

THE NEW SUGAR DEAL OF EASTERN EUROPE

L. Weickmans - I I R B

The opening up of the iron curtain has upset the entire economic situation of the Eastern bloc countries, including their sugar industry and market.

Some preliminary remarks should be made before tackling the entire topic.

I. The data presented in this paper has been supplied by I.I.R.B. members from different European sugar beet industry organizations:

- 1) Mr Roger Claus, Director of E.R.S.U.C. (Etudes et Recherches Sucrières), Paris, who, in this case, advised the European Sugar Beet Growers Associations
- 2) Mr Daniel Gueguen, Director of C.E.F.S. (Comité Européen des Fabricants de Sucre), Brussels, collected data on factories and sugar owners (and whose document was partially based on data supplied by F.O. Licht, Berlin)

II. The Eastern bloc was not a homogeneous group and a closer look at the situation developing in the various countries leads to the following classification:

1. the former German Democratic Republic
- 2a) Czechoslovakia, Hungary, Poland and, to some extent, Yugoslavia
- b) the USSR, Rumania, Bulgaria and Albania.

III. The situation for each group of countries will be examined in 3 steps:

- 1) before the European Communist regimes had to question their approach concerning internal and international affairs
- 2) recent developments
- 3) prospects and hypotheses on short and medium-term developments expected.

I. FORMER GERMAN DEMOCRATIC REPUBLIC

For the last 10 campaigns, on average, the G.D.R. covered local consumption with 43 factories, most of which were obsolete, deriving their raw material from +/- 230,000 Ha sugar beet. The imported raw sugar was re-exported after refining. (Tables 1, 2, 3, 4 and 5)



Table 1

Die Zuckerfabriken in der DDR

VEB Zuckerfabrik „Fritz Reuter“ Anklam	800 t/d. WZ	Dammm	1800 t/d. RZ
Preßband	850 t/d. DB	Jarmen	1880 t/d. WZ
Preßbau	1300 t/d. WZ		
VEB Zuckerfabrik „Linneus/Helme“ Artern	2100 t/d. WZ	Obernöbtingen	1100 t/d. RZ
Oldesleben	800 t/d. WZ	Vitzsburg	1800 t/d. DB
VEB Zuckerfabrik Brottwitz	2000 t/d. WZ		
VEB Zuckerfabrik Deltitzsch	2650 t/d. WZ	Döben	1300 t/d. RZ
VEB Zuckerfabrik Elsnigk	1100 t/d. RZ	Alteben	750 t/d. RZ
Elsnigk	700 t/d. RZ	Wulfen	850 t/d. RZ
VEB Zuckerfabrik „F. C. Acherd“ Gersdorf	2000 t/d. WZ		
Gersdorf	2000 t/d. WZ		
VEB Zuckerfabrik „Nordkristall“ Götzow	2000 t/d. WZ	Lütz	1680 t/d. WZ
Götzow	2000 t/d. WZ		
VEB Zuckerfabrik „Altmark“ Haldensleben	1850 t/d. RZ	Goldbeck	1200 t/d. WZ
Haldensleben	1850 t/d. RZ		
Wettersleben	1250 t/d. WZ		
VEB Zuckerfabrik „Börde“ Ideln Wanzleben	1700 t/d. RZ	Hedmersleben	1100 t/d. RZ
Klein Wanzleben	1700 t/d. RZ		
Ackenstedt	750 t/d. WZ	GutsMuths	750 t/d. WZ
VEB Zuckerfabrik Langenbogen	1750 t/d. RZ	Helmendorf	1100 t/d. RZ
Langenbogen	1750 t/d. RZ		
Löbejün	1150 t/d. RZ		
VEB Zuckerfabrik Lössau	1100 t/d. WZ		
Lössau	1100 t/d. WZ		
VEB Zuckerfabrik Nauen	1950 t/d. WZ		
Nauen	1950 t/d. WZ		
VEB Zuckerfabrik Salzwedel	2000 t/d. WZ		
Salzwedel	2000 t/d. WZ		
VEB Zuckerfabrik „Klaus Störtebecker“ Stralsund	2000 t/d. WZ	Berth	800 t/d. RZ
Stralsund	2000 t/d. WZ		
Tessen	1100 t/d. RZ		
VEB Zuckerfabrik „Oderland“ Thüringewerder	2400 t/d. WZ	Leitzsch	1300 t/d. WZ
Thüringewerder	2400 t/d. WZ		
VEB Zuckerfabrik Borsdorf	1400 t/d. WZ	Wassleben	1800 t/d. WZ
Borsdorf	1400 t/d. WZ		
VEB Zuckerfabrik Wiener	2200 t/d. WZ		
Wiener	2200 t/d. WZ		
VEB Zuckerfabrik „Fortschritt“ Zeitz	2500 t/d. WZ	Lützen	1480 t/d. RZ
Zeitz	2500 t/d. WZ		
Reitzsch	1300 t/d. RZ		

WZ = Trossel/Spinnvorrichtung WZ = Metallwerk RZ = Schleuder DB = Blatt
Quelle: Zuckerwirtschaftliches Taschenbuch 1989/90

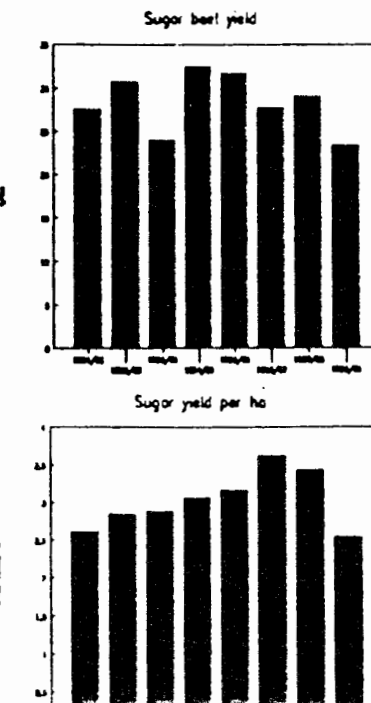
Table 2

Acreages, Sugar beet yields and Sugar yields in the German Democratic Republic

	Sugar beet acreage in ha	Sugar beet yield in t/ha	Sugar yield per ha t white value/ha
1981/82	262 000	27,6	2,62
1982/83	261 000	30,8	2,85
1983/84	238 000	24,0	2,89
1984/85	240 000	32,5	3,07
1985/86	233 000	31,8	3,17
1986/87	205 000	27,8	3,63
1987/88	215 000	29,1	3,44
1988/89	197 000	23,4	2,55

Source : Zuckerwirtschaftliches Taschenbuch

Table 3



Sugar Economical data of the German Democratic Republic in t white value

Year	Production	Imports	Exports	Consumption	Consumption kg per capita and year
1981/82	626.618	254.874 +	99.000	707.124	42,96
1982/83	<u>756.566</u>	<u>187.846</u> +	<u>86.500</u>	755.799	<u>45,17</u>
1983/84	689.932	226.231 +	110.251	721.696	43,79
1984/85	690.411	288.249 +	101.812	<u>674.495</u>	40,48
1985/86	734.134	243.820 +	203.969	696.780	41,86
1986/87	740.673	279.803 +	<u>317.483</u>	686.451	41,31
1987/88	690.000 *	261.156 #	224.371	680.800 *	<u>40,94</u>
1988/89	<u>605.238</u>	<u>340.503</u> @	216.302	<u>723.646</u>	43,42

* Estimated

+ From Cuba

259.656 T from Cuba and 1.500 T out of the EEC

@ 289.969 T from Cuba and 50.534 T out of the EEC

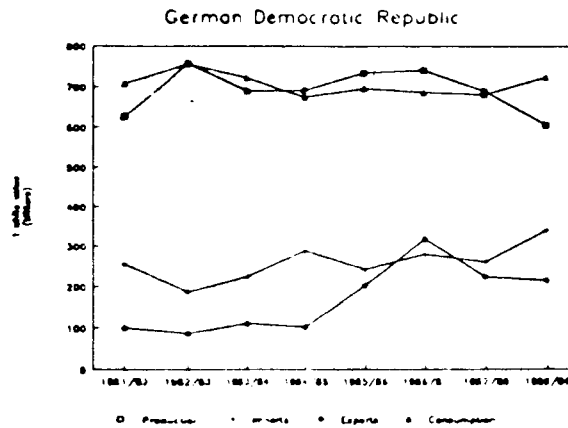
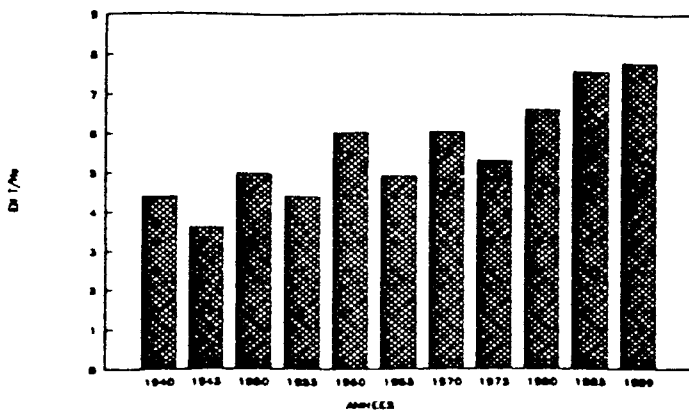


Table 4

EVOLUTION DES RENDEMENTS SUCRIERS

ALLEMAGNE FEDERALE



FRANCE

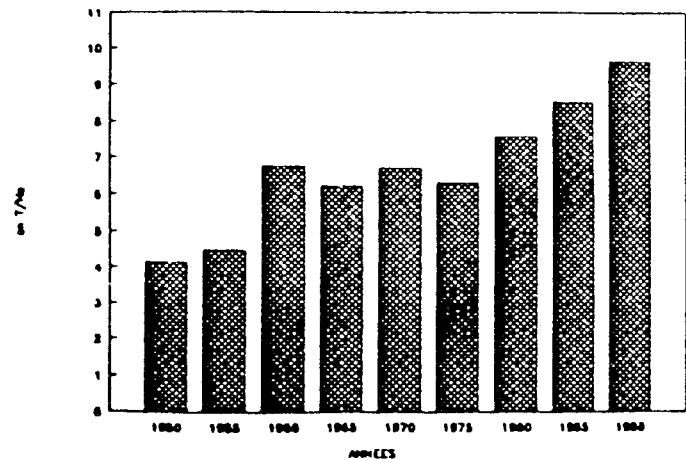


Table 5

As they are now progressively being taken over by the Federal Republic of Germany and, therefore, becoming integrated into the EEC (which granted them, for 1990, an annual quota of 870,000 tons of white sugar), the former G.D.R. is supposed to cover local needs (including a 10% safety margin).

It is expected that the country will rapidly reach the industrial and agricultural levels that the Western European countries reached in 40 year's time. In one year, thanks to the full support, technical as well as financial, from the FRG, crop yield has already almost doubled. This will continue, but the quota will have to be kept under control. This means that the acreage will have to come down to about 100,000 Ha and the industrial structure be reorganized: down to 5 - 6 modern processing units, to be mainly shared by the 5 main West German agro-industrial companies involved in the sugar sector.

It will cost "big brother" more than the amount that had been declared, and the EEC and the B.E.R.D. *(Banque Européene pour la Reconstruction et le Développement des pays d'Europe Centrale et Orientale) as well. (Tables 6 and 7). In the former G.D.R., social costs will be elevated; however, the conversion is supposed to be fully completed within 5 years: the structure of the (large state) farms will have to be reorganized progressively and the problem of land owned before World War II will have to be at least partially solved.

LA BERD - BANQUE EUROPEENNE POUR LA RECONSTRUCTION ET LE DEVELOPPEMENT DES PAYS D'EUROPE CENTRALE ET ORIENTALE SERA OPERATIONNELLE LE 31 MARS 1991

42 MEMBRES - UN CAPITAL DE 10 MILLIARDS D'ECUS

42 membres
 capital : 10 mrds ECUS
 CEE : 51% du capital
 Etats - Unis : 10%
 Japon : 8,58%
 Siège : Londres
 Pt : Jacques ATTALI

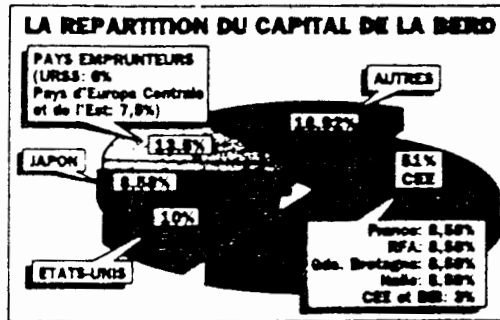


Table 6



QUATRE COMMENTAIRES

1. L'ECU sera la monnaie de référence. Pour la première fois une institution internationale utilise l'ECU comme monnaie officielle. Un taux de change fixe a été établi pour le dollar et le yen par rapport à l'ECU;
2. Les pays bénéficiaires des prêts sont clairement définis : Pologne, Hongrie, Allemagne de l'Est, Tchécoslovaquie, Roumanie, Yougoslavie et, avec certaines limites, l'URSS.
3. Au moins 60% des prêts serviront à des projets privés. Le solde à des projets d'infrastructure de nature à faciliter le développement du secteur privé;
4. L'accès des pays bénéficiaires aux prêts est conditionné par le respect des droits de l'homme et par le multipartisme.

* The BERD programme will begin operating on March 31st, 1991, and is a kind of Marshall plan with 55% financed by the EEC, 10% by the United States and 8.58% each for Japan, West Germany, Great Britain, France and Italy.

Table 7

<p>PROGRAMME PHARE POLOGNE-BONGRIE (1990)</p> <p>- Communauté Economique Européenne :</p> <p style="padding-left: 40px;">DONS : 381 M ECUS</p> <p style="padding-left: 40px;">PRETS : 870 M ECUS</p> <p style="padding-left: 40px;">1 251 M ECUS</p> <p>- Pays membres de la CEE :</p> <p style="padding-left: 40px;">DONS : 4 056 M ECUS</p> <p style="padding-left: 40px;">PRETS : 1 629 M ECUS</p> <p style="padding-left: 40px;">5 685 M ECUS</p>	<p>BARQUE EUROPEENNE D'INVESTISSEMENTS (1990)</p> <p style="text-align: right;">1 000 M ECUS</p> <p>CONCOURS DE LA CECA (1990)</p> <p style="text-align: right;">200 M ECUS</p> <p>BARQUE EUROPEENNE POUR LA RECONSTRUCTION (BERD)</p> <p>- Participation de la CEE au capital</p> <p style="text-align: right;">300 M ECUS</p> <p>- Participation des Etats membres</p> <p style="text-align: right;">4 800 M ECUS</p>
<p>ASSISTANCE CEE AUX AUTRES PAYS DE L'EST (1990)</p> <p style="text-align: right;">200 M ECUS</p>	<p>FONDS STRUCTURELS POUR L'ALLEMAGNE DE L'EST</p> <p style="text-align: right;">(Estimation du Parlement Européen)</p> <p style="text-align: right;">1 500 M ECUS (EN MILLIONS ECUS)</p>

II. OTHER COUNTRIES FROM THE FORMER EASTERN BLOC (R. CLAUS, ERSUC)

IMPORTANCE OF THE PAST: (Table 8)

- . At the end of the 50's, equilibrium was reached
- . At the end of the 60's, production increased significantly (from 8 to 13.7 mT). Cuban importations were compensated by exportations which were almost equivalent. Consumption as well as production increased significantly (from 8.0 to 14.0 mT). The balance (net imports) increased slightly (0.3 mT).
- . At the end of the 70's, i.e. 15 years after the first contracts with Cuba, production dropped by 1 mT, consumption increased and the balance ended up being highly negative (4 mT net imports).

**SUGAR BALANCE EVOLUTION
EASTERN EUROPE**

*(MTRV)	1955-59	65-69	75-79	85-89
Production	8.0	13.7	12.7	13.6
Imports	0.8	2.6	4.6	5.8
Consumption	8.0	14.0	16.7	18.6
Exports	0.8	2.3	0.6	0.8
Net imports	0	0.3	4.0	5.0

In recent years, despite an increased production level as compared to the 60's, the balance still dropped (5 mT net imports). A graph showing these trends demonstrates this more clearly (Table 9).

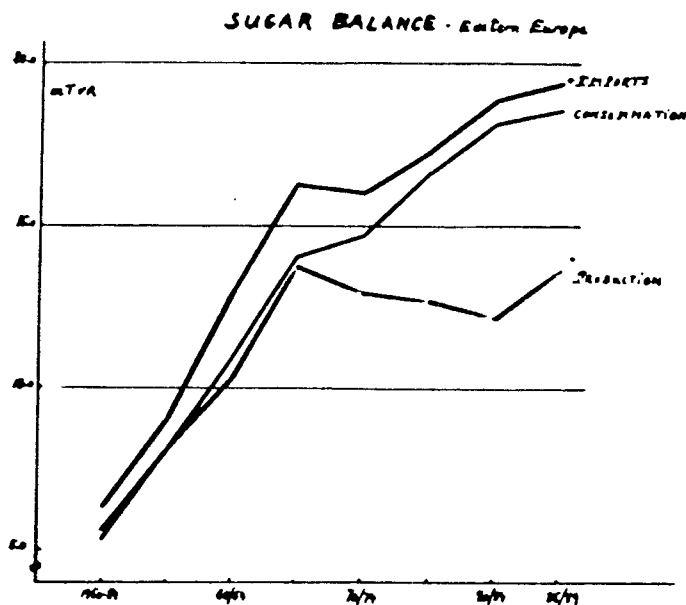


Table 9

- . a well- controlled consumption/production equilibrium until the end of the 60's (the Cuban raw sugar was re-exported after refining)
- . an increasing gap between consumption, which grew drastically, and production, which dropped somewhat. The gap reached a maximum of 6.0 mT at the beginning of the 80's.
- . an effort to reduce the deficit (requiring imports) was made recently by increasing production to its level in the 60's, and reducing consumption.

Cuban importation had two major consequences:

- It lowered local sugar beet production, in order to make room for refining imported raw sugar by the local sugar factories.
- It stimulated the per capita consumption : there was plenty of refined sugar available (low quality, only acceptable for monopolistic or not very demanding markets).

	1955-59	1965-69	1975-79	1985-89
Kg/capita	27	41	45	46

However, looking more closely at each national situation, especially with respect to the balance of trade, 2 sub groups can be distinguished:

- a) the "group of 4": CS, H, P and YU
- b) the "USSR+ group": USSR, BG, R and Albania

This table clearly demonstrates that the "USSR+ group" was responsible for the entire deficit while the "group of 4" continued to produce an excess of sugar, even though it diminished progressively.

This can be explained by the sugar policies and related results in production of the respective sub-groups throughout the past few decades: (Table 10)

SOME FIGURES ON THE EASTERN SUGAR INDUSTRY

		Beet acreage (1000 ha)	Sugar production (MTRV)	Sugar Yield (T sucre/ ha)	Mills Nb	Total capacity (1000 TB/J)
URSS +	1960	2.46	5.6	2.3	287	470
	1990	3.60	9.6	2.7	360	1080
Groupe des 4	1960	0.77	2.4	3.1	186	280
	1990	0.87	4.1	4.7	172	400

Table 10

In 30 year's time, the Soviet Union increased its sugar beet acreage by 46% and its industrial capacity by 130%, yet yield remained low, making little progress (from 2.3 to 2.7 T sugar/Ha). However, the sugar sector depended on 3 different Ministries (Agriculture, Industry and Transport) and the lack of coordination between them was resulting in important losses.

At the same time, the "group of 4" increased its acreage by a little (+ 13%) and its industrial capacity much more (43%) but the yield, still not up to a Western level, made 52% progress (from 3.1 to 4.7 T sugar/Ha). The increase in production for both groups was the same (+ 71%).

WHAT'S IN STORE FOR THE FUTURE?

The "group of 4" has begun a process of liberalization that appears irreversible. Three of these countries (POL- CZECH - H) have a brilliant past as sugar producers and exporters.

However, their currently low agricultural and industrial performance prevents them from being competitive in the international markets. Their policy should be to produce enough for internal consumption, plus a safety margin of 5-10% which could be exported when natural conditions lead to higher yields.

They now have to pay for Cuban sugar and Russian energy sources with strong currencies: this brings an end to raw sugar refining for exportation purposes, which was done in the past.

Hungary already adopted this policy in 1983, i.e. self-sufficiency + a 10% safety margin, and no longer refines raw sugar. Czechoslovakia was the last of the 4 countries to refine significant volumes and has seen its re-exportation market crumble to the profit of the EEC countries.

As for the "USSR+ group", Perestroika has already shown its limits and they will probably have two extremes to choose from:

- either a return to Socialist Orthodoxy and the system it implies (hypothesis 1)
- or a drastic opening up towards the Capitalistic free market system (hypothesis 2)

Hypothesis 1 would signify a simple continuation of the past and have 2 major consequences:

- . Inability to significantly increase agricultural and industrial performance which would hit a sugar production limit of 10 mT.
- . Keeping a high consumption per capita (45 kg or more, despite the end of SAMOGON = Russian version of "prohibition").

It should be mentioned that a contract of +/- 3.6 mT raw sugar/year (twice renewable) in exchange for Russian mineral oil, has just been signed with Cuba. This hypothesis would keep or even worsen the sugar deficit of this sub-group.

Hypothesis 2 would lead to exactly the opposite effects:

- . Increase in agricultural and industrial productivity through a transfer of Western technology equipment.
- . Lowering the per capita consumption to 40-42 kg/person/year, prompted by a better diet (more meat, vegetables, fruits and dairy products).

However, their experience with "goulags" (land parcels that were distributed and then taken away) made them suspicious of dividing land into private property.

With this second hypothesis, the sugar deficit would be drastically reduced.

Neither of these hypotheses seems feasible nowadays. The most likely solution for the next decade would be a compromise that would progressively bring the Soviet Union one third of the way towards liberalization and the other satellite countries somewhat further along.

CONSEQUENCES FOR THE MARKET (NEEDS FOR THE YEAR 2000?)

Possible decisions concerning stock manipulation make it difficult to be able to predict the market for the next decade. Therefore, only rough predictions on **IMPORT NEEDS** (=consumption - production) and **EXPORTABLE SURPLUS** (production - consumption) can be made as follows:

1) the "group of 4" could continue exporting approximately 10% of their production of white (better quality) sugar and will have to stop importing 200,000 T/year of raw sugar from Cuba.

2) the "USSR+ group" could represent the following data:
(Table 11)

IMPORTS REQUIREMENTS - URSS +

(MTRV)	(1975-79)	(1985-89)		2000
Production	8.9	9.6	H ₁	10.0
			H ₂	11.2
			Likely	10.4
Consumption	13.0	14.7	H ₁	15.7
			H ₂	14.0
			Likely	15.1
Imports requirements	4.1	5.1	H ₁	5.7
			H ₂	2.8
			Likely	4.7

Table 11

This table clearly demonstrates that, in the year 2000, only a drastic reversal towards a strict Socialist Orthodox system would bring about increased imports by the "USSR+ group".

The likely continuation of an even limited Perestroika should lead to importation requirements of about 500,000 T. for this group of countries. This volume remains below the refining capacity of these countries (+/- 5 mT/year). Logically, these requirements should be met by raw sugar importation, from Cuba or other countries, and not by white sugar from the E.E.C. or other countries.

Predicting the future seems hazardous, even for the authorities in charge of the 1991 GATT negotiations concerning this subject.

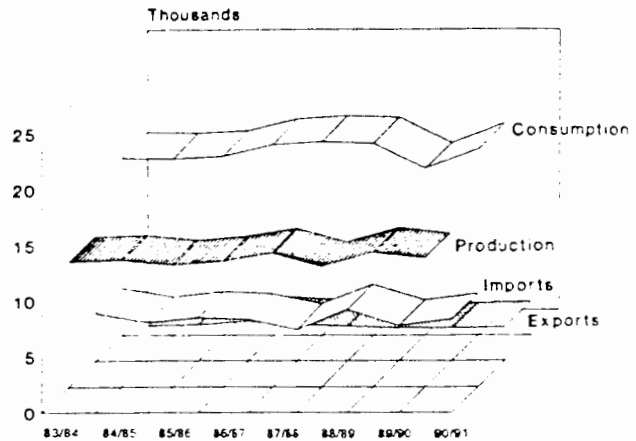
Enclosed: THE SUGAR ECONOMY OF EASTERN EUROPE- 1991 - detailed information on sugar production and the sugar market in several countries from the former Eastern bloc of Europe - for the last decade 1980-90 - based on data supplied by F.O. LICHTS, Berlin.



EAST EUROPE

SOURCE: F.O. LICHTS

Number of factories :	269
Average daily capacity : (tonnes)	3.117
Sugar beet yield per Hectare : (tonnes)	28.66
Sugar yield per Hectare : (tonnes, raw value)	3.11
Sugar consumption per head of population (Kg, raw value)	42,8



(In 000t)

	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
OPENING STOCKS	2.892.600	2.068.100	2.469.900	2.913.200	3.965.200	4.369.900	4.140.300	3.311.900	2.184.200	1.927.500	2.017.900
PRODUCTION	10.918.100	11.000.100	12.301.300	13.520.100	13.671.600	13.172.000	13.522.000	14.251.700	13.034.300	14.324.000	13.822.200
IMPORTS	6.272.300	8.027.600	6.774.700	6.587.600	5.744.700	6.206.900	6.030.300	5.105.400	6.891.200	5.480.400	6.072.900
CONSUMPTION	17.468.800	17.955.200	17.976.500	18.199.200	18.112.400	18.354.100	19.369.900	19.650.100	19.507.900	17.281.000	19.006.800
EXPORTS	546.100	677.800	649	856.400	949.300	1.256.600	1.008.600	834.600	674.200	663.000	730.000
ENDING STOCKS	2.068.100	2.462.900	2.913.200	3.965.200	4.369.900	4.138.100	3.311.900	2.184.200	1.927.500	2.017.900	2.140.900

Figure A

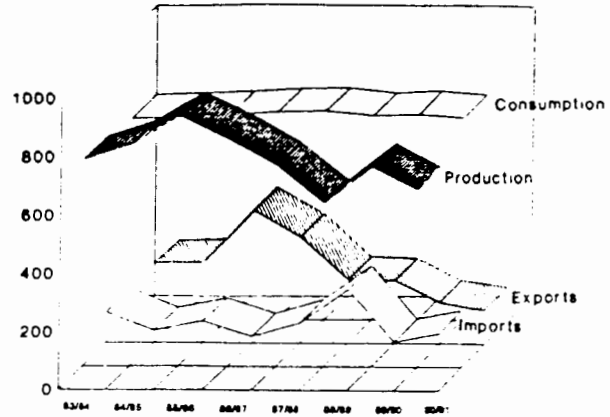
CZECHOSLOVAKIA

SOURCE: FO LIGHS



Number of factories :	62
Average daily capacity : (tonnes)	1.527
Sugar beet yield per Hectare : (tonnes)	35.28
Sugar yield per Hectare : (tonnes, raw value)	4.23
Sugar consumption per head of population (Kg, raw value)	49.9

Figure B



(in 000t)

	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
OPENING STOCKS	226.400	156.000	148.000	282.300	297.500	290.900	230.800	120.700	108.300	101.700	107.700
PRODUCTION	753.000	761.000	849.000	792.000	844.000	939.000	860.000	770.000	643.000	766.000	690.000
IMPORTS	100.800	143.700	162.900	187.400	122.600	156.300	103.600	149.600	264.700	85.000	115.000
CONSUMPTION	720.000	740.000	750.000	770.000	775.000	780.000	790.000	795.000	780.000	785.000	775.000
EXPORTS	204.200	172.600	127.600	194.200	198.200	375.300	283.700	137.000	134.200	60.000	35.000
ENDING STOCKS	156.000	148.000	282.300	297.500	290.900	230.800	120.700	108.300	101.700	107.700	102.700

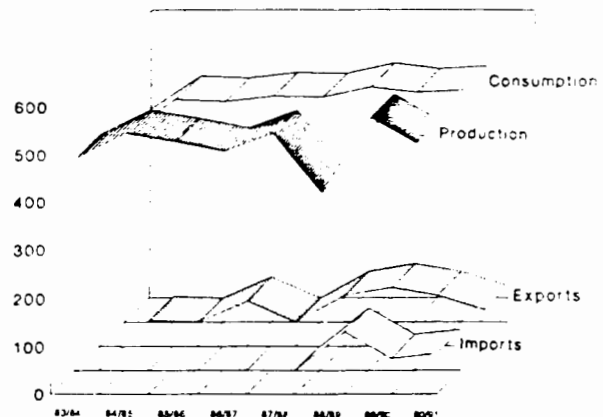
HUNGARY

SOURCE: FO LIGHS



Number of factories :	12
Average daily capacity : (tonnes)	3.825
Sugar beet yield per Hectare : (tonnes)	43.70
Sugar yield per Hectare : (tonnes, raw value)	5.44
Sugar consumption per head of population (Kg, raw value)	54,0

Figure C



(in 000t)

	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
OPENING STOCKS	56.500	17.800	37.100	45.700	91.100	120.500	92.300	76.100	43.800	30.100	49.400
PRODUCTION	480.100	600.900	587.400	493.000	543.800	526.100	505.900	542.800	418.000	577.000	522.000
IMPORTS	80.300	13.800	0	0	0	0	0	0	80.000	25.000	35.000
CONSUMPTION	588.500	546.300	524.200	444.000	514.300	510.500	522.100	519.800	540.900	530.000	535.000
EXPORTS	10.700	49.200	54.600	3.600	100	43.800	0	55.400	70.800	55.000	25.000
ENDING STOCKS	17.800	37.100	45.700	91.100	120.500	92.300	76.100	43.800	30.100	47.100	46.400

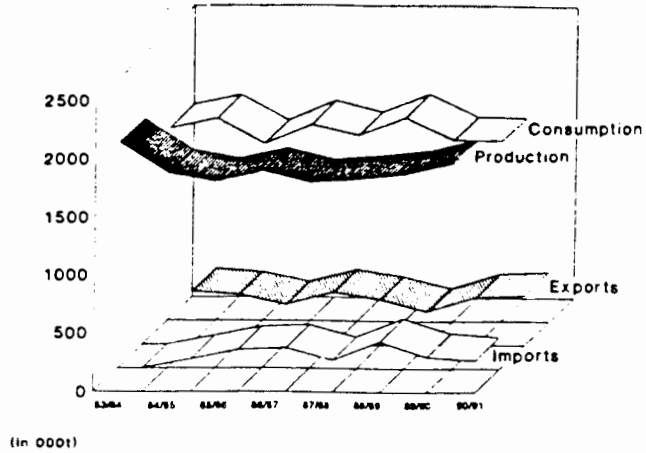
POLAND

SOURCE: F.O. LIGHTS

sucre Europe

Number of factories :	78
Average daily capacity : (tonnes)	2.044
Sugar beet yield per Hectare : (tonnes)	33.18
Sugar yield per Hectare : (tonnes, raw value)	4.46
Sugar consumption per head of population (Kg, raw value)	51,4

Figure D



	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
OPENING STOCKS	223.400	197.600	321.300	426.500	463.700	257.300	357.200	288.200	177.200	197.500	147.400
PRODUCTION	1.134.000	1.873.000	2.012.000	2.141.000	1.875.000	1.809.000	1.892.000	1.797.000	1.825.000	1.865.000	1.960.000
IMPORTS	252.700	0	1.800	500	76.500	152.700	167.300	70.000	226.000	100.000	70.000
CONSUMPTION	1.367.000	1.695.000	1.734.400	1.855.700	1.939.000	1.725.400	1.887.000	1.794.000	1.944.000	1.754.000	1.750.000
EXPORTS	45.500	54.300	174.100	248.600	218.900	136.300	241.300	184.000	86.700	210.000	220.000
ENDING STOCKS	197.600	321.300	426.500	463.700	257.300	357.200	288.200	177.200	197.500	198.500	207.400

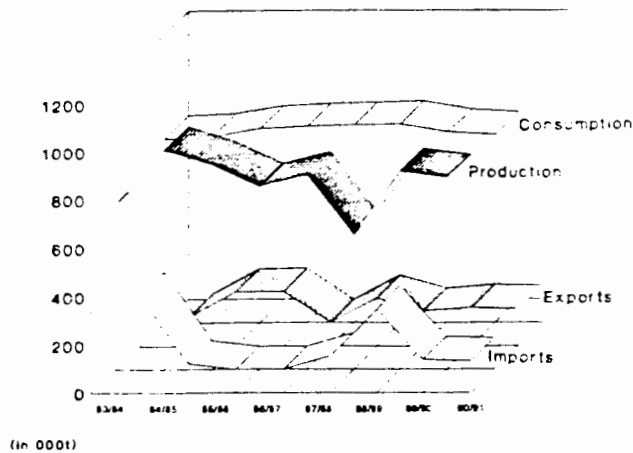
YUGOSLAVIA

SOURCE: F.O. LIGHTS

sucre Europe

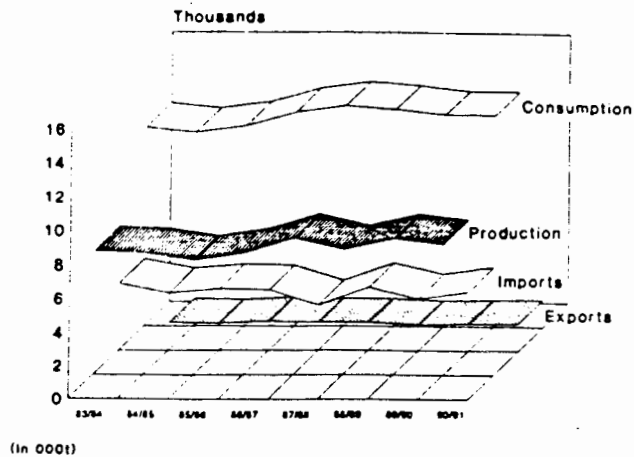
Number of factories :	23
Average daily capacity : (tonnes)	4.435
Sugar beet yield per Hectare : (tonnes)	51.63
Sugar yield per Hectare : (tonnes, raw value)	6.73
Sugar consumption per head of population (Kg, raw value)	38,3

Figure E



	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
OPENING STOCKS	123.300	104.900	148.700	172.800	379.300	418.100	337.900	283.000	226.500	164.200	166.200
PRODUCTION	729.000	870.100	711.900	778.300	1.009.800	947.900	855.100	902.000	653.000	917.000	890.000
IMPORTS	129.100	67.800	133.000	310.000	25.000	0	0	56.200	250.000	40.000	35.000
CONSUMPTION	810.000	884.000	810.000	860.000	870.000	901.000	910.000	915.000	920.000	885.000	875.000
EXPORTS	66.500	10.100	10.800	21.700	126.000	127.200	0	99.700	45.300	60.000	55.000
ENDING STOCKS	104.900	148.700	172.800	379.300	418.100	337.900	283.000	226.500	164.200	176.200	161.200

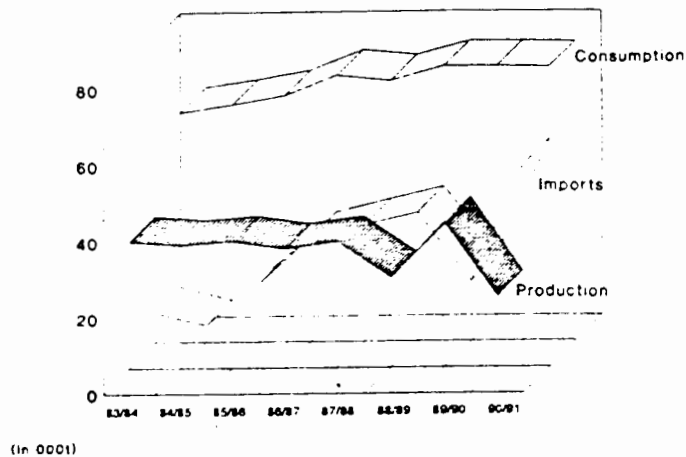
Number of factories :	52
Average daily capacity (tonnes)	4.982
Sugar beet yield per Hectare (tonnes)	29.34
Sugar yield per Hectare (tonnes, raw value)	2.88
Sugar consumption per head of population (Kg, raw value)	49,0

Figure F


	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
OPENING STOCKS	2.053.600	1.369.600	1.673.300	1.802.000	2.551.400	3.080.200	2.919.200	2.370.700	1.428.300	1.233.100	1.311.900
PRODUCTION	7.150.000	6.200.000	7.400.000	8.760.900	8.685.000	8.260.000	8.700.000	9.565.000	8.913.000	9.565.000	9.250.000
IMPORTS	5.212.400	7.389.900	5.987.300	5.408.100	4.902.900	5.140.600	5.086.200	4.204.100	5.250.000	4.600.000	5.000.000
CONSUMPTION	12.905.000	13.024.700	13.082.700	13.214.300	12.912.000	13.267.700	14.096.000	14.488.000	14.256.000	13.950.000	13.980.000
EXPORTS	141.400	261.600	175.900	205.200	147.100	294.000	238.600	223.600	102.200	150.000	165.000
ENDING STOCKS	1.369.600	1.673.300	1.802.000	2.551.400	3.080.200	2.919.200	2.370.700	1.428.300	1.233.100	1.298.100	1.416.900

ALBANIA

Number of factories :	2
Average daily capacity (tonnes)	2.200
Sugar beet yield per Hectare (tonnes)	41.00
Sugar yield per Hectare (tonnes, raw value)	4.50
Sugar consumption per head of population (Kg, raw value)	22.5

Figure G


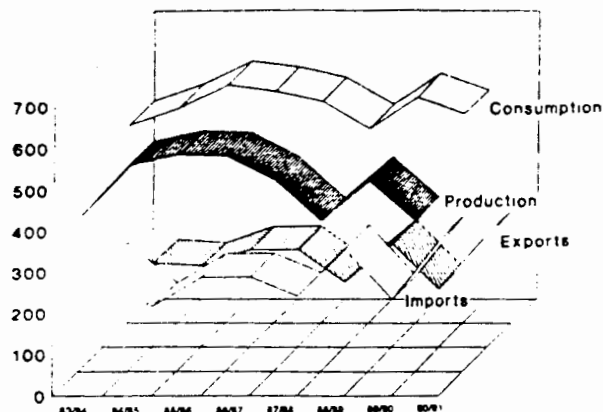
	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
OPENING STOCKS	8.300	21.300	17.700	28.000	22.500	10.500	8.200	10.600	19.500	18.300	13.400
PRODUCTION	40.000	40.000	42.000	40.000	39.000	40.000	38.000	39.800	30.300	44.600	25.200
IMPORTS	25.300	11.500	25.500	14.700	11.200	22.200	34.200	37.400	40.500	22.500	52.900
CONSUMPTION	52.300	55.200	57.300	60.200	62.200	64.500	69.800	68.300	72.000	72.000	71.800
EXPORTS	0	0	0	0	0	0	0	0	0	0	0
ENDING STOCKS	21.300	17.700	28.000	22.500	10.500	8.200	10.600	19.500	18.300	11.700	19.700

ROMANIA

sucre 

Number of factories :	33
Average daily capacity : (tonnes)	2.424
Sugar beet yield per Hectare : (tonnes)	25.83
Sugar yield per Hectare : (tonnes, raw value)	2.26
Sugar consumption per head of population (Kg, raw value)	25,3

Figure H



(in 000t)

	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
OPENING STOCKS	93.100	110.900	79.600	84.100	85.300	81.600	81.600	94.300	107.400	107.400	124.400
PRODUCTION	492.000	540.000	541.000	433.000	560.000	585.000	582.000	525.000	425.000	522.000	425.000
IMPORTS	186.800	117.600	152.600	256.200	157.300	230.000	230.600	183.100	300.000	175.000	320.000
CONSUMPTION	586.000	600.000	603.000	540.000	580.000	635.000	620.000	595.000	530.000	605.000	565.000
EXPORTS	75.000	89.000	86.000	148.000	141.000	180.000	180.000	100.000	195.000	83.000	220.000
ENDING STOCKS	110.900	79.600	84.100	85.300	81.600	81.600	94.300	107.400	107.400	116.400	124.400

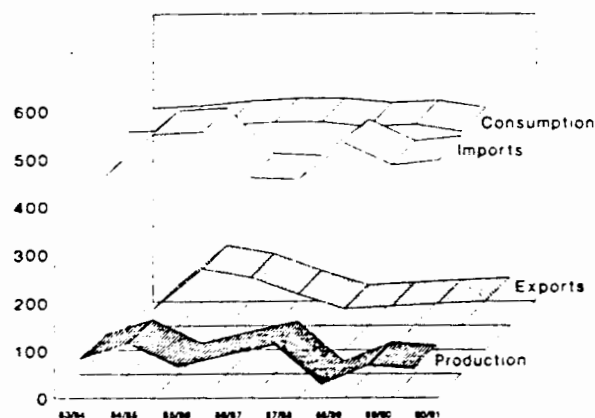
SOURCE: F.O. LIGHTS

BULGARIA

sucre 

Number of factories :	7
Average daily capacity : (tonnes)	3.500
Sugar beet yield per Hectare : (tonnes)	22.65
Sugar yield per Hectare : (tonnes, raw value)	1.68
Sugar consumption per head of population (Kg, raw value)	51,9

Figure I



(in 000t)

	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
OPENING STOCKS	108.000	89.900	37.200	71.700	74.600	110.700	110.800	68.200	73.200	75.200	62.200
PRODUCTION	140.000	115.000	158.000	82.000	115.000	65.000	89.000	110.000	27.000	87.000	60.000
IMPORTS	284.900	283.200	311.600	410.800	499.200	505.100	408.400	405.000	480.000	435.000	445.000
CONSUMPTION	440.000	410.000	415.000	455.000	460.000	470.000	475.000	475.000	465.000	470.000	455.000
EXPORTS	3.000	41.000	20.000	35.000	118.000	100.000	65.000	35.000	40.000	45.000	50.000
ENDING STOCKS	89.900	37.200	71.700	74.600	110.700	110.800	68.200	73.200	75.200	62.200	62.200