REPORT

CENTRE FOR
INTERNATIONAL
ECONOMICS

Targets for OECD sugar market liberalisation

Prepared for the

Global Alliance for Sugar Trade Reform and Liberalisation

Centre for International Economics
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1 Introduction

Protection is a major problem in sugar trade

- The world sugar market has long been recognised as one of the most distorted global commodity markets.

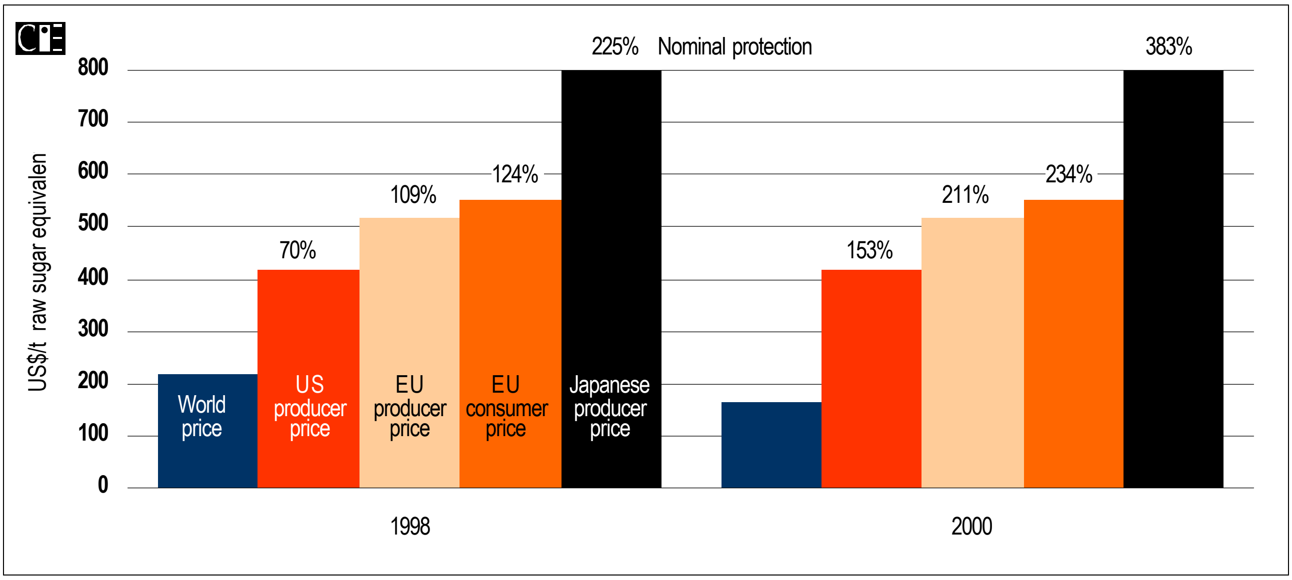
  It is the disruptive policies of the European Union (EU), the United States (US) and Japan that cause most of these distortions.

  Policies offer very high rates of protection to domestic producers by imposing severe import restrictions and by providing other measures such as export subsidies or production quotas designed to help raise domestic prices above the world price.

And it s on the rise and very damaging to exporters

- The level of trade protection has risen in recent years as the world price of sugar has fallen chart 1.1.

1.1 **The falling world price has raised levels of protection:** nominal rates of protection (percentage)



Data source: GSM model.

Trade protection has become even more distortionary.

Protection is much higher than for most other agricultural commodities.

Recent work using the Global Sweetener Markets model reveals that nominal levels of protection have climbed to around:

… 400 per cent in Japan (compared with around 160 per cent for agriculture on average);

… 225 per cent in the EU (compared with around 67 per cent for agriculture on average); and

… 150 per cent in the US (compared with around 30 per cent for agriculture on average).

Were all protection removed by 2012, model results indicate that the world price would increase by around 60 per cent relative to the average world price of the last four year, rising from around US6-8c/lb to US11.5-13.5c/lb.

Protection costs efficient sugar exporting nations dearly, making it the single biggest issues confronting exporters.

Protection is afforded by a variety of means

- Various policy instruments are used to achieve the high levels of protection recorded.

Instruments include quotas and tariffs which limit market access, domestic supports that increase producer prices and export subsidies that allow producers in protected countries to dump surpluses on the world market.

In many cases these instruments work together to raise producer and consumer prices, although some are operated relatively independently.

Liberalisation is a noble but allusive objective

- Liberalisation of the world sugar market has proved difficult.

Little progress was made in the Uruguay Round and sugar remains one of the most highly protected globally traded goods.

How to achieve progress toward liberalisation is a major challenge for sugar exporters.

This report aims to identify major targets for liberalisation

- This reports builds on earlier work measuring the effects of protection in 2012, by breaking it down by country and instrument.
- The objective is to build a better understanding of which instruments are most distortionary and to illustrate the linkages between those instruments.
- We use the Global Sweeteners Market model to systematically change these instruments and measure their impacts on domestic and world prices.
- This information helps to identify priorities for reform.

2 Instruments of policy

- Table 2.1 summarises the main policy instruments in place in each of the major OECD countries.

2.1 **Summary of trade policy instruments**

	Tariffs and quotas market access	*Export subsidies*	*Domestic supports*
European Union	Import quota 1.78 mt (usually 1.7 mt filled) Prohibitive over quota tariff	Difference between intervention and export price	Intervention price €632/t (underpins market price of around €680/t)
United States	Minimum import quota 1.2 mt (usually imports higher) Prohibitive over quota tariff	None	Loan rate 18-23c/lb and target price Market allotments (variable to underpin loan rate)
Japan	Import levies, surcharges and duties of around US$600/t	None	Beet price support US$894/t sugar equivalent Cane price support US$1660/t sugar equivalent

EU policies

- Market access is restricted by:

  domestic production quotas (A and B);

  duty free or low duty import quotas of up to 1.78 million tonnes allocated to preferred suppliers;

  prohibitive over-quota tariffs;

  export refunds on excess A and B quota sugar including an amount of sugar exports equivalent to ACP and Indian imports.

- Domestic support is achieved by:

  restricting supplies to drive up the domestic consumer price:

  … weekly export refunds are paid to subsidise the exports of quota sugar;

… exports are set to maintain a market price above an intervention price underwritten by the EU Commission

… the intervention price is 632/t

… the market price is usually 50/t above this

paying export refunds.

- Export subsidies are funded through:

  EU aid budget in the case of re-exported ACP and Indian sugar;

  levies on lucrative domestic market sales

US policies

- Market access is restricted by:

  the potential to allocate domestic market allotments;

  the potential to restrict imports above the bound minimum (duty free or low duty) import quota of 1.2 million tonnes;

  a prohibitively high over-quota tariff

  … Mexican over-quota tariffs are scheduled to decline to zero by 2008 creating considerable uncertainty about Mexico s response and the US counter response.

  … Mexico has higher domestic prices than the US and is probably a less efficient producer than the US, suggesting it is unlikely to increase production substantially in response to the opportunity.

  … It is most likely to increase imports to the US if it can import at the world price and re-export into the US to capture quota rents, but rules of origin will probably apply.

- Domestic support is achieved by:

  a forfeiture price or loan rate of US18c/lb for cane sugar and US22.9c/lb for beet sugar underwritten by government;

  restricting supplies to drive up the domestic consumer price;

  … the import quota and/or market allotments can be adjusted to maintain a domestic market price higher than loan rate to avoid forfeitures;

  … the Secretary of Agriculture, to the maximum extent possible, is to run the program to avoid forfeitures.

Japanese polices

- Market access is restricted by:

  monopoly buying and selling activities of a government agency which raises consumer and producer prices.

  high import levies and surcharges;

- Domestic support is achieved by:

  price setting by the activities of the monopoly buying and selling agency;

  cross-subsidising domestic producers using funds raised through import levies and surcharges on imports:

  … cane prices are set at US$1660/t in sugar equivalents;

  … beet prices are set at US$894/t in sugar equivalents;

  … domestic wholesale white sugar prices are set at around US$800/t.

3 Reducing protection: all together

- Chart 3.1 summarises the estimated impact on the eastern hemisphere and western hemisphere prices of progressively reducing US, EU and Japanese protection from current high levels to zero in the year 2012.

  If full protection were to still apply in 2012, the representative world price would be an estimated US$185/t (US8.4c/lb).

  Were protection reduced by 50 per cent the representative world price would be an estimated US$215/t (US9.8c/lb).

  With full liberalisation, the representative world price would reach an estimated US$301/t (US13.7c/lb), 63 per cent higher than with full protection.

  … Results are sensitive to assumptions about responsiveness of production to price changes.

  … Sensitivity tests suggest the price is likely to increase between 50-75 per cent (63 per cent ± 20 per cent) if production responsiveness to price is varied ± 50 per cent.

  … Price results are therefore fairly robust (± 20 per cent) for fairly large changes in key supply parameters (± 50 per cent).

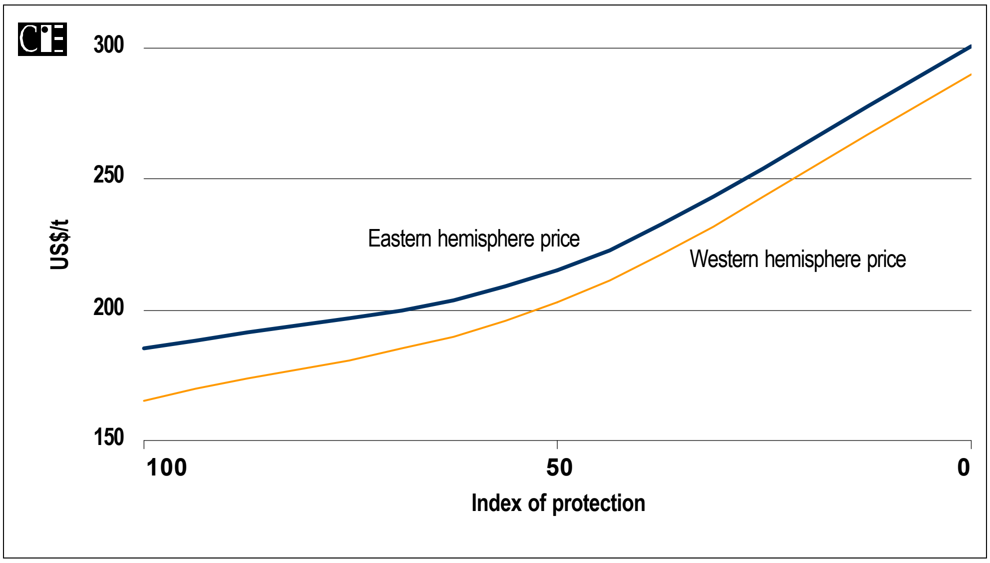
  The eastern hemisphere indicator price would rise by a similar amount to the representative world price, but for western hemisphere producers, full liberalisation would raise *fob* export prices by around 75 per cent.

  … Western hemisphere increases are greater than for eastern hemisphere because liberalisation would create greater relative scarcity in western hemisphere trade than eastern hemisphere trade.

  … For instance, Brazil would have a transport advantage in servicing those markets.

  … Brazil would also be able to exploit its flexibility as a supplier of raw, mill white and refined to better advantage than, say, Australia.

3.1 **Increasing marginal returns from OECD sugar liberalisation**



Data source: CIE estimates based on GSM model results.

The whole is greater than the sum of the parts

- Chart 3.1 also demonstrates that there is a non-linear relationship between the level of protection and world trade prices.

  Lower levels of protection raise import demand in formerly protected countries, which raises the world price.

  Efficient exporters respond to the higher price by producing more.

  As they produce more the effects of diminishing returns to land and other factors causes exporter costs to rise.

  As their costs climb, higher and higher traded prices are required to induce them to meet the new demand.

- The non-linearity in the price response is important.

  It means that half liberalising will provide less than half the gains from full free trade.

  A 50 per cent reduction in protection will raise the representative world export price by only 16 per cent, or a quarter of the impact that full liberalisation will provide.

  It also means that full liberalisation in any one of the main OECD countries will have a disproportionately low impact compared with full liberalisation in all three countries.

Liberalisation in other countries could boost prices further

- The results exclude the impacts of trade liberalisation in other countries.

  Trade liberalisation in India, Indonesia, Russia and China would be additional to result shown in chart 3.1.

  Given the non-linearity depicted in chart 3.1, reductions in protection in other countries are likely to have disproportionately high impacts on the world price.

OECD liberalisation would benefit developing countries

- Chart 3.2 sets out the estimated changes in production that would occur as a result of full OCED sugar market liberalisation.

  All regions except Japan, the US and Western Europe would increase their production due to higher world prices.

  … In OECD countries, production declines are unlikely to be even as some producers and some regions are likely to be more efficient than others.

  … In western Europe, production may even increase in some of the most efficient regions as production quotas are removed causing a rationalisation of production across the EU.

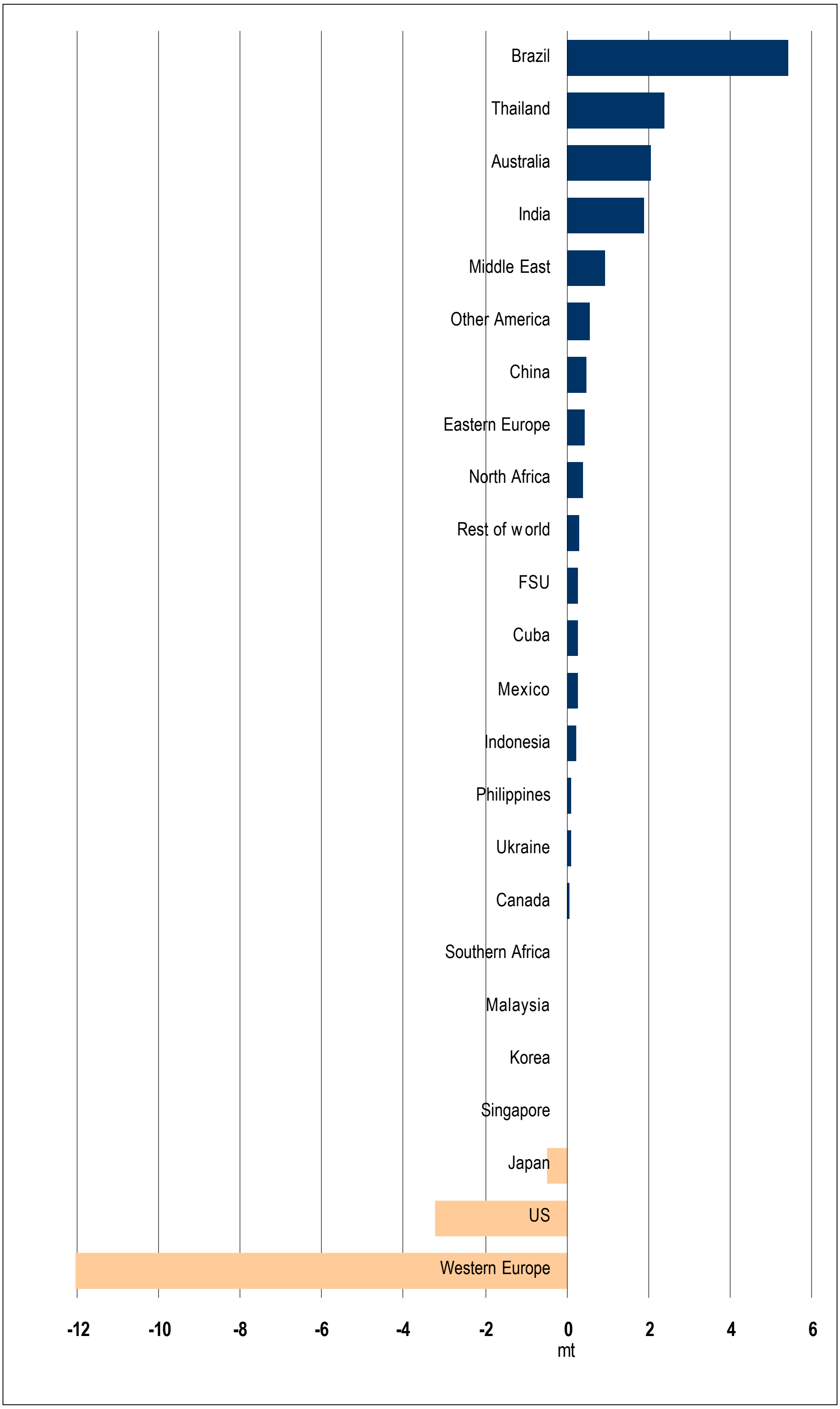
  … Western European production falls most because it currently produces twice the amount of sugar as the US, it has higher prices which fall by more and alternative sweeteners expand in Europe whereas they contract in the US.

  Even regions currently receiving preferential access to the US and EU markets would expand production.

  … On average their prices still rise despite removal of preferences.

  … Other America, Northern and Southern Africa and the rest of the world regions are the major beneficiaries of preferences currently.

3.2 **Changes in production in 2012 from OECD trade liberalisation**



Data source: CIE estimates based on GSM model results.

4 US liberalisation

- Notionally, the US could decrease protection by:
  - increasing its import quota;
  - lowering its loan rate;
  - decreasing market allotments.

Doubling the import quota provides small benefits

- A doubling of its import quota by 2012 would:
  - increase the representative world price by 4.6 per cent;
  - decrease the US producer price by 8.7 per cent or require:
    - … forfeitures to the Commodity Credit Corporation; or
    - … a 1.2 million tonne decrease in market allotments.

Halving the loan rate eliminates protection

- A halving of the loan rate by 2012 would:
  - lower the US loan rate below the world market price;
  - effectively fully liberalise the US sugar market;
  - increase US consumption by 13 per cent and decrease production by 42 per cent;
  - increase US imports from 1.2 million tonnes to 6.4 million tonnes a year;
  - cause the US producer prices to fall by only 38 per cent, not the full 50 per cent fall of the loan rate;
  - increase the representative world and Australian prices by around 20 per cent and the Brazilian price by a similar amount;
  - increase Australian production by nearly half a million tonnes and exports to the US by a quarter of million tonnes;
  - increase Brazilian production by 2.5 million tonnes and exports to the US by nearly 4.0 million tonnes;
  - increase Thai production by around 0.4 million tonnes;

increase Indian production by around 0.7 million tonnes and Cuba s by 0.2 million tonnes;

increase production in most other countries marginally;

cause Brazil to divert production from white to raw sugar and exports away from the Middle East, North Africa, India and several other countries to the US;

cause Australia and other exporters to rearrange their exports to fill gaps left by Brazil, with Australia (for instance) expanding exports to Canada and Korea as well as the US.

- Halving market entitlements would also be enough to fully liberalise the US market.

The loan rate and the import quota are tightly linked

- There is a tight relationship between the US producer price (read loan rate) and the US import quota if market entitlements are not altered.

  As the US import quota rises, either the loan rate or market entitlements must necessarily fall.

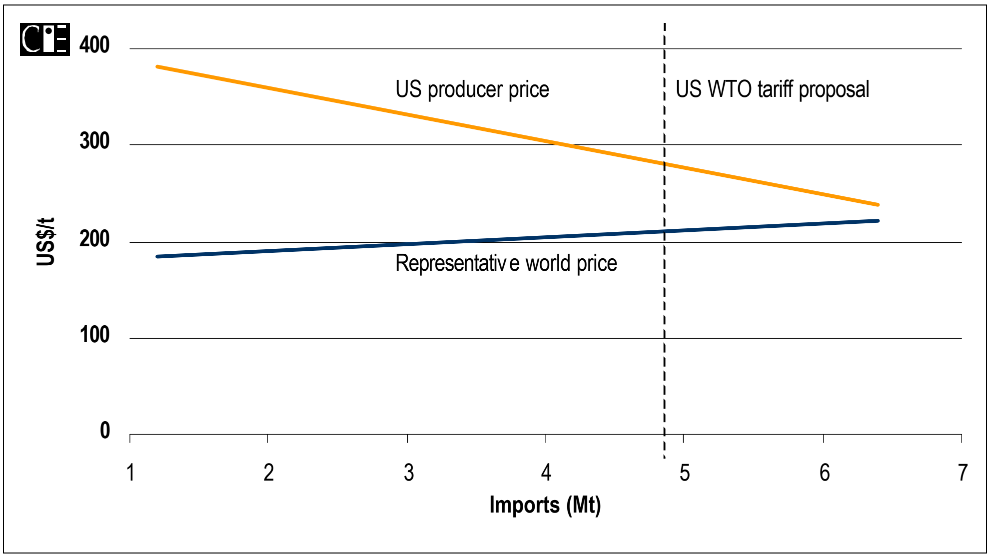
  There is also a tight relationship between the loan rate, the US import quota and the representative world price.

  The relationship between the US producer price, the US quota and the representative world price, in the absence of market entitlements, is set out in chart 4.1.

  In 2012, full market liberalisation is achieved when the loan falls below US10.8c/lb or the import quota reaches 6.4 million tonnes a year.

- Each 10 per cent fall in the loan rate raises the representative world price by around 5 per cent.
- Each 10 per cent increase in the US import quota raises the representative world price by around 0.46 per cent.

4.1 **Effects of US liberalisation**



Data source: CIE estimates based on GSM model results.

US negotiating proposal to WTO

- The current US WTO proposal calls for:
  - a 20 per cent increase in market access   for raw sugar this would increase the import quota by only 200 000 tonnes and would do little;
  - tariffs (including over-quota) to be set at a maximum of 25 per cent; and
  - elimination of the special safeguards being used to prevent big rises in imports.
- A maximum 25 per cent tariff would lower the producer price (and therefore the loan rate) to around US13c/lb and result in imports increasing to around 5 million tonnes (chart 4.1).
  - This is significant and would go 85 per cent of the way to full liberalisation.
  - The reference world raw sugar price would increase by around 16 per cent.

5 *EU liberalisation*

- Notionally, the EU could decrease protection by:
  - increasing its import quota;
  - lowering its intervention price;
  - decreasing its export subsidies.

Doubling the import quota achieves little

- A doubling of its import quota by 2012 would:
  - increase the representative world price by 3.0 per cent;
  - decrease the EU producer price by 9.2 per cent or require:
    - … increased export subsidies; or
    - … a 2.4 million tonne decrease in production quotas.

Halving the intervention price equals full liberalisation

- A halving of the intervention price by 2012 would:
  - lower the EU producer prices for refined sugar to the world market price;
  - effectively fully liberalise the EU sugar market;
  - cause the EU producer prices to fall by 49.9 per cent, almost the full 50 per cent fall of the intervention price;
  - increase EU consumption by 10 per cent and decrease production by 64 per cent, although decreases will not be even and the possibility exists that because production quotas would become redundant, rationalisation of production could see some efficient regions expand;
  - increase EU net imports from 3.7 million tonnes to 9.3 million tonnes a year;
  - increase the representative world price by an estimated 16 per cent;
  - increase Australian production and exports to most markets as other exporters service the EU market;

increase Brazilian production by 4.0 million tonnes and other America s by 2 million;

increase Indian production by 1.3 million tonnes;

increase Thai and Cuban production by 5-7 per cent and exports by 6-13 per cent;

increase production in most countries, which would either decrease imports or increase exports in response to higher import and export prices for refined sugar;

cause Brazil and other countries to reallocate exports to service the EU import demand, mostly through toll refineries.

- The importance of liberalisation of the EU market will be of added importance given expansion of the EU after 2004.

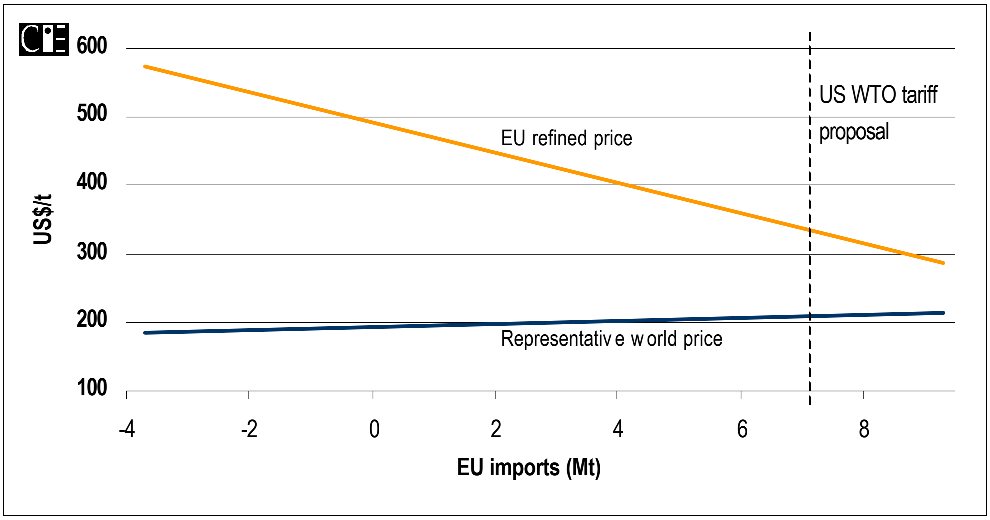
The intervention price, the import quota and export subsidies are tightly linked

- There is a tight relationship between the EU producer price (read intervention price) and the EU net imports (a combination of the import quota and export subsidies).

As the EU net imports rise, either the intervention price must necessarily fall, or export subsidies must increase.

There is also a tight relationship between the intervention price, EU net imports and the representative world price chart 5.1.

5.1 **Removal of domestic support and export subsidies**



Data source: CIE estimates based on GSM model results.

In 2012, full market liberalisation is achieved when the producer price for refined sugar (intervention price) falls below US13.1 c/lb or net imports reach 9.3 million tonnes a year.

The representative world price increases by a lesser percentage than with US liberalisation because many more countries are able to respond to fill EU refined sugar demand compared with US demands for raw sugar.

… US liberalisation has a big impact on efficient raw sugar exporters, as US import demand is largely raw.

… EU liberalisation increases demand for refined sugar which tends to have greater flow-on effects affecting refined sugar, tolling, mill whites, raw sugar and alternative sweeteners.

… In turn, EU liberalisation has a larger total effect on more countries than the US.

… EU liberalisation leads to some development of the currently constrained alternative sweetener sector, whereas in the US it causes some contraction.

- Each 10 per cent fall in the intervention price raises the representative world price by around 3 per cent.
- Each 10 per cent increase in EU net imports raises the representative world price by around 0.5 per cent.

The US WTO target proposal would achieve big benefits

- As can be seen from chart 5.1, the US WTO proposal for a 25 per cent tariff only would go close to full liberalisation.
- The 20 per cent increase in imports would do little.

Benefits of halving export subsidies

- Halving EU export subsidies raises the representative world price by about 1 per cent.
- Complete removal would raise the price by about 2 per cent in 2012.

It would decrease EU exports from 6.4 to 3.6 million tonnes.

It would reduce the average EU producer price by around 10 per cent.

… Currently, export subsidies make up around 10 per cent of gross EU producer receipts after allowing for co-responsibility levies on A quota and B quota sugar.

… Complete removal of export subsidies would lower EU average producer prices by around 10 per cent.

- The impact of complete removal of subsidies on the production and export of C sugar is uncertain.

  Export subsidies are an integral part of delivering high prices on the sale of A and B sugar which in turn is used, at least partly, to cross-subsidise C sugar production and exports.

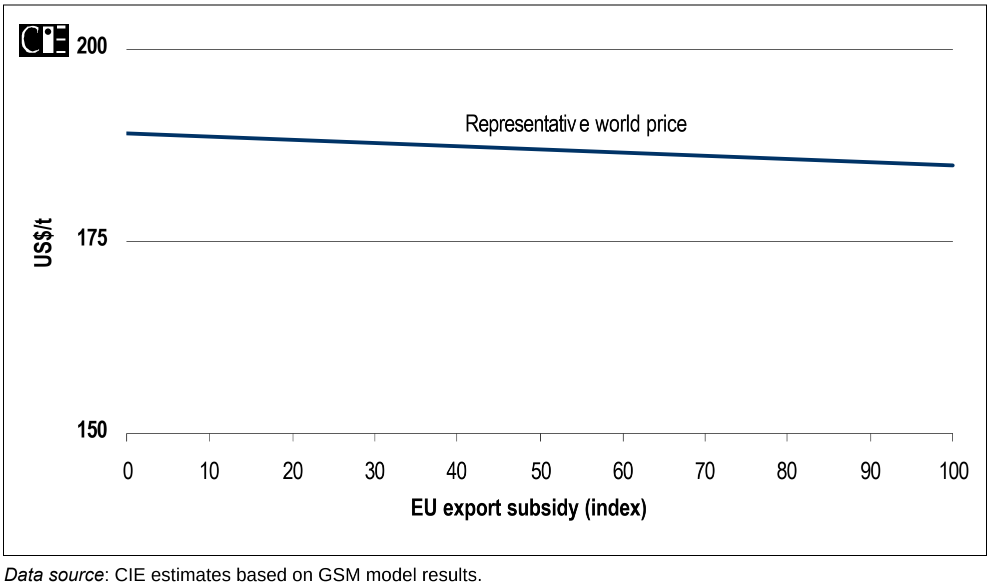
  Loss of export subsidies could lead to wider unravelling of the entire support structure.

  At one extreme, removal of export subsidies could lead to complete withdrawal from C sugar production and export.

  Complete removal of C sugar, with loss of export subsidies could lead to about a 4 per cent rise in the representative world price.

- The relationships between EU export subsidies and the representative world price is set out in chart 5.2.

5.2 **Removal of export subsidies only**



Data source: CIE estimates based on GSM model results.

6 *Japanese liberalisation*

- Notionally, Japan could decrease protection by:
  - lowering its import levies and surcharges; and
  - lowering deficiency payments to growers.

Halving import charges goes half way to liberalisation

- A halving of Japan s import charges by 2012 would:
  - increase the eastern hemisphere price by an estimated 3.7 per cent; and
  - decrease the Japanese refined sugar producer price by around 35 per cent.

Halving the producer price goes further

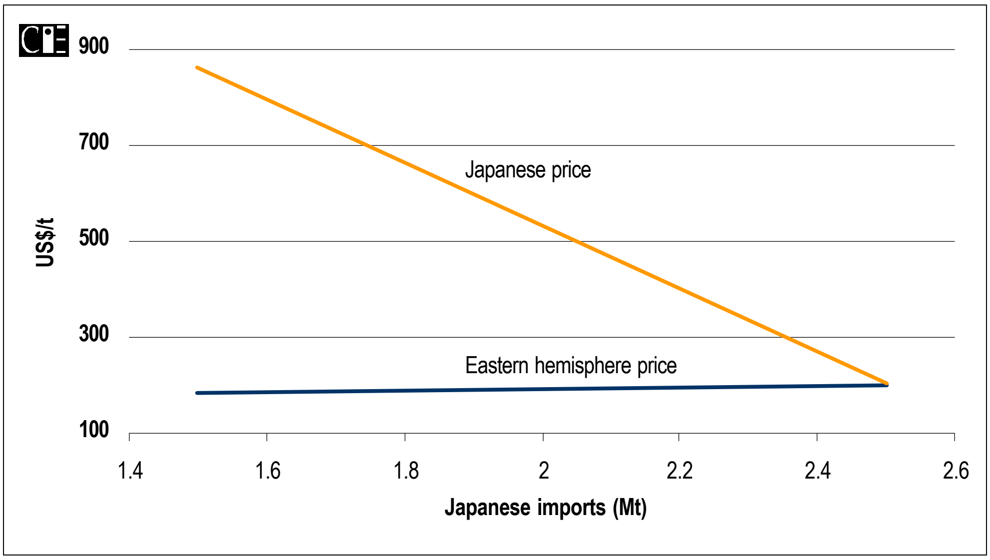
- A halving of Japan s producers prices by 2012 would:
  - increase the eastern hemisphere price by an estimated 5.3 per cent; and
  - decrease the Japanese refined sugar producer price by around 50 per cent.

Japanese liberalisation is a good target for eastern suppliers

- Full liberalisation would:
  - decrease the Japanese price by 80 per cent;
  - increase Japanese consumption by 18 per cent and decrease Japanese production by 70 per cent;
  - raise eastern hemisphere prices by around 8 per cent; and
  - cause Australia and Thailand to divert export supplies away from other markets to Japan, raising exports to Japan by 170 per cent.
- The relationship between Japan s level of imports, its own producer price and the eastern hemisphere price are outlined in chart 6.1.

- Australia and Thailand can almost single handedly accommodate Japan s increased import demand and the impact on other countries is minimal.

6.1 **Japanese liberalisation**



Data source: CIE estimates based on GSM model results.

7 Targets

- The results presented here suggest a set of priorities among targets for sugar reform.

Target 1: full liberalisation

- The overwhelming result presented in this paper is that:

  Targets representing half measures of trade liberalisation will deliver less than half the potential benefits from full liberalisation.

  … Diminishing returns to factors of production in efficient exporting countries mean that as import demand grows, world sugar prices will have to grow at an increasingly faster rate to induce exporter to expand production to cater for the demand.

  … Small volumes of increased import demand can be squeezed out of the existing production system in efficient exporting countries, but progressively higher volumes will require investment and adjustments requiring higher price inducements.

  The wider and more comprehensive OECD liberalisation is the disproportionately higher the benefits will be.

  If the OECD liberalisation band wagon can get rolling, any additional countries liberalising will add disproportionately large additional benefits, making liberalisation beyond the OECD block of added importance.

Target 2: understanding the linkages between instruments

- Another important result is that it is very difficult to target separate instruments of policy in OECD countries.

  Typically instruments are linked.

  An increase in the US import quota for instance, necessarily requires either a decrease in the loan rate, an increase in domestic market allotments or preparedness on the part of the Commodity Credit Corporation to accept forfeitures.

Targeting one instrument often means targeting others.

… A doubling of the US import quota is equivalent to about a 9 per cent reduction in the loan rate.

… A doubling of the EU import quota is also equivalent to about a 9 per cent decrease in the intervention price.

Target 3: at least 25 per cent reductions in support prices

- Small changes in one instrument will have a larger effect than small changes in others.

  A 38 per cent reduction in the loan rate would be equivalent to full liberalisation of the US market whereas it would take a 533 per cent increase in the US import quota to achieve full liberalisation.

  A 49.9 per cent reduction in the EU intervention price would be equivalent to full liberalisation of the EU market, whereas it would take more than a 700 per cent increase in the EU import quota to achieve the same thing.

  Even large increases in import quotas may not be worth much compared with small decreased in support prices.

  A 40 per cent reduction in support prices in OECD countries (US loan rate, EU intervention price, Japanese monopoly agency buying price) would be a substantial result.

- The US WTO proposal for a maximum 25 per cent tariff would equate to 80-90 per cent reductions in protection and is a worthy target, although the proposal for a 20 per cent increase in import access would do next to nothing.

Target 4: EU intervention price

- Among separate instruments, a 50 per cent reduction in the EU intervention price is a good practical target.

  It seems more reasonable than a 700 per cent increase in the EU import quota, but is the same thing.

  It would lead to full liberalisation but sounds less threatening.

- A 50 per cent reduction in the EU intervention prices would increase production in more countries than the equivalent reduction in the loan rate, and in particular would benefit more developing countries.

- Such a reduction would cause a complete unfolding of the EU sugar regulatory system.

Target 5: US loan rate

- A 38 per cent reduction in the loan rate is another practical target for many of the same reasons as a 50 per cent reduction in the EU intervention price.
- It is the second most important separate target.
- Such a reduction would cause a complete unfolding of the US sugar regime.

Target 6: complete liberalisation in Japan

- For eastern hemisphere producers in particular, full liberalisation of the Japanese market is an important target.
- To achieve this would require simultaneous abolition of the import imposts (levies and surcharges) and the monopoly buying intervention of the Agriculture and Livestock Industries Corporation.