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***“Selected Key Drivers Shaping the
World Sugar/Ethanol Economy”***

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I am honoured to be here and thank you wholeheartedly for the invitation.

Slide A: ISO biggest commodity organization worldwide

The ISO is still the only world wide operating intergovernmental organization for sugar, ethanol, sweeteners as well as other economic and policy related matters. Membership has increased from 39 countries in 1994 to 84 at present. They represent about:

- ❖ *83% of world sugar production,*
- ❖ *65% of world consumption,*
- ❖ *95% of world exports, and*
- ❖ *40% of world imports.*

This makes the International Sugar Organization by far the biggest commodity organization worldwide.

Our core business comprises:

- *Comprehensive statistics*
- *Market analysis*
- *Research on economic, trade and policy matters as well as diversification*
- *Forum for furthering debate and deliberations of all aspects impacting the world sugar economy.*

Through these activities the ISO contributes significantly:

- *To improved market transparency;*
- *Provides an early warning system regarding newly emerging challenges and opportunities.*

Member Governments and their industries benefit directly from the ISO services. We help them to understand better the economic and policy related key drivers of the world sugar economy and sweetener markets to prepare their national sugar industries to tackle successfully the continuing challenge of change.

I have to admit that the absence of the USA is a thorn in my side, but I am rather optimistic that this situation might change in the not too distant future with the help

of some long standing and reliable American friends, closely connected to the political decision makers.

My selected topic is: "*Selected Key Drivers Shaping the World Sugar/Ethanol Economy*".

Slide 1: Selected Key Drivers

We are experiencing in economic and financial terms a very stormy period. Today's globalised world economy holds tremendous challenges like: the roller coaster of crude oil and soft commodity prices, volatile currency exchange rates, freight costs as well as increasing prices for inputs.

On the other side there is rapid economic growth in emerging markets, rising demand for food and the urgent need for renewable biofuels.

In this complex scenario, peppered with financial turbulences, the credit crunch and recessionary tendencies, agriculture takes centre stage as a strategically pivotal part of the world economy.

More importantly, sugar crops are an essential feature of this fascinating scenario, particularly their emergence, not only as food but also as fuel and electricity suppliers.

Slide 2: World Sugar Balances

Let me begin with the market fundamentals

Analysts agree that the distinctive global surplus phase has ended and the market is to move into a deficit phase. In 2008/09 for the first time in three years, world production is expected to decrease to about 161.5 million tonnes, a massive 7.1 million tonnes down from last season. At the same time, world consumption, will - generally in line with a long term average growth - increase by 2.2 growth and reach 165.8 million tonnes, showing a deficit of 4.3 million tonnes.

Despite the production shortfall, mainly due to a massive output contraction in India, (-9.0 million tonnes) and the EU (-2.7 million tonnes) export availability will slightly increase (0.3 million tonnes). Also import demand is rising (3.7 million tonnes).

Most of the production shortfalls in exporting countries are expected to be covered by sugar from stocks, accumulated during the two previous seasons. Leading, however, to a reduced stock to consumption ratio (less than 40%). The trade balance looks very tight.

On top of that, first tentative indications show that the season 2009/2010 will most likely bring another deficit albeit somewhat smaller in the order of 2.0 million tonnes.

Similar to the previous season the market will be shaped by developments in the two sugar giants – Brazil and India.

Brazil will – as usual – dominate the supply side. We forecast a total cane production this season (May/April) of 560 million tonnes. Cane conversion ratio will be around 58% for ethanol, 42% for sugar. Sugar production 09/10 expected at 37.5 million tonnes (12% increase).

In the case of Brazil, the main uncertainties currently debated by the market are:

- (i) the future exchange rate of BRL and
- (ii) the effect of the credit crunch on cane processing expansion programmes.

Last season, India became the third largest sugar exporter after Brazil and Thailand. Taking into account the anticipated production shortfall, India cannot repeat last season's stunning performance. India will become a big net-importer.

Thailand is further on the expansion path: last year's all time production record of 8 million tonnes of sugar will be repeated. Industry Minister announced the aim to boost cane production to 95 million tonnes by 2010/11 to cater for the growing needs of the sugar and ethanol industry.

China will beat last year's record production of 14.85 million tonnes slightly, leaving not big hopes regarding increased imports.

Slide 3: World Sugar production, consumption & ISA prices

How do we interpret the current supply/demand situation in terms of prices? The big question is whether non-sugar specific drivers inter alia:

- The outlook for crude oil and other commodities;
- Exchange rate fluctuations; as well as
- The impact of the global financial crisis

will mitigate or reinforce a positive fundamental picture.

For the time being non-sugar specific factors have overplayed constructive fundamentals and have impacted the world sugar economy quite significantly.

The sharp renouncing of the US dollar has increased the export competitiveness of sugar originating from countries like Brazil and Australia relative to Thailand, whose currency has only had a small movement against the dollar.

We expect that sugar prices will rebound when sugar fundamental reassert themselves over the next 12-18 months. Consequently the current fundamentals outlook is the most constructive for market values since 2005/06.

This encouraging market outlook is reinforced by the long term growth potential for sugar consumption.

Slide 4: Consumption by region

For a long time population growth was the main driver of sugar consumption growth, accounting for as much as 85% of it. This is no longer the case. In at least three regions income growth is much more important than population growth: the Far East, the Indian Subcontinent and Sub-Saharan Africa. These regions are those where consumption growth is the highest. Asia remains the power engine of consumption growth, due to the impressive economic development with increased purchasing power in the emerging economies, despite turbulences on the financial markets. At the same time they are the most populated ones.

Per capita consumption in these regions (10-17 kg) lags far behind that of mature markets (30-50 kg). Meaning, there is a big untapped potential for sugar. Sugar consumption per capita was the smallest in Sub-Saharan Africa with only 11.7 kg.

In contrast the mature markets North America, Eastern Europe, the Middle East/North-Africa, and Western Europe show a per capita consumption of at least 32 kg or more.

If you take the Indian Subcontinent and Latin America, both are consuming around 28 mln tonnes of sugar a year each, but per capita consumption in the Indian Subcontinent was only 17.1 kg while in Latin America it was much greater at 47.2 kg.

The world's leading consumer is the Far East but with an average per capita consumption of only 14.8 kg.

In China, where income is also the strongest driver of demand growth, per capita consumption of sugar is still at 10kg. If per capita consumption is to rise to a world average level of 25kg, the country will need an extra 20 mln tonnes of sugar in addition to the more than 14 mln tonnes it already consumes every year.

In short: the long term potential for sugar consumption is remarkable.

Another positive indicator is the promising long term outlook for diversification. The multi-purpose characteristics of sugar crops, not only as food but also as ethanol and electricity suppliers, offer unprecedented opportunities.

Slide 5: Comparative advantage of sugar crops as feedstocks

Sugar crops, in particular cane, are by far the most competitive feed stocks compared to corn, wheat, cassava or whatever you chose.

- Productivity per hectare is highest;
- Production costs per unit are lowest;
- The energy balance is the most positive one; and
- CO₂ footprint gives sugar crops the best environmental credentials.

These are trump cards we have to play!

Slide 6: Fuel Ethanol Programmes

It is encouraging to see that more and more governments seem to have understood that by now, as the increasing number of fuel ethanol programmes indicates.

In general half of the world's ethanol comes from corn, just over 40% from sugar crops and 10% from other crops like wheat, cassava and to a lesser extent, rye and barley.

Slide 7: Sugar and fuel ethanol

- The main countries producing ethanol from sugar cane juice are: Brazil and Colombia (70% from cane).
- The main countries producing ethanol from sugar beets are: European Union countries (France, Germany, UK, Czech Republic, Austria) and Turkey.
- The main countries producing ethanol from sugar cane molasses are: India, Thailand and Colombia (30% from molasses)

Slide 8: World fuel ethanol production

Global fuel ethanol production grew in 2008 a healthy 31% reaching 65.7 billion litres. By the end of 2010 the global fuel ethanol production figure is projected to grow by almost 50%, reaching almost 100 billion litres.

Capacity expansions and construction of new facilities in the USA, in Brazil, in the European Union, Thailand and elsewhere underline this global increase. However the current liquidity crisis will delay some of the new projects or put them on hold. Cost controlling strategies are for the time being at the forefront. So the order of priorities has changed: consolidation replaces expansion!

The United States and Brazil will account for the lion's share of global fuel ethanol production, but others are making fast inroads.

Brazil is expected to produce in 2008/09 27 billion litres, 19% up from last year. Consequently much more cane will be directed to ethanol production, namely 58%, compared to 55%.

Optimistically, though, the United States' fuel ethanol production from corn has risen to 34 billion litres in 2008 as new plants came on stream and mandated consumption increased. Taking into account much lower corn prices profitability prospects are again improving.

Slide 9: Fuel Ethanol Production outside Brazil & US

The European Union is increasing production rapidly. They produced in 2008 about 3 billion litres of fuel ethanol (up by about 20% on last year). In 2009, production is expected to reach over 4 billion litres.

Sugar beets, due to the high grain prices, became after wheat, the second choice of feedstock for European fuel ethanol producers, with a 30% market share.

China's fuel alcohol production in 2009 could rise modestly to 2 billion litres up from 1.6 billion litres in 2007. Around 80% of their production is corn based. The government is discouraging the use of corn as a feedstock. The remainder comes from wheat and to a lesser extent from cassava.

India's fuel ethanol production has been disappointing so far. It did not reach more than 350 million litres, mainly due to the doubling of molasses in 2008. Meaning that the industry is not able to supply ethanol at pre-negotiated prices.

Due to the marked decline of molasses production in 2008/09 the government was not able to implement its E10 blending programme, supposed to start in October 2008. In the longer run there is a risk that unless petroleum companies agree to link ethanol prices with the price of molasses the blending programme will only be successful in times of excess molasses production.

Thailand is expanding consumption of ethanol rapidly due to the rise in popularity of cars that have an E-10 and E-20 blend as well as finally the launch of E-85 vehicles. Thailand's production and consumption has reached 300 million litres in 2008, compared to less than 200 million litres in 2007. In 2009, it could grow to over 500 million litres.

Slide 10: Fuel ethanol consumption outlook

Also the fuel ethanol consumption outlook is very positive. In 2008 we expect fuel ethanol consumption to be 65.7 billion litres up 34% on the previous year. Our projections for 2015 show that consumption will almost double, reaching between 130 and 150 billion litres, representing an annual growth of 10-12%. (130 without and 150 with cellulosic ethanol).

The dimension of the fuel ethanol opportunities are very much determined by the import needs of developed countries to meet their biofuel targets. The US is still expected by 2015 to be the leading consumer of fuel ethanol between 66 and 80 billion litres followed by Brazil with projected 38 billion litres and the EU with 12 billion litres.

For the United States the fuel consumption will exceed the mandated levels of 34 billion litres in 2008, and reached 36 billion litres requiring higher imports.

Much of the imports by the US are now coming via the Caribbean, especially Jamaica, El Salvador, Costa Rica and Trinidad and Tobago, under the Caribbean Basin Initiative, where large ethanol dehydration facilities using Brazilian ethanol are in place.

In Brazil the main driver is clearly the expanding fleet for flexi fuel vehicles which will raise consumption to about 20.75 billion litres in 2008/09, up 19% from last season. In April this year in Brazil for the first time since the Proálcool, ethanol consumption surpassed that of gasoline for automotive use.

The European Union's fuel ethanol consumption rose significantly to about 3.7 billion litres in 2008. The main fuel ethanol consumers in the EU are Germany, France and Sweden. In 2007 about 800 million litres of the EU's fuel ethanol consumption were imported from overseas, particularly Brazil. Also in 2008 imports from Brazil remained competitive, therefore the EU imported a bit more than one billion litres from Brazil.

Slide 11: Ethanol blending requirements

Update on ethanol blending requirements:

This table is most likely not completely up to date but it shows that ethanol programmes are gaining ground world-wide.

As more countries adopt mandated blending ratios for ethanol the global trade of ethanol will most likely grow faster this and next year. Strong demand for ethanol will boost trade further and open up new trade flows like especially Brazil – EU, Thailand – Asia, Brazil – Caribbean. Also Singapore might become an important hub for ethanol trade.

Slide 12: Ethanol import tariffs

The tariffs on imports are still a serious problem. They are substantial and constitute an obstacle to a faster growing trade. Other factors slowing trade down are different specifications and the absence of a futures market.

It is difficult to anticipate to what extent and how quickly trade in ethanol will be boosted by the prospective ethanol programmes in various parts of the world. Our guess is that fuel ethanol trade, despite the mentioned present economic and financial difficulties, might reach 10 billion litres by 2010 and over 21 billion litres by 2015.

Slide 13: Food v. biofuel

In this context it is almost impossible not to talk about the food versus biofuel issue. Over the last year, food prices have risen strongly throughout the world. The media, vested interest in the oil business and multinationals in the food sector, have started to point the shaming finger at biofuels. Suddenly biofuels have moved in the mind of many from being a good thing to being the cause of world hunger.

What are the facts? There is no doubt that food prices have increased across the world but there are many factors behind the rise, including supply shortages due to poor weather conditions and political interventions as well as changes in eating habits – especially with the increasing prosperity in emerging markets, particularly in Asia. Food consumption increases significantly, especially for meat and dairy products, when per capita incomes rise steeply, which is exactly what happened in many of the large Asian economies.

Biofuel production has had only a very little impact on the food price rise. The proportion of agricultural land going into biofuel production is very small: 1% in Brazil, 1% in Europe and 4% in the U.S.A. The largest price increase was for rice which is not used for biofuels and the use of wheat for biofuels is under 1%.

The U.S.A. is using 30% of its corn crop for ethanol but this did not prevent higher exports of corn from the U.S.A. in 2007. So ethanol production is a marginal factor in the rise of food prices. There was however little mention in the media of the heavy impact of oil prices on food production and food prices, on processing or shipping or on the escalating input costs, like fertilizers, agrochemicals, machinery, interest rates and labour.

The current "food versus fuel hype" has confused the public because it is very often led by polemics. Looking at the facts would help the debate and put the record straight.

There is a general consensus that biofuels should be produced sustainably, be market-driven, and have a minimum impact on food production.

Independent of that, taking into account the increasing competitive environment, it will be essential to embrace technological and scientific advances and innovations to the fullest extent possible.

There are still a lot of productivity and efficiency reserves which have to be tapped over the coming years in field and factory.

Let me just mention a few examples:

Genetically modified, high yielding, more disease resistant beet and cane varieties. Better transport infrastructure, more sophisticated logistics and last but not least state of the art technology in processing to reduce post harvest losses, to augment extraction rates and to develop alternative and complimentary uses like biodegradable plastics.

All this will help to strengthen the economic viability of our industries.

I don't have to tell you that sugar is a highly political commodity. Policy developments are crucial drivers to the long term future of the world sugar economy. Here I would like to discuss with you three different examples:

First: the infamous WTO Doha-Round ended after seven years with a not unexpected belly landing. The best résumé came from the WTO Director General Pascale Lamy himself. He said: *"I think it is no use beating about the bush, this meeting has collapsed. Members have simply not been able to bridge their differences."* I would only make one small modification in the last part of his statement. I would have said: "some members have simply not been willing to bridge their differences."

A lot of tears were shed, real ones but also crocodile tears and when listening carefully to the statements of the actors you even heard insinuations of intransigence. In my personal view there were three categories of negotiating members. The first were countries that desperately wanted a success and went a long way to get it because they felt it would serve their interests.

The second category contained those countries that would have been able to live with an agreed package, knowing that the success of the Round would not have markedly impacted their trading environment.

And the third were those that did not want a success because they were not prepared to make concessions beyond a certain point, fearing the price to pay would be too high for their economies compared to the benefits. Not only in economic but also in political terms.

Where to go from here?

Most likely officials below the ministerial level will sift through the debris and look if anything can be salvaged. Celso Amorim, the Brazilian Foreign Minister, very realistically stated: *"it is not in our power to preserve what we have achieved."* That is true because negotiating parties are not committed to come back to the negotiating table with the same positions. There is an understanding in the WTO that nothing is agreed until everything is agreed.

In my view a quick resuscitation of the negotiations is unrealistic. The political timetable is not favourable: the installation of the new US administration, general elections in India in May, and the appointment of a new EU Commission in the second part of 2009.

This will put global trade negotiations on the political back burner until at least 2010. Only then will it be possible to judge whether the Doha Round will be revitalised or whether we witnessed a first class funeral.

Looking at the consequences for the WTO the failure of Doha is a big blow to the multilateral trading system. As a consequence the multilateral negotiating process is undermined and the credibility of the WTO has been damaged. It already loses weight as a central rule maker and as a dispute settler in global trade due to the mushrooming of bilateral and regional trade agreements around the world which are not governed by WTO rules.

Slide 14: US Farm Bill

Coming to the 2nd example, the situation in the United States. Those who had expected from the new Farm Bill a more liberal Sugar Programme that would open up the US market and allow more access were bitterly disappointed. To the contrary the American sugar lobby was very successful and happy because they achieved a better outcome than expected. The main elements you see on the slide. Not need to discuss in detail.

In short: the ultimate consequence of the US sugar programme has been and will continue to be, to support domestic sugar prices at levels well above world market values.

Slide 15: EU Sugar Policy Reform: Market Impacts

Third example is the EU Sugar Policy Reform. Here the situation is completely different. The deep rooted radical reform of the EU Sugar Policy in 2005 also nicknamed the "sweet-sour big bang" offers a drastic example. Cutting prices by about 36%, slashing domestic production by 5-6 million tonnes and increasing market access from 1.3 to 4-5 million tonnes in particular for the benefit of ACP and LDC countries.

Slide 16: Structural Changes in EU-27 Sugar Industry

As you can see from the slide the structural changes as a result of the reform have been considerable. About 12,000 workers have been laid off in rural areas and some 48,000 growers had to give up beet production.

Since 2005 82 factories have been closed down. Sugar production disappeared completely in Latvia, Ireland, Slovenia and to a large part in Italy, Greece and Spain.

To counter-balance this painful adjustment and to cope with the economic consequences the sugar industry took recourse to diversification and acquisition strategies. Just a few examples:

British Sugar's acquisitions of 51% of the Illovo shares and acquires now Ebro Puleva from Spain. Then the penetration of France's Tereos into Brazil. Germany's Südzucker acquired production facilities in ten European countries. Germany's Nordzucker's took over Denmark's Danisco sugar branch.

At the same time all the leading European sugar processors are embarking on ethanol production from sugar beet. This offers beet growers an economically viable option. For the processors it is an opportunity to spread risk by increasing the share of their non sugar business and to diversify into the sugar derivatives and ingredients value chain.

At the end of the restructuring period in 2009/2010 we will most likely see a strongly concentrated, consolidated, efficient and cost competitive EU sugar processing industry emerging. The removal of 5-6 million tonnes annually will open export opportunities at attractive prices for all countries having preferential access to the EU market like the ACP and the LDC. The EU example answer the famous question whether old dogs can learn new tricks with a clear yes.

Slide 17: Conclusions

In conclusion:

- ❖ We have the most constructive world sugar market outlook since 2005/06.

- ❖ Massive long term potential for sugar consumption growth
- ❖ Production, consumption and trade outlook for fuel ethanol world-wide is very positive; despite a possible slow down in investments in sugar and ethanol projects due to the global financial crisis.
- ❖ The EU Sugar Policy Reform is bearing fruit and showing results: little if any exports, increasing market access up to 4 to 5 million tonnes. Beneficiaries mainly ACP and LDCs.

So there is no reason for panic and depression. The longer term odds are on our side!