PROJECTIONS OF SUGAR SUPPLY AND DEMAND FOR 2005

PROJECTIONS TABLED BY FAO

Introduction

Recently, FAO has commissioned the elaboration of a world sugar model for examining the potential effects of alternative scenarios of trade liberalization in different parts of the world. Consistently with other commodities covered by the present projections, however, those for sugar also assume the continuation of current policies to the year 2005 and do not therefore make hypotheses about possible future directions of policy change. In common with other agricultural commodities, by far the most notable aspects of recent sugar policy changes concern the commitments made in the Uruguay Round Agreements in terms of reduction of domestic support, reduction of export subsidies, commitments on minimum market access for imports and tariffication. These features of policy change are taken into account in the projections presented here, but no further commitments are hypothesized to take effect by the year 2005.

The model used is a multi-region, non-spatial equilibrium model, consisting of production, consumption and stock demand equations for each country/region. Throughout, quantities of sugar produced, consumed and stocked, and hence traded, are expressed in rows equivalent. Sugar cane and beet are combined where necessary into one supply response relationship. Demand for sugar is derived from final uses of sugar, both direct and indirect. The stock equations reflect combined public and private stockholding behaviour. Net trade (exports <u>less</u> imports) is determined by the usual identity. Domestic prices are incorporated (with other variables) in the supply, demand and inventory equations, and further equations link the border or world price and the domestic price by means of *ad valorem* tariffs. Finally, the model is closed by resort to the usual market clearing condition that the sum of all net trade across countries/regions equals zero.

Consumption

World sugar consumption under the baseline assumptions about income and population growth, is projected to expand by nearly 27 million tonnes between 1993-95 and 2005, to reach 137 million tonnes. The implied annual growth rate, 2 percent would thus approximate that achieved over the 1980s. The bulk of the increase in consumption, over 22 million of the 27 million tonne total, would be in the developing countries, raising further their share of global sugar consumption, to 65.4 percent by the year 2005. Among developing regions, particularly notable growth, of 3 percent annually, is projected for Africa and the Far East, followed by the Near East (2.8 percent p.a.), Oceania (2.3 percent p.a.) and Latin America and the Caribbean (1.9 percent p.a.). Unlike in the 1980s, however, developed countries as a whole, are projected to increase their total sugar consumption between 1993-95 and 2005, albeit by only one-third of the annual growth rate projected for developing countries' consumption. The fastest growth in total consumption in the developed regions would be in North America (1.2 percent p.a.) while the slowest growth rate is projected for the economies in transition (0.5 percent p.a.).

Production

As is to be expected from market clearing models of commodity markets, sugar production at the global level is projected to keep pace with consumption, allowing for stock changes, to reach 137.7 million tonnes by 2005. The growth rate, 1.9 percent p.a., would somewhat exceed the average growth rate of 1.6 percent obtained in the 1980s. The global situation, however, obscures some major regional and national changes. In aggregate, the developing countries are projected to account for virtually all of the global increase in sugar production, thus raising their share of world production from 63 percent in 1993-95 to about 70 percent by the year 2005. Regionally, Latin America and the Caribbean is expected to play the leading role in raising output, accounting for over 13 million tonnes of the total increase of nearly 25 million tonnes projected for the developing countries during 1993-95 to 2005. Most of the remaining additional output in these countries is projected to originate in the Far East, thus helping to meet that region's burgeoning demand.

By contrast, the developed countries overall are projected to have virtually no net increase in their sugar production. Two low-cost producers, Australia and South Africa, are projected to be the major exceptions, with production growth rates projected at 2.6 percent and 6.3 percent a year respectively. Output in North America is expected to show little change while production in Western Europe is projected to edge down by 0.6 percent a year on average during 1993-95 to 2005. In the same period, output in the area of the former USSR is projected to contract more sizeably (2.6 percent p.a.) although other countries in transition are projected to raise slightly their combined production.

International trade and prices

Disparate trends in demand and production at national level, coupled in some instances with increased market access opportunities arising from policy changes in recent years, are projected to give new impetus to international trade in sugar. Among the main exporters, the most substantial increases in net trade are projected for Brazil, up by 6.7 million tonnes over the projection decade to 11.0 million tonnes by 2005, and Cuba, up by nearly 1.9 million tonnes to 5.0 million tonnes over the same period. Thailand's net exports are also projected to be substantially larger (nearly 1.4 million tonnes more) by 2005 and a similar increase is projected for Australia. One of the largest percentage increases (17 percent p.a.) would be achieved by South Africa, whose net exports are projected to rise by 1.1 million tonnes from a relatively low base in 1993-95. By contrast, the EC - which was the largest net exporting market in the base years - is projected to cut its net exports by about 2.4 million tonnes over the projection decade to less than 2.1 million tonnes.

The bulk of the market opportunities for exporters, however, are expected to arise in markets where domestic production cannot keep pace with demand. Regionally, it is projected that Africa's net imports would increase by 7.3 percent a year followed by the Far East (5.8 percent p.a. notwithstanding the increase in Thailand's projected export expansion), and the Near East (3.1 percent p.a.). Among developed regions, too, some large increases in net imports are projected, including

North America with net import growth of 4.0 percent p.a. (and 5.9 percent in the United States alone) and 4.1 percent p.a. for the area of the former USSR.

Historically, the world sugar market has been faced with recurring supply/demand imbalances which got reflected in extremely volatile prices on free markets. For most years in the past four decades, world production of sugar has been in excess of consumption, leading to low prices and stock overhangs. But there have, of course, been periods of deficit, usually caused by crop failures in one or more of the main producing countries, in which prices rose very sharply, followed by equally sharp declines. As such events and indeed, collapses in demand, cannot be foreseen in commodity models, price movements in such models tend to be smooth and gradual. Indeed, in the present projections in world free market price projected for the year 2005, shows practically no change in real terms from the average level in the base period. As price developments in the present sugar season (October 1998-September 1999) demonstrate, however, with the ISA daily price plunging by more than 35 percent - to a 13-year low of US cents 4.78 per lb. by the end of April 1999 - price volatility seems set to remain a notable feature of the world sugar market.

Main problems and development issues

Volatility of prices in the free market has been a long-standing feature of international trade in sugar. The 1980s, for instance, opened with a world sugar price "spike", raw prices soaring to US cents 47 per lb. against a long-term average of about 10 cents per lb. Typically, such price booms were followed by long periods of relatively depressed prices with occasional dips, even to below the costs of production in major low-cost exporting countries. It has long been expected that the development and diffusion of alternative sweeteners would help to stem the magnitude of such price spikes. Also, the growing involvement of developing countries in global sugar consumption, with their greater sensitivity of demand to price, has been cited as a possible contributor to the reduced variability of prices in recent years. The price elasticities of demand for sugar estimated for the present projections add some weight to this hypothesis:

Selected price elasticities of demand						
Developed countries		Developing countries				
United States	-0.11	China	-0.29			
Canada	-0.07	India	-0.76			
EC	-0.12	Indonesia	-0.61			
Former USSR	-0.05	Thailand	-0.24			
Australia	-0.02	Pakistan	-0.15			
Japan	-0.81	Korea, Republic of	-0.79			

although estimates made for countries in Latin America and the Caribbean and Africa are generally smaller than those estimated for the Far East. However, higher price elasticities of demand for sugar generally go hand in hand with higher income elasticities. Thus, the possible price sensitivity effect may well have been offset by the weak economic situation in several major importing countries in the past year or so. Coupled with the prevailing supply surplus and already high stocks, this means that reversal of the most recent slump in the free market price may well hinge as much on recovery in the economies affected as on the interaction of short-term supply and demand factors. Unless this occurs, there could be further potentially damaging consequences for investment planning in sugar production and industries.

Another important developmental issue for the future concerns the extent and impact of policy changes in the world sugar economy. In an earlier study of the Impact of the Uruguay Round on Agriculture (FAO, 1995), it was concluded that the URA would induce increases in world sugar production, consumption and trade but that the overall effects would be relatively small. Expressed in another way, the scope for reductions in market interventions implemented via policies, is potentially still large. While there is no intention here to explore such hypotheses as further liberalization, some analysis is in order of the consequences of recent policy changes on that part of the world sugar trade which is the subject of preferential arrangements, in particular the ACP countries. Already in the decade preceding the conclusion of the URA, the total volume of preferential trade in sugar had declined from about 8 million tonnes to less than 3 million tonnes. Thus, reductions, agreed in the URA, on tariff rates for both raw and white sugar would generally have the effect of reducing further the value of preferences, on a smaller volume of trade than in earlier years. However, other aspects of the URA, for example the commitments to reduce the volume of subsidized exports should be of help to preferential suppliers, through impacts on prices in third markets. The projections suggest that in the case of ACP sugar producing/exporting countries, the URA would raise their export earnings by about 1.2 percent in the short-term. This would be, however, almost entirely a trade volume effect as it is projected that the changes in the prices of their preferential and non-preferential sales would be offsetting. In general for these countries the scenarios explored suggest that their export revenues would benefit more from widespread trade liberalization, which would help to support free market prices, than from, say, further liberalization limited only to preference-giving countries which would also have a negative effect on the preferential price.

Table 1. Sugar: Actual and Projected Consumption

	Actual		Projected	Growth Rate		
Countries/Regions	83-85	93-95	2005	83-85 to 93- 95	93-95 to 2005	
		Tonnes	Percent per year			
DEVELOPING	50,032,446	67,090,087	89,673,200	3.0	2.7	
AFRICA	6,656,677	8,196,830	11,331,814	2.1	3.0	
Egypt	1,534,601	1,716,064	2,284,352		2.6	
Mauritius	44,022	39,388	45,894	-1.1	1.4	
LAT. AM AND CARIBB.	16,361,825	20,756,070	25,547,103	2.4	1.9	
Brazil	6,063,452	7,966,805	9,468,832	2.8	1.6	
Cuba	856,338	685,163	709,986		0.3	
Guatemala	263,847	409,595	566,435	4.5	3.0	
Mexico	3,358,480	4,452,051	5,680,170	2.9	2.2	
NEAR EAST	4,795,206	6,116,193	8,252,030	2.5	2.8	
FAR EAST	22,144,235	31,926,680	44,421,416	3.7	3.0	
China	5,628,670	6,873,990	9,732,307	2.0	3.2	
India	8,010,517	13,056,070	18,651,766	5.0	3.3	
Indonesia	2,000,152	2,582,772	3,101,725	2.6	1.7	
Thailand	700,326	1,507,754	1,811,974	8.0	1.7	
OCEANIA	74,503	94,314	120,837	2.4	2.3	
Fiji	23,526	29,484	35,806	2.3	1.8	
DEVELOPED	45,539,379	43,121,163	47,481,525	-0.5	0.9	
N. AMERICA	8,713,032	9,582,841	10,870,894	1.0	1.2	
USA	7,679,113	8,392,265	9,544,871		1.2	
W. EUROPE	13,583,024	14,106,980	15,484,569	0.4	0.9	
EC	13,089,301	13,601,026	14,923,369		0.8	
TRANSITION MARKETS	18,092,248	14,229,888	15,112,422	-2.4	0.5	
Former USSR	13,183,780	10,250,730	10,721,961		0.4	
Tomici Cook	10,100,100	10,200,700	10,121,001	2.0	0.1	
OCEANIA	1,050,894	1,257,473	1,418,791	1.8	1.1	
Australia	895,892	1,069,487	1,202,003	1.8	1.1	
OTHER	4,100,181	3,943,981	4,594,849	-0.4	1.4	
Japan	2,773,016	2,586,590	2,901,767	-0.7	1.1	
South Africa	1,327,165	1,357,391	1,693,082	0.2	2.0	
WORLD	95,571,825	110,211,250	137,154,725	1.4	2.0	

Table 2. Sugar: Actual and Projected Production

Table 3. Projections of Net Trade, 2005

	Actu	ıal	Projected	Growt	h Rate				Growth Rate
Countries/Regions	83-85	93-95	2005	83-85 to 93-95	93-95 to 2005	Countries/Regions	Actual 93-95	Projected 2005	93-95 to 2005 percent p.a.
		Tonnes		Percent		Africa	- 2,212,164	- 3,974,198	6.0
DEVELOPING	57,137,764	70,976,561	95,783,439		2.8	Algeria	- 786,198	- 1,010,248	2.5
AFRICA	5,002,449	5,504,470	5,764,282	1.0	0.4	Egypt	- 416,585	- 909,078	8.1
Egypt	821,000	1,172,667	1,247,999	3.6	0.6	South Africa	239,798	1,348,449	18.8
Mauritius	644,468	534,919	534,314	-1.8	0.0	Latin America &			
LAT. AM AND CARIBB.	28,277,323	29,393,923	42,802,141	0.4	3.5	Caribbean	9,146,774	17,764,469	6.9
Brazil	9,060,667	12,083,333	20,261,979	2.9	4.8	Brazil	4,338,408	11,014,978	9.8
Cuba	7,710,933	3,936,000	5,828,022	-6.5	3.6	Cuba	3,150,968	5,018,191	4.8
Guatemala	532,133	1,161,767	1,883,368	8.1	4.5	Guatemala	745,115	1,309,875	5.8
Mexico	3,217,799	3,966,947	5,623,534	2.1	3.2	Mexico	112,450	541,538	17.0
NEAR EAST	2.458.650	2.835.479	3,736,913	1.4	2.5	Near East	- 3,073,869	- 4,308,246	3.4
FAR EAST	21,008,928	32,729,493	42,890,819		2.5	Asia	- 2,505,822	- 3,480,018	3.3
China	5,391,961	6,863,439	7,935,190		1.3	China	- 720,736	- 851,304	1.7
India	7,329,333	13,123,667	18,499,001	6.0	3.2	India	- 473,858	- 694,253	3.9
Indonesia	1.612.871	2.345.030	2,775,120		1.5	Indonesia	- 302,958	- 391,855	2.6
Thailand	2.395.333	4.457.333	6.132.610		2.9	Japan	- 1,715,054	- 2,011,233	1.6
OCEANIA	390,414	513,196	589,284		1.3	Korea	- 951,608	-1,190,847	2.3
Fiji	365,667	470.863	540,105		1.3	Malaysia	- 777,546	- 957,487	2.1
DEVELOPED	41,091,878	41,490,099	41,958,920		0.1	Thailand Oceania	2,881,640	4,252,657	4.0
N. AMERICA	5,415,923	7,119,000	7,106,873		0.0		3,772,656	5,225,014	3.3
USA	5,314,257	6,974,000	6,952,268		0.0	Australia	3,528,809	4,957,092	3.5
W. EUROPE	15,776,561	17,321,407	16,223,831	0.9	-0.6	North America Canada	- 2,407,882 - 1,063,183	- 3,707,921 - 1,189,032	4.4 1.1
EC EC	15,645,128	17,181,070	16,102,364		-0.6	US	- 1,063,163	- 1,169,032	6.5
TRANSITION MARKETS	13,522,960	9,905,140	8,459,502		-0.0	West Europe	4.088.704	1.613.743	- 8.9
Former USSR	8,568,333	6,525,663	4,857,149		-2.6	EU	4,461,893	2,061,051	- 6.9 - 7.4
OCEANIA	3,365,767	4,790,000	6,350,813		2.6	East Europe	- 704,063	- 892,490	2.4
						FSU	- 3,850,367	- 5,990,124	4.5
Australia OTHER	3,365,767	4,790,000	6,350,813	3.6 -2.4	2.6 4.5	Developed Net	3,030,307	3,330,124	4.5
	3,010,667	2,354,552	3,817,901			Imports	- 9,164,932	- 12,601,768	3.2
Japan	899,000	852,333	871,340		0.2	Developing Net	3,104,332	12,001,700	0.2
South Africa	2,111,667	1,502,219	2,946,561	-3.3	6.3	Imports	- 10.715.587	- 17.532.032	5.0
fWORLD	98,229,642	112,466,660	137,742,359	1.4	1.9	World Net Imports	- 19,880,519	- 30,133,800	4.2

COMMENTS BY ISO

FAO commissioned a model of the world sugar economy to examine the potential effects of further trade liberalization. In this presentation I will give the basic results from the modelling exercise, under the assumption that the current WTO agreements will continue until 2005. Judging by the length of time taken to reach agreement in the Uruguay Round (6 years), and given the current state of the sugar market which has turned many countries back towards protectionism, the assumption may not be a bad one in assessing the future state of the sugar market. The Seattle Round negotiations are expected to be lengthy and complex, taking perhaps 3-4 years on some estimates, and it is likely that the results will be phased in, as they were for agriculture in the Uruguay Round. Therefore, looking at the world sugar economy in 2005, assuming a continuation of the Uruguay Round Agreements, is not merely an academic exercise, but quite likely to reflect the situation in 2005 accurately.

The model is a multi-region, non-spatial equilibrium model, consisting of production, consumption and stock demand equations for each country/region. Throughout, quantities of sugar produced, consumed and stocked, and hence traded, are expressed in raw equivalent. Sugar cane and beet are combined where necessary into one supply response relationship. Demand for sugar is derived from final uses of sugar, both direct and indirect. The stock equations reflect combined public and private stockholding behaviour. Net trade (exports less imports) is determined by the usual identity. Domestic prices are incorporated (with other variables) in the supply, demand and inventory equations, and further equations link the border or world price and the domestic price by means of *ad valorem* tariffs. Finally, the model is closed by resort to the usual market clearing condition that the sum of all net trade across countries/regions equals zero. The model used a base period of 1993-95 for the projections.

The results

The world sugar economy is essentially consumption driven, with world consumption growing at a historical average of 2 per cent per year since the mid 1970s, roughly the world population growth rate. Within this overall growth, there has been a shift, again since the mid 1970s, from developed to developing country consumption, with developing country consumption growing at between 3 and 4 per cent and developed country consumption stagnating or even declining. While consumption has grown steadily since the 1950s, world production, while growing, has tended to be much more erratic, often exceeding consumption (a surplus) and occasionally falling short of consumption (a deficit). As a result, prices in the residual world market have often been volatile, with long periods of low prices followed by short periods of high price. There is an inherent tendency towards overproduction, which we are currently experiencing. Therefore, in forecasting the future, it is essential to get consumption growth right.

The model predicts a continuation of the trends established since the mid 1970s. World sugar consumption under the baseline assumptions about income and population growth is projected to expand by nearly 27 million tonnes between 1993-95 and 2005, to reach 137 million tonnes. The implied annual growth rate of 2 per cent would thus approximate that achieved over the 1980s. The bulk of the increase in consumption, over 22 million of the 27 million tonne total, would be in the developing countries, raising further their share of global sugar consumption, to 65.4 per cent by the year 2005. Among developing regions, particularly notable growth, of 3 per cent annually, is projected for Africa and the Far East, followed by the Near East (2.8 per cent p.a.), Oceania (2.3 per cent p.a.) and Latin America and the Caribbean (1.9 per cent p.a.). Unlike in the 1980s, however, developed countries as a whole are projected to increase their total sugar consumption between 1993-95 and 2005, albeit by only one third of the annual growth rate projected for developing countries' consumption. The fastest growth in total consumption in the developed regions would be in North America (1.2 per cent p.a.) while the slowest growth rate is projected for the economies in transition (0.5 per cent p.a.).

As mentioned earlier, production is more difficult to project, subject as it is to weather and the often difficult to anticipate producer response to previous prices. As is to be expected from market clearing models of commodity markets, sugar production at the global level is projected to keep pace with consumption, allowing for stock changes, to reach 137.7 million tonnes by 2005. The growth rate, 1.9 per cent p.a. would somewhat exceed the average growth rate of 1.6 per cent obtained in the 1980s. The global situation however, obscures some major regional and national changes. In aggregate, the developing countries are projected to account for virtually all of the global increase in sugar production, thus raising their share of world production from 63 per cent in 1993-95 to about 70 per cent by the year 2005. Regionally, Latin America and the Caribbean is expected to play the leading role in raising output, accounting for over 13 million tonnes of the total increase of nearly 25 million tonnes projected for the developing countries during 1993-95 to 2005. Most of the remaining additional output in these countries is projected to originate in the Far East, thus helping to meet that region's burgeoning demand.

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by South Africa, whose net exports are projected to rise by 1.1 million tonnes from a relatively low base in 1993-95. By contrast, the EC – which was the largest net exporting market in the base years – is projected to cut its net exports by about 2.4 million tonnes over the projection decade to less than 2.1 million tonnes.

On the import side, the majority of market opportunities for exporters are expected to arise in markets where domestic production fails to keep pace with demand. Africa's net imports are expected to rise by 6 per cent p.a. followed by Asia with a 3 per cent annual growth rate in net imports notwithstanding Thailand's projected expansion of exports. Near East net imports are projected to rise by 3.4 per cent. Perhaps surprisingly, given the experience of the 1980s and 1990s, developed country net imports are projected to grow healthily. North American net imports are projected to grow at 4.4 per cent p.a. and the FSU at 4.5 per cent p.a.

Overall the increase seen in consumption over the projection period accrues mainly to trade, rather than domestic production as had been seen in the 1980s. World net imports are projected to grow at an annual growth rate of 4.2 per cent to reach 30.1 mln tonnes by 2005. The trend, established in the 1980s and continued in the 1990s, for developing countries' imports to grow faster, is expected to continue. Of the overall growth projected in imports of 10.2 mln tonnes, 6.8 mln tonnes (66 per cent) is imported by developing countries. Developing country imports are projected at 17.5 mln tonnes in 2005, 58 per cent of total world net imports, compared to 54 per cent in the base period 1993-95.

By its nature, the model balances supply and demand in 2005. Prices at that time are projected to be 12 cents/lb, close to the long-term average (10 cents/lb) and the equilibrium established between the years between the years of relative stability, 1988-98 (11 cents/lb). The model therefore assumes that current structural problems facing the world sugar economy – the massive current surplus (surplus stocks are estimated to reach 20 mln tonnes by end August 2000); the loss of Asian demand growth, to name two – will be solved by 2005. It is therefore what might be termed an optimistic scenario.

Comment

Overall, the model has worked well to produce a set of consistent and logical numbers which project the continuation of the growth of the developing country share of consumption and imports. The consumption growth rate projected is consistent with the experience of the last quarter century. The continuation of the growth in the share of developing countries has price implications. One reason for the relative price stability recorded from 1988 to 1998 was the increasing share of the more price elastic developing countries in world consumption and imports. That these trends are expected to continue is good news for all producers of sugar, who in the past have had to plan against a background of wild price volatility.

However, there are some numbers coming from the model that require comment and qualification.

Brazil's production in 2005 is projected at 20.26 mln tonnes. However, in the current crop year, 1999/2000, Brazil's output is expected to exceed 21 mln tonnes. The problem is that the base period, 1993-95, excludes some important developments in Brazil that have profound implications for the supply side of the world sugar market. Brazil is calculated to have a cost of production of between 4.5 and 5 cents/lb. Since 1998, in spite of low world prices, production in Brazil has been accelerating. This phenomenon is partly due to the low cost of production, which makes current prices attractive, and partly due to the stuttering alcohol programme, which has been largely deregulated with the result that alcohol prices have fallen and cane has been shifted into sugar production. Unless world prices fall below 5 cents/lb, and while alcohol is being over produced and stocks remain high, this process (of increasing sugar production) is likely to continue. For example, a cut in alcohol production of 10 per cent, the current level of overproduction, world produce another 2.25 mln tonnes of sugar. Brazil already accounts for 25 per cent of the export market, and further expansion would put it is an even more dominant position. This development has major implications for other exporters, which in general have higher production costs and some of whom will struggle to survive at current price levels. A major shakeout on the supply side is quite likely, with the export market in 2005 consisting of Brazil, surviving subsidized exports, and those elements of existing exporters that can compete with Brazil on cost of production.

Another set of numbers that may need qualification are those for the EU. Net exports by the EU are projected to fall from 4.46 mln tonnes in the base period (1993-95) to 2.06 mln tonnes in 2005, a fall of 2.4 mln tonnes.

It is true that the EU agreed to a 36 per cent cut in subsidized exports in the Uruguay Round, and the projections assume a continuation of the WTO process, but given the time needed to reach agreement in the Seattle Round, and a likely implementation period, it is doubtful whether EU net exports would be reduced by 2.4 mln tonnes by 2005. It also assumes that there will be little "C" sugar exports in 2005, but if a raw sugar price of 12 cents/lb is achieved, as the model predicts, "C" sugar exports may well continue in quantity. A reduction in EU net exports of around 1 mln tonnes by 2005 may have been more realistic. The problem may have come from the production estimate and the base year. EU production is estimated to increase by 1.5 mln tonnes from 15.65 mln tonnes in the base period (1993-95) to 17.18 mln tonnes in 2005. However, EU production has already exceeded 19 mln tonnes twice since the base period, in 1997/98 and in the current year, 1999/2000.

Another number which needs qualification is the surprising growth in US imports over the projection period. Again, this may be a problem of relatively low numbers during the base period. US production is projected to remain static at 6.9 mln tonnes. However, in the current year, 1999/2000, US production is expected to reach 8.1 mln tonnes, and this audience will need no reminding that the import quota for fiscal year 1999/2000 has been set at the WTO minimum of 1.36 mln tonnes.