of these products. Since January 1987, quantitative restriction has been abandoned. Unfortunately information available does not permit analysis of the effects of these measures. However, one may note that during the 1982-1986 period, output and sales as well as consumption of input decreased. Also, this branch has been profitable, given the available data about production cost and wholesale prices.

Metal Packaging

As most of the Senegalese industrial branches, the firms involved in metal packaging production have problems of under-utilization of production capacity, and have benefited from the system of protection.

Measures to eliminate quantitative restrictions on metallic and metal work have been taken since July 1986. However, data available do not permit analysis of any effect of the NIP on this branch.

Conclusion

At this phase of the analysis it is hard to try to reach any global conclusion concerning the impact of the NIP on the industrial sector because of the following reasons:

- The data base, which is the main reference for our analysis, is not consistent enough to assess the overall effect of the NIP. In fact, the impact of the reduction of custom tariffs rates cannot be seriously assessed without analyzing the evolution of the consumption of imported inputs per branch. Also it is necessary to make sure that the eventual reduction of price of imports is the result of reducing the tariff instead of being the result of a favorable world price trend.

- Some of the measures removing quantitative restrictions on imports have been in effect only six months, and for none of the industrial branches do we have data for 1988. Consequently we cannot talk about the overall effect of the NIP on these branches.

- Some indicators, particularly employment figures, have not yet been taken into account in our analysis.

Thus the above analysis is partial. It presents a picture of the background evolution of the sector before the NIP and a few ideas about the first reactions of certain branches to those measures.

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ANNEX

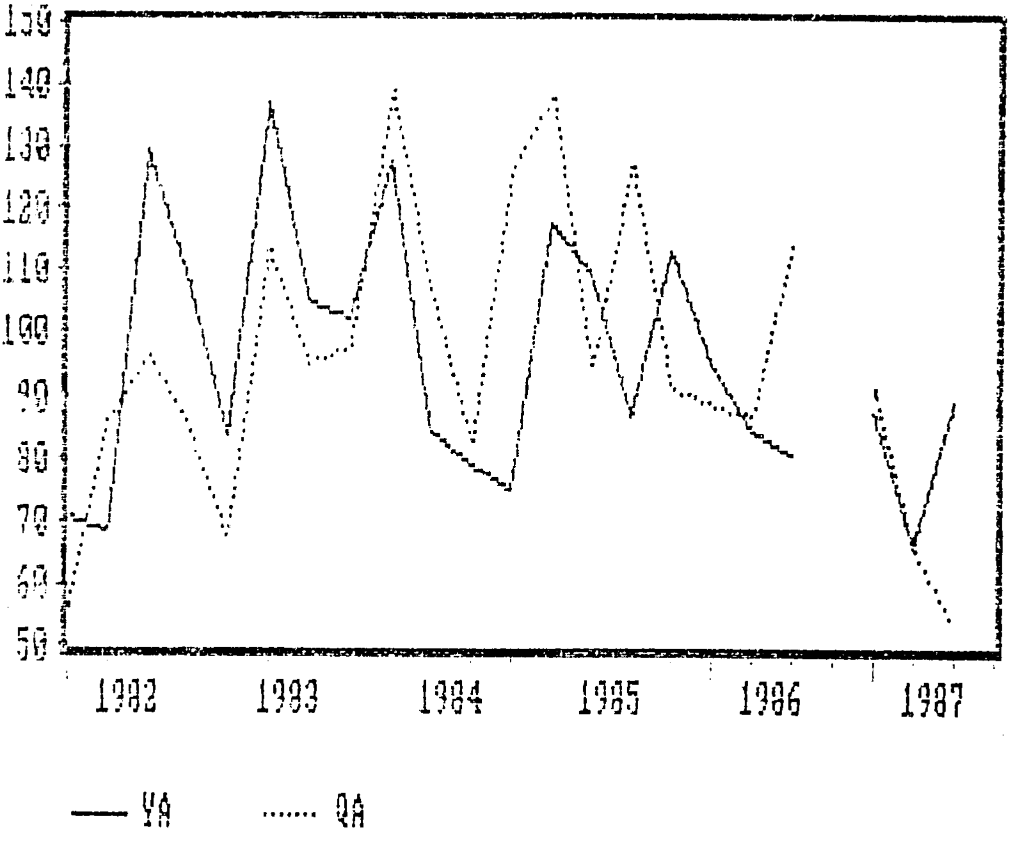
Graphs of Price, Production and Sales Indexes 1/

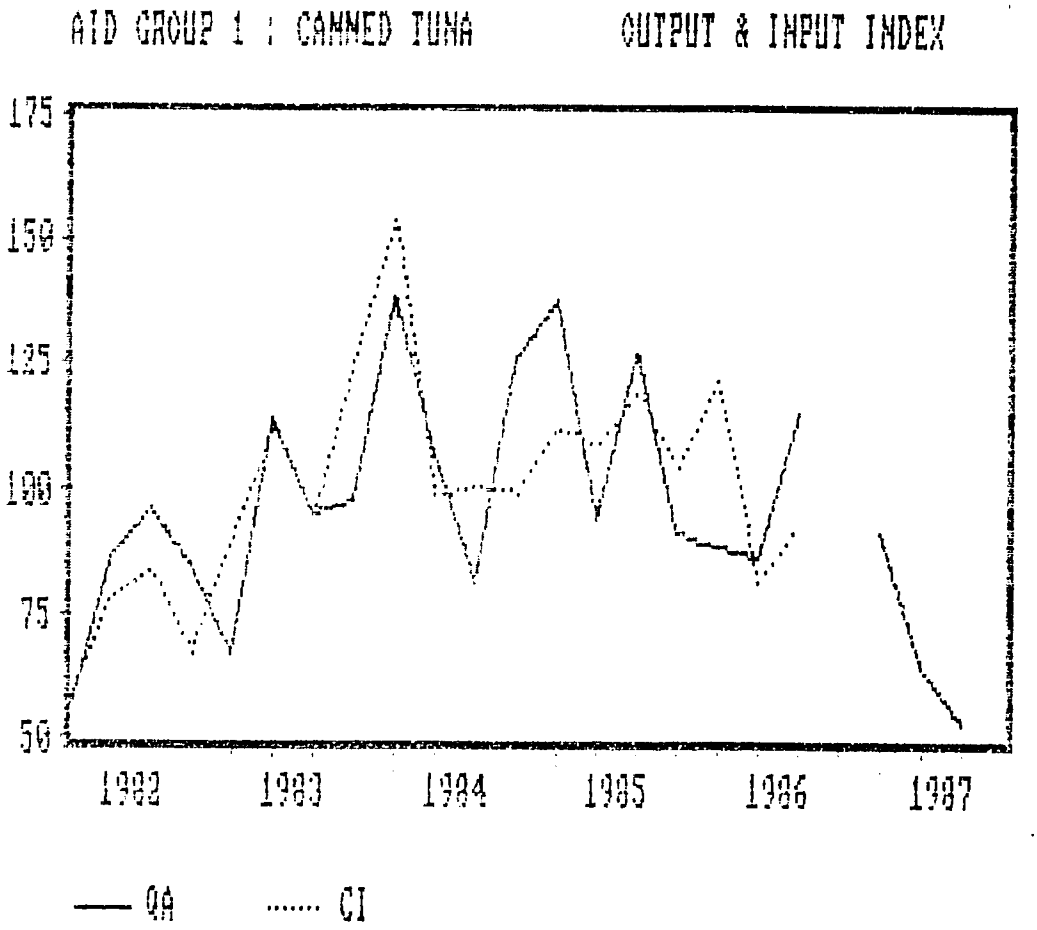
1/ Graphs are reproduced from Volume II of TvT Associates report on Technical Assistance to the Senegal AEPRP-I (Monitoring) Project, A.I.D. Contract No. AFR-0291-C-00-8012-00, June 17, 1988.

Index to Detailed Economic Data

AID GROUP 1: CANNED TUNA

AID GROUP 1 : CANNED TUNA SALES & OUTPUT INDEX

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OUTPUT & INPUT INDEX
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150
125
100
75
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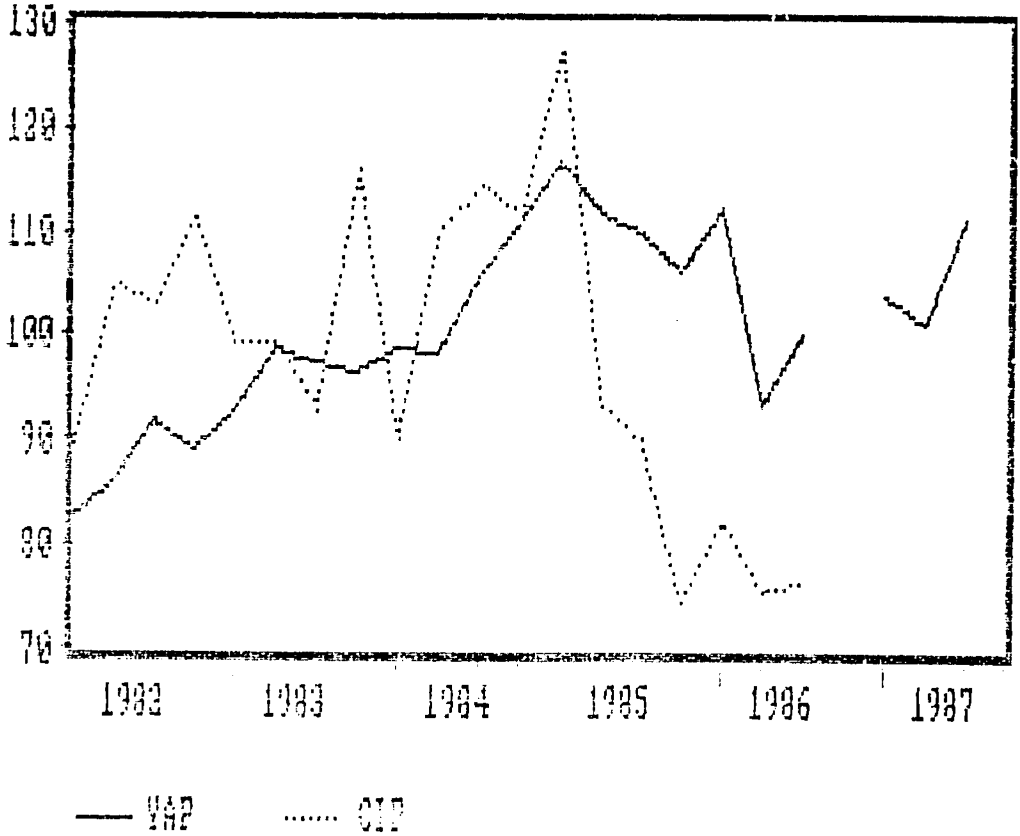
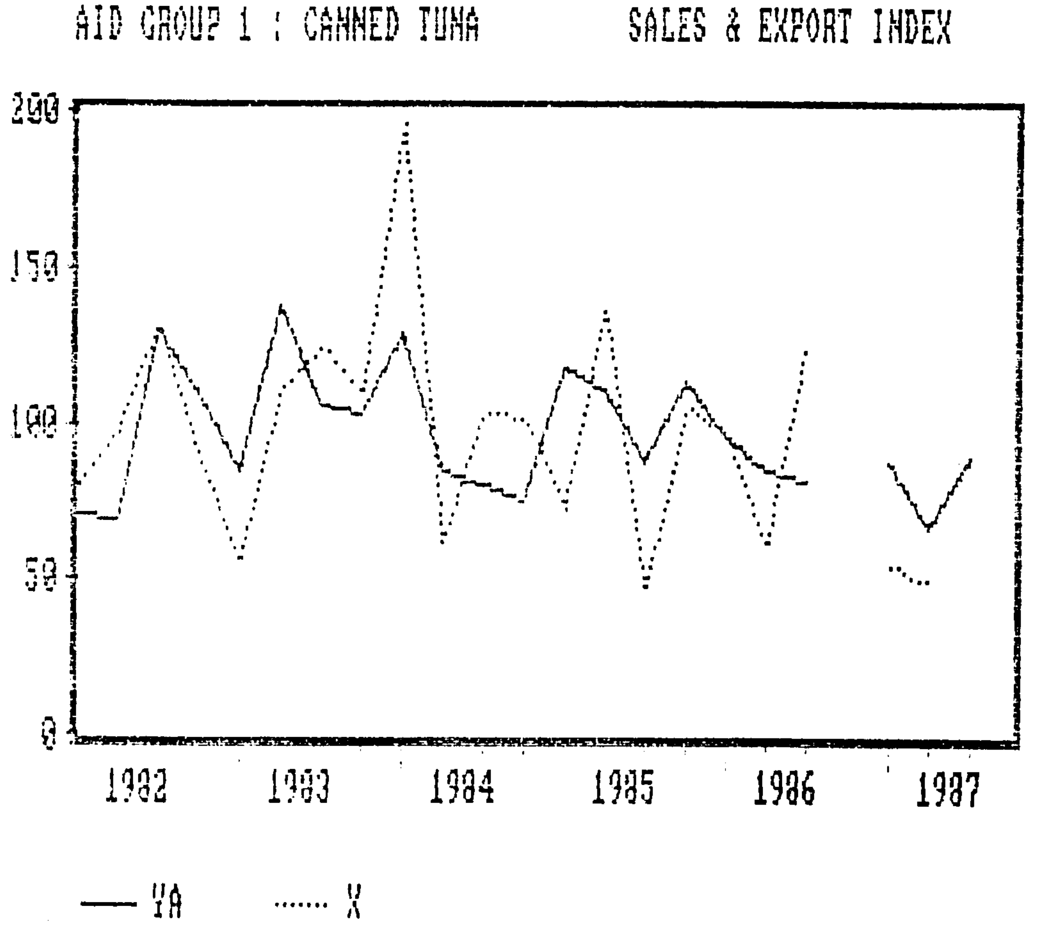
1982
1983
1984
1985
1986
1987
QA
CI

AID GROUP 1 : CANNED TUNA   SALES & INPUT PRICE INDEX

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SALES & EXPORT INDEX
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1983
1984
1985
1986
1987
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X

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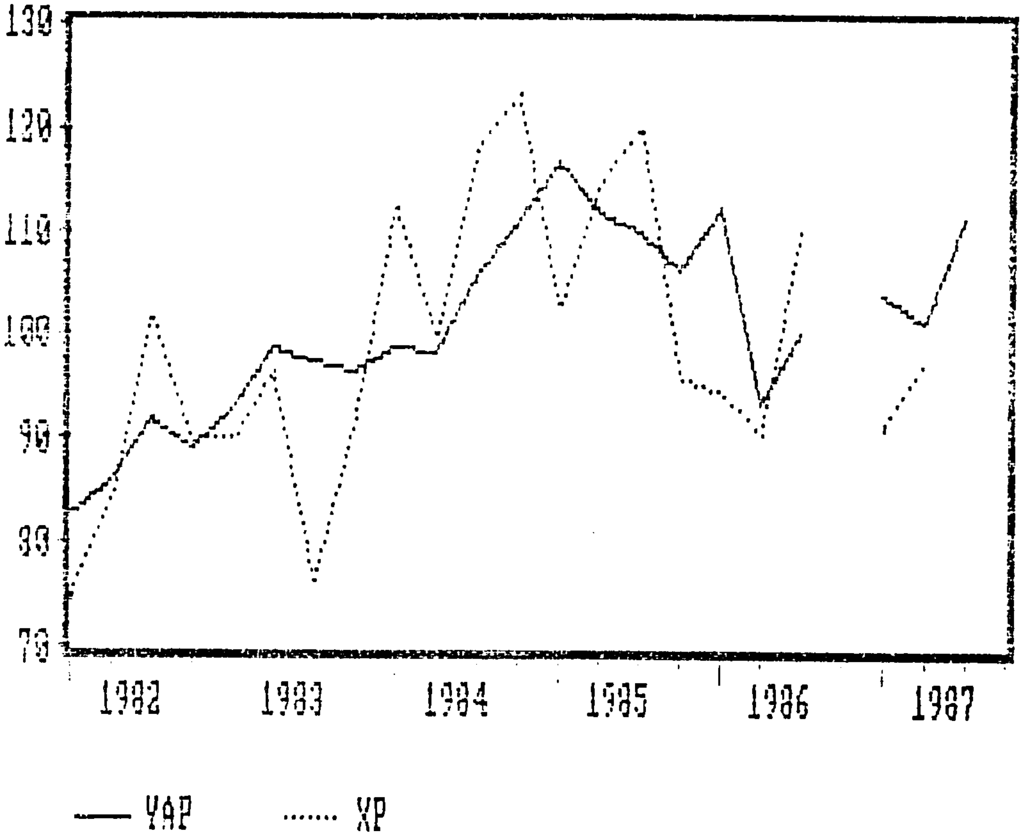

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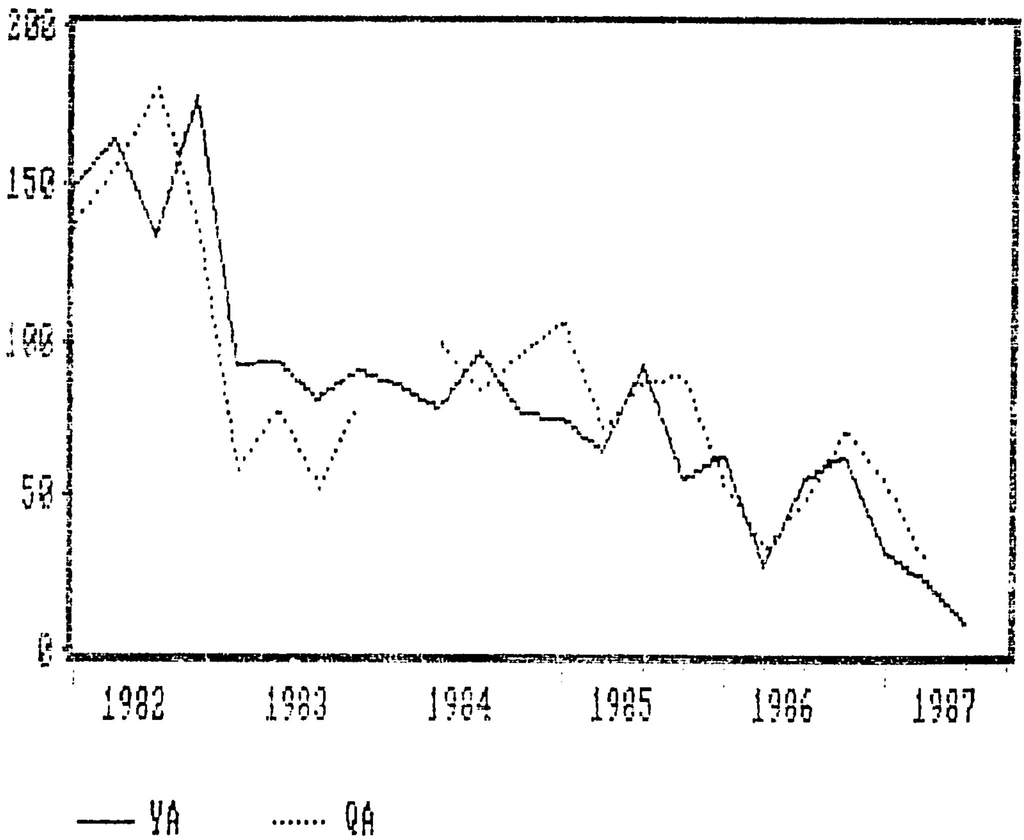
AID GROUP 2 : FROZEN FISH SALES & OUTPUT INDEX



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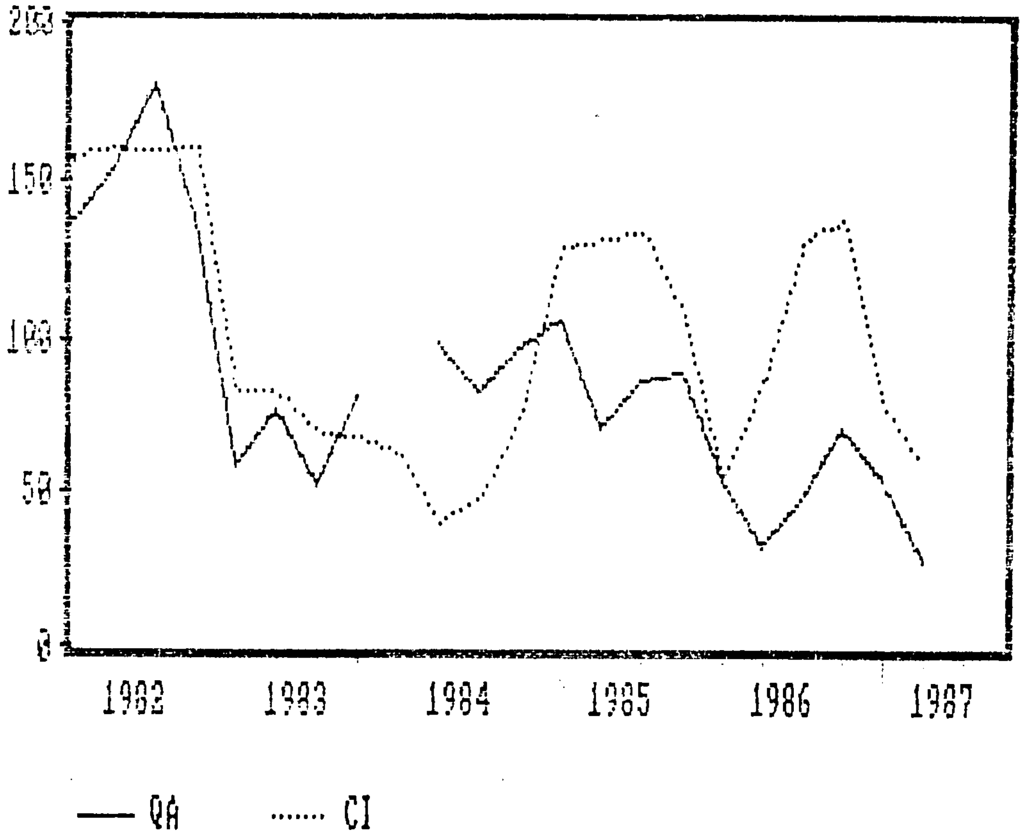

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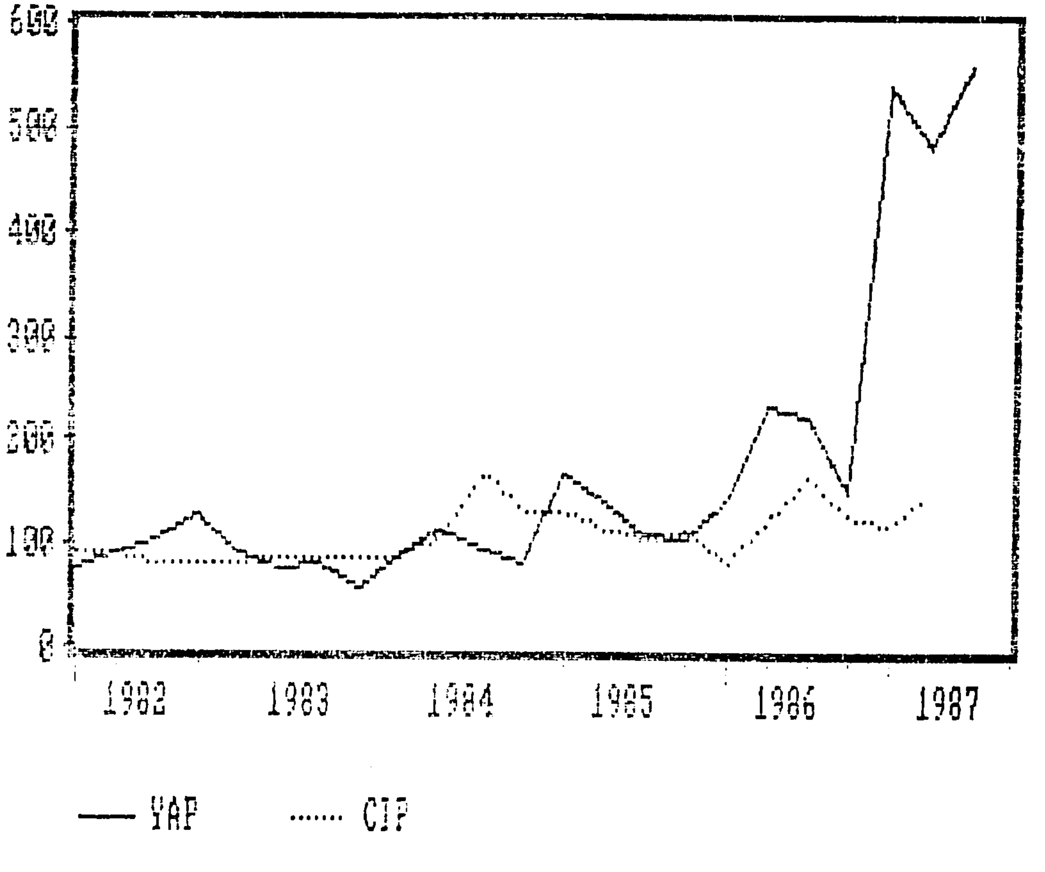

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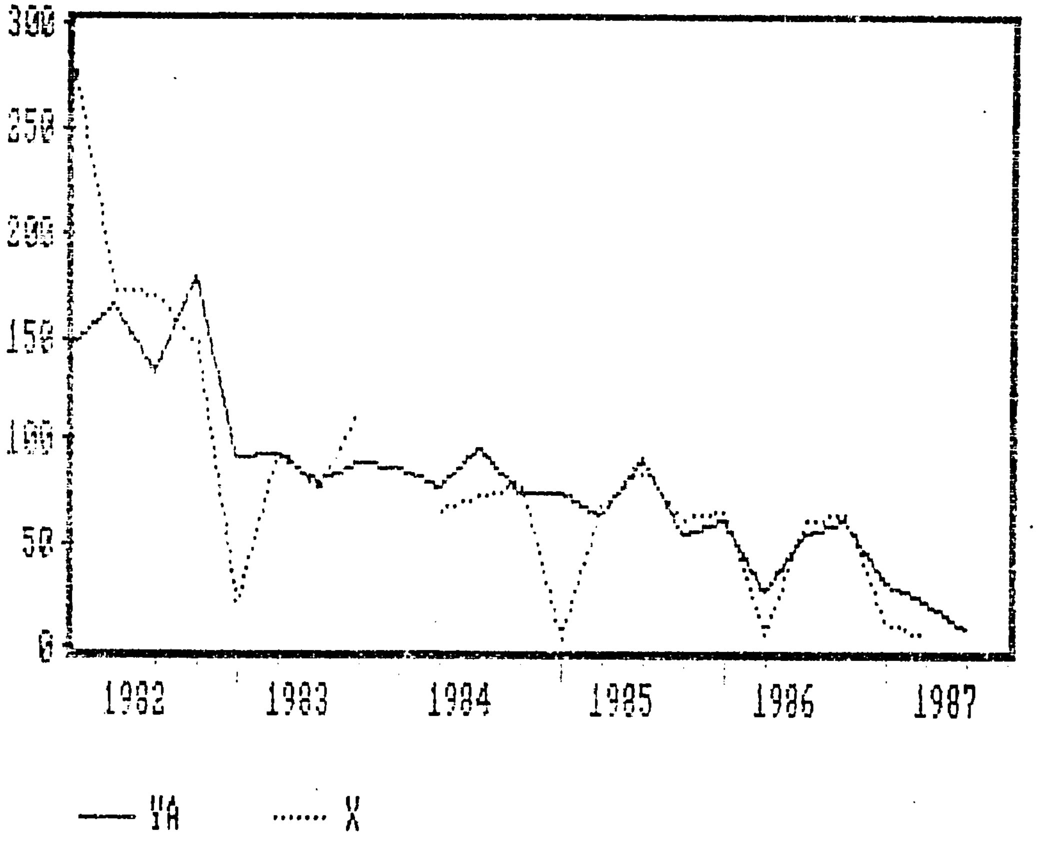

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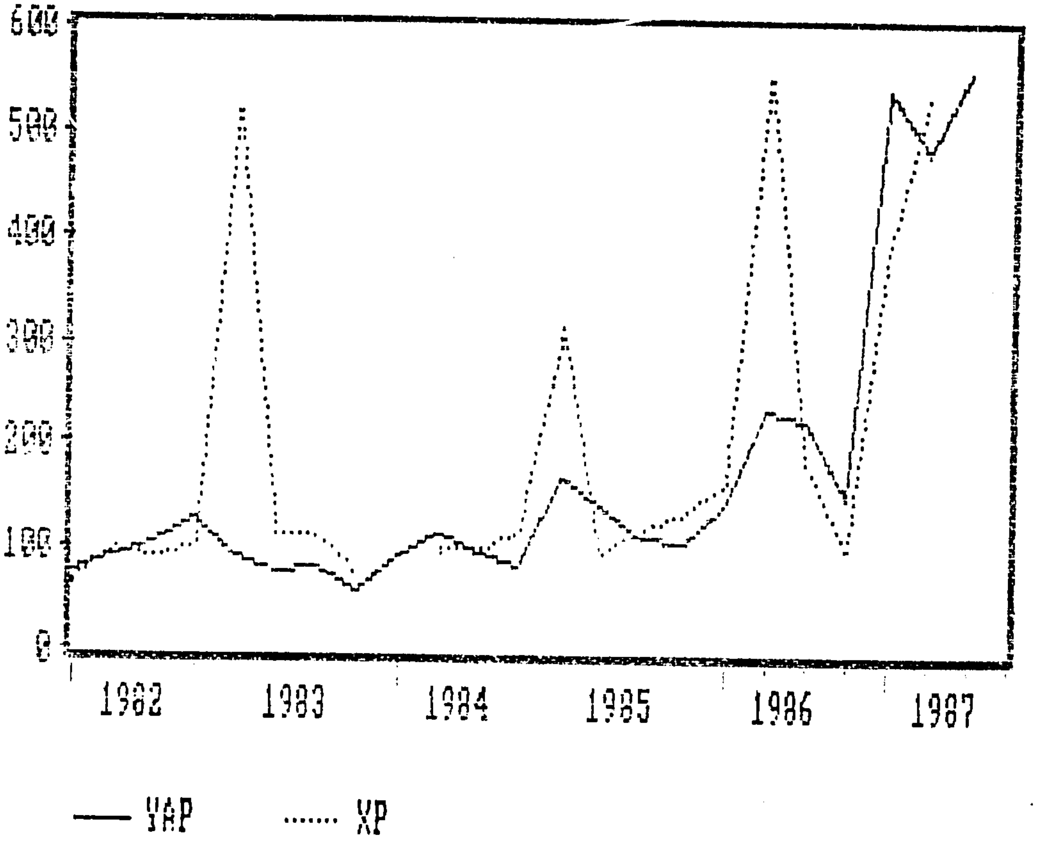

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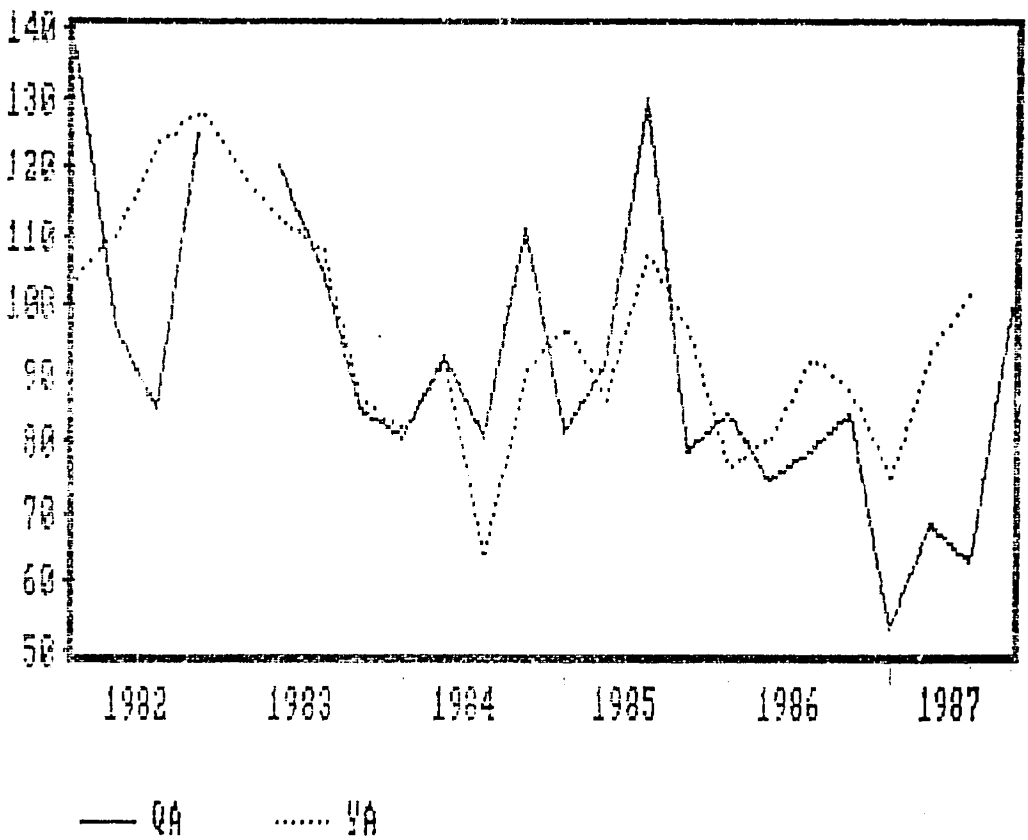
AID GROUP 3 : CONDENSED MILK   OUTPUT & SALES INDEX



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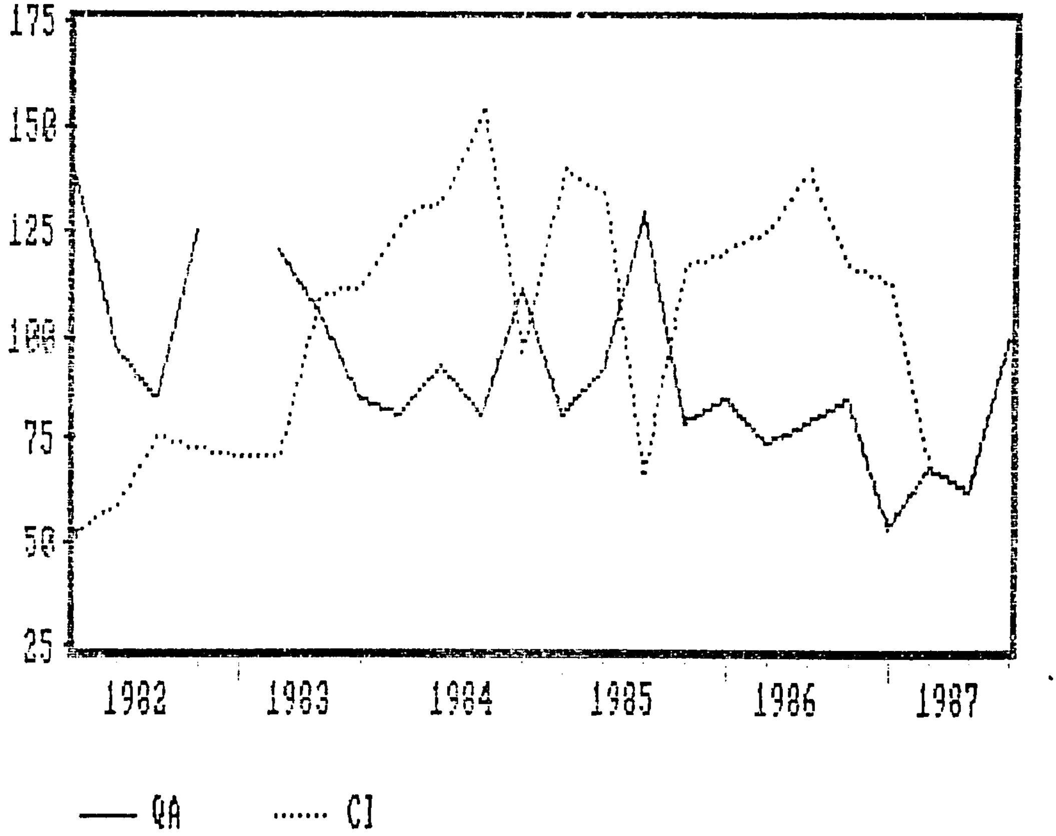

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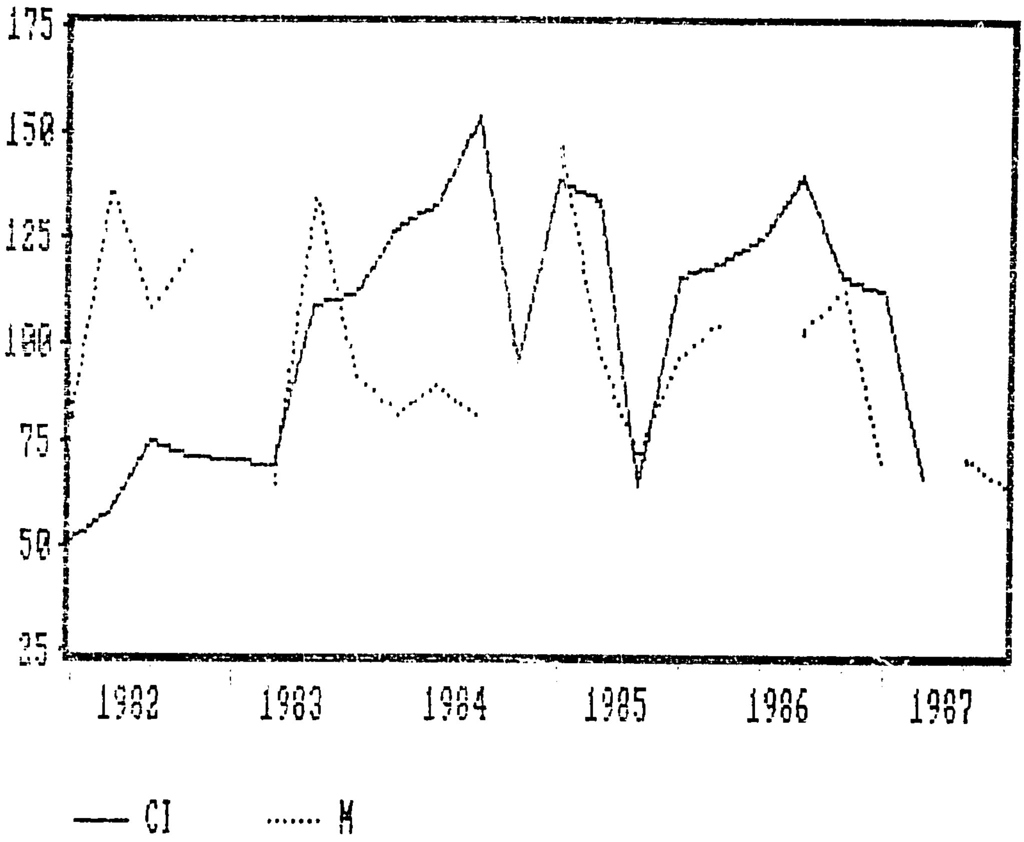

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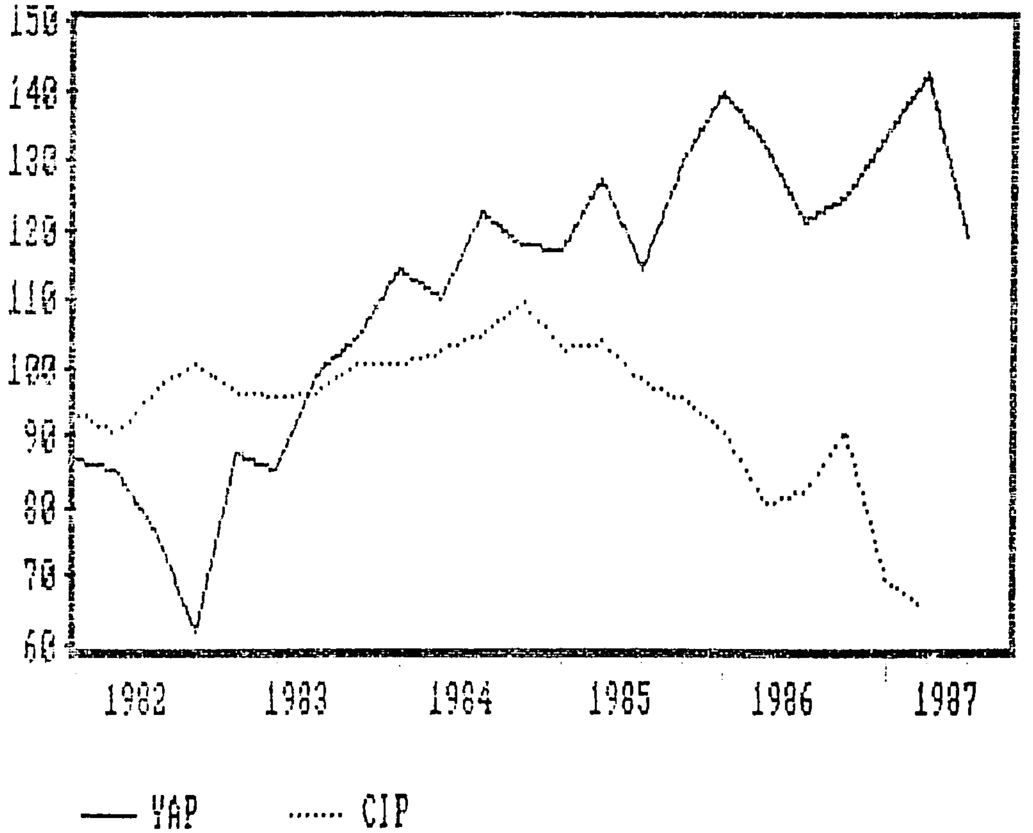
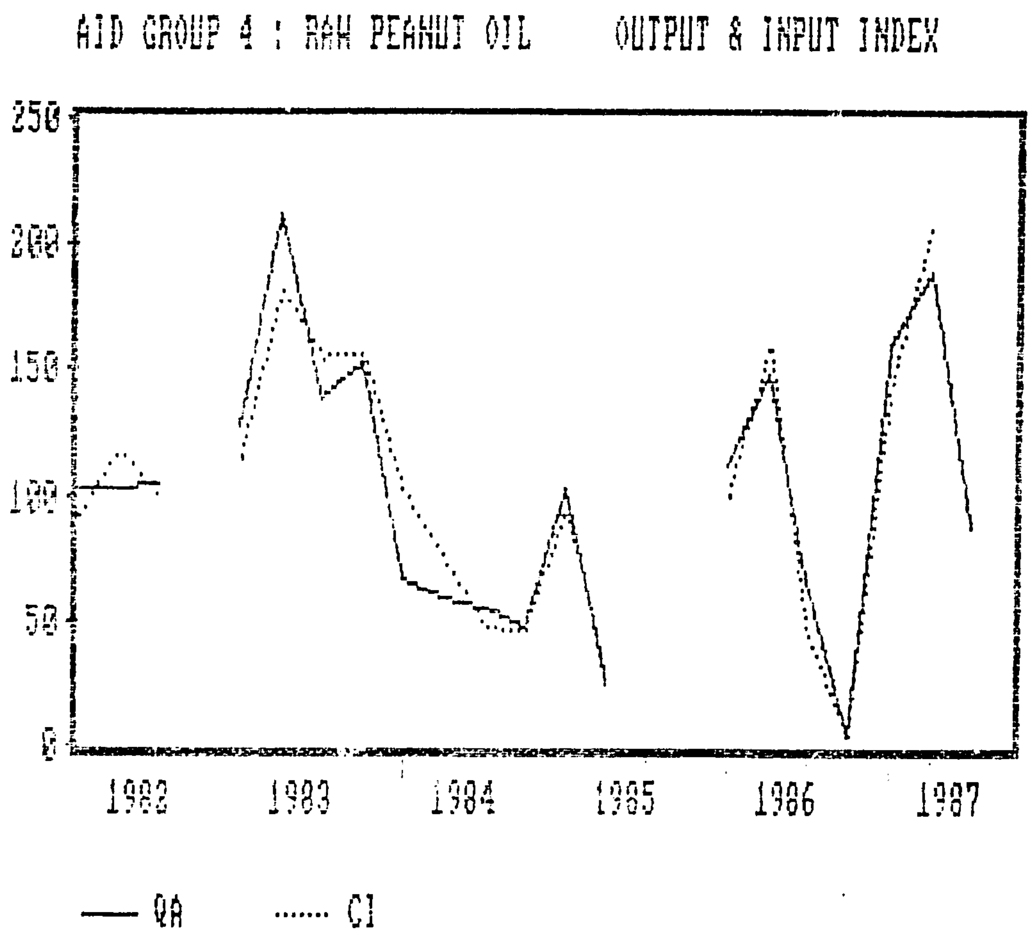
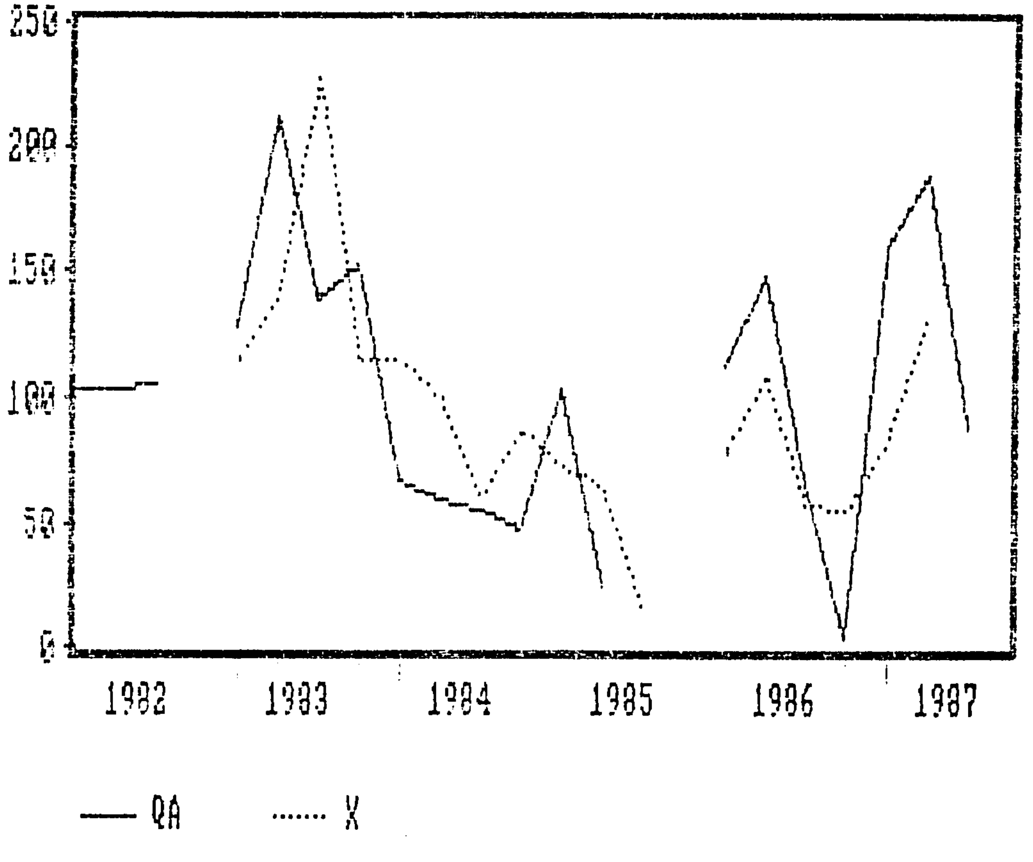


AID GROUP 4: RAW PEANUT OIL

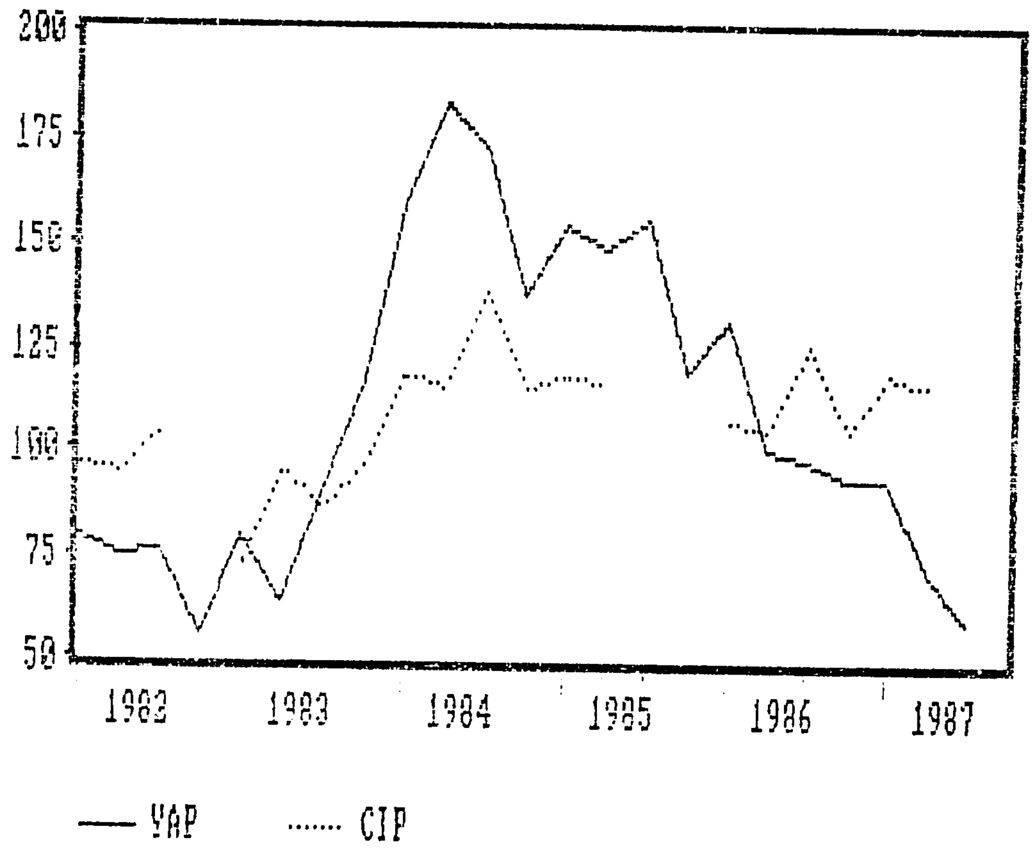


AID GROUP 4 : RAW PEANUT OIL OUTPUT & INPUT INDEX
250
200
150
100
50
0
1982
1983
1984
1985
1986
1987
QA
CI

AID GROUP 4 : RAW PEANUT OIL   OUTPUT & EXPORT INDEX

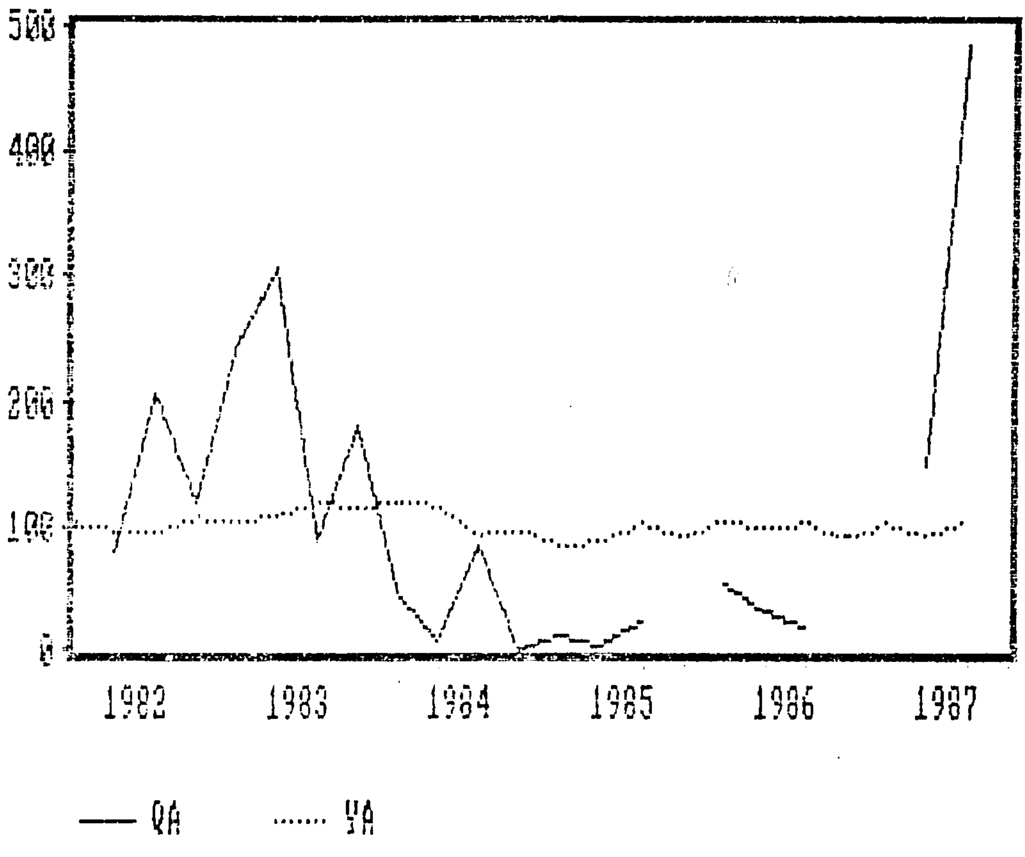


AID GROUP 4 : RAW PEANUT OIL   SALES & INPUT PRICE INDEX

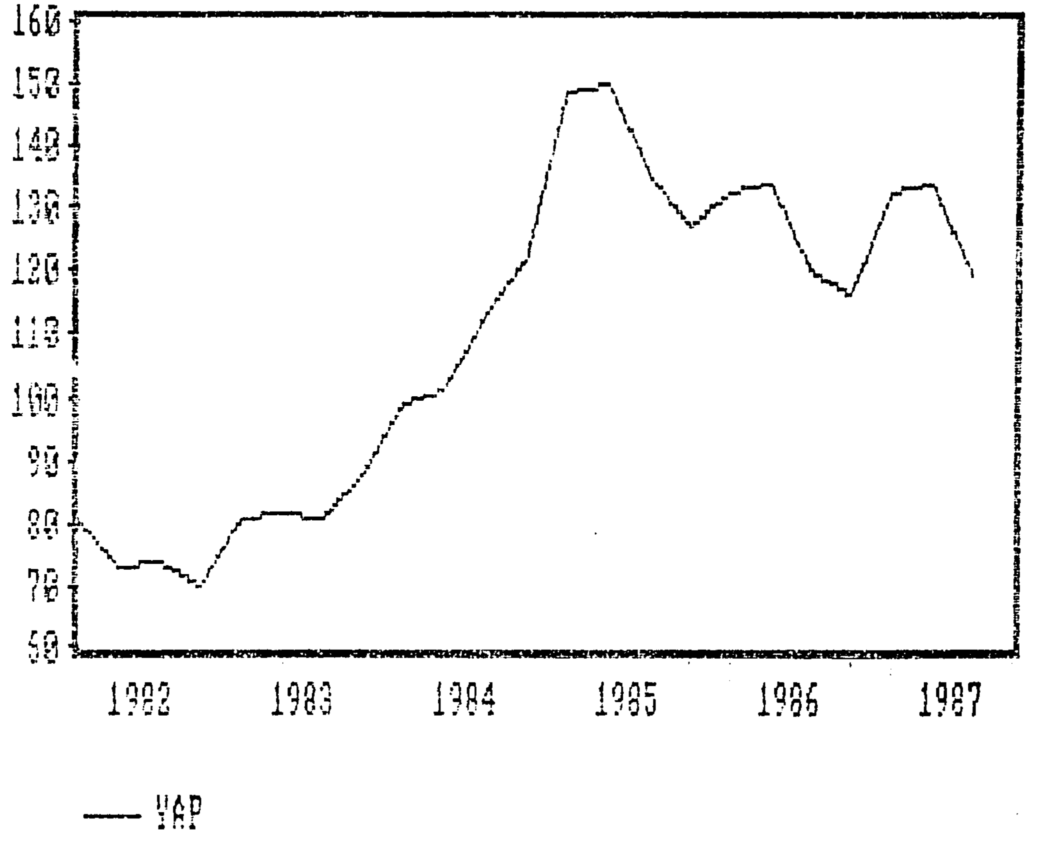


AID GROUP 5: REFINED PEANUT OIL

AID GROUP 5 : REFINED PEANUT OIL   OUTPUT & SALES INDEX

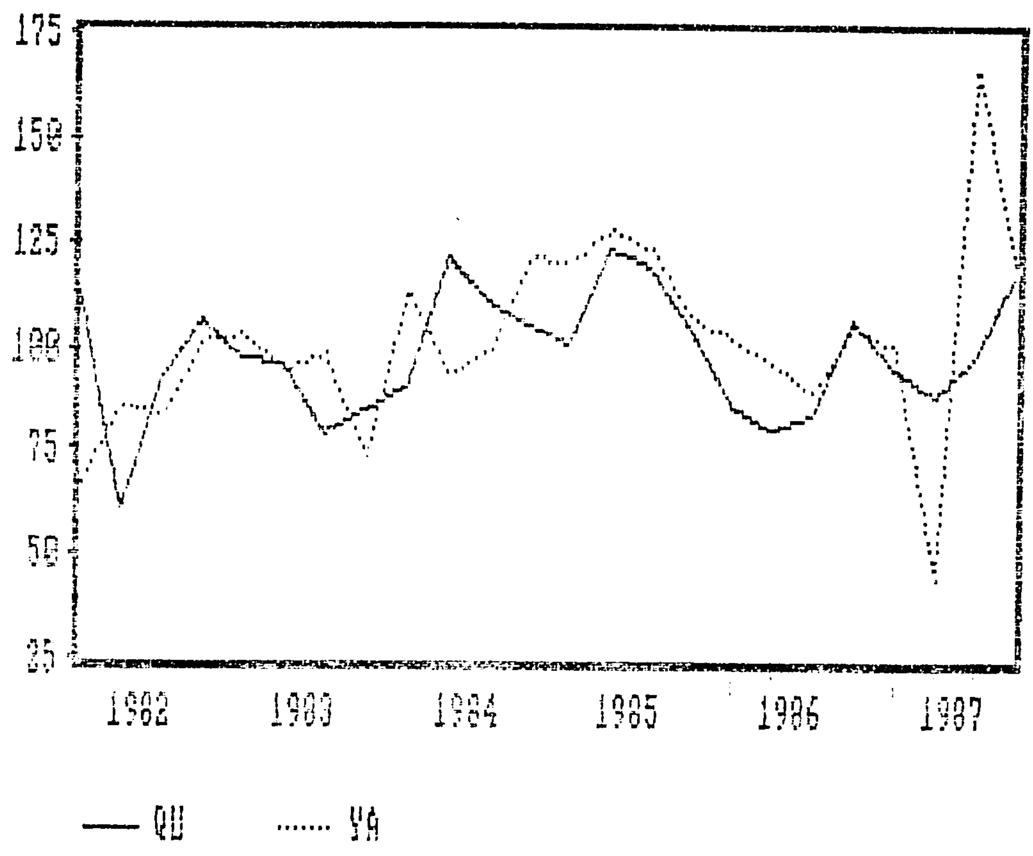


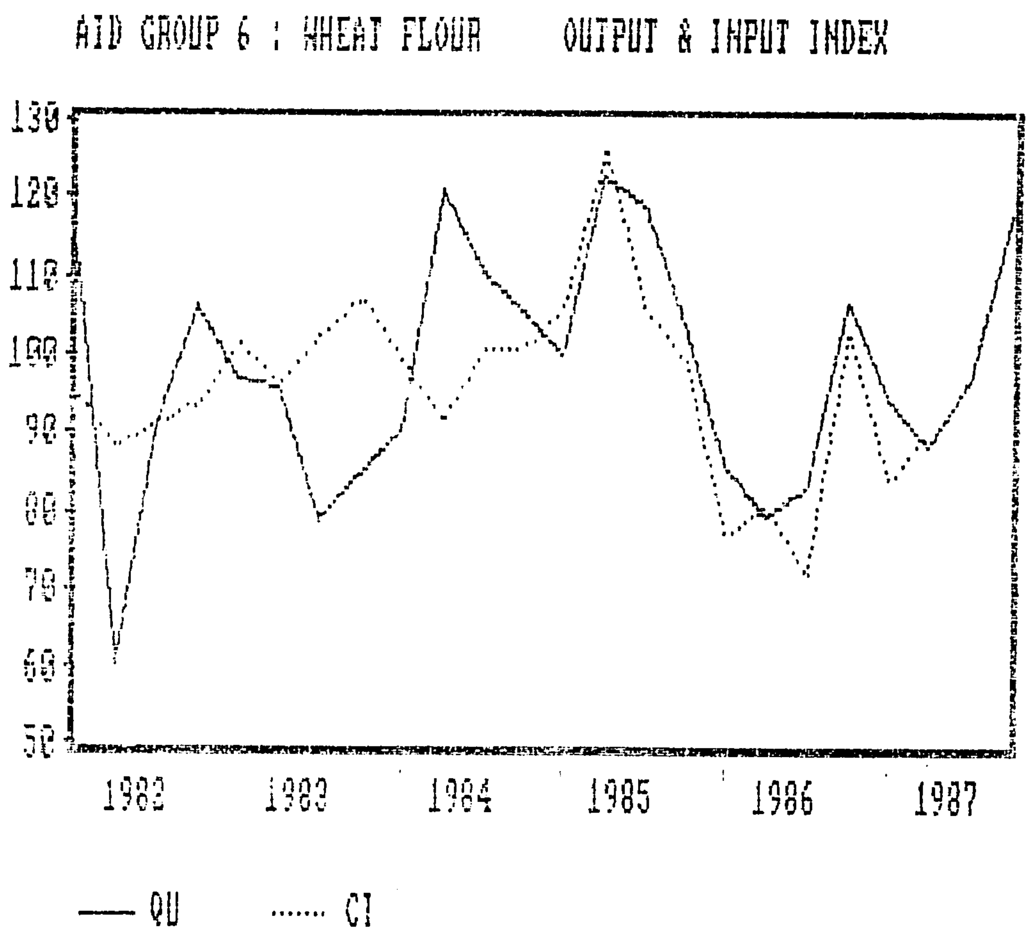
AID GROUP 5 : REFINED PEANUT OIL SALES PRICE INDEX

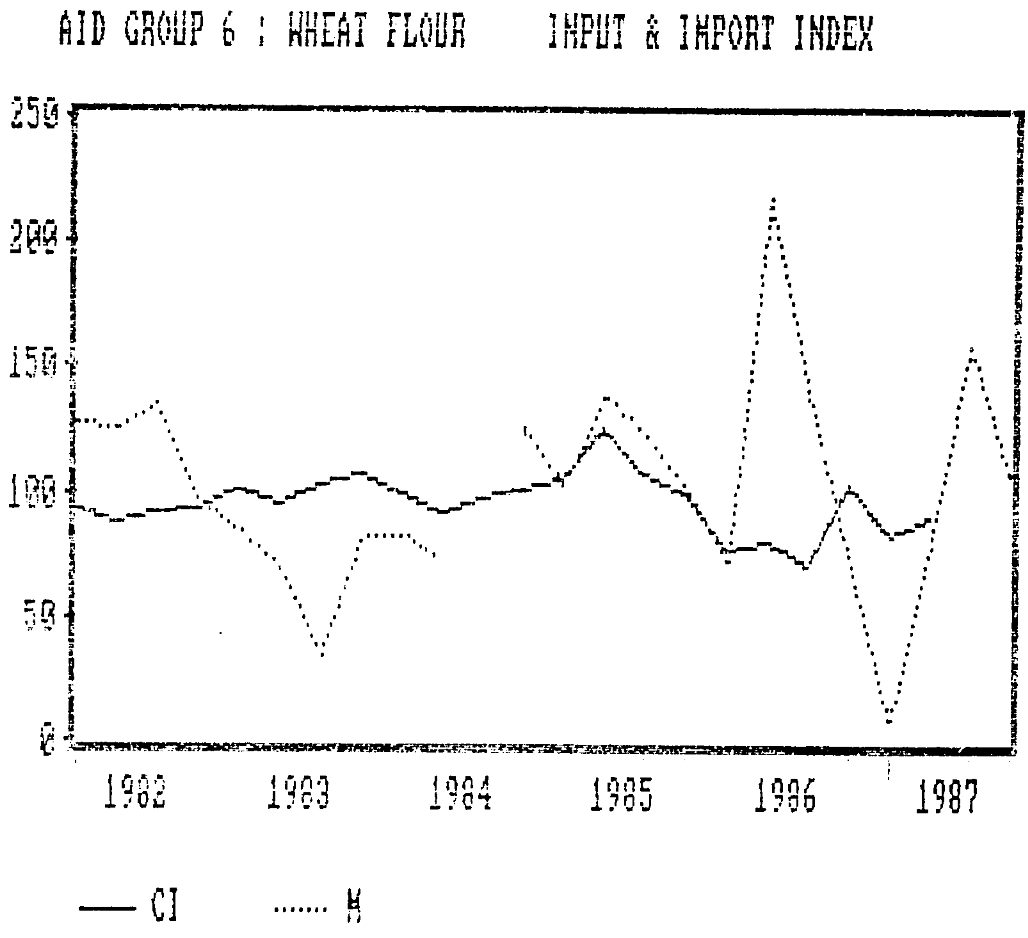


AID GROUP 6: WHEAT FLOUR

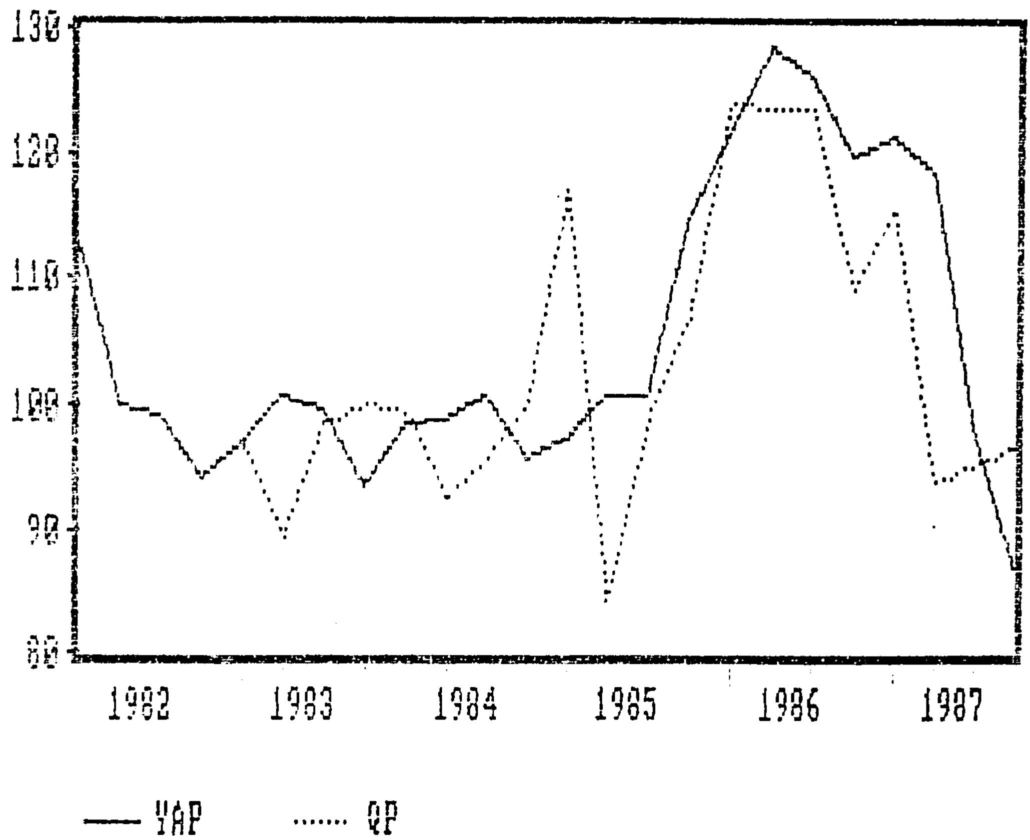
AID GROUP 6 : WHEAT FLOUR   OUTPUT & SALES INDEX



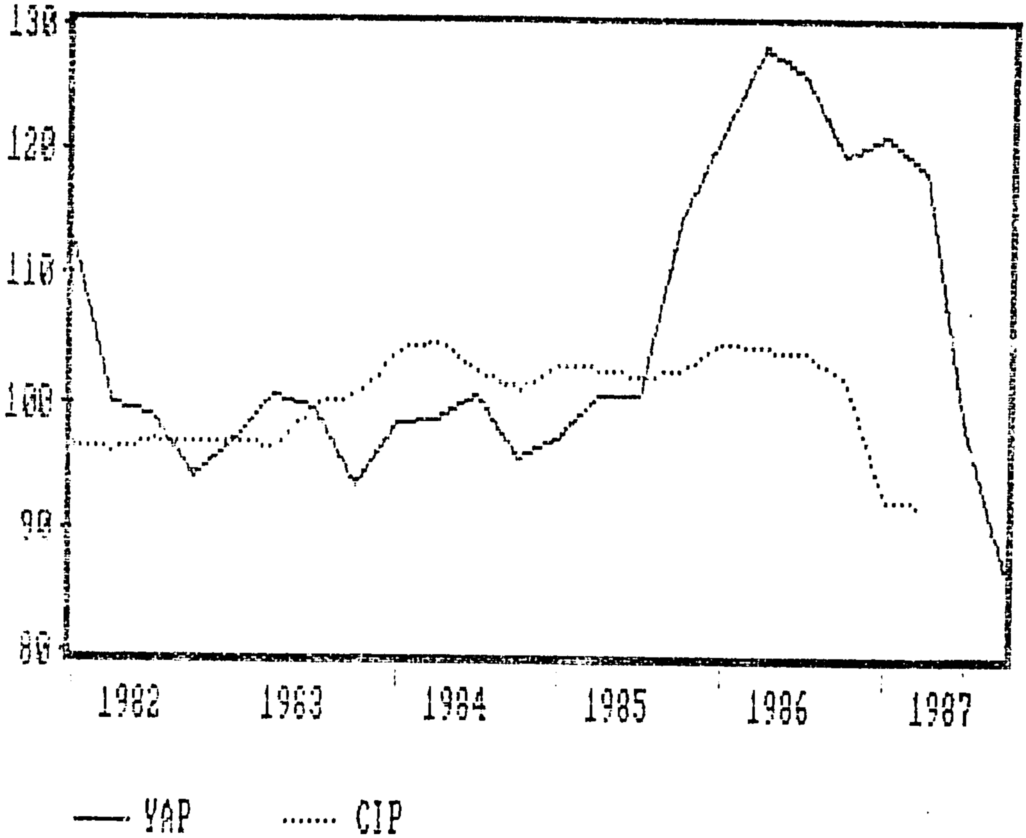

AID GROUP 6 : WHEAT FLOUR OUTPUT & INPUT INDEX
130
120
110
100
90
80
70
60
50
1982
1983
1984
1985
1986
1987
QU
CI

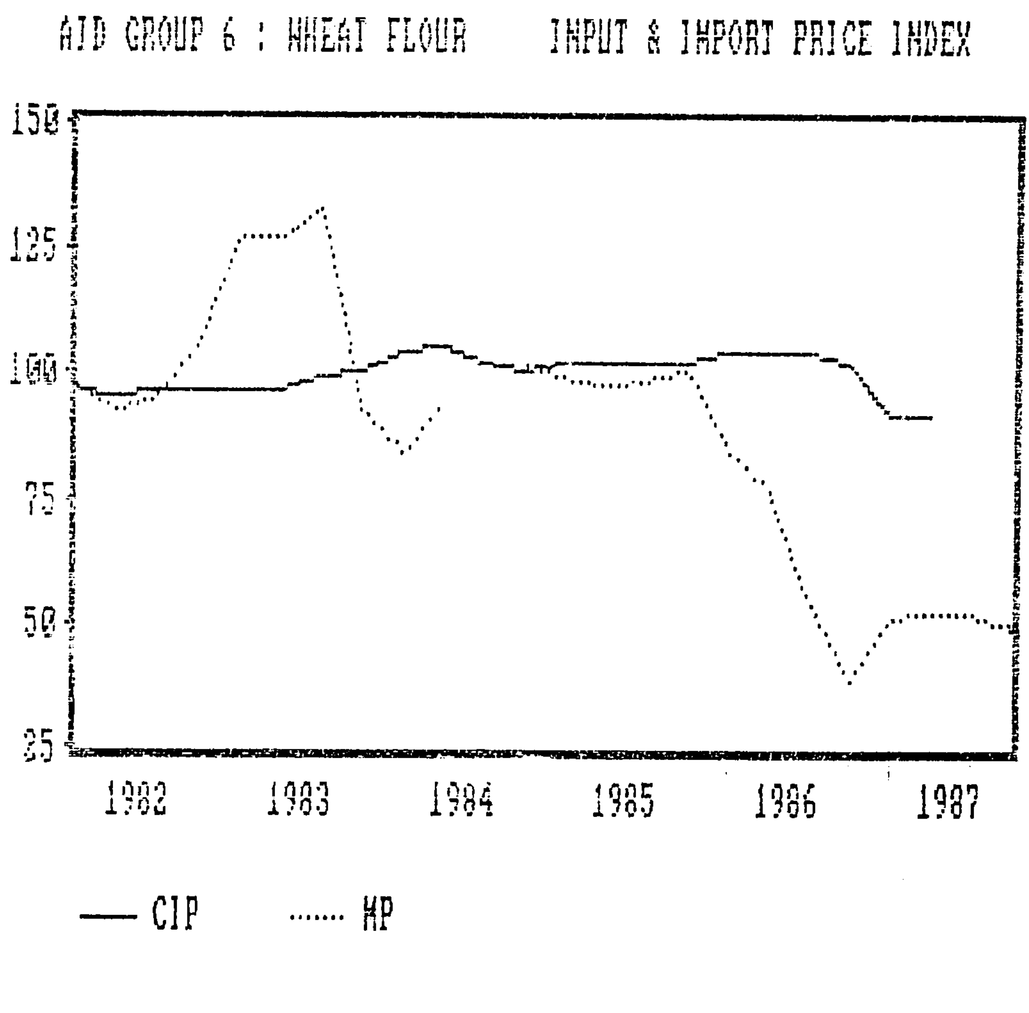

AID GROUP 6 : WHEAT FLOUR INPUT & IMPORT INDEX
250
200
150
100
50
0
1982
1983
1984
1985
1986
1987
CI
M

AID GROUP 6 : WHEAT FLOUR SALES & OUTPUT PRICE INDEX



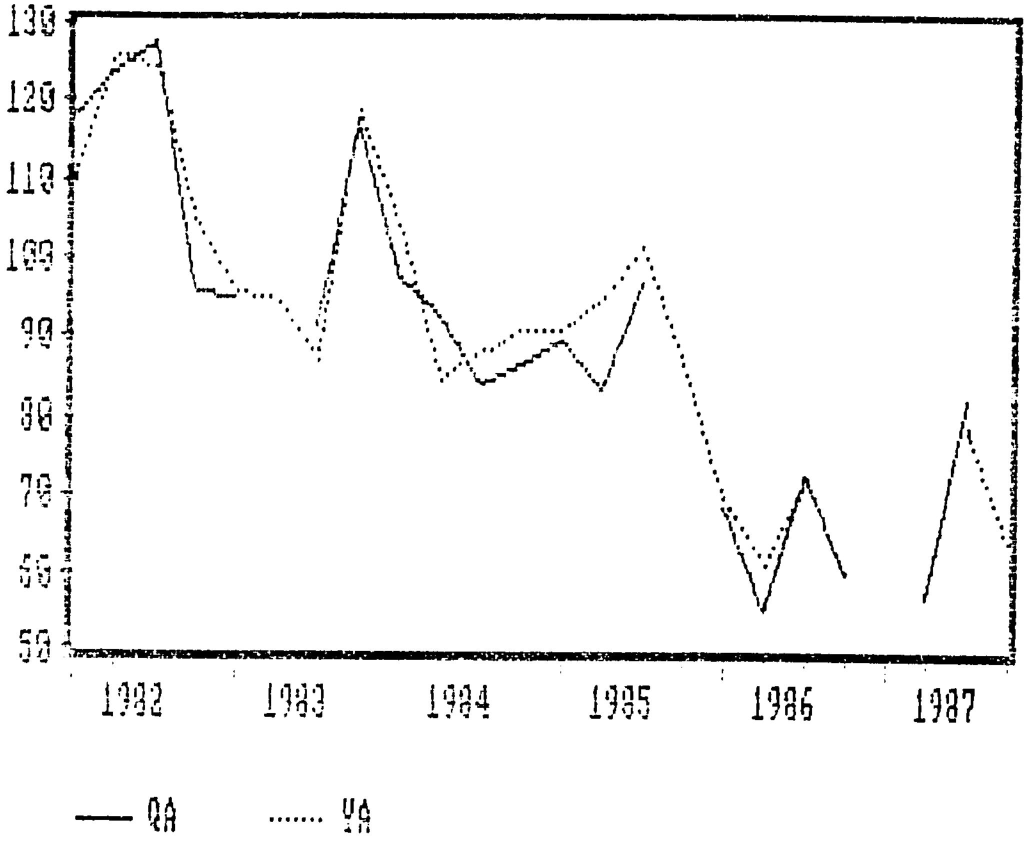
AID GROUP 6 : WHEAT FLOUR   SALES & INPUT PRICE INDEX



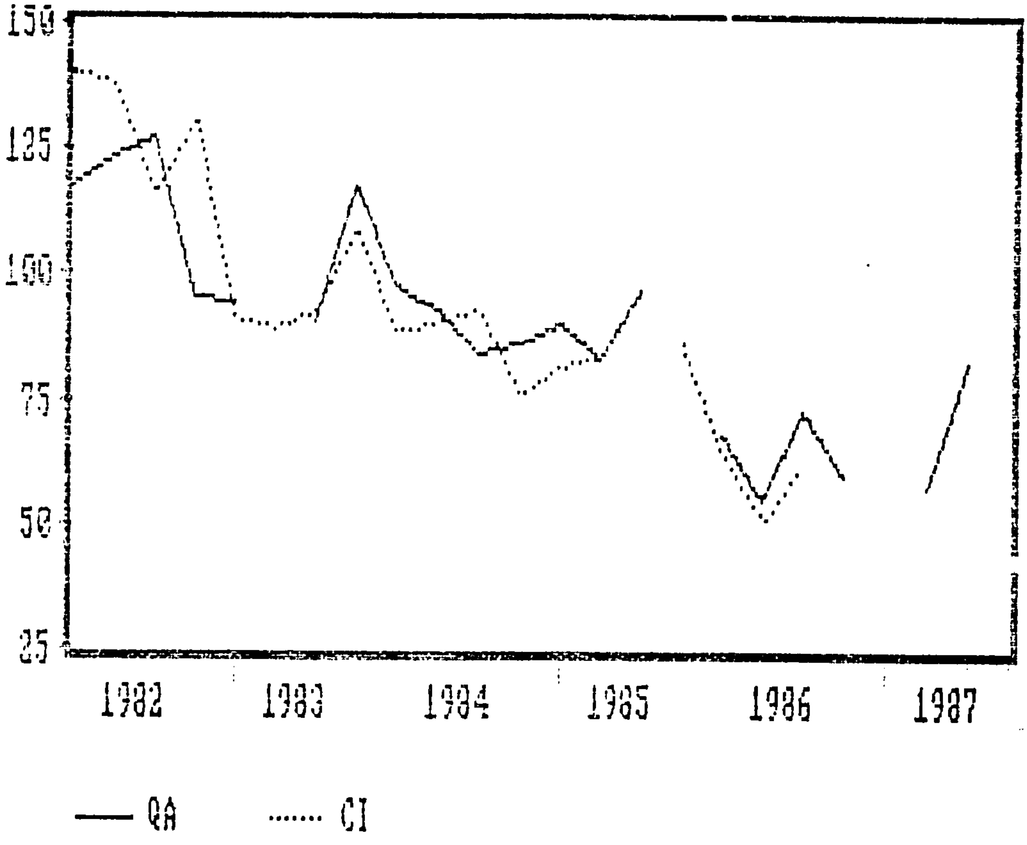

AID GROUP 6 : WHEAT FLOUR INPUT & IMPORT PRICE INDEX
150
125
100
75
50
25
1982
1983
1984
1985
1986
1987
CIP
MP

AID GROUP 7: BISCUITS

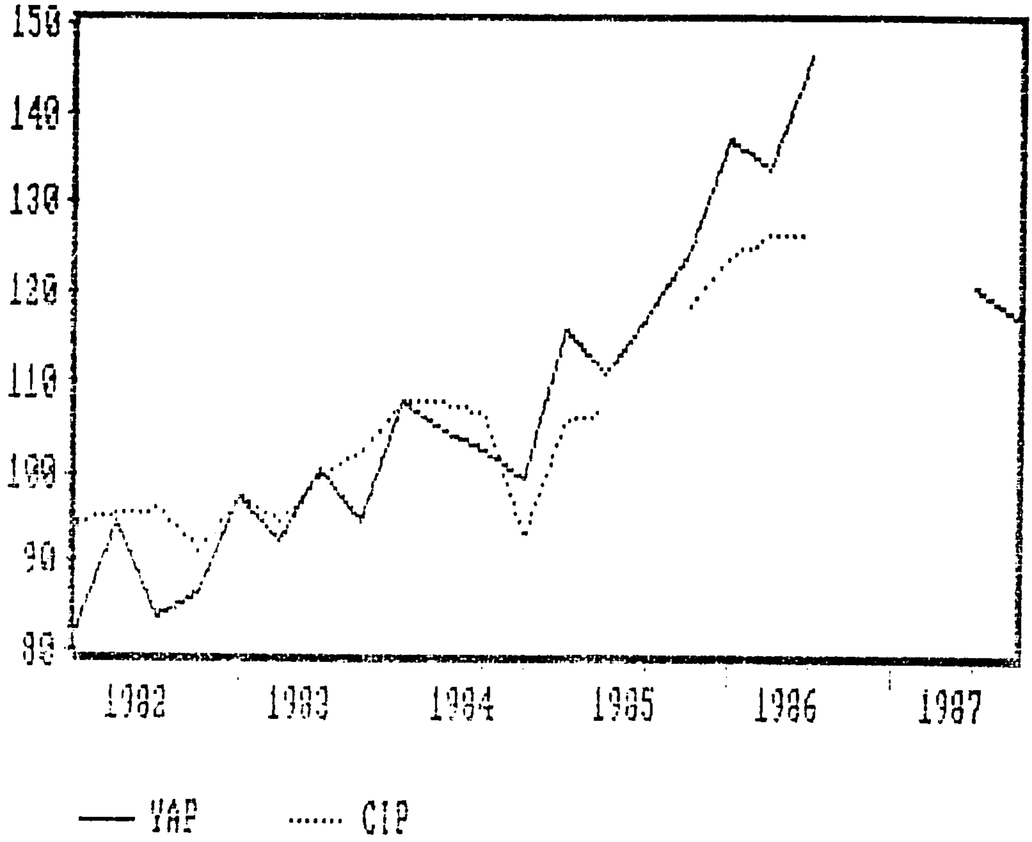
AID GROUP 7 : BISCUITS OUTPUT & SALES INDEX



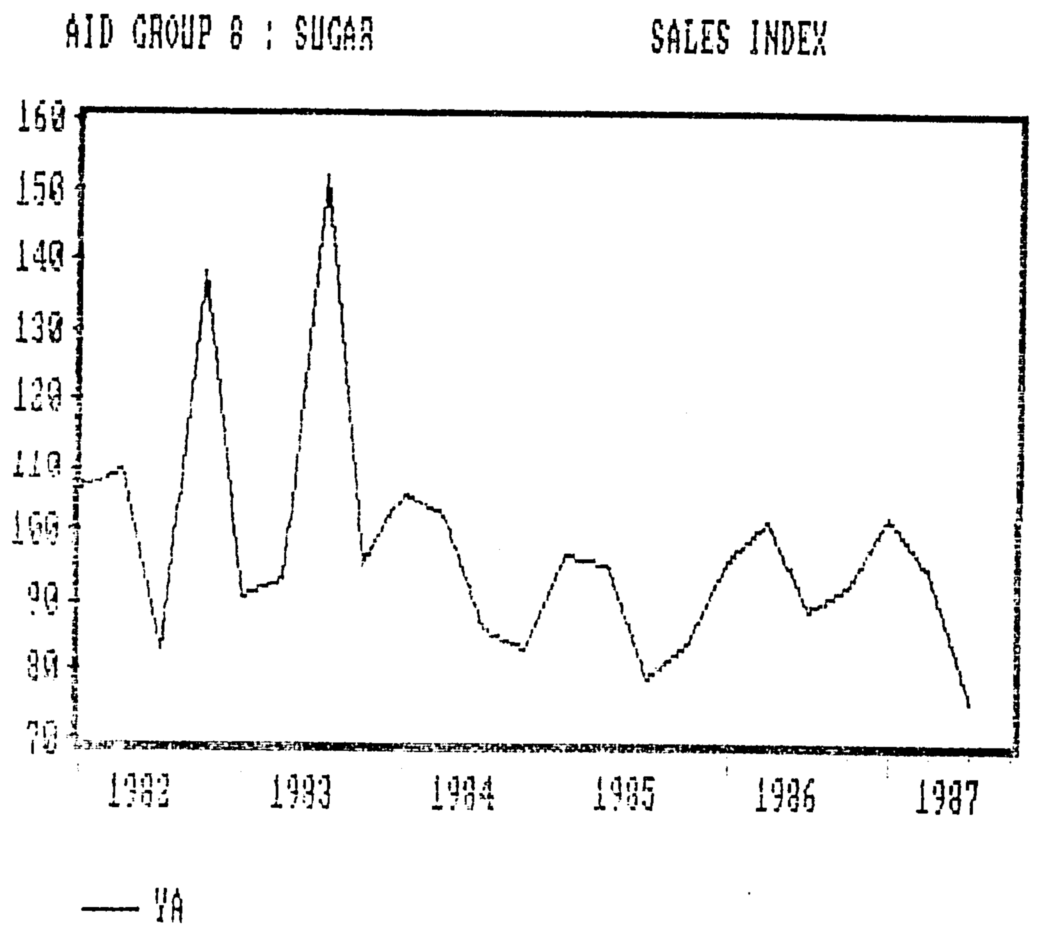
AID GROUP 7 : BISCUITS OUTPUT & INPUT INDEX



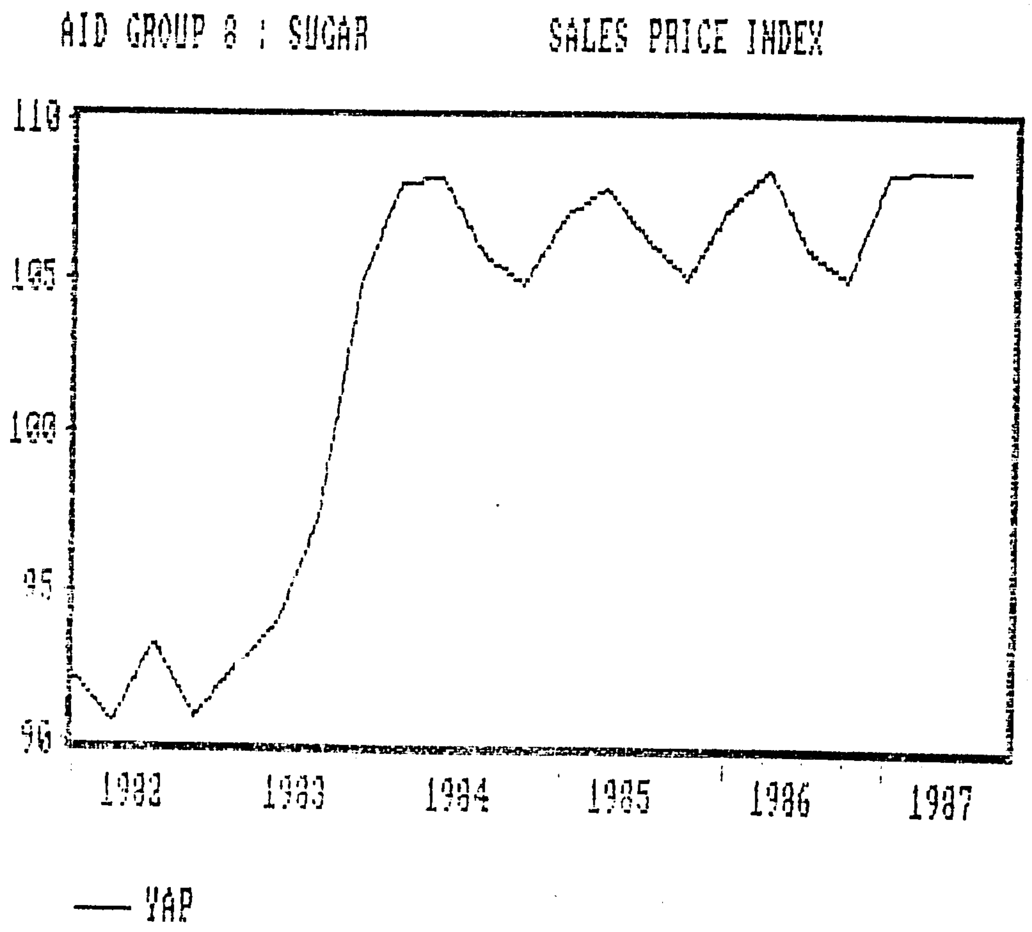
AID GROUP 7 : BISCUITS   SALES & INPUT PRICE INDEX



AID GROUP 8: SUGAR

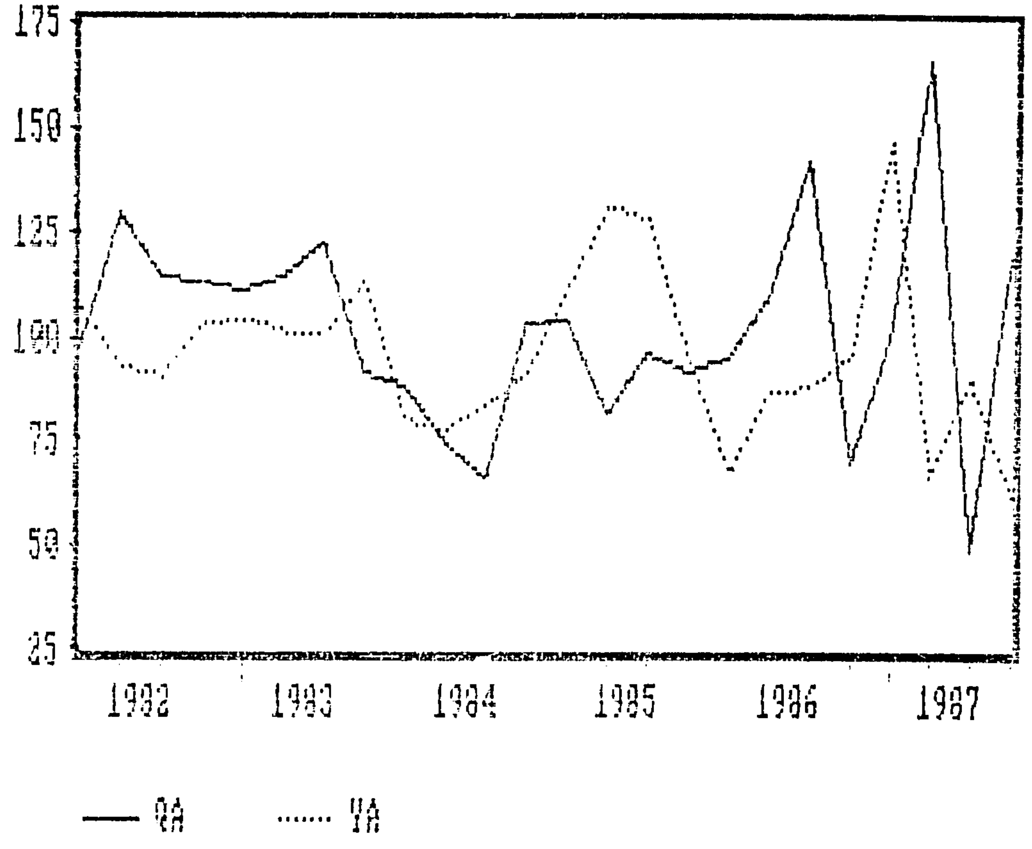


AID GROUP 8 : SUGAR
SALES INDEX
160
150
140
130
120
110
100
90
80
70
1982
1983
1984
1985
1986
1987
YA

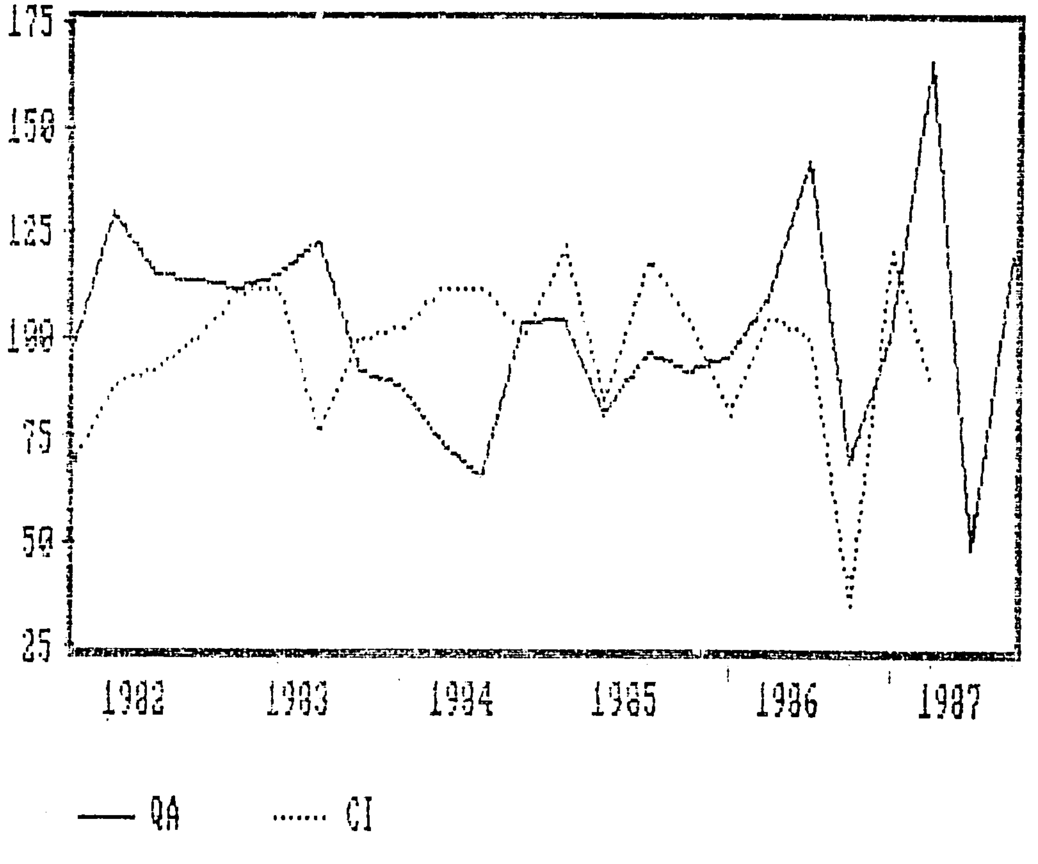

AID GROUP 8 : SUGAR
SALES PRICE INDEX
110
105
100
95
90
1982
1983
1984
1985
1986
1987
YAP

AIT GROUP 9: YARN AND THREAD

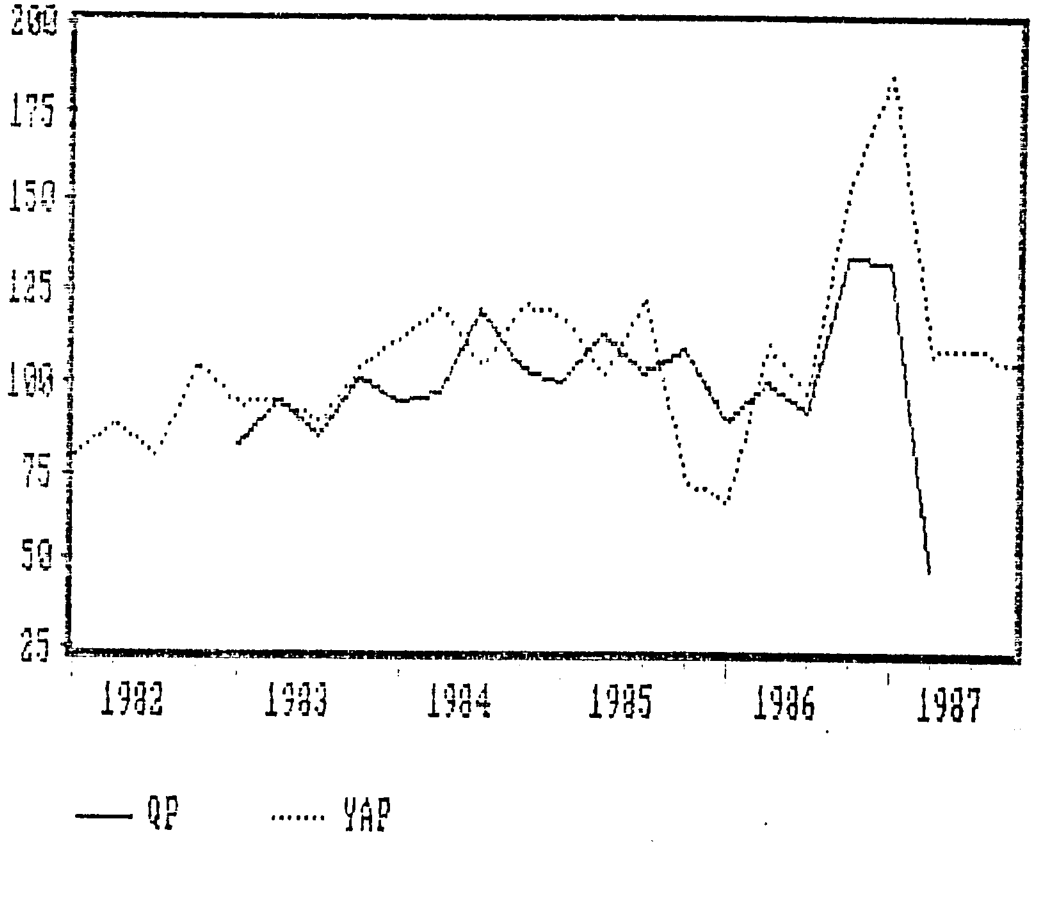
AID GROUP 9 : YARN & THREAD   OUTPUT & SALES INDEX



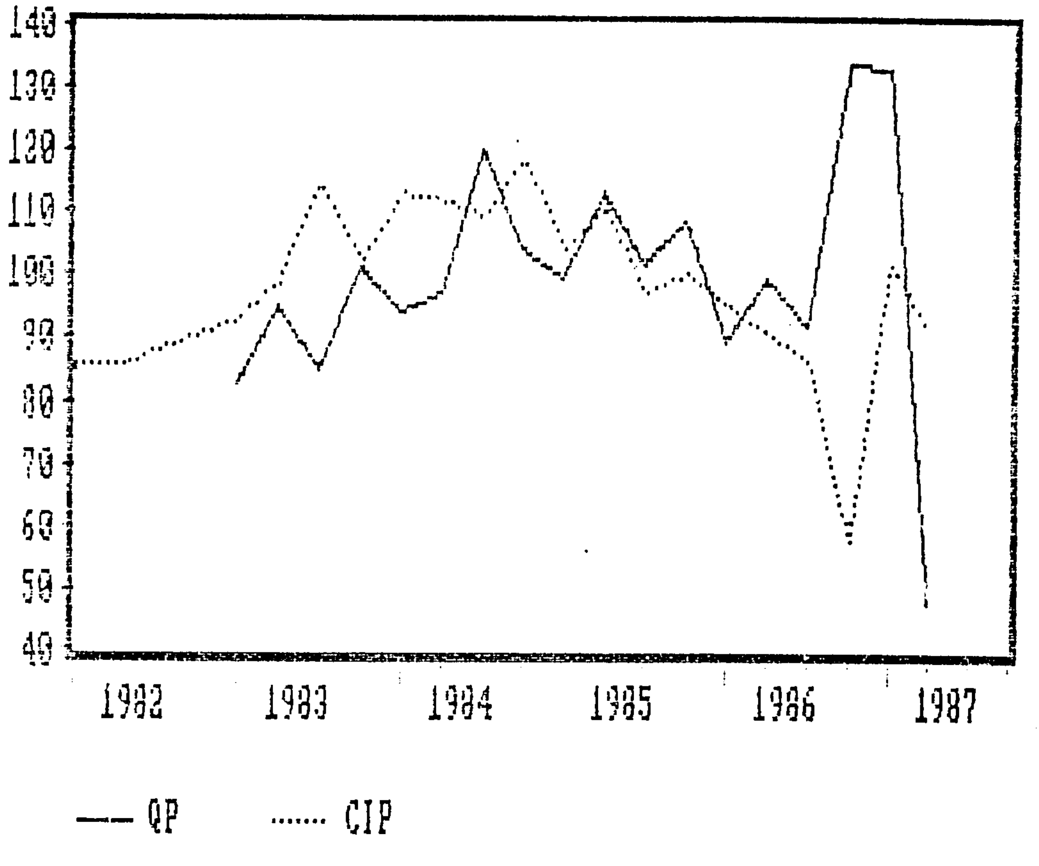
AID GROUP 9 : YARN & THREAD   OUTPUT & INPUT INDEX



AID GROUP 9 : YARN & THREAD   OUTPUT & SALES PRICE INDEX

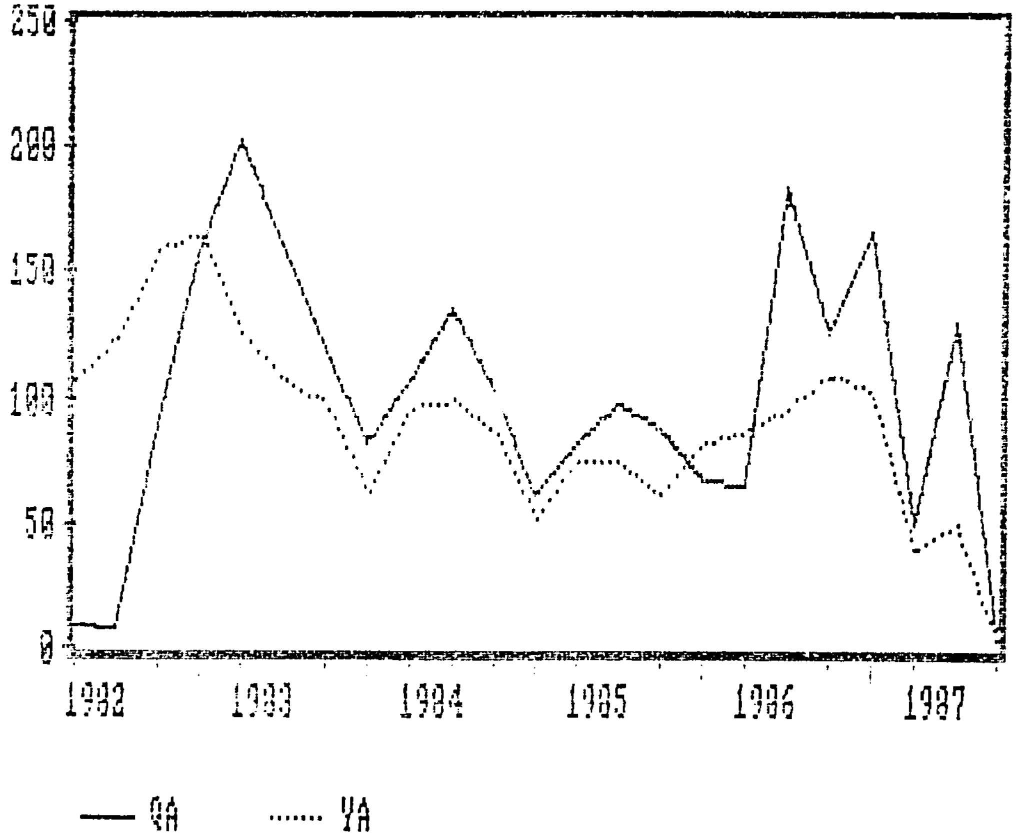


AID GROUP 9 : YARN & THREAD   OUTPUT & INPUT PRICE INDEX

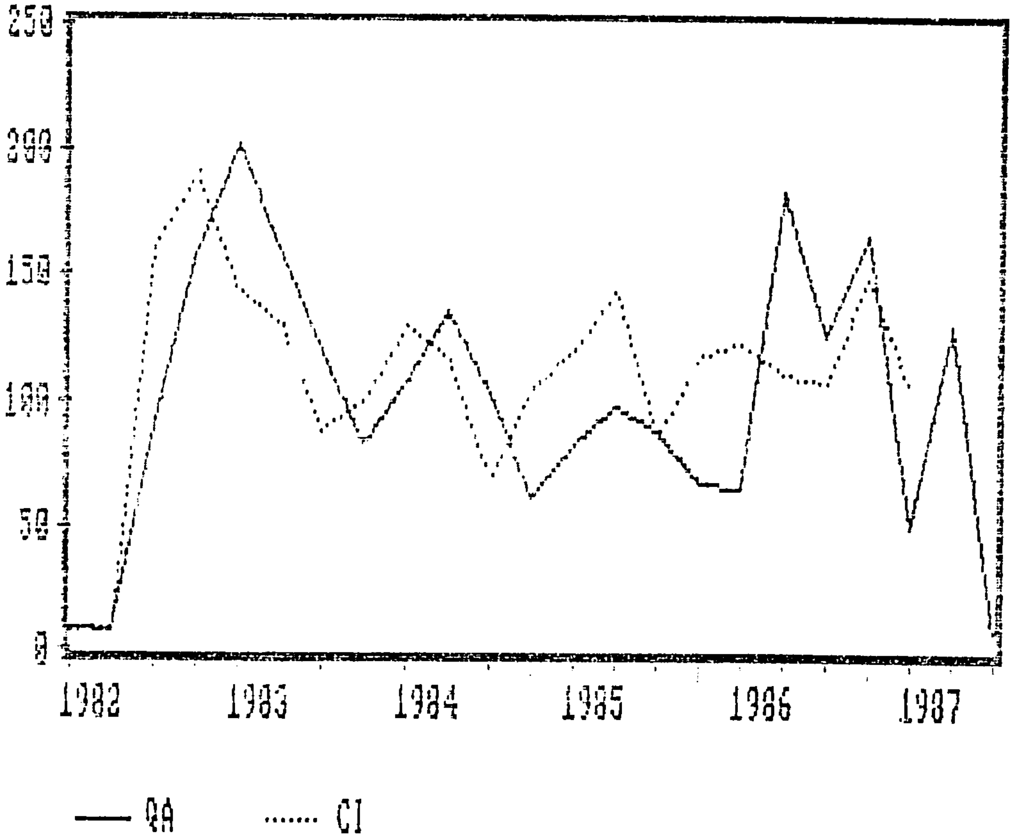


AID GROUP 10: PRINTED AND DYED CLOTH

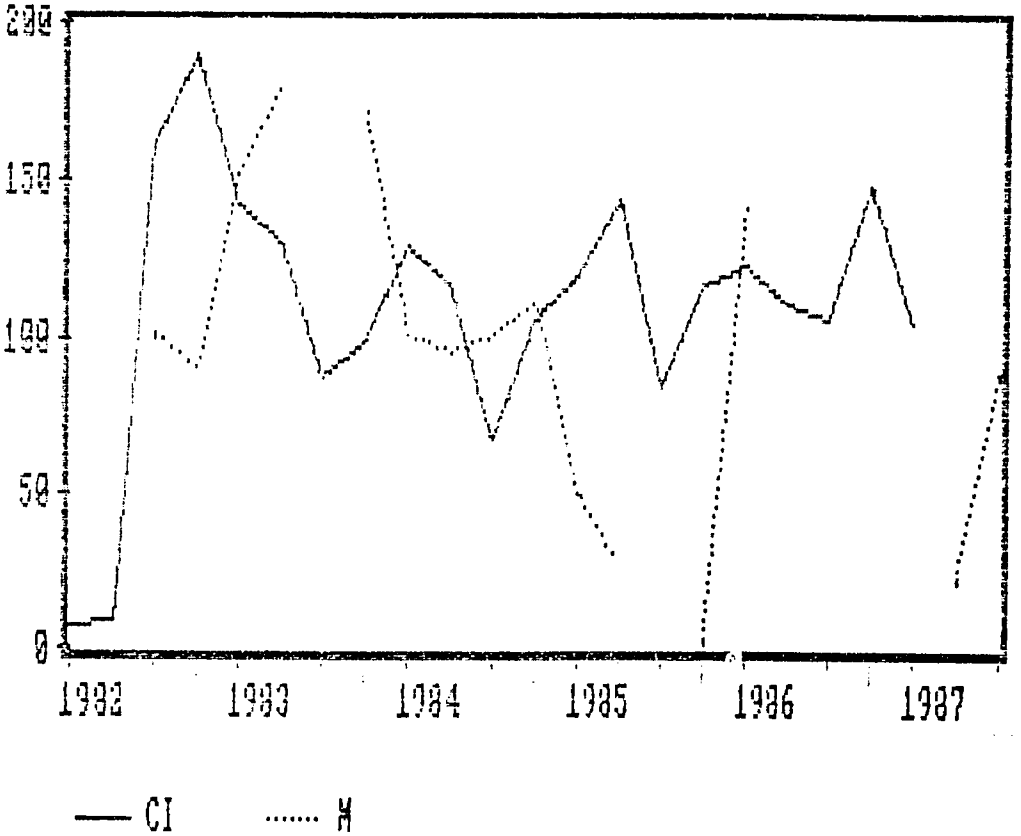
AID GROUP 10 : PRINTED & DYED CLOTH   OUTPUT & SALES INDEX



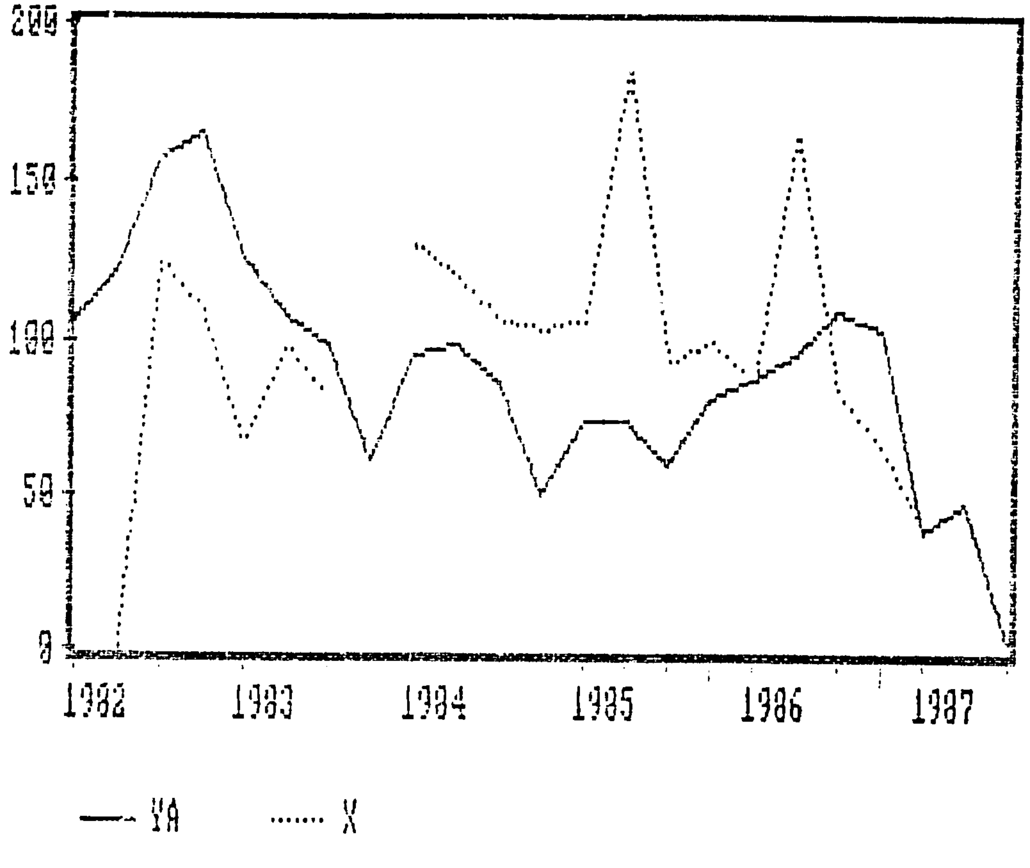
AID GROUP 10 : PRINTED & DYED CLOTH OUTPUT & INPUT INDEX



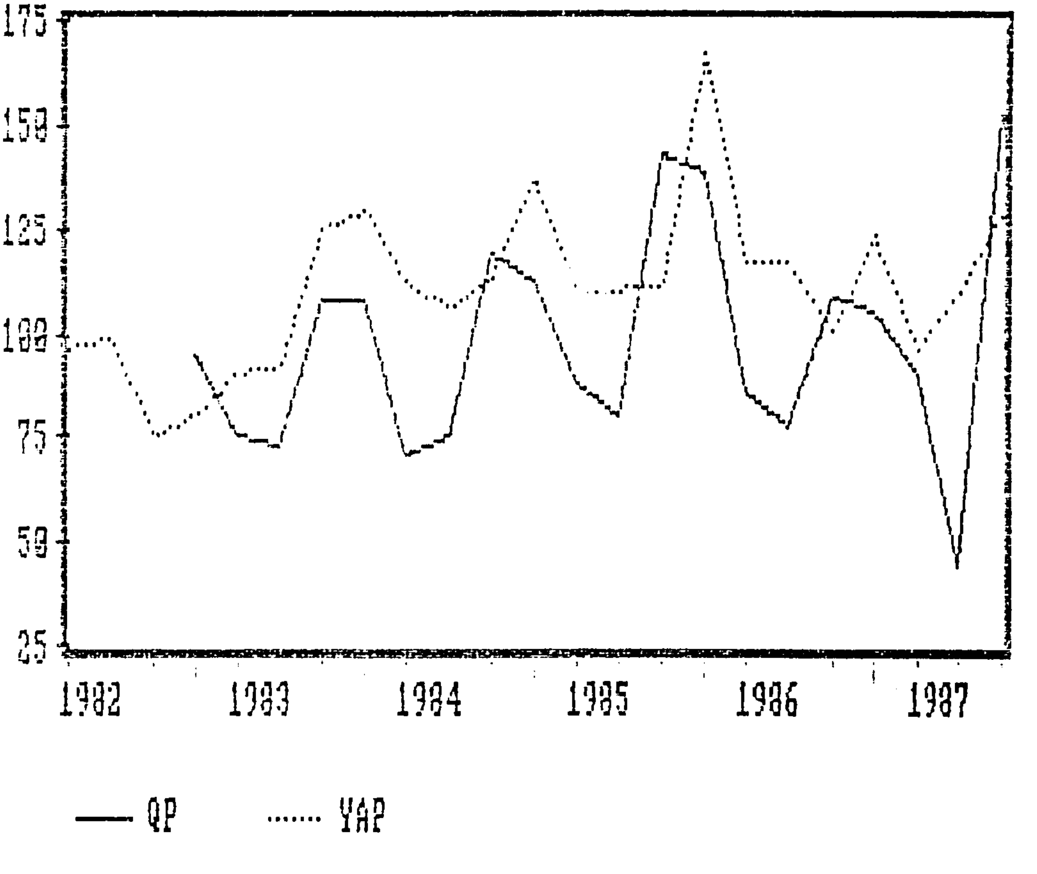
AID GROUP 10 : PRINTED & DYED CLOTH   INPUT & IMPORT INDEX

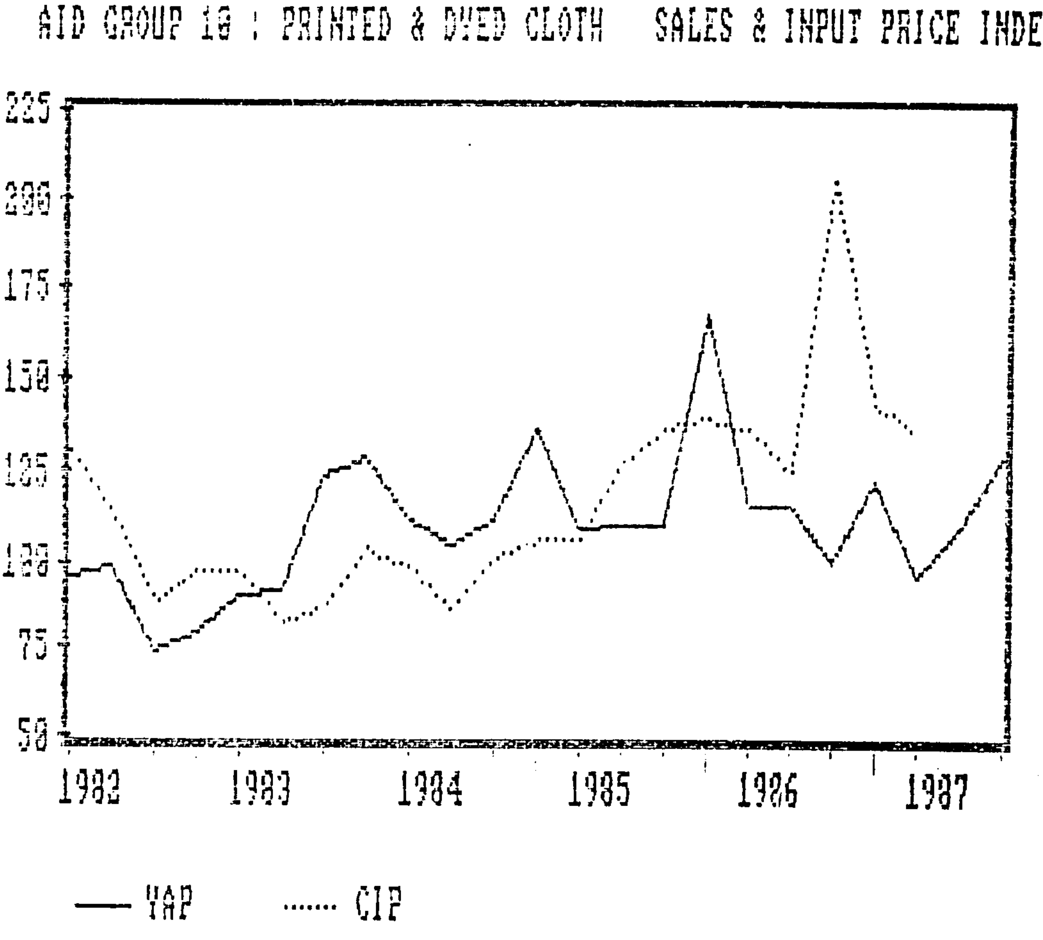


AID GROUP 18 : PRINTED & DYED CLOTH   SALES & EXPORT INDEX



AID GROUP 10 : PRINTED & DYED CLOTH OUTPUT & SALES PRICE IND

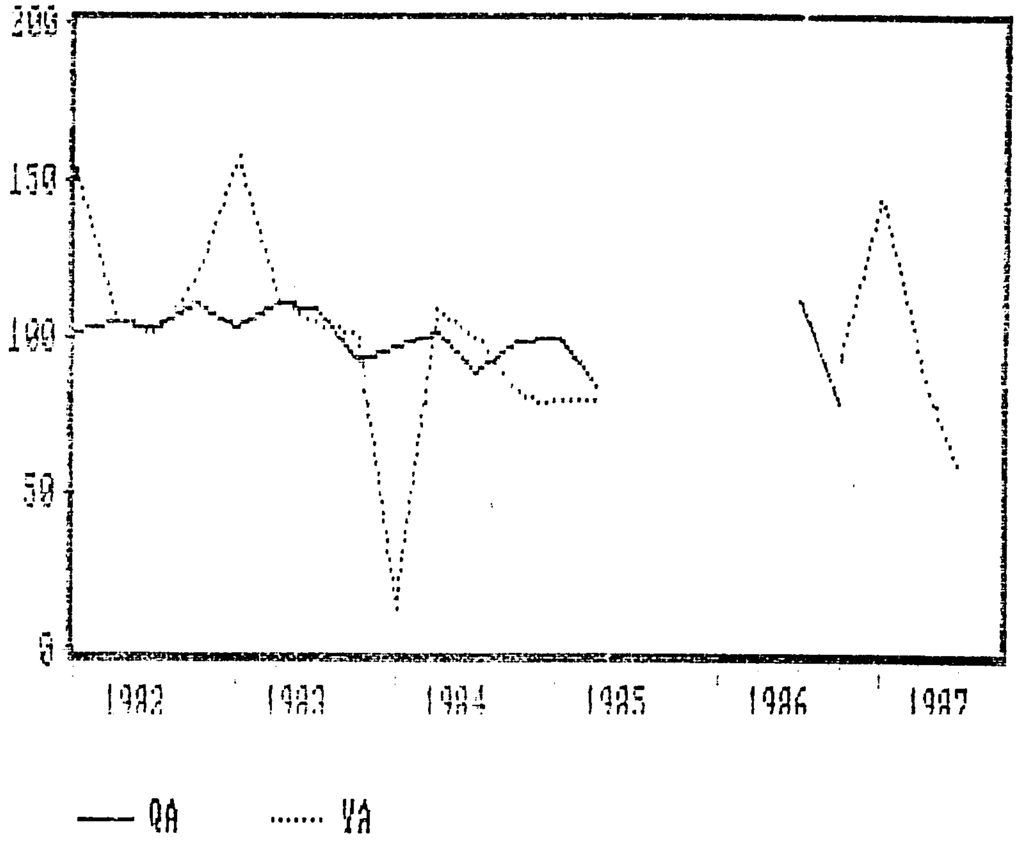




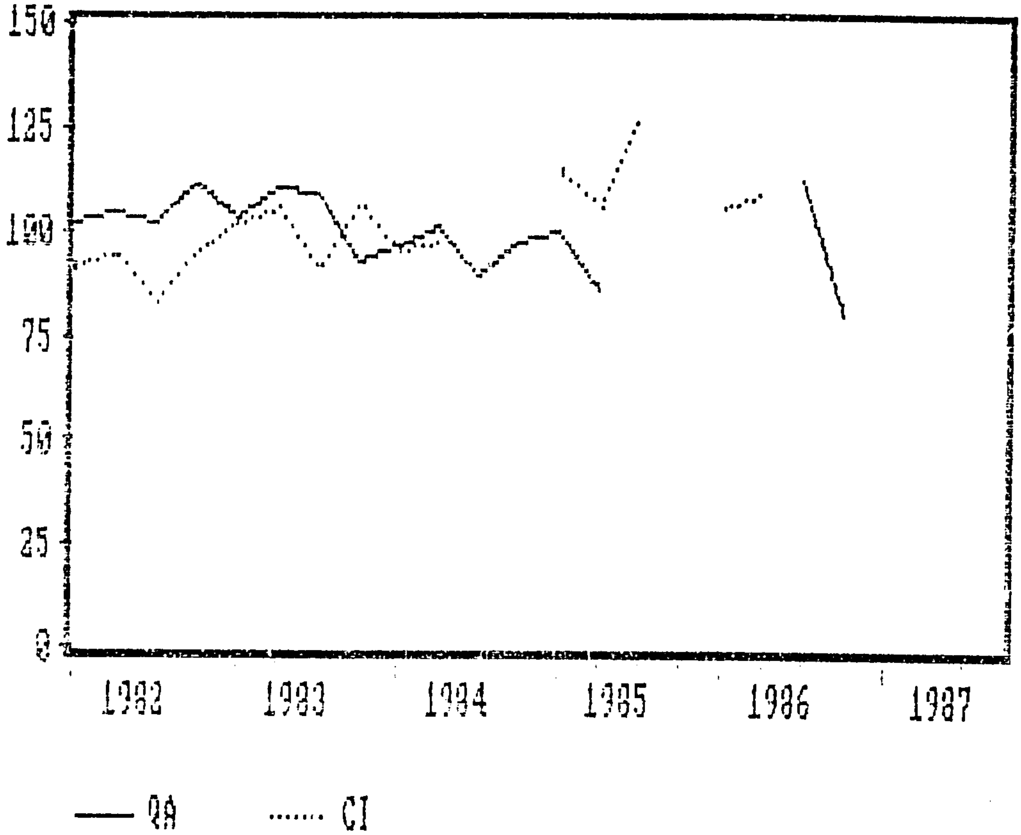
AID GROUP 10 : PRINTED & DYED CLOTH SALES & INPUT PRICE INDE
225
200
175
150
125
100
75
50
1982
1983
1984
1985
1986
1987
YAP
CIP

AID GROUP 11: UNBLEACHED CLOTH

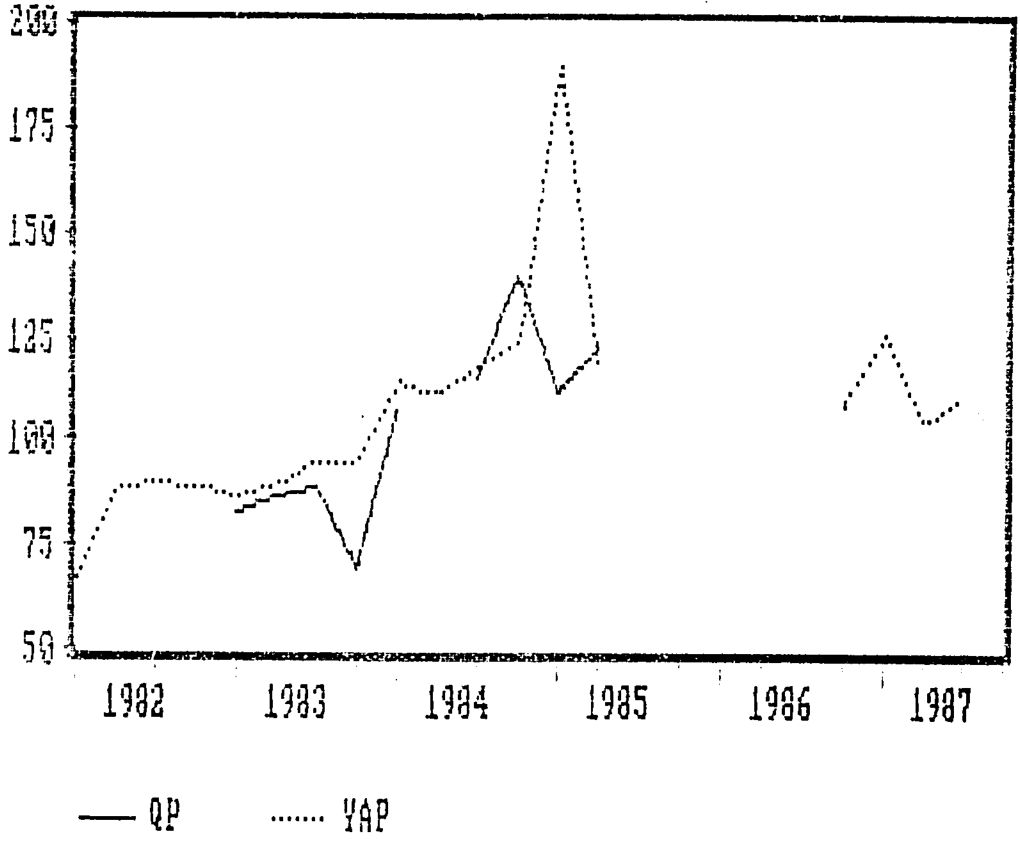
AID GROUP 11 : UNBLEACHED CLOTH OUTPUT & SALES INDEX



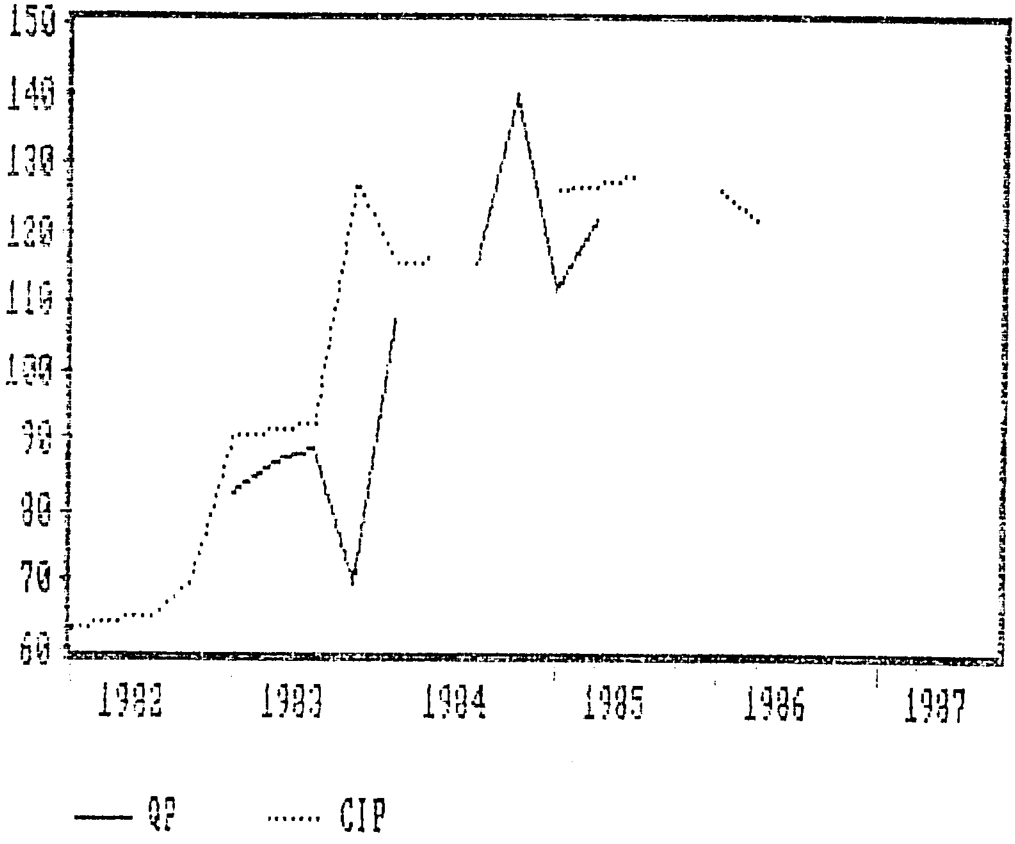
AID GROUP 11 : UNBLEACHED CLOTH   OUTPUT & INPUT INDEX



AID GROUP 11 : UNBLEACHED CLOTH   OUTPUT & SALES PRICE INDEX

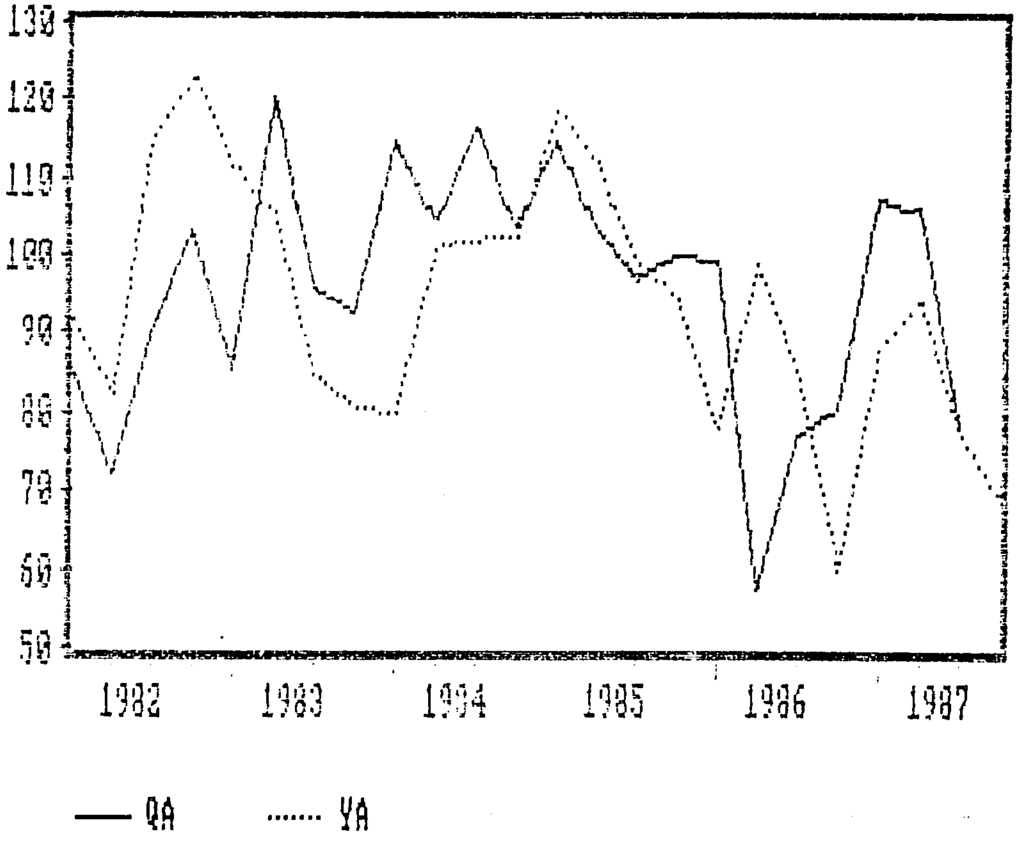


AID GROUP 11 : UNBLEACHED CLOTH   OUTPUT & INPUT PRICE INDEX

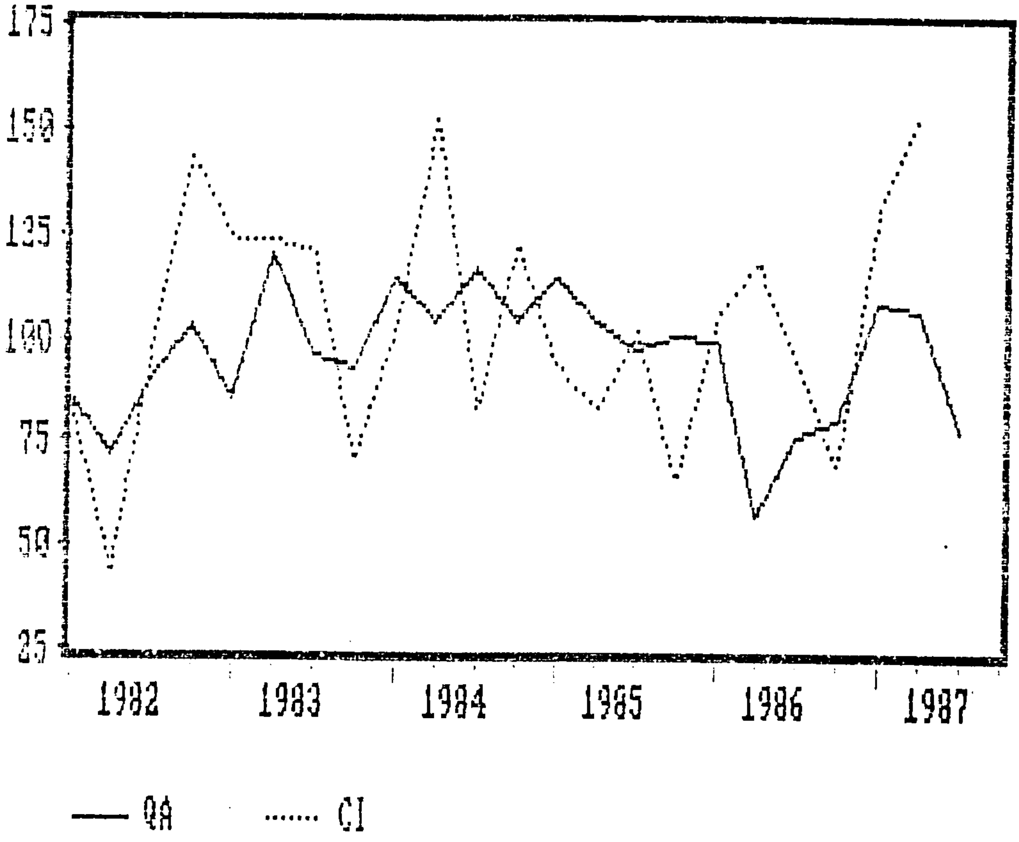


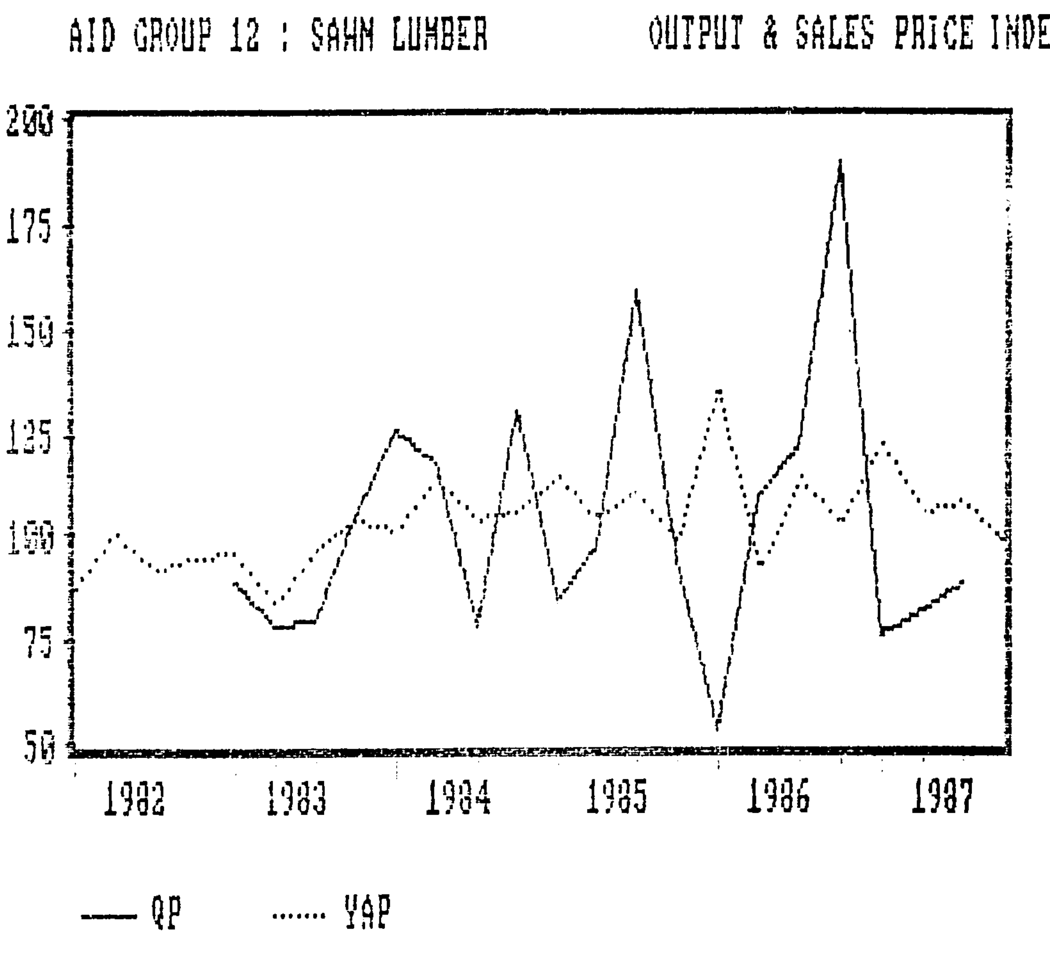
AID GROUP 12: SAWN LUMBER

AID GROUP 12 : SAWN LUMBER OUTPUT & SALES INDEX

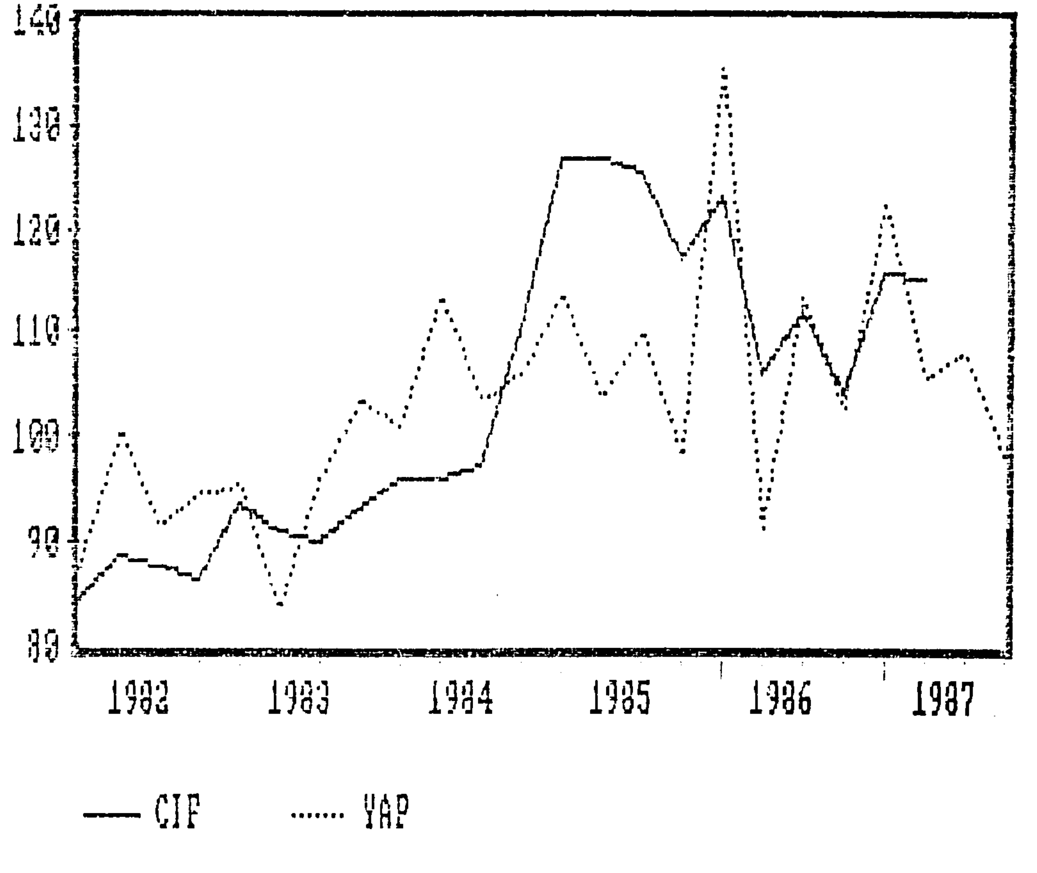


AID GROUP 12 : SAWN LUMBER OUTPUT & INPUT INDEX

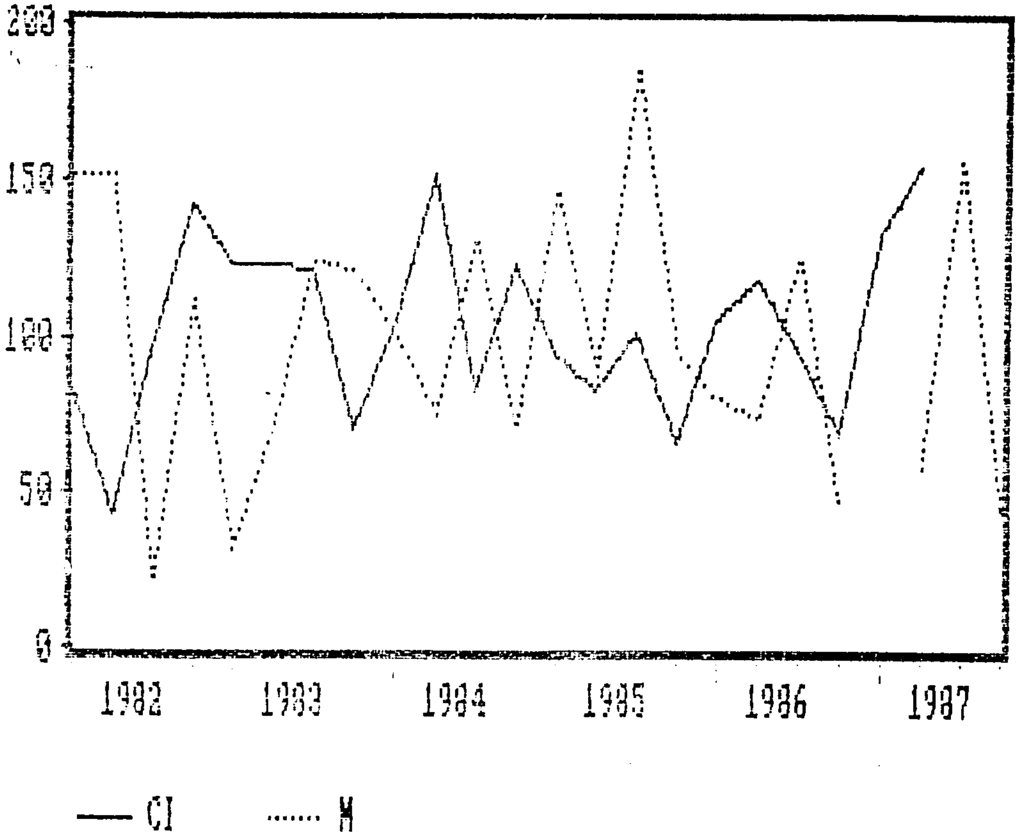



AID GROUP 12 : SAWN LUMBER
OUTPUT & SALES PRICE INDE
200
175
150
125
100
75
50
1982
1983
1984
1985
1986
1987
QP
YAP

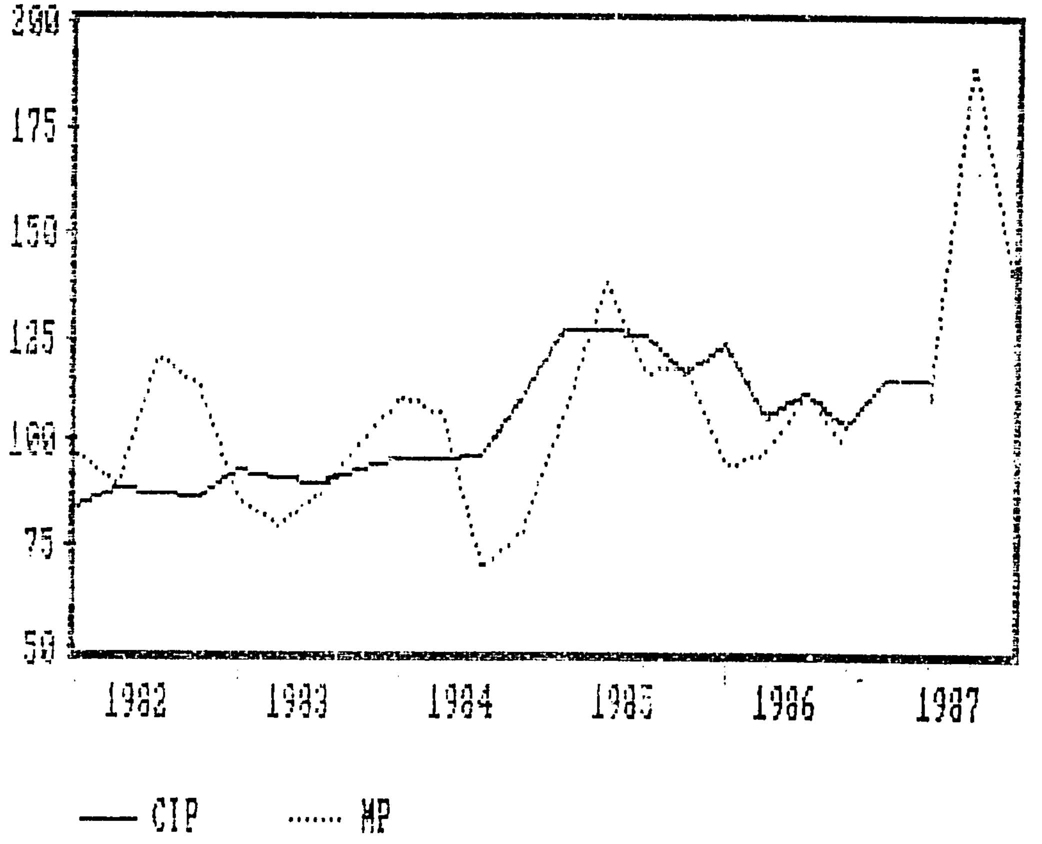
AID GROUP 12 : SAWN LUMBER   INPUT & SALES PRICE INDEX



AID GROUP 12 : SAWN LUMBER   INPUT & IMPORT INDEX

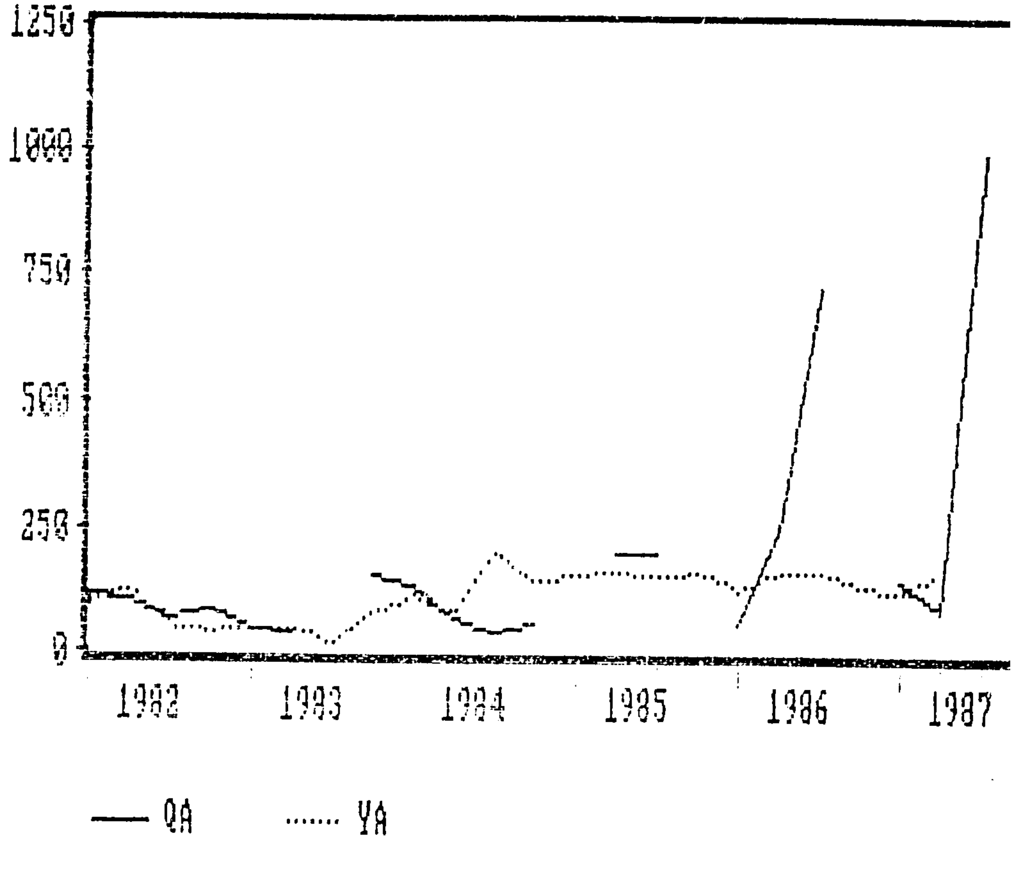


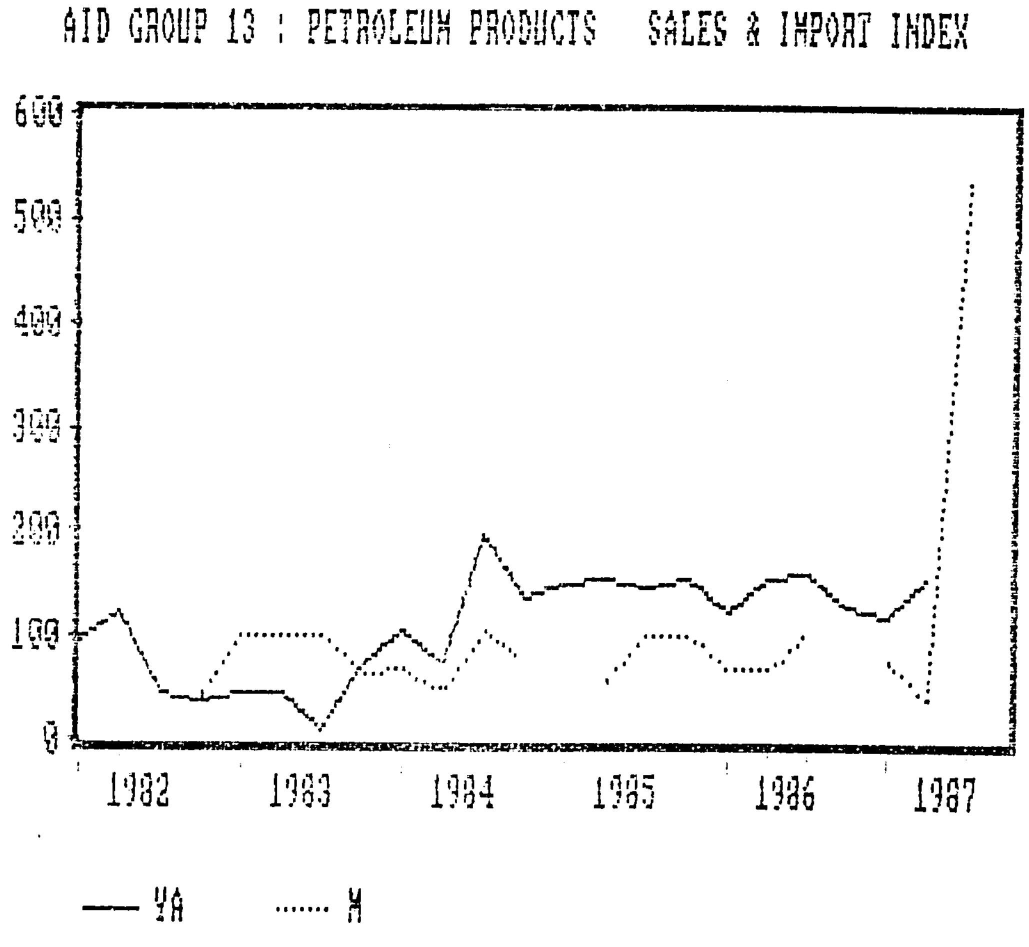
AID GROUP 12 : SAWN LUMBER INPUT & IMPORT PRICE INDEX



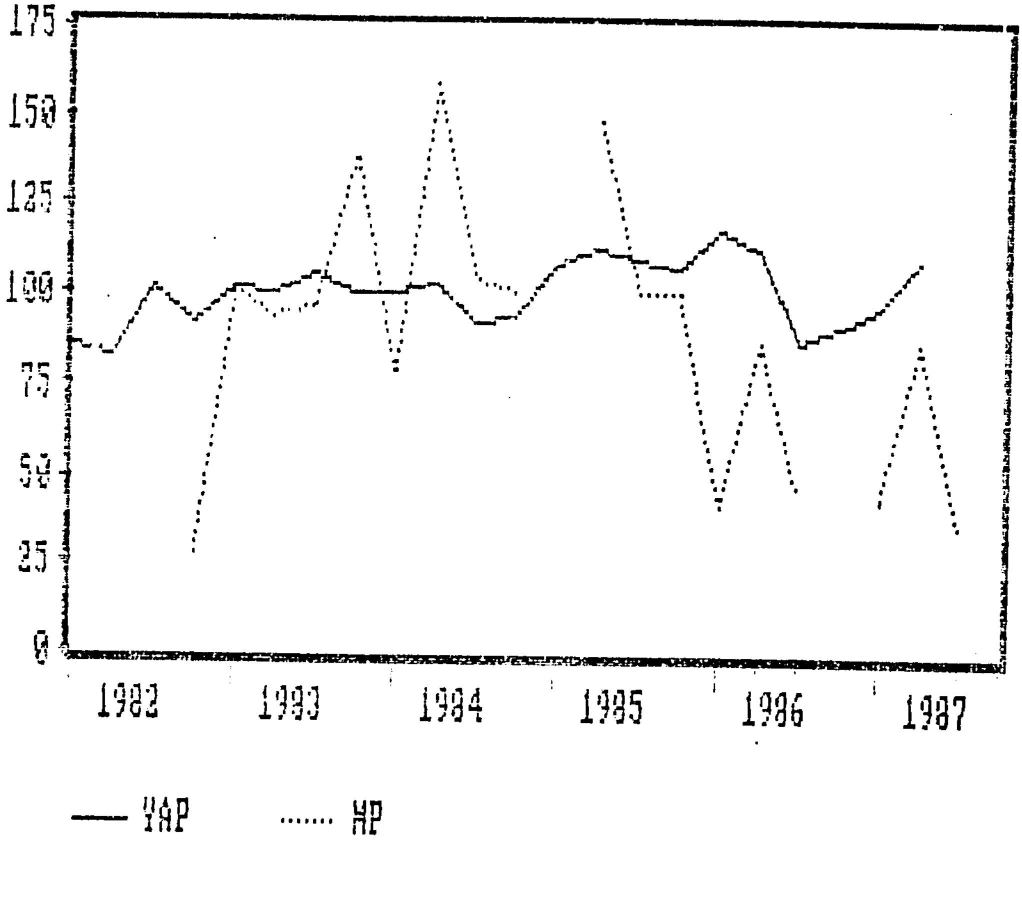
AID GROUP 13: PETROLEUM PRODUCTS

AID GROUP 13 : PETROLEUM PRODUCTS SALES & OUTPUT INDEX



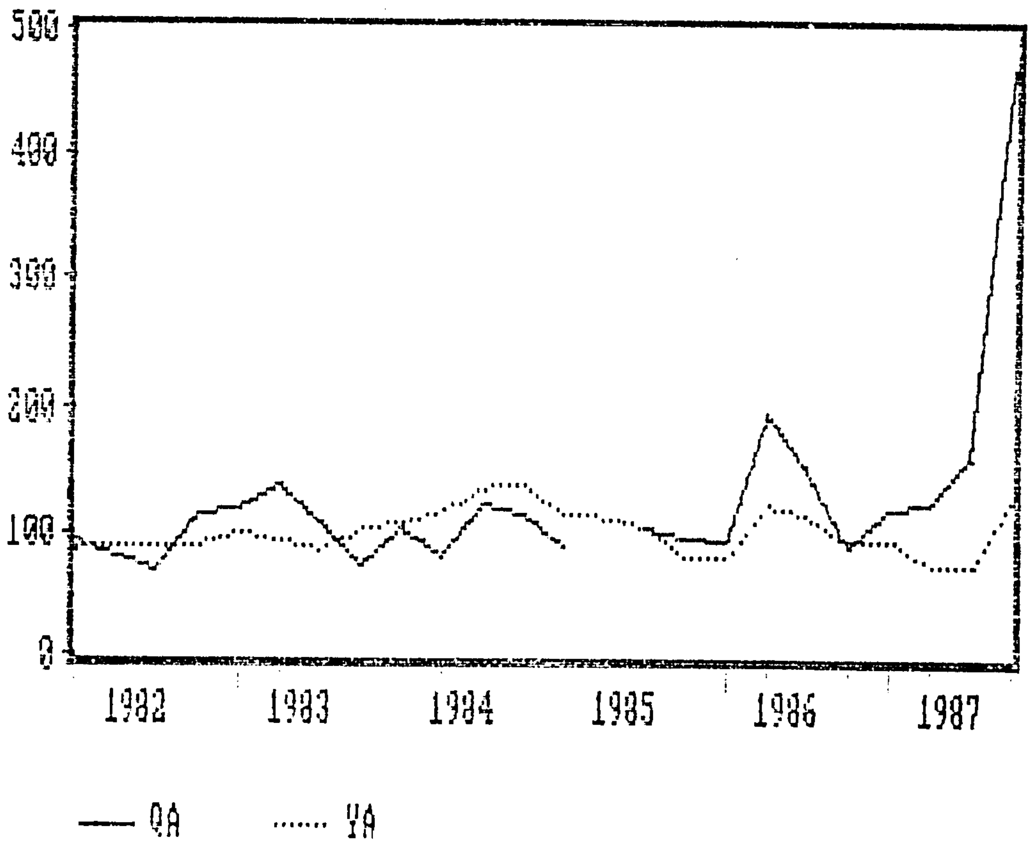

AID GROUP 13 : PETROLEUM PRODUCTS SALES & IMPORT INDEX
600
500
400
300
200
100
0
1982
1983
1984
1985
1986
1987
VA
M

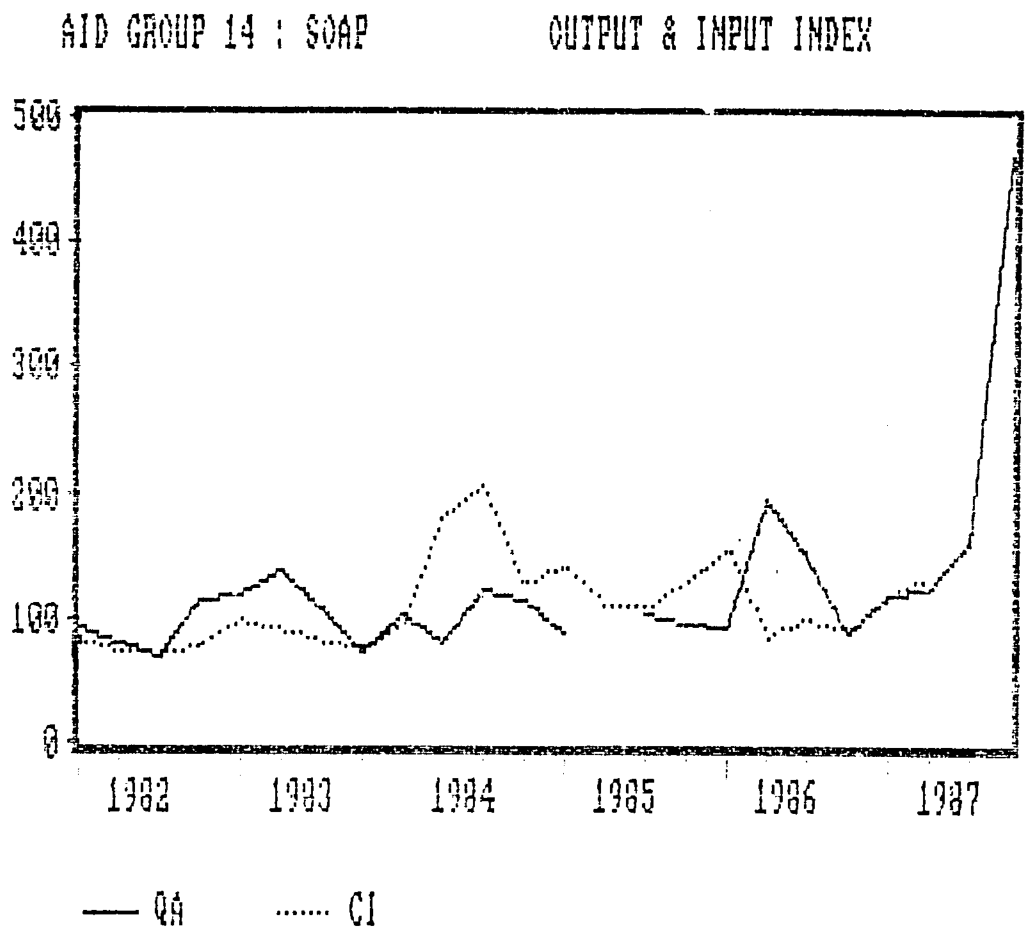
AID GROUP 13 : PETROLEUM PRODUCTS SALES & IMPORT PRICE INDE

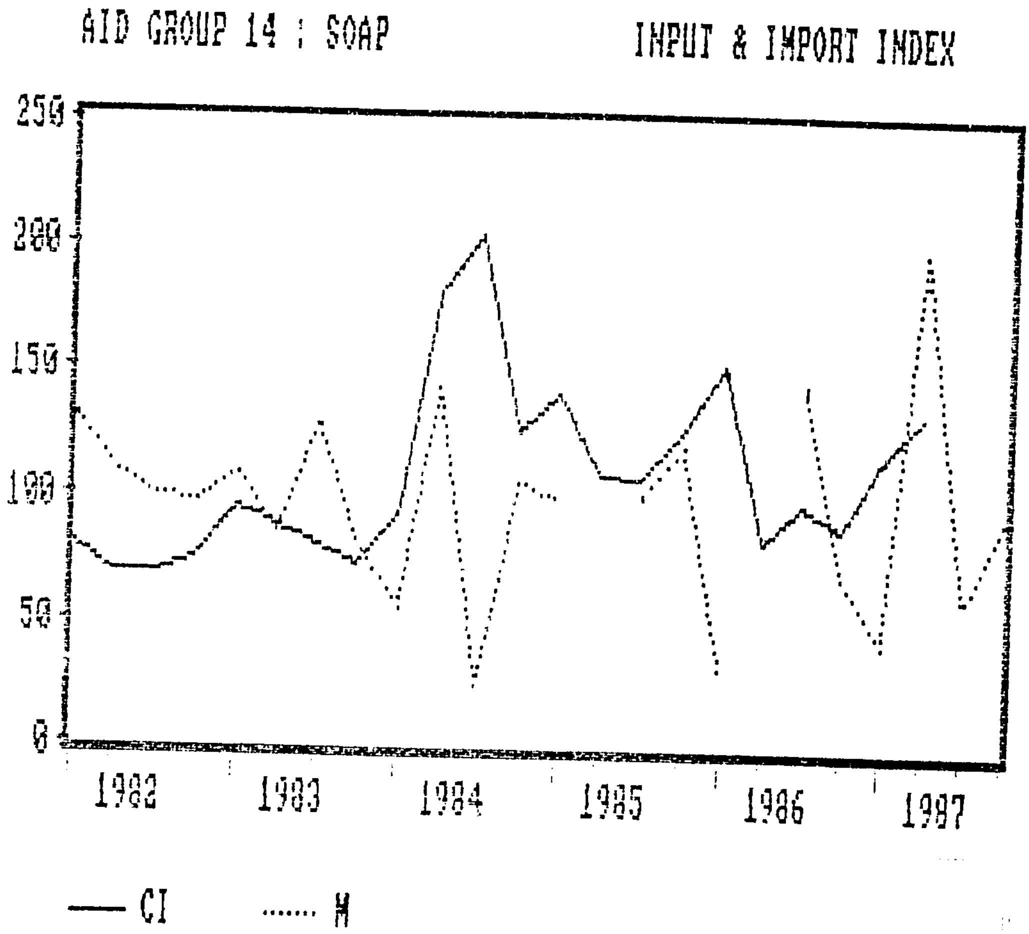


AID GROUP 14: SOAP

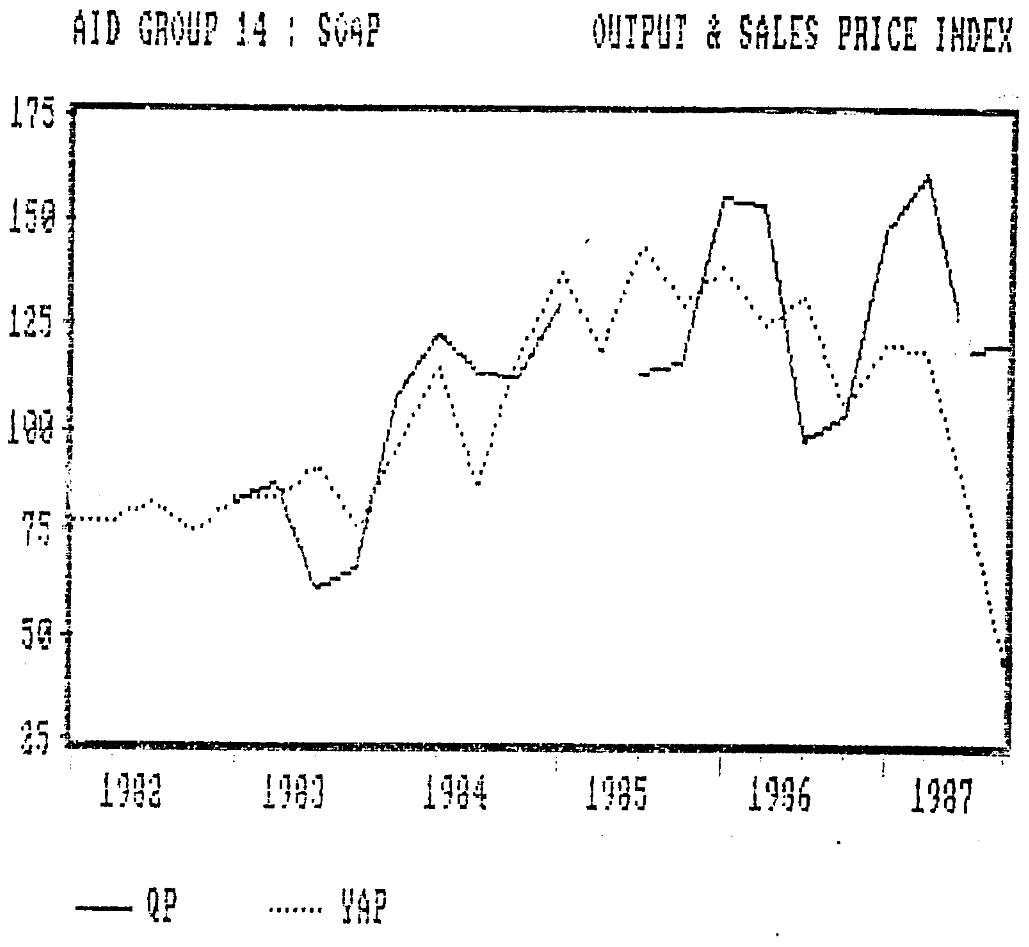
AID GROUP 14 : SOAP OUTPUT & SALES INDEX



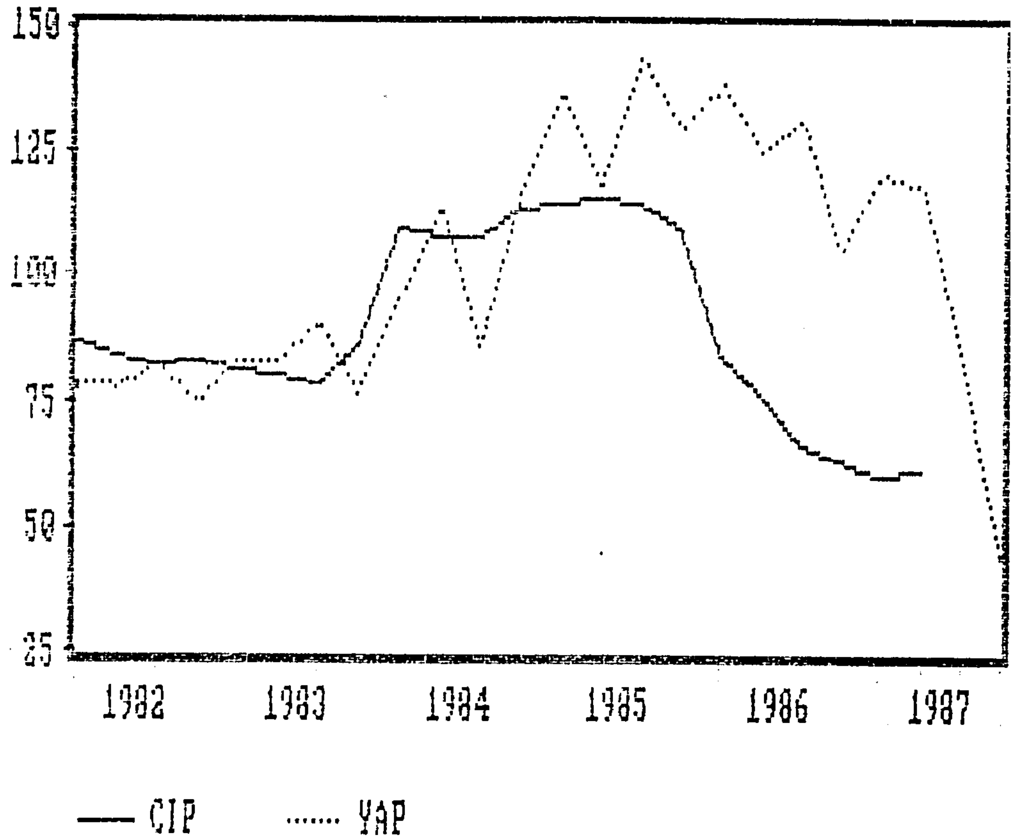

AID GROUP 14 : SOAP
OUTPUT & INPUT INDEX
500
400
300
200
100
0
1982
1983
1984
1985
1986
1987
QA
CI



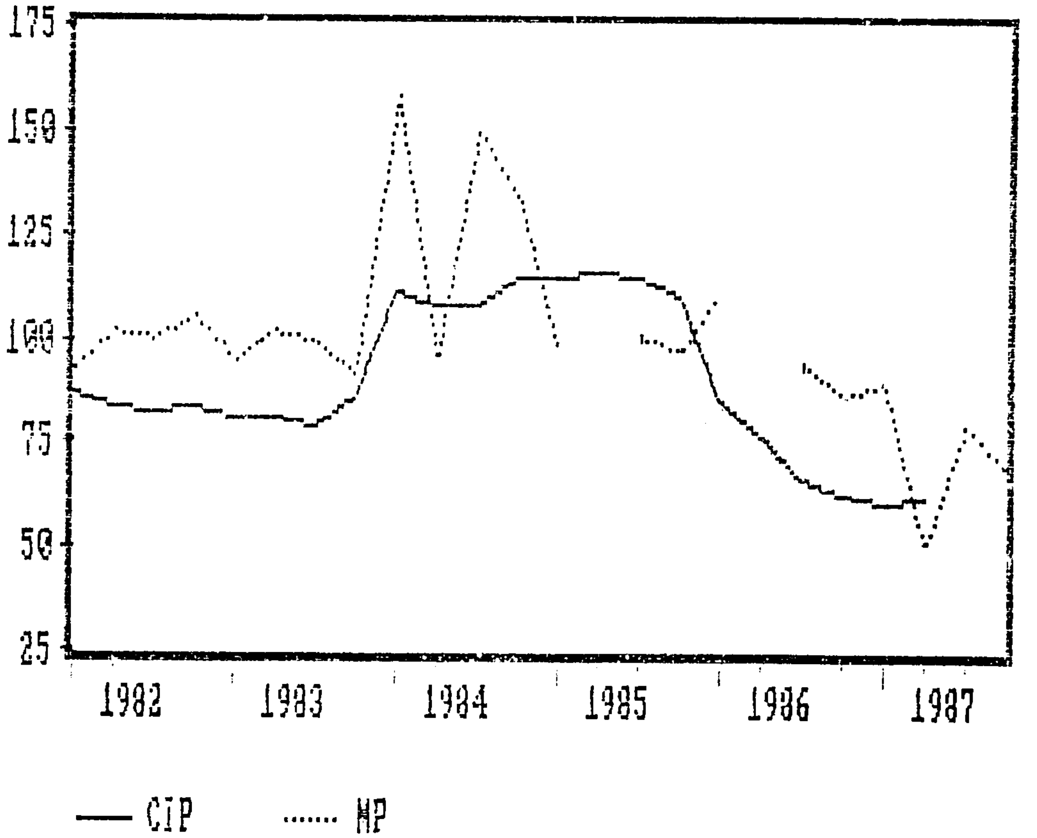
AID GROUP 14 : SOAP
INPUT & IMPORT INDEX
250
200
150
100
50
0
1982
1983
1984
1985
1986
1987
CI
M


AID GROUP 14 : SOAP
OUTPUT & SALES PRICE INDEX
175
150
125
100
75
50
25
1982
1983
1984
1985
1986
1987
QP
YAP

AID GROUP 14 : SOAP INPUT & SALES PRICE INDEX

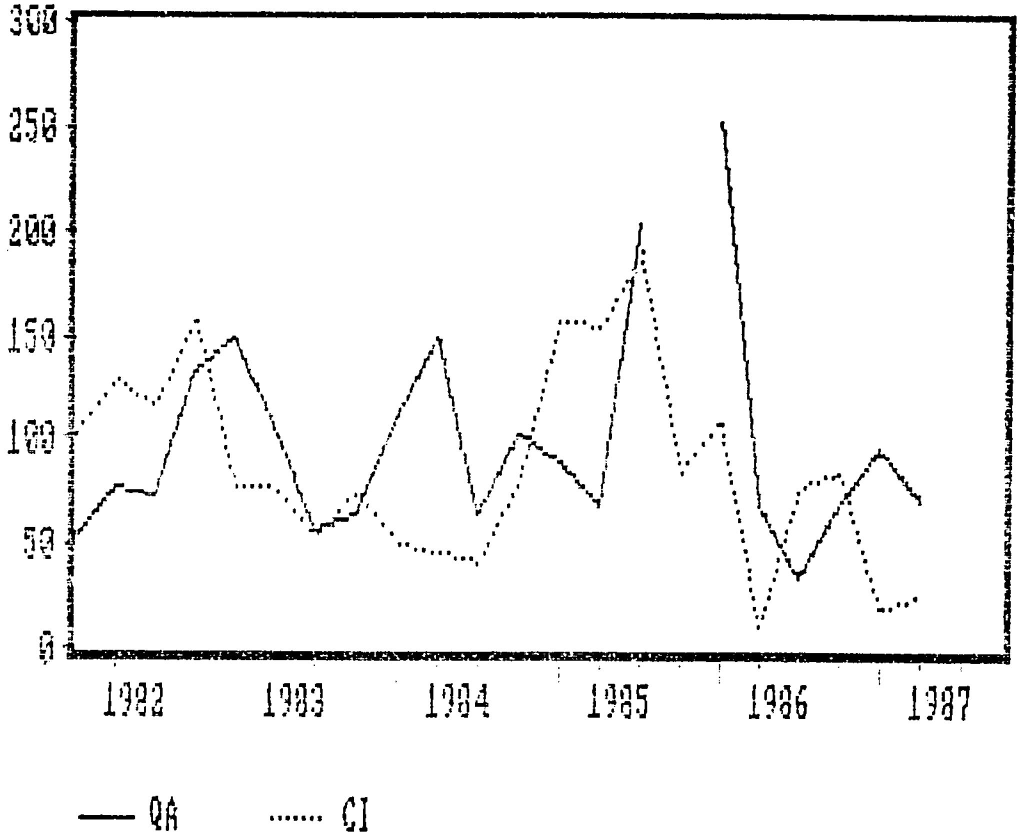


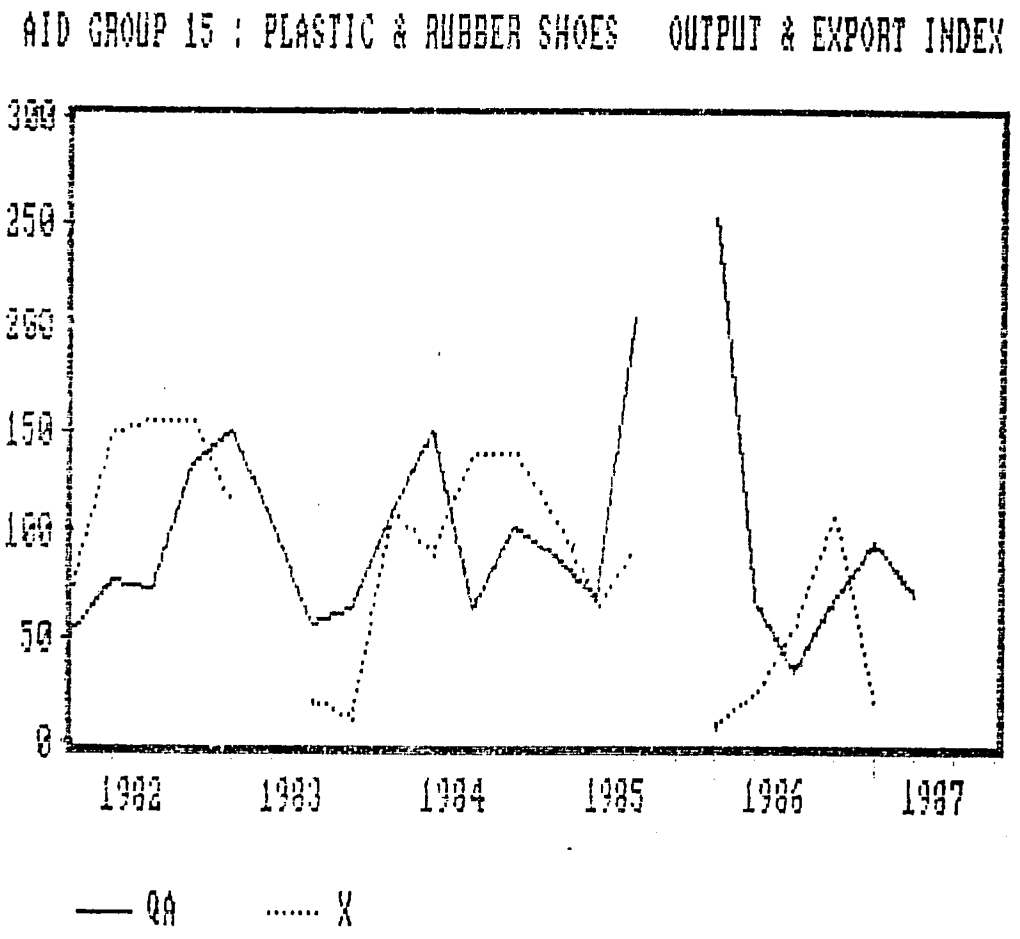
AID GROUP 14 : SOAP INPUT & IMPORT PRICE INDEX



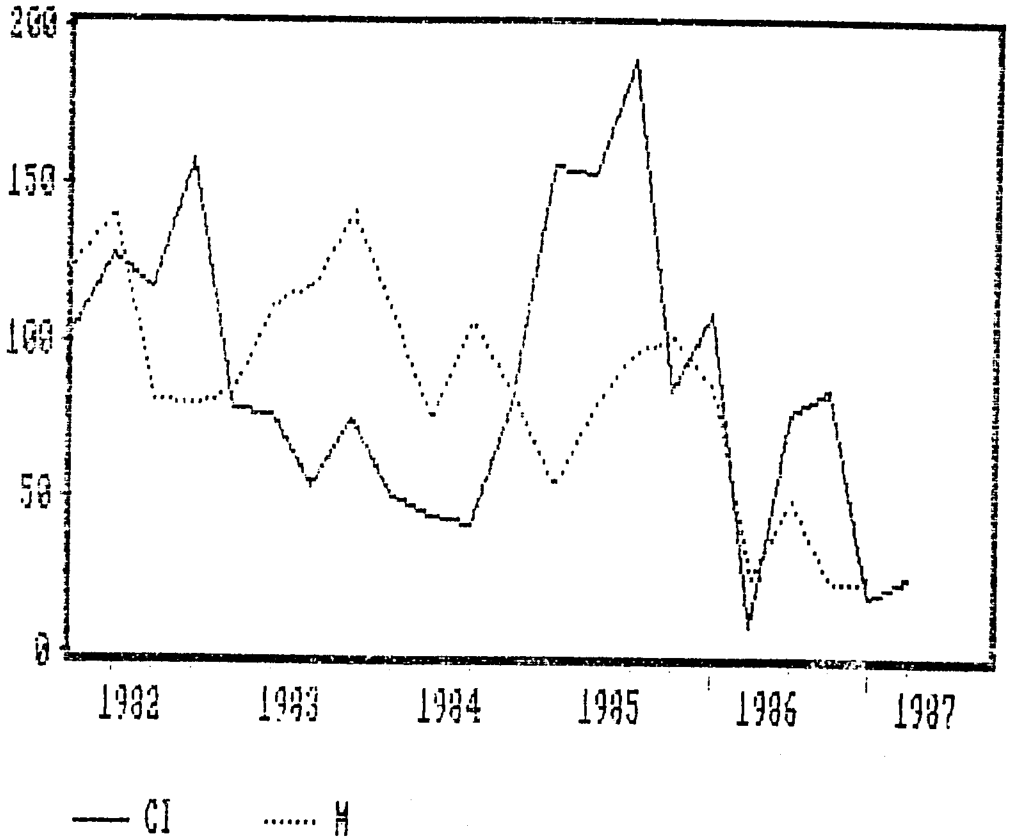
AID GROUP 15: PLASTIC AND RUBBER SHOES

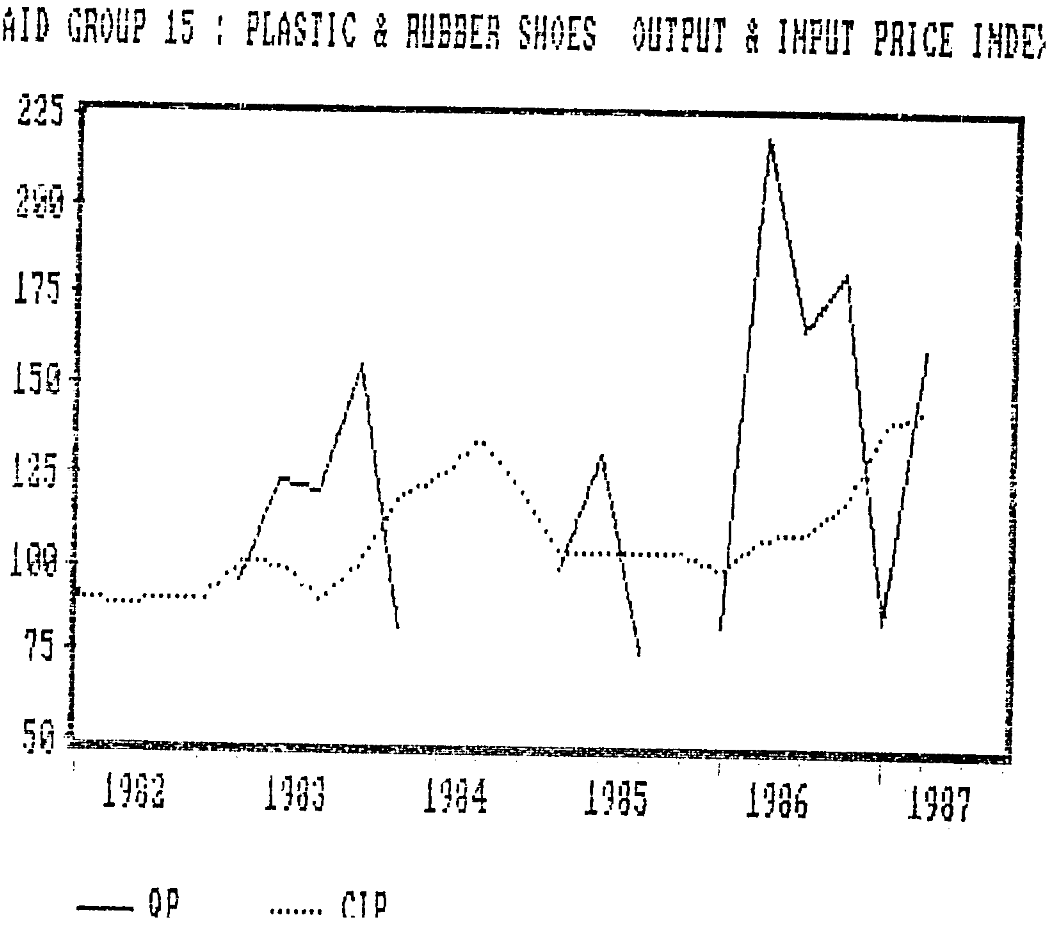
AID GROUP 15 : PLASTIC & RUBBER SHOES   OUTPUT & INPUT INDEX



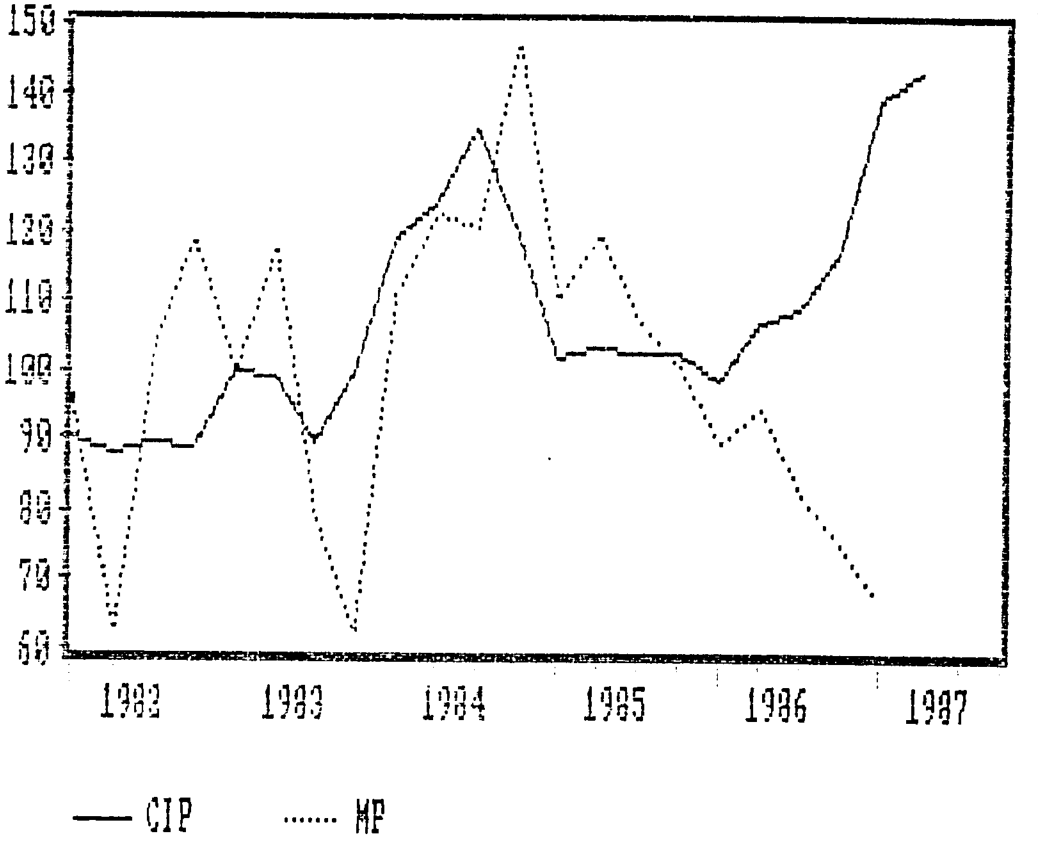

AID GROUP 15 : PLASTIC & RUBBER SHOES OUTPUT & EXPORT INDEX
300
250
200
150
100
50
0
1982
1983
1984
1985
1986
1987
QA
X

AID GROUP 15 : PLASTIC & RUBBER SHOES INPUT & IMPORT INDEX



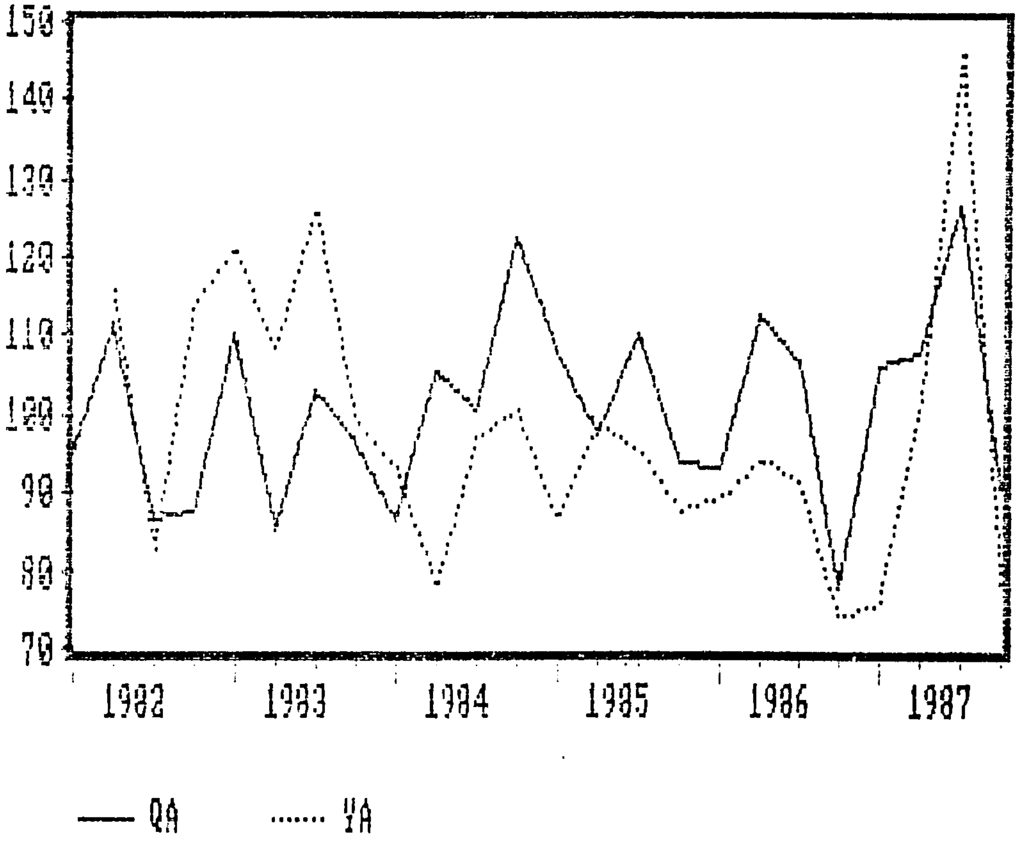

AID GROUP 15 : PLASTIC & RUBBER SHOES OUTPUT & INPUT PRICE INDEX
225
200
175
150
125
100
75
50
1982
1983
1984
1985
1986
1987
OP
CIP

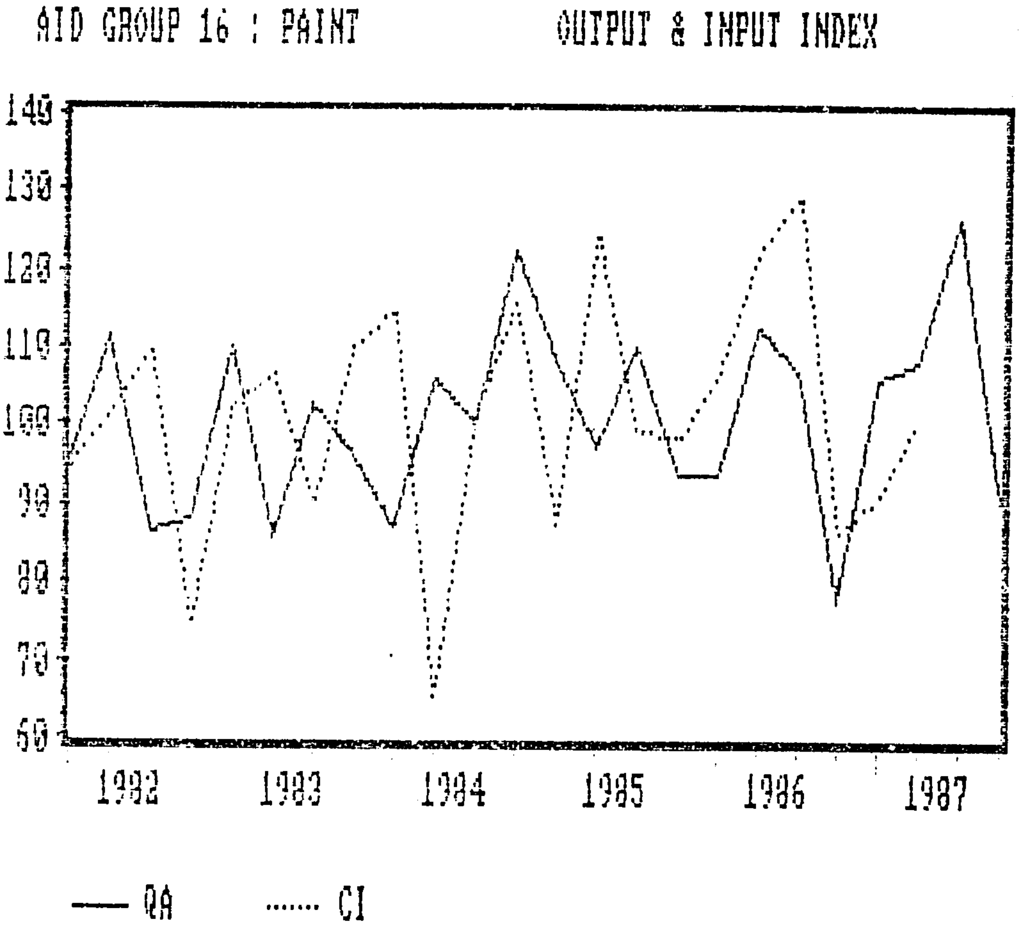
AID GROUP 15 : PLASTIC & RUBBER SHOES INPUT & IMPORT PRICE INDEX



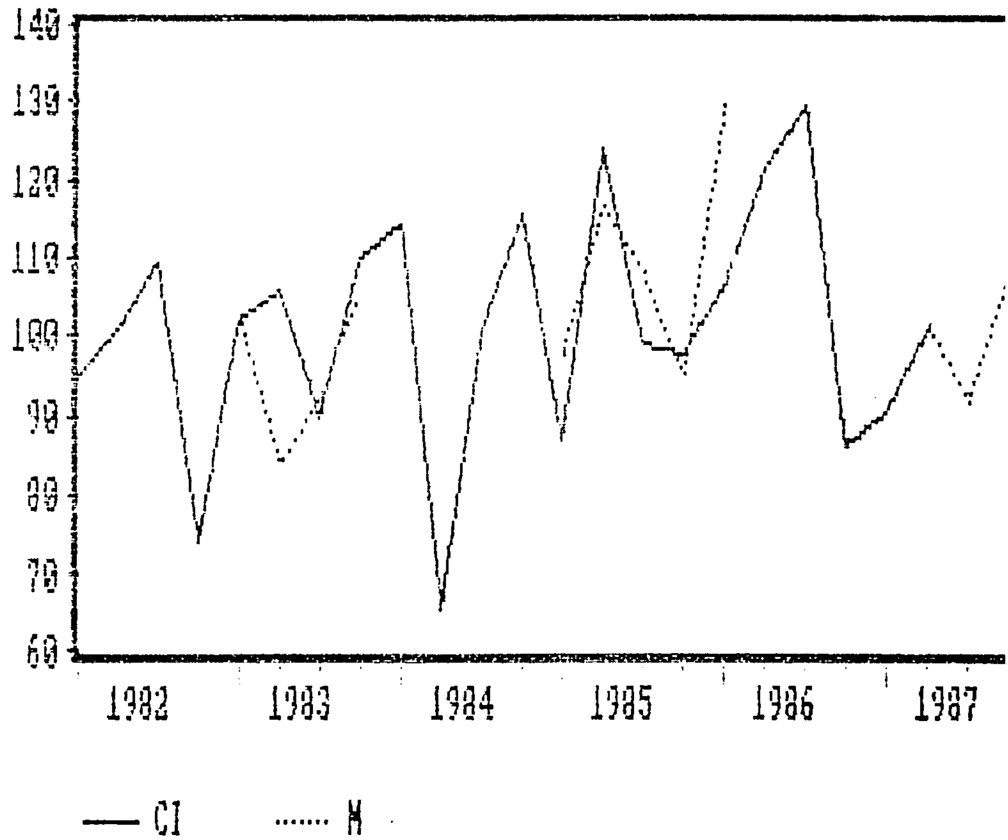
AID GROUP 16: PAINT

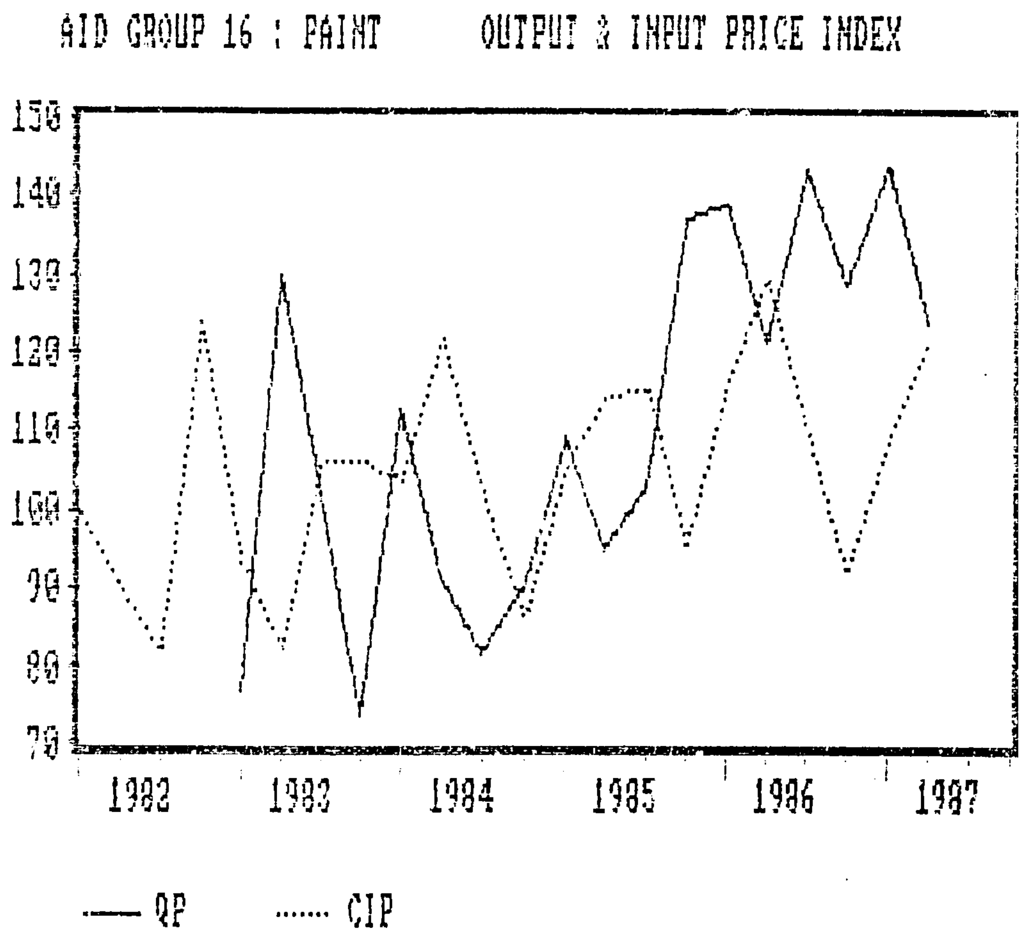
AID GROUP 16 : PAINT   OUTPUT & SALES INDEX

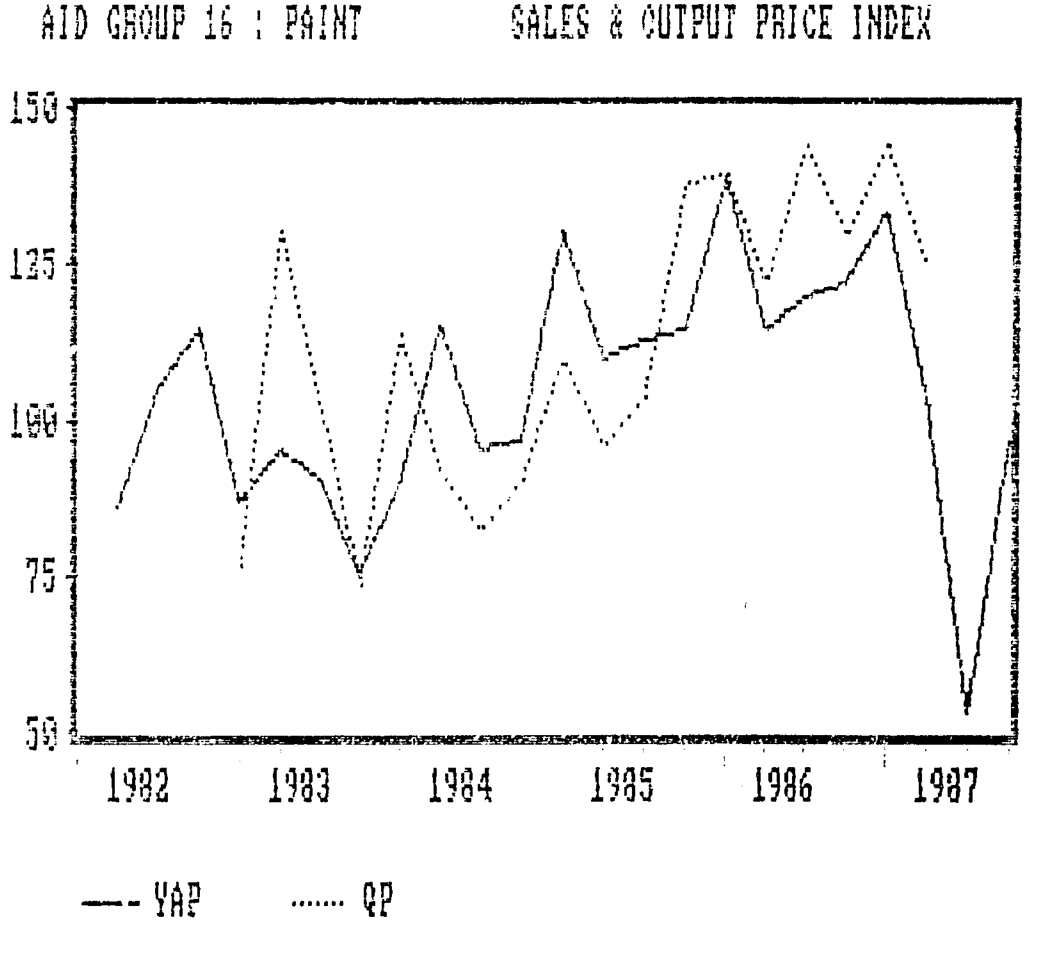



AID GROUP 16 : PAINT
OUTPUT & INPUT INDEX
140
130
120
110
100
90
80
70
60
1982
1983
1984
1985
1986
1987
QA
CI

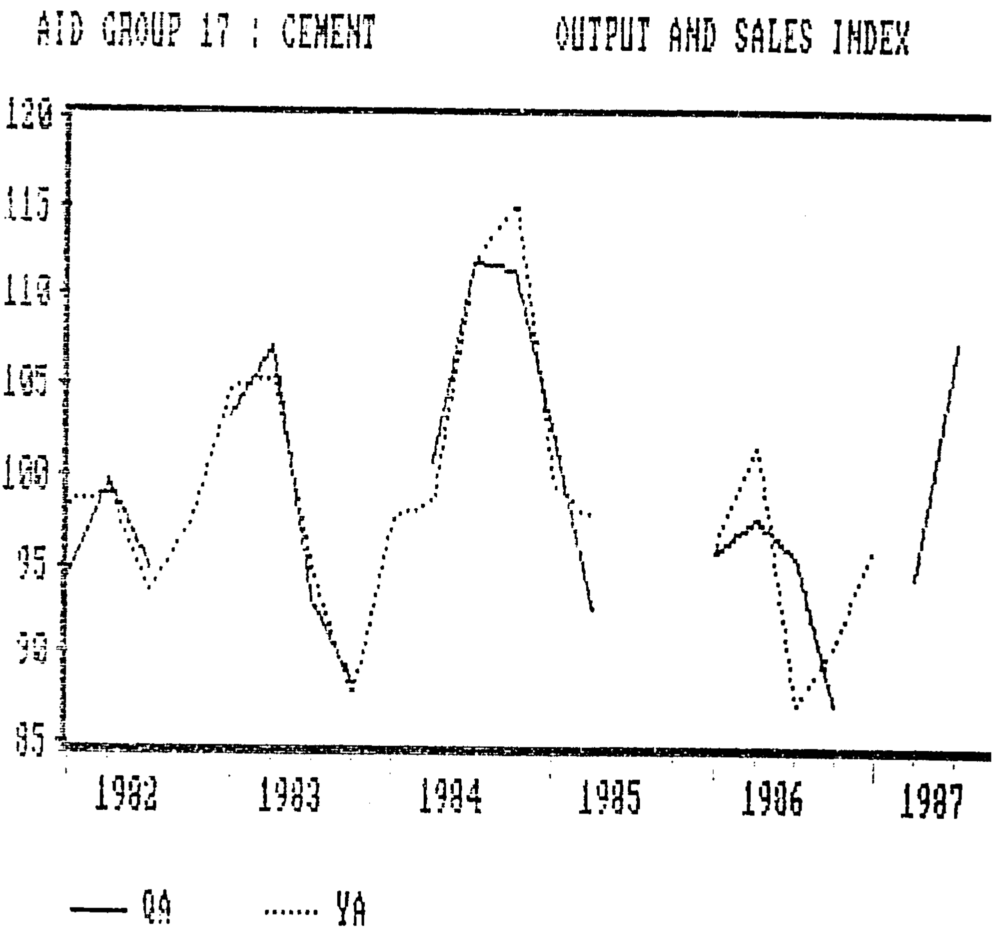
AID GROUP 16 : PAINT   INPUT & IMPORT INDEX

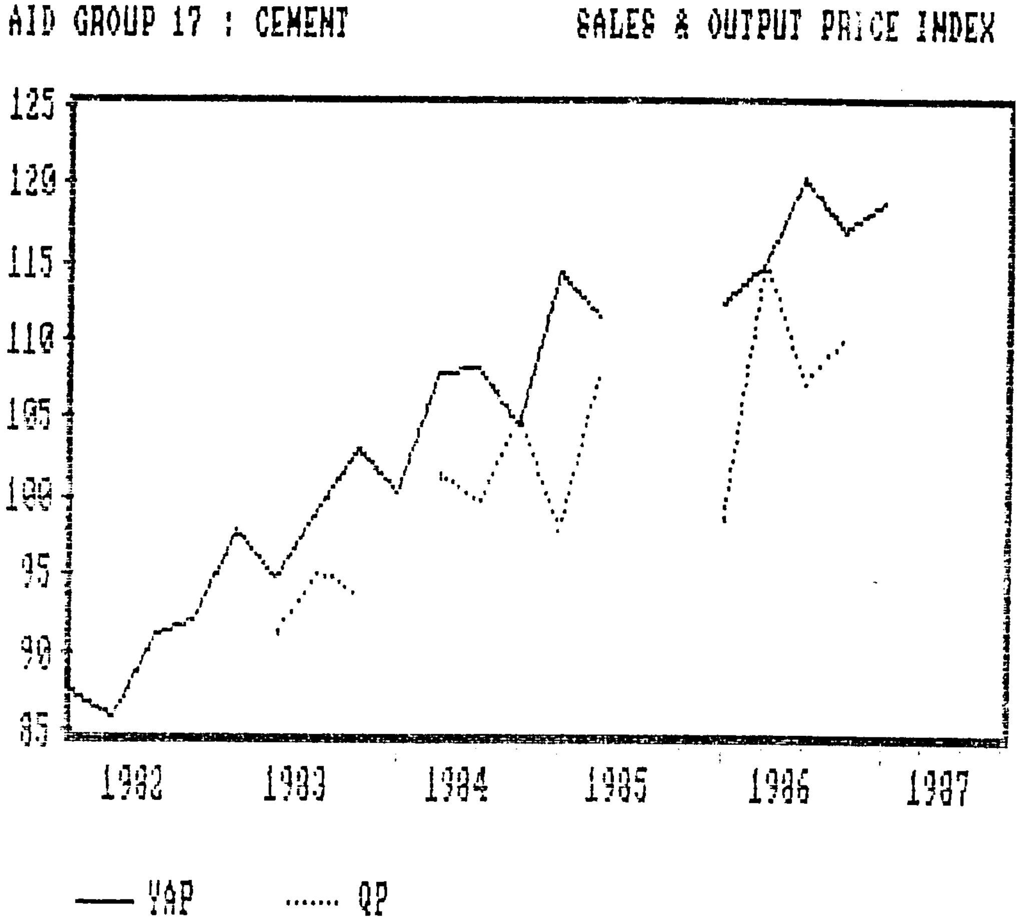



AID GROUP 16 : PAINT OUTPUT & INPUT PRICE INDEX
150
140
130
120
110
100
90
80
70
1982
1983
1984
1985
1986
1987
QP
CIP


AID GROUP 16 : PAINT
SALES & OUTPUT PRICE INDEX
150
125
100
75
50
1982
1983
1984
1985
1986
1987
YAP
QP

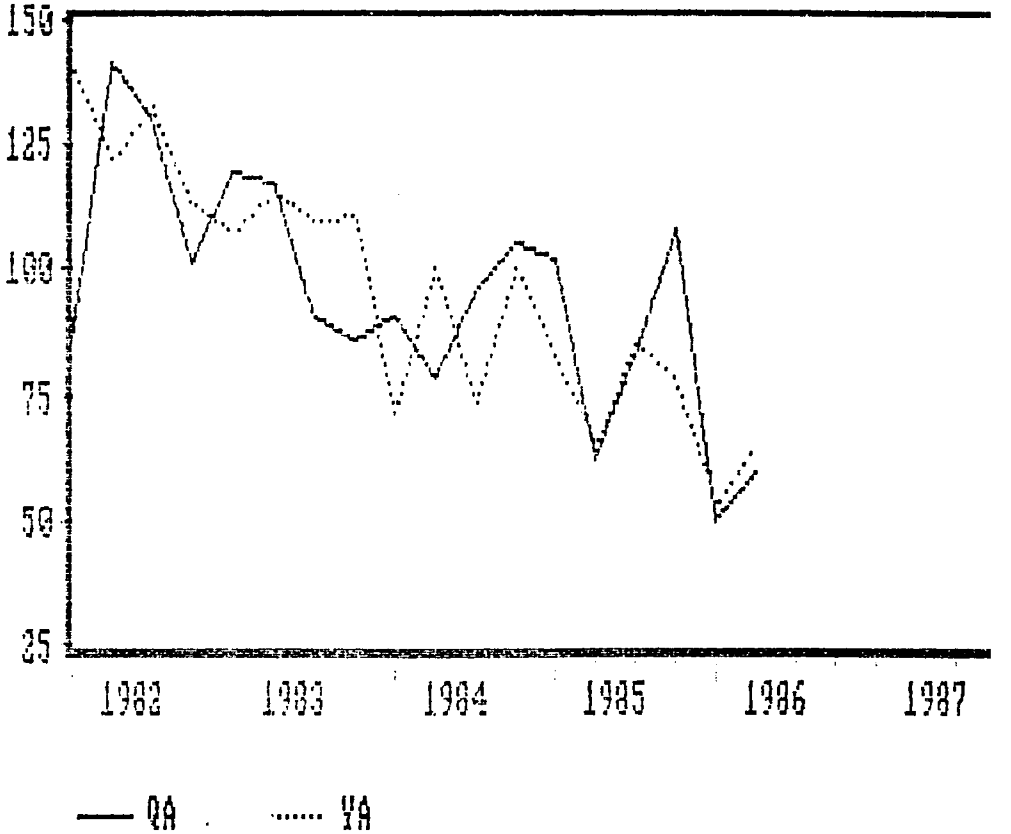
AID GROUP 17: CEMENT


AID GROUP 17 : CEMENT
OUTPUT AND SALES INDEX
120
115
110
105
100
95
90
85
1982
1983
1984
1985
1986
1987
QA
YA

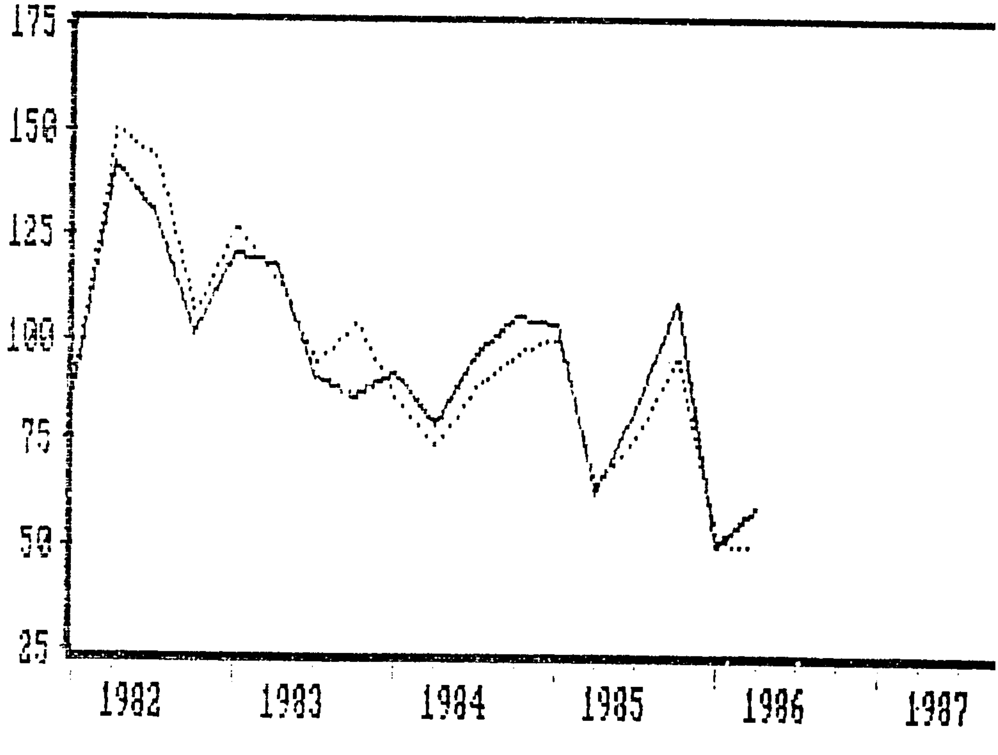

AID GROUP 17 : CEMENT
SALES & OUTPUT PRICE INDEX
125
120
115
110
105
100
95
90
85
1982
1983
1984
1985
1986
1987
YAP
QP

AID GROUP 18: CONSTRUCTION MATERIALS

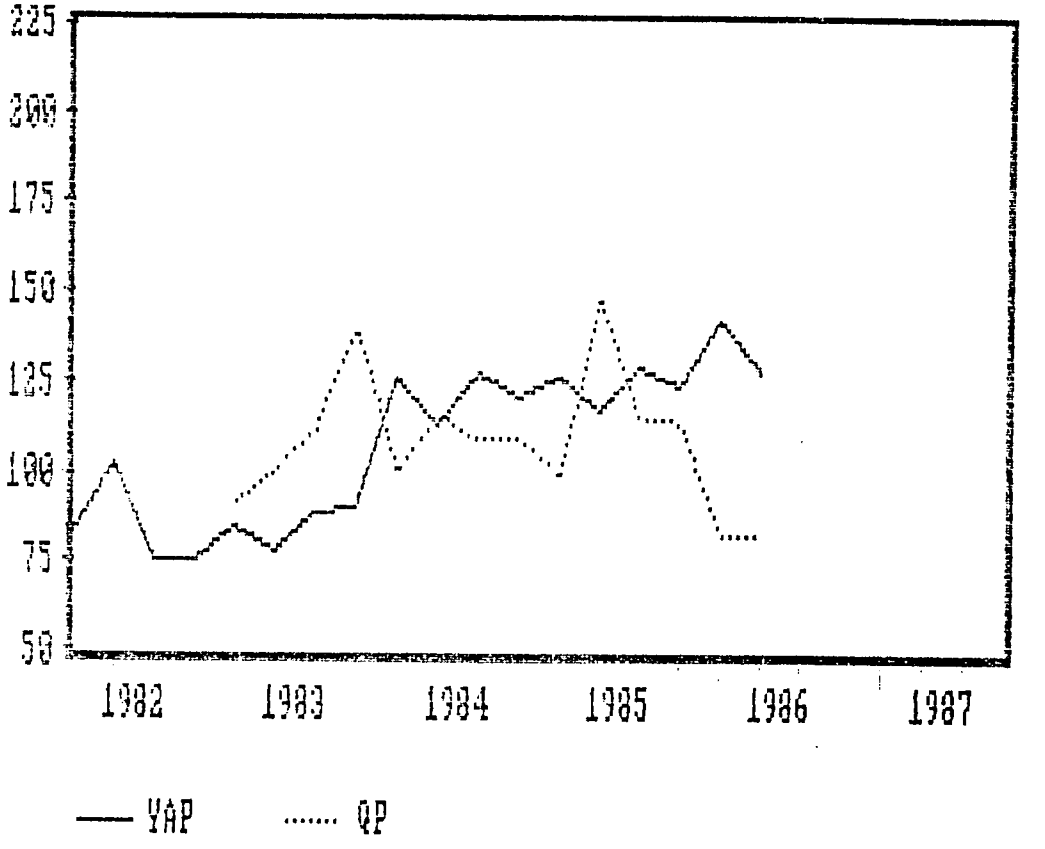
AID GROUP 18 : CONSTRUCTION MATERIALS OUTPUT & SALES II



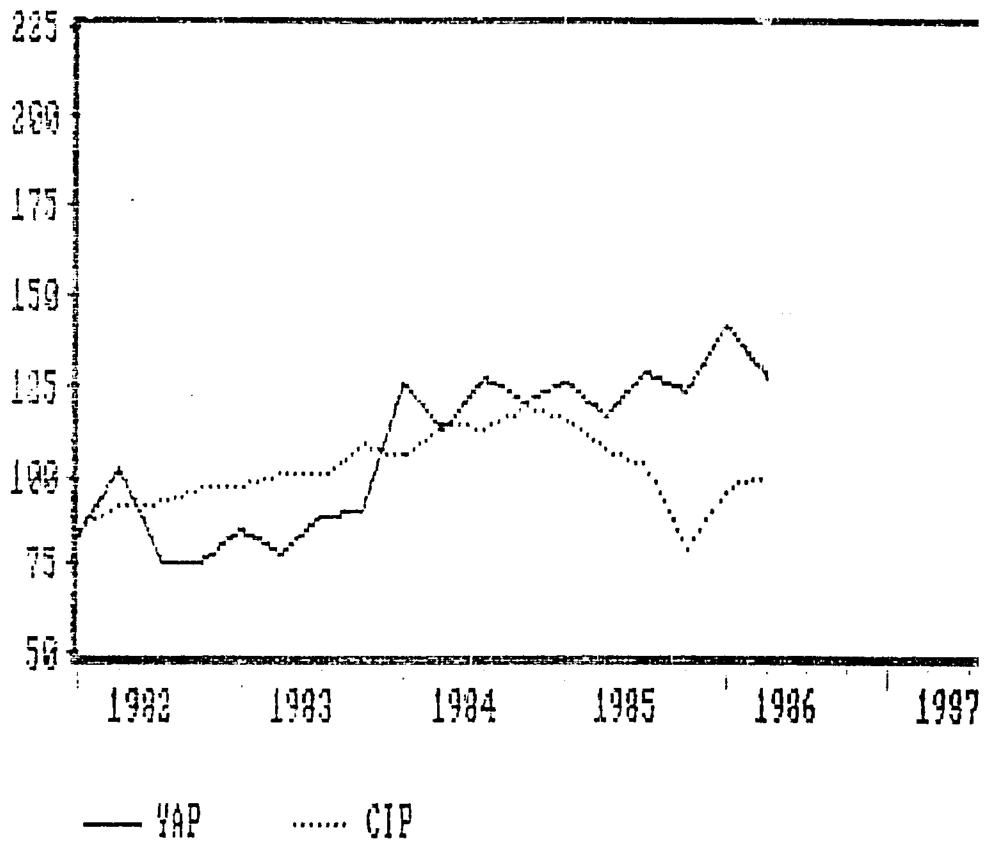
AID GROUP 18 : CONSTRUCTION MATERIALS   OUTPUT & INPUT INDE



AID GROUP 18 : CONSTRUCTION MATERIALS   SALES & OUTPUT PRICE INDE

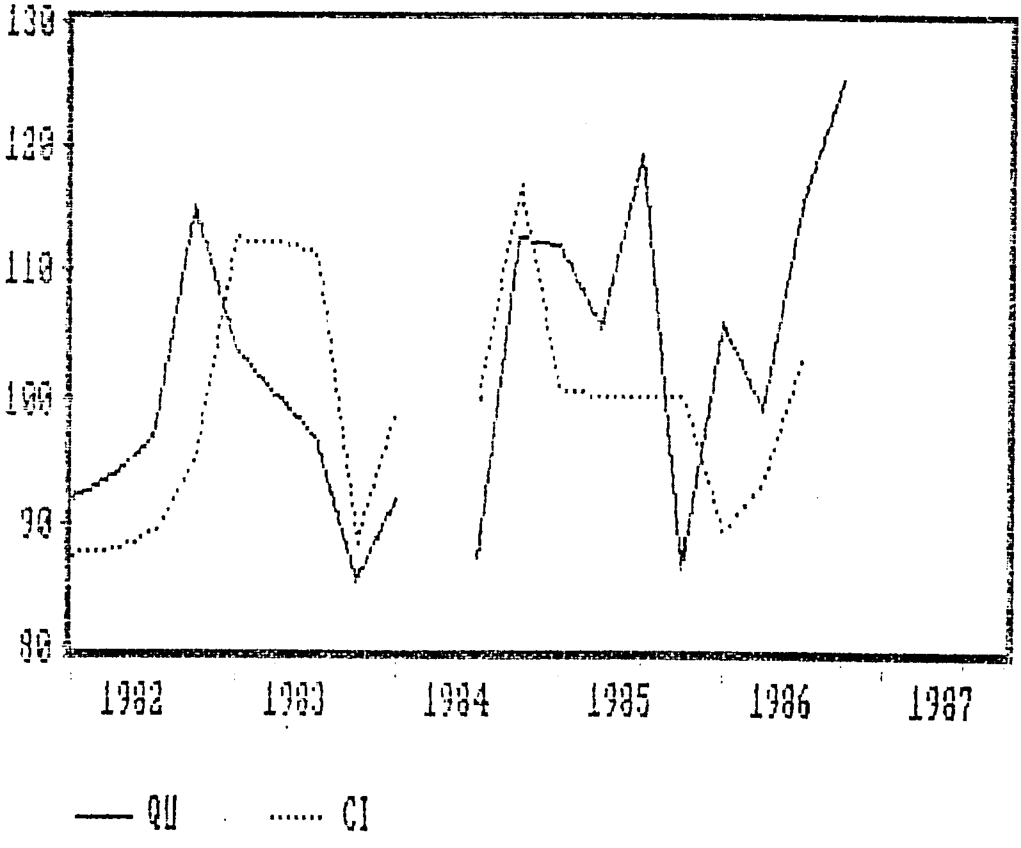


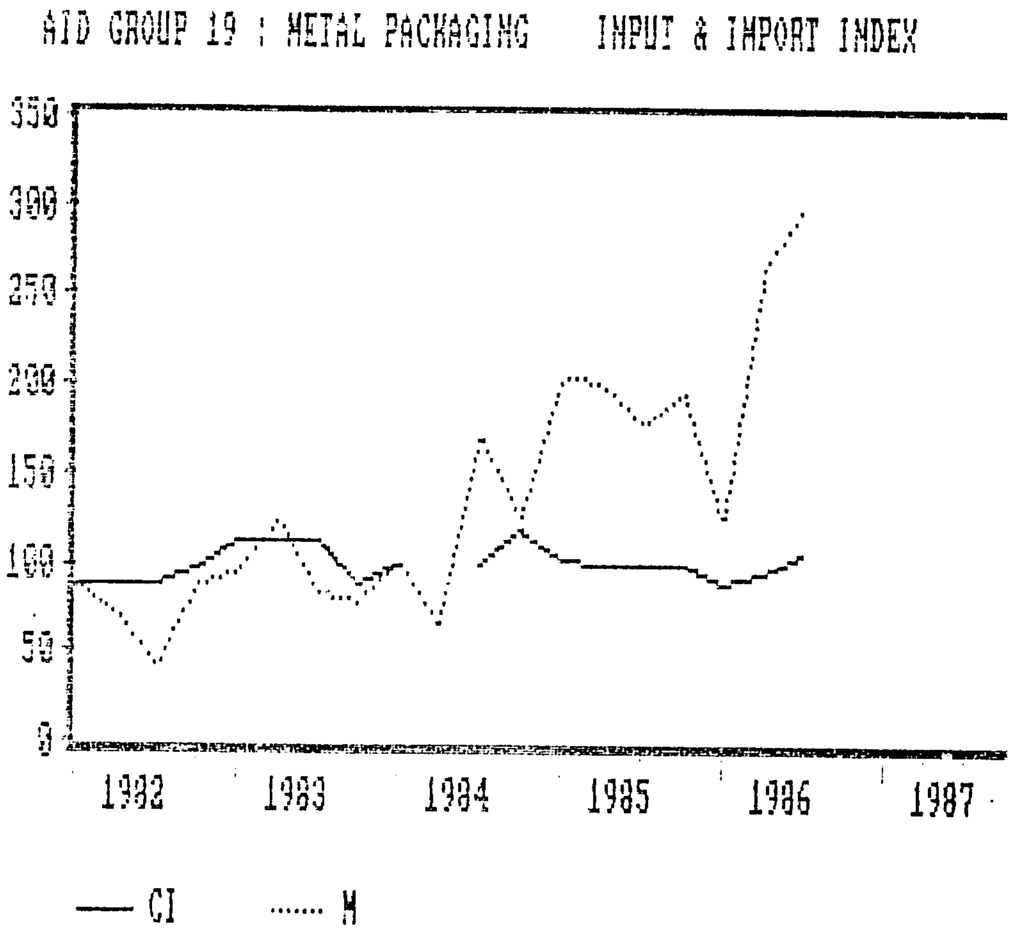
AID GROUP 10 : CONSTRUCTION MATERIALS   SALES & INPUT PRICE I



AID GROUP 19: METAL PACKAGING

AID GROUP 19 : METAL PACKAGING OUTPUT & INPUT INDEX




AID GROUP 19 : METAL PACKAGING INPUT & IMPORT INDEX
350
300
250
200
150
100
50
0
1982
1983
1984
1985
1986
1987
CI
M

AID GROUP 19 : METAL PACKAGING SALES & OUTPUT PRICE INDEX