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# Proceedings



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# OUTLOOK '88

64th Agricultural Outlook Conference  
U.S. Department of Agriculture  
Washington, D.C. Dec. 1-3, 1987



# ANNUAL AGRICULTURAL OUTLOOK CONFERENCE

United States Department of Agriculture  
Washington, D.C.

Outlook '88, Session #11

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## WORLD PERSPECTIVE

Helmut Ahlfeld  
Managing Director, F.O. Licht

Ladies and Gentlemen,

I have been given 15 minutes to cover what the program calls world perspective. But the world sweetener market has become so complex that it would need at least an hour to cover all aspects. However, as I am not one of the privileged members of the Soviet Politbureau who are usually allowed to speak for at least three hours I will try to cut myself short and cover only those aspects which I think to be most important.

World sugar analysts are at present split into two groups. The first group are the so-called "cyclicalists" and the second group the so-called "structuralists". In both camps are highly educated economists, who are utterly convinced that they are the only persons with a little common sense.

As you all know world sugar prices are highly volatile and the extent of sugar price fluctuations surpasses that of most other commodities. The fluctuations emanate from cyclical imbalances between supply and demand, largely induced by supply variations. Sharp price increases tend to induce overexpansion of

output, thus ushering in new surplus phases and low prices. A corresponding contraction in output is prevented by the downward inflexibility of production. Short periods of high prices therefore tend to be followed by long periods of low prices.

The cyclicalists believe that the cyclical nature of the world sugar market is still intact and that neither the new sweeteners such as aspartame and HFCS nor the emergence of the Brazilian alcohol industry have fundamentally changed the sugar price cycle.

Price peaks have occurred in 1951, 1957, 1963, 1974 and 1980. Apart from the 11 year gap in the 1960's the average gap between price peaks has been six years. Following this pattern, prices should have peaked in 1986 which was not the case but the protagonists of the cycle theory are confident that the peak is only slightly delayed and they have been forecasting higher prices for the next two years and a fully grown boom for 1990. 1)

The structuralists are more pessimistic and argue that the structural changes which have occurred in the sugar market during the past decade make it unlikely that there will be a price rise comparable to the last two surges in sugar prices in 1974 and 1980. 2)

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1) J. Fry, Sweetener Production, Consumption and Price Cycles 1987/1990, Sugar y Azucar, April 1987, p. 14

2) A. C. Hannah, The Sugar Cycle, Structural Changes and International Sugar Agreements, F. O. Licht, International Sugar Report, No. 14, 21 May 1987, pp. 213-217

Before commenting in greater detail on the consequences of the structural change that has taken place I would like to review briefly where we stand now and what we can expect this year.

There were quite a number of analysts who were fairly optimistic about prospects for the world market when we entered 1986/87. It was hoped that after the fall in stocks of 2.4 million tonnes in 1985/86 there would be a further reduction of 3.5 million tonnes the following year. It was believed that the improvement in the world statistical position for sugar would lead to higher prices and that the long-term phase of low prices was about to end. But the sugar year 1986/87 was again a year of unfulfilled expectations. Stocks fell only marginally to 37.1 million tonnes from 37.9 million tonnes the previous year, while prices through 1986/87 were still suffering as they have been for so long from the effect of the massive over-supply in 1981/82 and 1982/83 which followed the very high prices attained in the latter months of 1980. The question which arises from the poor price performance in 1986/87 is whether the expected upturn in prices has only been delayed by good weather in key growing areas or whether sugar is in for a long and bitter siege.

A cursory glance at the prospects for 1987/88 does generate some optimism that prices will improve to some extent. The production outlook has been adversely affected by unseasonably cold and wet weather in North/West Europe and abnormally hot and dry weather in South East Europe, along with the late arrival of

monsoon rains in India and Indonesia. This, according to our first estimate of the world sugar balance in 1987/88, could reduce production to 103.5 million tonnes compared to 103.9 million tonnes the previous year. Consumption in the same year is estimated to rise to 105 million tonnes, which would reduce closing stocks to 34.7 million tonnes or 32.9 per cent of consumption. Although this would still be above the 28 per cent recorded in the critical years 1979/80 and 1980/81 it must not be overlooked that the ratio has been coming down all the time since its peak of 41.41 per cent in 1982/83. On the assumption that most people, at least subjectively, think of a boom in sugar prices as meaning prices of at least 20 cents per lb sustained for a minimum period of let us say 6 to 12 months the expected stock/consumption ratio may still be too high for such a boom. But even the most cautious analysts would conclude that higher prices will ensue from these figures and to use the imaginative terminology created by the chief economist of the International Sugar Organization in London a "boomlet" where prices rise to 10 cents per lb and then fall away or even a "boomette" where prices rise to about 15 cents per lb and then fall away is clearly on the cards. This will bring the cyclicalists back on the stage and make them at least the temporary winners.

But the great unresolved question is how will producers and consumers or should I say importers, as the price we are talking about is the price of traded sugar, react to higher prices. It is exactly here where the structural changes which have taken place during the past decade come into play.

Let us first concentrate on the supply side. Two or probably three factors have reduced the average response time to higher world prices. The most important factor which has radically changed the supply side is the emergence of the EEC, a beet sugar producer, as an important exporter to the world market. The increase in the share of beet sugar in world trade has reduced the average time taken by producers to respond to increases in world prices as the EEC can increase its production very significantly in about an eight month period, provided the price signals generating a production response occur before the land has been sown to other crops. Another factor which has also affected the supply response of exporters is the development of the alcohol industry in Brazil. After the rapid development of this industry only about 40 per cent of the cane produced is used for sugar production. Economists argue endlessly about whether some of this cane could or would be switched to sugar if prices rose substantially. Obviously the two industries are separate and share only the same raw material, but a substitution cannot be ruled out.

There is another factor that may effectively kill off a "boomette" or even "boomlet" and that is increased efficiency within the sugar industry in the larger exporting countries. The drop in world prices had the positive effect of disclosing unnecessary costs and all sorts of inefficiencies in sugar production. As a result many sugar exporters have lowered their US\$ production costs since 1980. Inefficient factories have been rationalized, organisational changes to improve efficiency have been made and agricultural yields have often improved, even though the use of inputs like fertilizer has fallen. Hence a "boomette" may convince the more efficient exporters to gear up their export production. Many producers have privately suggested that they can make



a living with prices at 7, 8 or 9 cents per lb, basis New York.

However, producers can only gear up production within a short period of time if they can take advantage of under-utilized processing capacity. The cyclicalists have argued that by no later than 1988/89 unutilized capacity will be insufficient to forestall further stock drawdown, which should make a boom inevitable, while others estimate that around the world there are still some 6 to 8 million tonnes of unused capacity. I have to say that our findings support the latter view. At first sight 6 to 8 million tonnes does not seem that much compared to current world production of more than 100 million tonnes but it represents more than one third of the free market for sugar and together with anticipated capacity expansion should be enough to cover projected demand by 1991/92.

This brings us to the other side of the equation, namely demand. The recent structural change has not been confined to the supply side. In the early to mid 1970's around 65 per cent of imports, that is the demand that ultimately determines prices on the world market, went to developed importers and 35 per cent to developing importers. In 1986 the developed importers' share had fallen to 40 per cent, while the developing importers' share had risen to 60 per cent. The principal reason for this reversal is the US sugar policy, which has not only encouraged US sugar producers but also provided an umbrella under which the HFCS industry, so far the sugar industry's main competitor, could develop. HFCS has replaced sucrose in industry after industry and the losers of all this of course have been the foreign suppliers, who have seen their net share of the US market dwindle from 5.8 million short tons in 1977

to approximately 1.8 million tons in 1986. As you know the import quota for 1987 was set at slightly over a million tons, down 40 per cent from the 1986 quota, which was, as the Department of Agriculture has stated, the lowest level in nearly one hundred years.

The plight created by the US sweetener policy has been exacerbated by the policies adopted by the Japanese government. These have led to a reduction in imports since 1976 of some 25 per cent.

All this has led to a significant fall in imports by high income countries where price elasticity is low and foreign exchange availability is not a consideration. As a result demand for imported sugar has become much more price and income sensitive and we now have a market where growth or lack of it is increasingly determined by the economic situation in developing countries in relation to prices. In other words there is a greater sensitivity to price surges in the world market which limits the level to which prices could realistically be expected to climb.

All this does not mean that sugar is no longer a cyclical commodity but there have been forces at work which will most likely elongate the length of the cycle between peaks while at the same time the extent of the price peak to be expected in the future has been reduced.

From this it must be concluded that if prices should rise above 10 cents per lb in 1987/88 there will be irresistible pressure in the more efficient sugar

exporting countries to raise production and exports. This, together with the likely reaction on the import side, should generate sufficient additional supplies to kill off a full boom.

But there is always the danger of a series of weather induced production shortfalls. For this eventuality surplus stocks may no longer be high enough to prevent a fully grown boom. This would benefit producers of alternative sweeteners but would be a disaster for the sucrose industry. Prices in 1986/87 were a clear sign that there was still a surplus overhanging the market. Using the ISO method to calculate surplus stocks we have estimated that the 1987/88 season opened with a surplus of roughly 5.5 million tonnes compared to more than 10 million tonnes only three years ago. Though still sufficient to prevent any large rise in prices, this is not an enormous quantity especially as another drawdown of surplus stocks is forecast for 1987/88. We must also identify who is holding these stocks and in this respect the picture is even more worrying. It is the size of the surplus stocks in exporting countries which ultimately determines price as it is this part of the surplus which will come onto the market if prices rise. Exporters' surplus stocks have fallen from nearly 6 million tonnes three years ago. to 2.6 million tonnes at the beginning of 1987/88. This may be more than sufficient in normal years but hardly enough for a series of weather induced production shortfalls. Hence, unknowingly we may have entered a phase of greater volatility and insecurity which could determine the ultimate fate of the world sugar industry.

On the assumption of world market prices in the range of 11 to 12 cents and an optimistic but defensible assumption regarding income growth and financial

stability it has been estimated that consumption during the next five years will rise by 7.5 to 8.5 million tonnes. Taking our latest estimate of 103.9 million tonnes for 1986/87, this would bring world consumption to 111-112 million tonnes in 1992 or at most 8 million tonnes above current production. Taking into account that there are at present 6 to 8 million tonnes of unused capacity and the further assumption that capacity world-wide will grow by one million tonnes per year, capacity should be high enough to cover projected demand for 1992. But due to the constant fall in surplus stocks the world sugar industry becomes more and more vulnerable to weather induced supply shocks. If the world price were to boom let us say by 1988/89 the sweetener landscape would be substantially different. Viton in his excellent analysis before the ISO Consumption Committee earlier this year has rightly pointed out that "technically, culturally and organizationally the world is poised for a major leap in consumption of high fructose and high intensity sweeteners. All that is needed is a powerful price stimulus." Probably with an eye on their new product "crystalline corn fructose" the corn wet milling industry already calls for freedom to compete on an equal footing with traditional sweeteners. This opens the long-term possibility that crystalline fructose will enter trade with the full backing of a powerful grains industry and possibly, for internal political reasons, a powerful government. This should give sugar exporters and producers more than enough food for thought.

The immediate effect of a price boom with prices above 30 cents over a few years would be a significant decline in sugar consumption, in part because of increased use of low calorie sweeteners and liquid and crystalline high

fructose. Many of the non-food uses for sugar would decline or disappear. What is even worse is that a large part of the long-term negative effects would be irreversible. Once the low calorie sweeteners get going, there will be no way to stop them. The long-term adverse consequences of a price boom should indeed provide a compelling reason for sugar producers to move quickly to establish an International Sugar Agreement able to influence the statistical position. However, the members of the current administrative Agreement seem to be more preoccupied with internal financial questions than inspired by the will to negotiate a fully functioning Agreement with economic clauses. This could prove to be a serious mistake in a few years hence as the creation of a buffer stock or better reserve stock to cut off price peaks could prove to be vital for the survival of the world sugar industry as it is now. To cut off price peaks may become one of the main objectives of an ISA with economic clauses and it is not too late for an ISA to play this role. But there is certainly no time for complacency nor would it be wise to shy away from sacrifices as more is at stake than a few hundred thousand tonnes of probably even fictitious export entitlements.

# WORLD SUGAR BALANCE

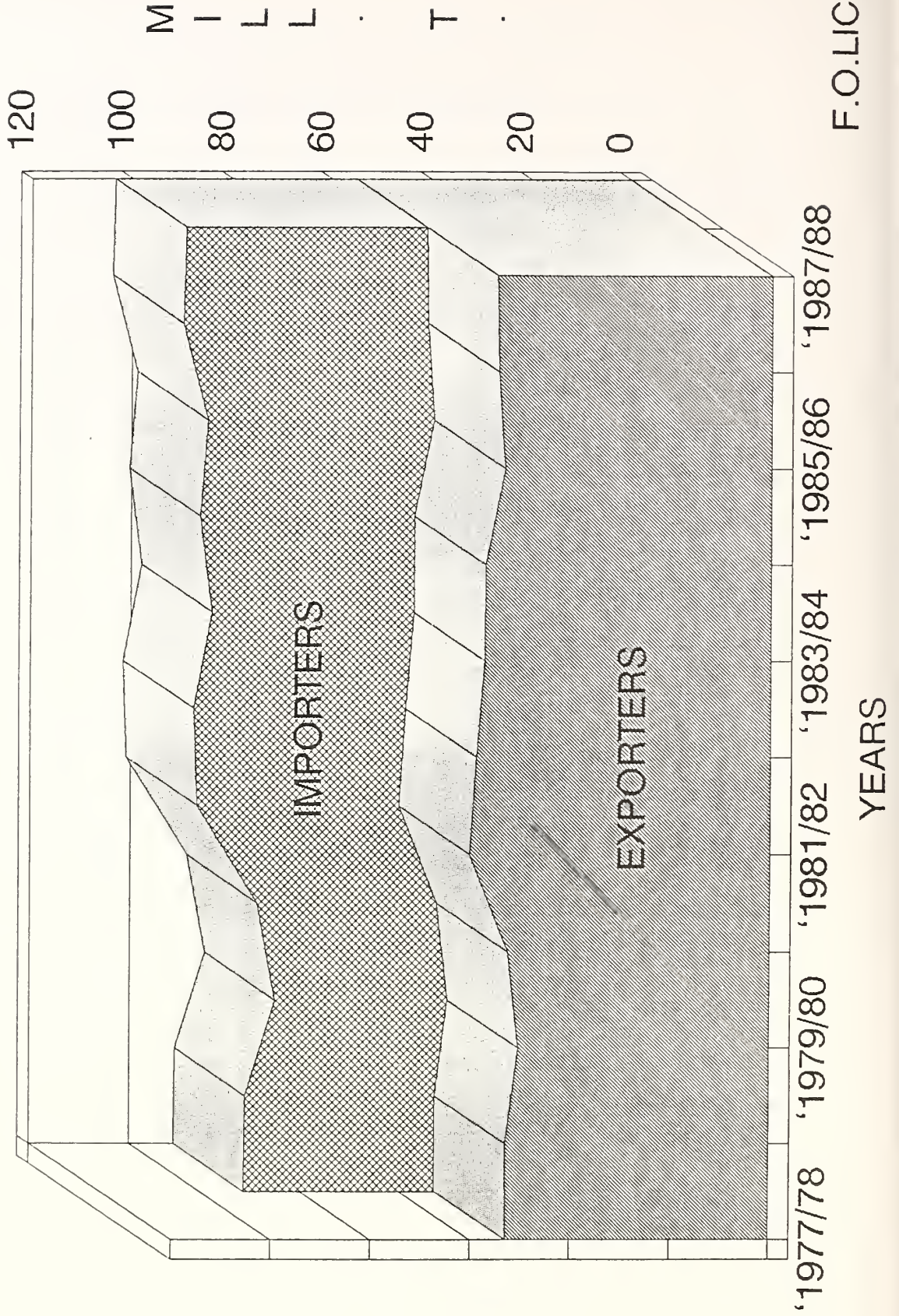
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	<u>1987/88</u> Estimate	<u>1986/87</u>	<u>1985/86</u>	<u>1984/85</u>	<u>1983/84</u>
	(1000 tonnes, raw value)				
Initial stocks	37 069	37 910	40 262	39 838	39 052
Production	103 507	103 905	98 940	100 430	97 997
Imports	27 378	28 288	28 396	28 402	29 111
Total	167 954	170 103	167 598	168 670	166 160
Consumption	105 431	103 924	100 289	98 424	96 214
Exports	27 877	29 110	29 399	29 984	30 108
Final stocks	34 646	37 069	37 910	40 262	39 838
+/- 1000 tonnes					
Production	- 398	+ 4 965	- 1 490	+ 2 433	- 2 625
+/- per cent	- 0.38	+ 5.02	- 1.48	+ 2.48	- 2.61
+/- 1000 tonnes					
Consumption	+ 1 507	+ 3 635	+ 1 865	+ 2 210	+ 1 915
+/- per cent	+ 1.45	+ 3.63	+ 1.90	+ 2.30	+ 2.03
Stocks in per cent of Consumption	32.86	35.67	37.80	40.91	41.41

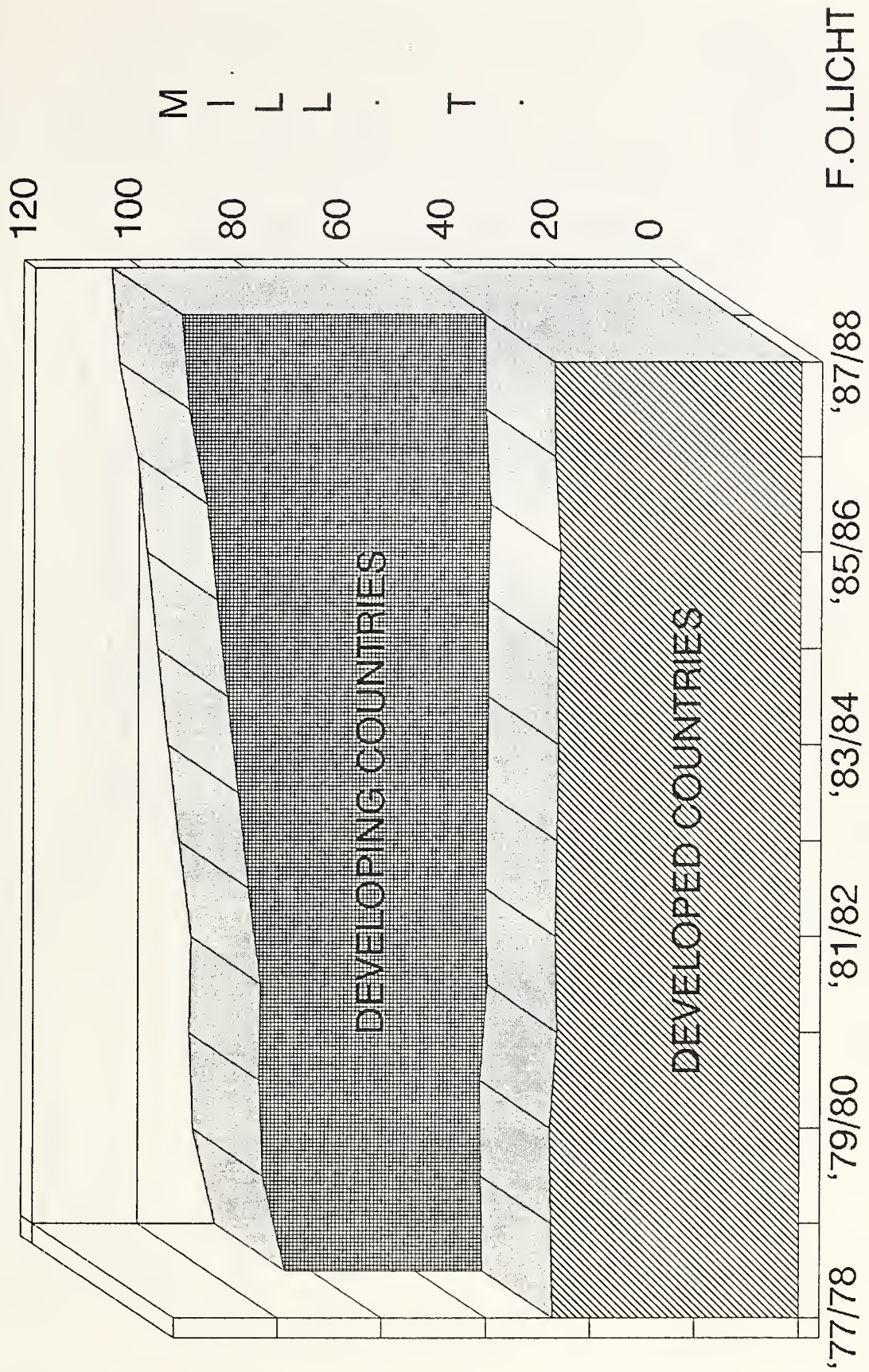
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	<u>1982/83</u>	<u>1981/82</u>	<u>1980/81</u>	<u>1979/80</u>	<u>1978/79</u>
	(1000 tonnes, raw value)				
Initial stocks	33 391	25 583	25 935	31 664	30 541
Production	100 622	100 917	88 727	85 099	91 010
Imports	29 212	31 208	29 019	28 613	26 276
Total	163 225	157 708	143 681	145 376	147 827
Consumption	94 299	92 203	89 882	90 147	89 286
Exports	29 874	32 114	28 216	29 294	26 877
Final stocks	39 052	33 391	25 583	25 935	31 664
+/- 1000 tonnes					
Production	- 295	+12 190	+ 3 628	- 5 911	- 195
+/- per cent	- 0.29	+ 13.74	+ 4.26	- 6.50	- 0.21
+/- 1000 tonnes					
Consumption	+ 2 096	+ 2 321	- 265	+ 861	+ 4 103
+/- per cent	+ 2.27	+ 2.58	- 0.29	+ 0.96	+ 4.82
Stocks in per cent of Consumption	41.41	36.21	28.46	28.77	35.46

WORLD SUGAR PRODUCTION  
MILL. T. RAW VALUE



WORLD SUGAR CONSUMPTION  
MILL. TONNES , RAW VALUE



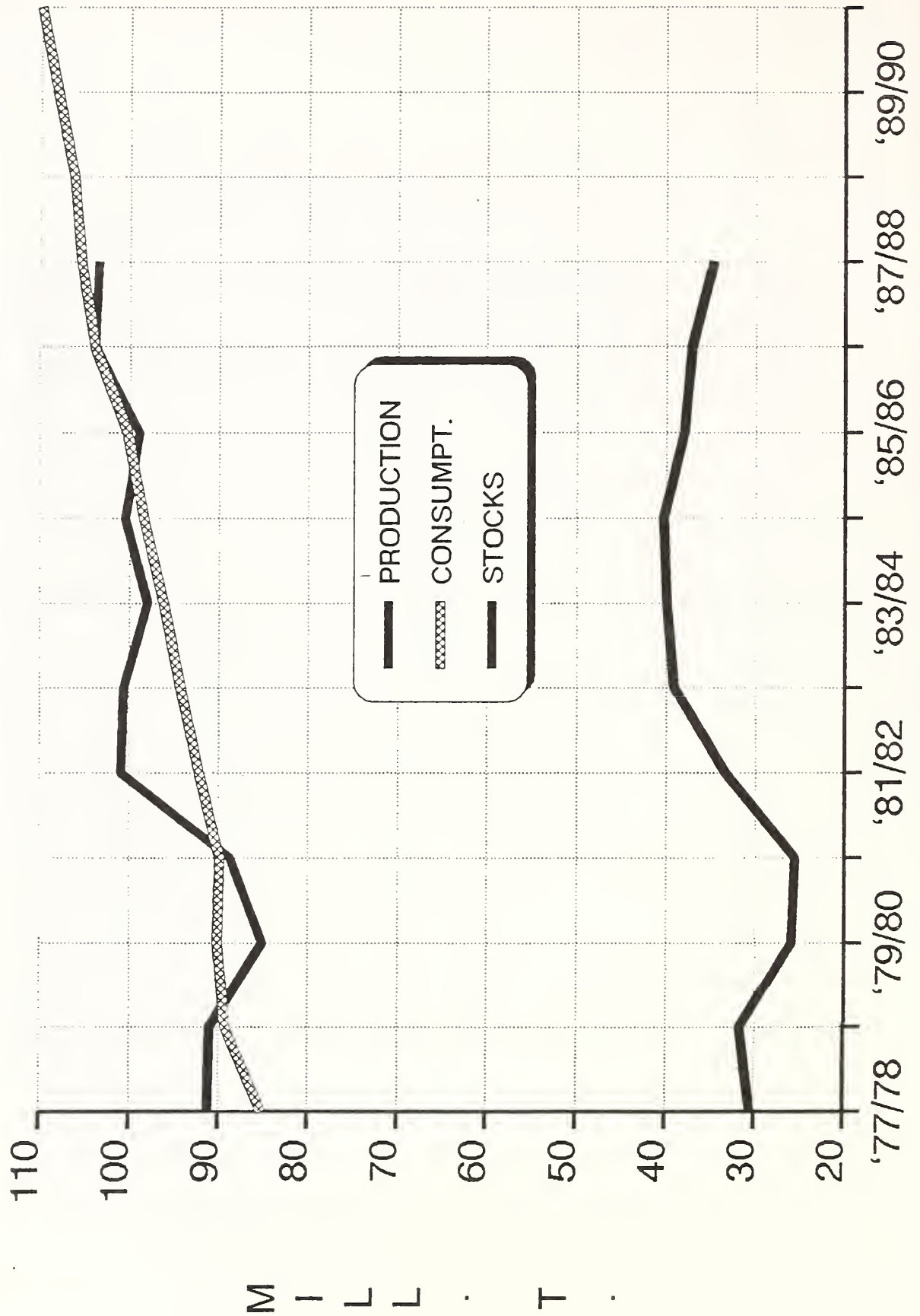
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F.O.LICHT

YEARS

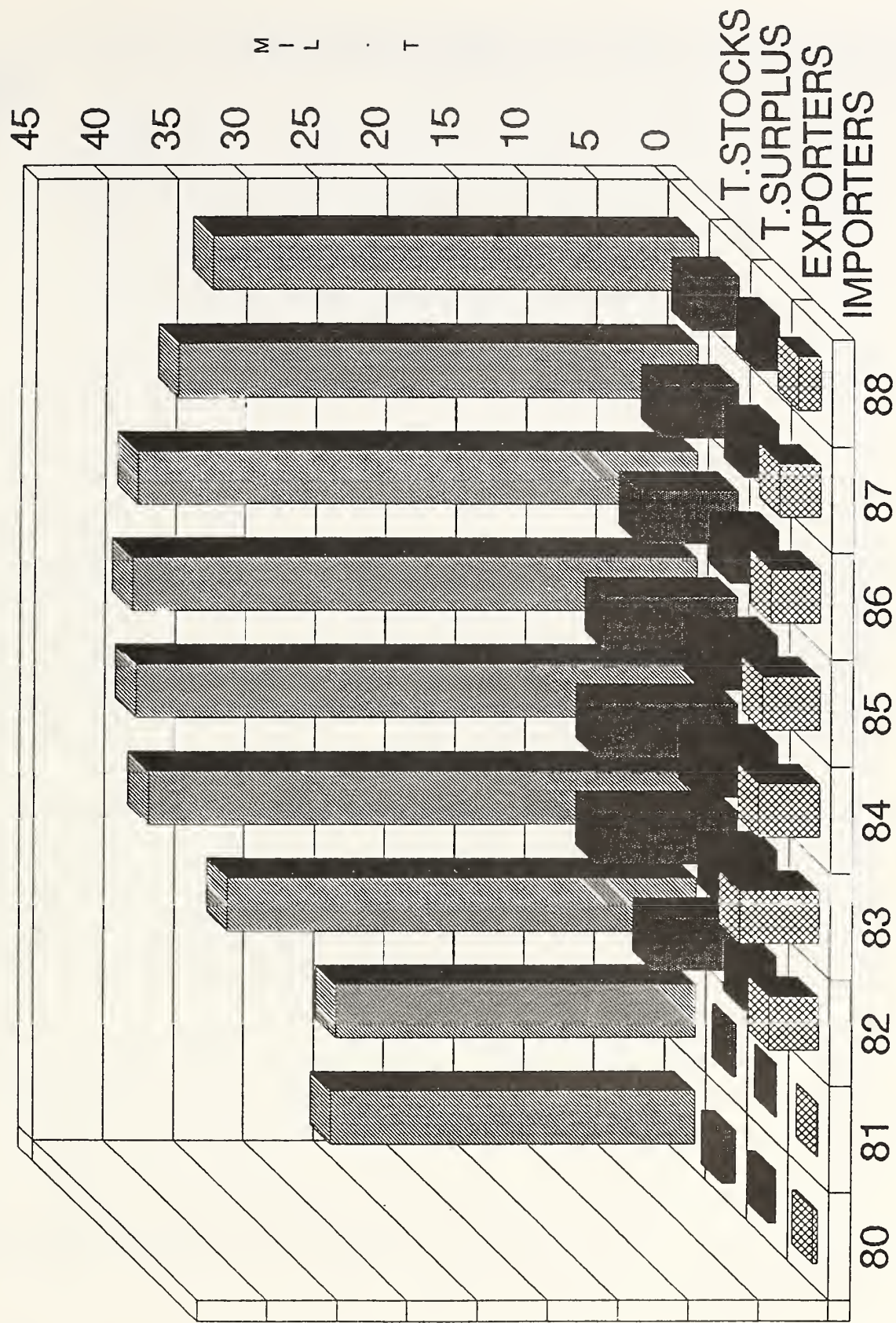


WORLD SUGAR BALANCE  
MILL. T., RAW VALUE



# WORLD SURPLUS / DEFICIT STOCKS

## MILL. T. RAW VALUE



F.O.LIGHT

SUGAR YEARS ENDING