

PROSUNERGY

European Union Sugar Industry Support

August 3, 2015

**A report for the American Sugar Alliance by
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Executive Summary

In 2017, the rules by which the European Union manages its powerful sugar industry will change again. The defining features of past EU sugar “regimes” – quotas to limit the amount of domestic sugar and high-fructose starch syrups allowed on the food market, and a guaranteed price for sugar beet – will be abolished from October 1, 2017.

In the current October 2014 to September 2015 marketing year, domestic EU production of refined sugar reached 19.4 million metric tons¹, making it the world’s third largest producer. This year, the EU will also import some 3.2 million metric tons of raw and refined sugar, making it a significant factor in international sugar trade. How much government support the European sugar industry will receive under the new rules, and how the EU sugar industry may react to such support, are important factors for other sugar industries worldwide.

Over time since 1992, the EU’s main support mechanism for agriculture has switched from managed prices to direct farm payments. At first, the direct payments were tied to each product. Now, the payments are given irrespective of which crops are planted. It is said that they are “decoupled”.

Support for the sugar industry, however, remained based on managed domestic prices and a quota system until 2006, when European policymakers started bringing sugar policy under general EU farm support rules. Reference sugar prices have been lowered to a point where they are now closer to world market prices, and supply controls – the quotas for sugar and isoglucose² – will be abolished from October 1, 2017. Domestic EU sugar prices, long among the highest in the world, have fallen sharply.

These changes came with a high cost as 83 mills were closed, causing some 120,000 job losses and irreparable damage to the farming communities involved. Five EU member countries gave up sugar production entirely; five others more than halved production. Two traditional developing country suppliers shut down their industries. The EU had to fund a US\$ 6.2 billion restructuring aid package to accompany the transition in Europe and a US\$ 1.5 billion aid package to assist affected developing countries.

¹ Throughout this paper, “tons” are metric tons – 1 metric ton = 1.10231125 short tons.

² In the EU, high-fructose syrups are made from starches of a variety of cereals, notably from wheat, and are called “isoglucose” (starch is hydrolysed to obtain glucose, which is then isomerized to produce fructose).

The EU sugar market is not, and will not be, completely open to imports. Most large exporting countries will be prevented from selling their sugar to Europe by high import duties. Nonetheless, Economic Partnership Agreements with Africa Caribbean and Pacific countries³, the “Everything But Arms” initiative for all Least Developed Countries⁴ and Free Trade Agreements allow enough competitive imports to influence domestic EU sugar price. It is unlikely that EU prices will diverge much from import-parity, assuming ample EU production and world prices not substantially below the EU reference price, which, in turn, could be influenced by exchange rates.

Imports will be further constrained by byzantine EU regulations of Genetically Modified Organisms and the European public’s reluctance to consume GMOs. Together, these make selling GMO food in the EU a nearly impossible task. US beet sugar, which is largely made from GM beet, and, soon, Brazilian sugar and ethanol⁵, and any products containing them, will not find an available market in the EU.

Already, support for the EU sugar industry has largely transitioned from targeted support linked to the product to general farm financial assistance that is provided whether sugar beet is planted or not.

When support is set without reference to a particular crop, the farmer decides what to produce by comparing the relative expected margins of available crops and their agronomic interactions. If the future prices the farmer is using to forecast margins are market-based, i.e. mostly depend on the balance of supply and demand, logistical costs and exchange rates, these general per hectare subsidies will not *per se* affect the farmer decisions as to which crop to produce. However, given investment in specialized sugar beet equipment, contractual arrangements with processors and the agronomic advantages of having beet in a rotation, farmers will be reluctant to abandon sugar beet production. Further, by enhancing cash flow, *decoupled payments obviously improve financial resilience vis-à-vis producers not receiving such payments.*

The EU’s Common Agricultural Policy has now been set for the period 2014 – 2020. Over this period, the new policy will modify the amounts of support given to the European sugar industry and the ways in which it is delivered. Support for sugar beet and sugarcane farms will be provided by direct decoupled payments and by coupled payments.

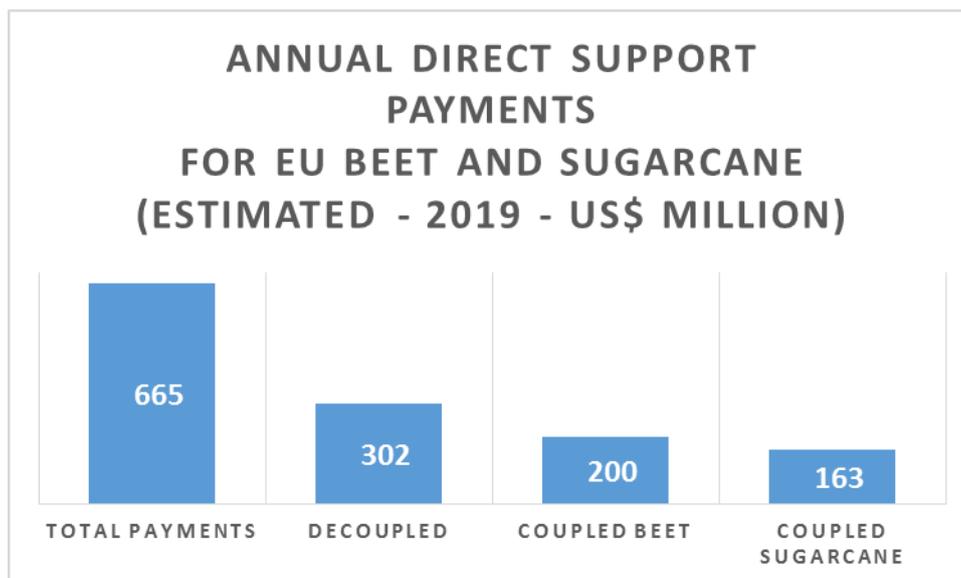
Support levels are still changing but the overall target is clear and, by 2019 for sugar beet, estimated decoupled payments per hectare will represent some US\$ 300 million per year and coupled payments for some areas about US\$ 200 million per year. *On average by 2019, these payments will increase EU sugar beet income by about 10%.*

To these sums must be added specific financial support given to sugarcane in some Member States’ overseas possessions, which amount to about US\$ 165 million per year and supports some 260,000 metric tons of supply. *Without this aid, production in these regions would practically disappear.*

³ There are 79 ACP countries, most of which are former colonies of the United Kingdom and France and thirty-six of which can ship sugar duty-free (and, from October 2015, quota-free) to the EU.

⁴ The “EBA” initiative unilaterally grants LDCs duty-free quota-free access to the EU for all products, except for arms and ammunitions. Currently, four non-ACP countries wish to ship sugar to the EU under these rules.

⁵ The first commercial planting of GMO sugarcane in Brazil will start in 2017 (source: Centro da Tecnologia da Cana, Piracicaba,



Sources: EU Commission, French Ministry of Agriculture, ProSunergy estimates

By 2019, estimated total annual decoupled and coupled payments directed to sugar beet and sugarcane amount to US\$ 665 million and add 1.5 to 2 million metric tons to EU sugar production. That represents approximately 10% of EU output.

Taking into consideration forecasts that show that the EU may well return to being a significant net exporter⁶, this support can negatively affect world market prices and other exporting countries.

After profound reforms to its Sugar Regime since 2006, which boosted the industry's current and future competitiveness, EU support for its sugar industry has dropped considerably and will continue to decrease. How far it will diminish in the future will depend on public finances, world prices and exchange rate levels. Nonetheless, in the immediate future, the planned maintenance of significant public spending benefitting EU sugar beet and sugarcane will likely keep EU sugar output above what would be the case otherwise.

⁶ Post 2017, TEREOS, a major European sugar and starch cooperative, forecasts that annual EU exports will be close to 3 million metric tons. Source: company presentation, 14 April 2015, Kingsman-Platts European Sugar conference in Geneva.

EU Common Agricultural Policy and EU Sugar Dynamics

The European Union's Sugar Regime is part of the EU's Common Agricultural Policy ("CAP"). After the Second World War, support for agriculture in the EU was supplied mainly through a combination of high domestic prices and high import tariffs.

As intended, high prices encouraged output. When judging the original CAP, it should never be forgotten that Europe could not feed itself at the time. In the United Kingdom for example, food rationing did not end until 1954. However, by the 1980's the EU was accumulating large surpluses (the infamous "butter mountains" and "wine lakes"), which had to be exported at increasing cost as farmers were compensated for the difference between high domestic prices and generally lower world market prices. By 1984, 70 per cent of the EC budget was spent on agriculture and quotas on milk production had to be introduced. Budget constraints alone compelled a fundamental change.

The EU's Sugar Regime may well be the most accomplished example of the original CAP. An "intervention price" – the price at which the EU would purchase sugar if an operator could not find a more profitable market – was set at two to three times the international price. The amount of sugar benefitting from this guarantee was limited by a quota, so as not to encourage production excessively. Each operator was free to produce more but excess sugar had to be exported at the operator's expense at whatever price could be found.

On average, the domestic sugar quota sugar amounted to about 85% of production. Necessary to balance the internal market, exports of quota sugar were directly subsidized to make up for the difference between the low world market price and the high guaranteed intervention price. In effect, this made intervention – the purchase of excess sugar by the EU – needless. Part of the policy's resilience came from its self-financing feature: "export restitutions" were financed by a tax on domestic sugar sales. As should be expected from an agricultural support system, most of the "rent" was passed on to the farmers.

Under this system, by the beginning of the 1990's the EU became the world's largest sugar producer and its second-largest sugar exporter. EU production reached 16 to 17 million metric tons and exports amounted to 5 to 6 million metric tons. The EU's share of total world exports was close to 18%.

For most other farm produce, the 1992 "MacSharry reform" of EU agricultural policy sought to break the incentive to produce unlimited quantities by switching farm support from guaranteed high prices to direct payments. This rational brought the added advantage of improved control of public expenditure, since direct payments could be adjusted to EU revenue.

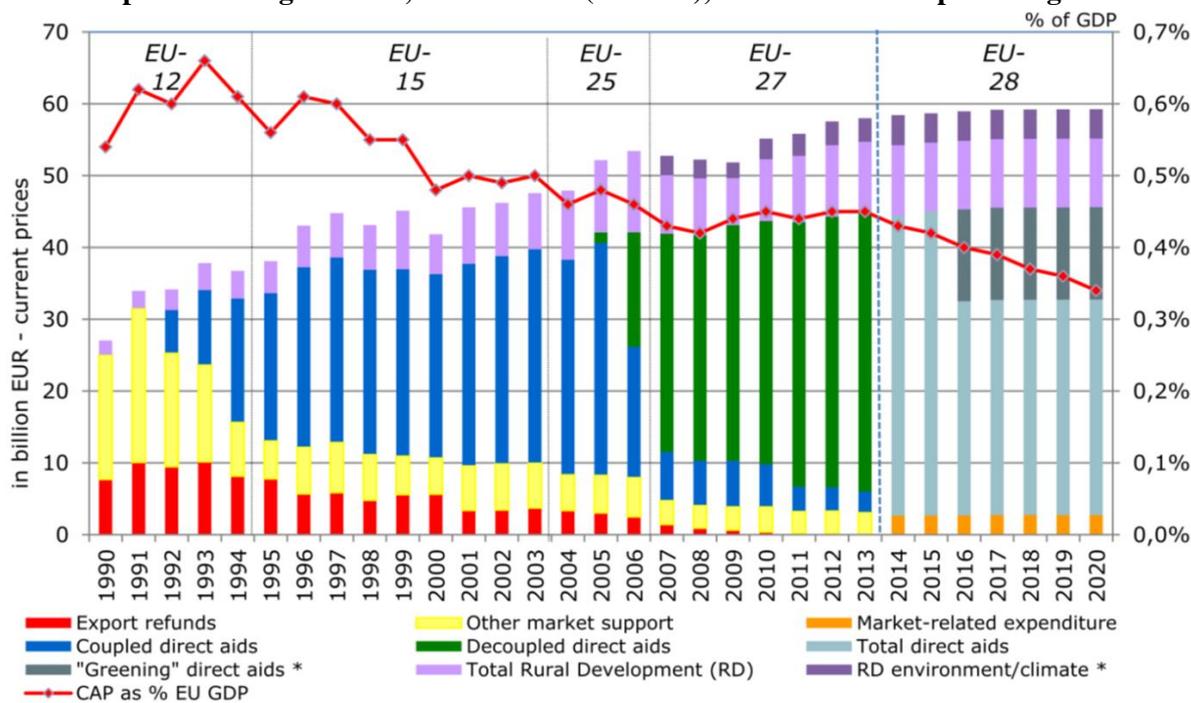
The reform also was designed to give European Union processing industries access to agricultural materials at the lowest possible prices (i.e. at, or close to, world market prices). It was envisaged that food processors would thus gain competitiveness whilst farmer support was ensured by budgetary outlays, which could then be set at a sustainable fiscal level, and markets for food specialties would be boosted by international legal protection, notably through geographical indications of origin. The EU also expects these policy elements to be compatible with current World Trade Organization rules.

The following chart tracks the nature of the support given to EU agriculture since 1990 and forecast to 2024. The effect of the 1992 MacSharry CAP can be seen by the development of the blue bars: support through high domestic prices, which required export support (red bars), is replaced by direct payments, which remained linked in part to specific products until 2006 (blue bars). From then, notably to accommodate 1994 WTO rules that allow "direct decoupled" payments⁷, direct payments increasingly became decoupled and paid whatever a farmer chooses to produce (green bars). While the

⁷ There are basically two categories of domestic support — support deemed to have no, or minimal, distortive effect on trade on the one hand (often referred to as "Green Box" measures) and trade-distorting support on the other hand (often referred to as "Amber Box" measures).

percent of GDP taken by agricultural support measures is forecast to continue to fall, the actual is expected to remain close to 60 billion Euros through 2020, of which direct payments to farmers amount to nearly 45 billion Euros.

E.U. Expenses for Agriculture, 1990 to 2020 (forecast), billion euros and percentage of GDP



* Precise amounts for 2014-2020 may vary according to Member State implementation plans.

Source: European Commission; DG Agriculture and Rural Development, 2015.

EU Market Balances under the Current (2006-2015) Sugar Regime

Despite having been long abandoned for other agricultural commodities (with the exception of milk⁸), EU Sugar Regimes still included quotas for sugar and high-fructose starch syrups⁹, and a minimum price for sugar beet. The Sugar Regime thus remained an anomaly and over time pressure to bring it in line with general in European agricultural policy mounted.

The 2006-2015 Sugar Regime started to bring the EU's sugar policy in line with overall EU Common Agricultural Policy. Central to this evolution was weakening the price guarantee and switching farmer income support from a controlled market price to direct decoupled payments.

Tellingly, the 2006 regulation¹⁰ mentions a "reference price" for sugar and no more an "intervention price" (however, a legal minimum price for beet was retained). Whereas an intervention price compels public measures when market prices fall below it so that farmers do not receive less than the intervention price, a reference price is an indication of revenues needed to cover costs but carries no revenue guarantee whatsoever. The EU has reference prices for all major agricultural commodities. If market prices fall below a reference price, the EU may investigate why this is happening and may eventually take measures to mitigate the economic consequences. EU regulations specifically mention private storage aids as a measure that could be undertaken. But there is no legal obligation to act and, in fact, any actions will depend upon the moment's political will.

⁸ The milk sector remained managed by a quota system and administered prices until April 1, 2015.

⁹ In the EU, high-fructose syrups are made from starches of a variety of cereals, notably from wheat, and are called "isoglucose" (starch is hydrolyzed to obtain glucose, which is then isomerized to produce fructose).

¹⁰ EU Council Regulation N° 318/2006 of 20 February 2006.

The 2006 Sugar Regime scheduled a progressive decrease in prices. The reference price for refined sugar was to drop from EUR 621.9/t in 2006/07 to EUR 404.4/t by 2009/10. This 36% decline was mirrored in the minimum beet price, which was programmed to fall from EUR 32.86/t to EUR 26.29/t.

Further, the EU had to comply with a 2005 WTO Panel ruling that put a 1.345-million-metric ton cap on sugar exports, so production had to be cut.

At the same time, imports from ACP countries and Least Developed Countries, both now duty-free, were progressively liberalized: by 2010, no quantitative limits were applied on imports from LDCs, and from 1 October 2015, there would no limitation of imports from ACP countries either. In addition, the EU has concluded a number of free trade agreements, which often enough contained new Tariff Rate Quotas for sugar at zero duty. These agreements include standard safeguard clauses that may be triggered in the case of grave market disturbances to limit imports temporarily, if imports can be shown to be the cause of such disturbances. The EU Commission has given verbal assurances to the ACP Group that it has never used these safeguard clauses and has no intention of doing so in the future.

This combination of limits on domestic supply and exports, and increasingly unfettered imports, was inherently unstable. The European sugar industry had to adjust and prepare for liberalization.

Financed by a levy (tax) on sugar sales, the EU created a EUR 5.6 billion (US\$ 6.2 billion)¹¹ Restructuring Fund to pay farmers and processors to leave the industry. Helped by the 36% drop in official prices, the aim was to cut domestic production by over 5 million metric tons and concentrate production in the most efficient areas. In the event, 83 mills were closed, some 120,000 jobs were lost, five EU member countries gave up sugar production entirely and five others more than halved production.

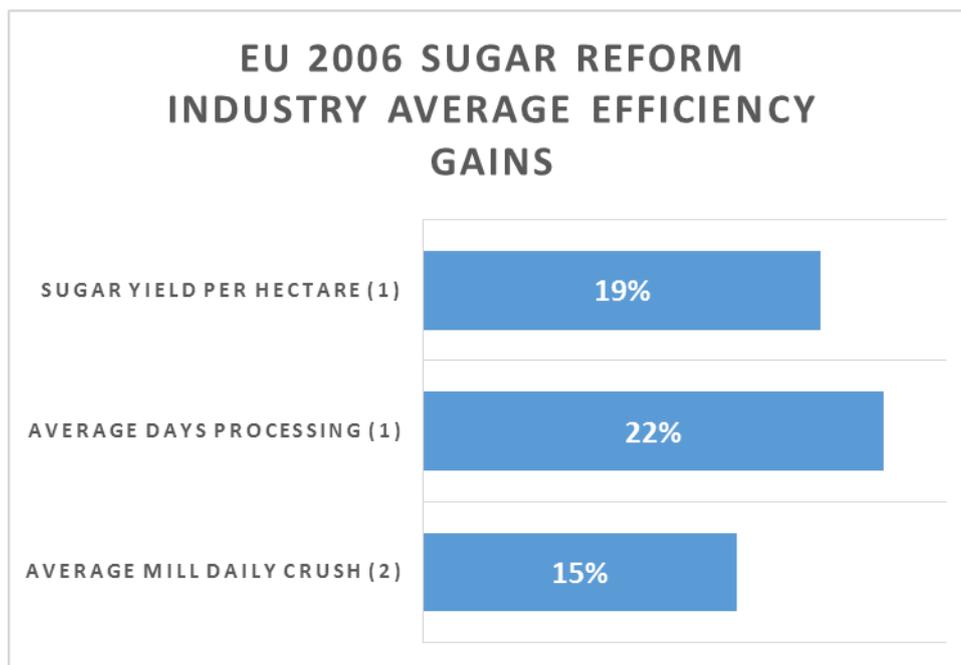
Initial results were not those expected. Incentives to leave the industry had to be increased. Then prices shot up, as domestic production dropped just as world market prices suddenly jumped.

Whereas the old EU Sugar Regime carried no cost to the general taxpayer, the reformed Sugar Regime cost the public purse about US\$ 1.6 billion a year, as grower support through beet pricing was transferred to the budget-financed Single Farm Payment. In addition, to soften the blow to developing countries of expected lower prices, an aid package of US\$ 1.4 billion was launched.

As less efficient regions abandoned sugar beet production and supply became concentrated on the most efficient areas, average EU efficiency increased automatically.

It is, however, safe to say that the 2006 reform did not provide funding for productivity investments except for raw sugar refineries. The latter received EUR 150 million from the fund and this resulted in a 170% increase in melting capacity which should have improved imported raw sugar competitiveness. The consequence, however, was significant overcapacity.

¹¹ For convenience, amounts in European euros (EUR) have been converted to US dollars (US\$) at 1 EUR = 1.1 US\$



(1) 5-year average before & after the 2006 reform

(2) 2012/13 compared to 2005/06

Sources: CEFS Sugar Statistics 2013 & EU Commission

The European Court of Auditors Special Report on the reform even has a chapter whose title is “The measures introduced had a limited impact on the individual competitiveness of growers”¹². It goes on to state “the reform proposals did not provide incentives to increase the competitiveness of growers intending to remain in the sector.”¹³ Essentially, the funds were used to alleviate the social and environmental consequences of mill closures. By taking out less competitive operators, the program mathematically increased average European competitiveness.

Another major result of the 2006 measures was to shrink domestic EU sugar production, as indeed intended. Consequently, the EU shifted from being the world’s second largest sugar exporter to being its fourth-largest importer.

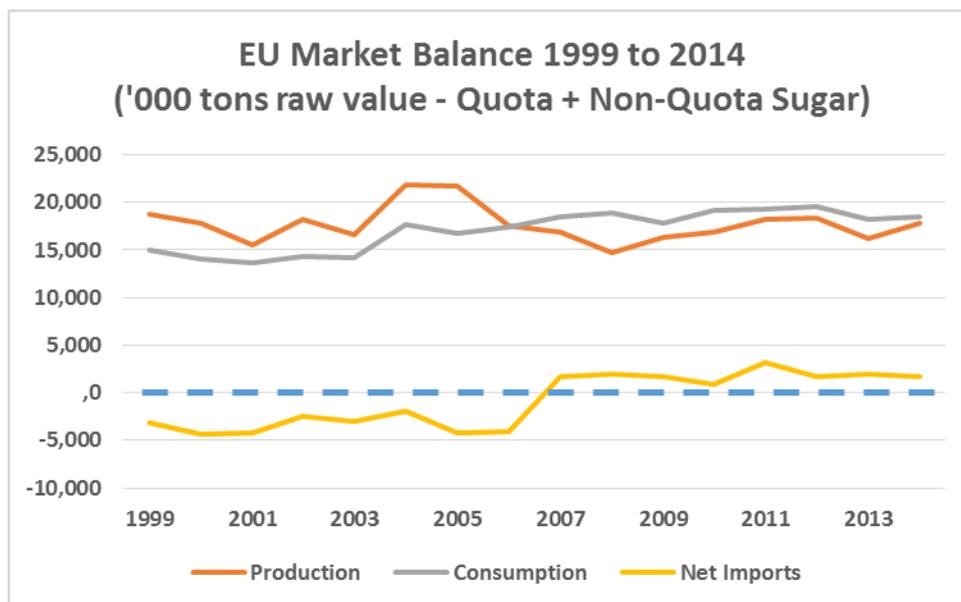
Until September 2017, the EU sugar market remains legally divided between sugar for food and sugar for other uses¹⁴. Until then, the quota limits to 13.5 million metric tons the amount of domestically produced sugar sold in the EU for human consumption. This amount cannot satisfy domestic demand of some 17.1 mmt and imports are needed to fill a 3.6 mmt gap for the food market. The EU runs a mandatory sugar deficit.

Production beyond the quota – “out-of-quota” sugar – is sold for chemical, pharmaceutical and fuel uses. Those markets amount to about 2.2 million metric tons. Unsold out-of-quota sugar is counted as quota sugar in the following year: it reduces “fresh” quota production.

¹² European Court of Auditors Special report n°6, “Has the Reform of the Sugar Market Achieved its Main Objectives?” 2010, para. 44 to 47.

¹³ Ibid, para. 47.

¹⁴ Non-food markets for sugar include bio-ethanol, chemicals and pharmaceutical products.



Naturally, duty-free imports are first in line to fill import requirements. In practice, duty-free imports are limited by TRQ's and by the availability of sugar from preferential suppliers under Economic Partnership Agreements, for the ACP Group, and the Everything But Arms initiative for Less Developed Countries. Together, today these duty-free sources provide some 2.7 million metric tons of imports and therefore cannot entirely meet the 3.6 mmt bulk gap left after accounting for domestic production. So, beyond duty-free imports, some 0.9 mmt of additional imports are needed to satisfy the food market. These will pay duties.

There are three types of duty-paying imports:

- Under WTO rules, successive EU enlargements have created permanent raw sugar TRQs with suppliers that had previously established commercial flows with new Member States; these so-called CXL imports carry a EUR 98/t duty and amount to 0.7 mmt¹⁵.
- The Commission can ask for bids, which offer a tariff importers are prepared to pay; the Commission then allocates its target quantity to the highest bidders. This mechanism was used in 2011, 2012 and 2013 in an attempt to dampen domestic prices.
- Other imports are free but subject to prohibitively high tariffs¹⁶.

Under these rules, the static regulatory balance of supply and demand in the EU food sugar market compels full CXL imports, and tends to set the internal price of sugar for food not far from the sum of the world market price FOB, shipping and unloading costs and a EUR 98/t duty. Also in the static approach, Out-of-Quota sugar does not affect prices of sugar for food uses. After deducting the quota, domestic production is more than enough to supply the 2.2 mmt non-food market. Indeed, the surplus is such that the 1.35-mmt WTO limit on exports is always met.

In a dynamic view, however, stocks come into play and, by law, all September 30 sugar stocks become quota sugar the next day.¹⁷ Further, reacting to a temporary but strong price spike linked to world market factors, from 2011 to 2013, the EU Commission allowed an additional 1.8 million metric tons of low or no duty imports which largely fed into stocks. With exports limited to 1.35 mmt by a

¹⁵ These are called "CXL" imports, a reference to the WTO rule under which they were instituted.

¹⁶ EUR 339/t for raw sugar; EUR 419/t for white sugar.

¹⁷ The Out-of-Quota sugar carried over to the following year reduces the amount of "fresh" quota so that the amount of quota available for sale varies little from year to year.

WTO ruling, stable and price-inelastic domestic demand and potential annual imports of 3.6 mmt, the deciding adjustment variable is fresh domestic production which is always larger than the quota.

In theory therefore, price support should amount to EUR 98/t (US\$ 108/t) above world market prices. In practice, however, the domestic EU price level will probably settle closer to delivered world market prices (to prices quoted in FOB position must be added logistical costs and, for raw sugar, refining costs at destination).

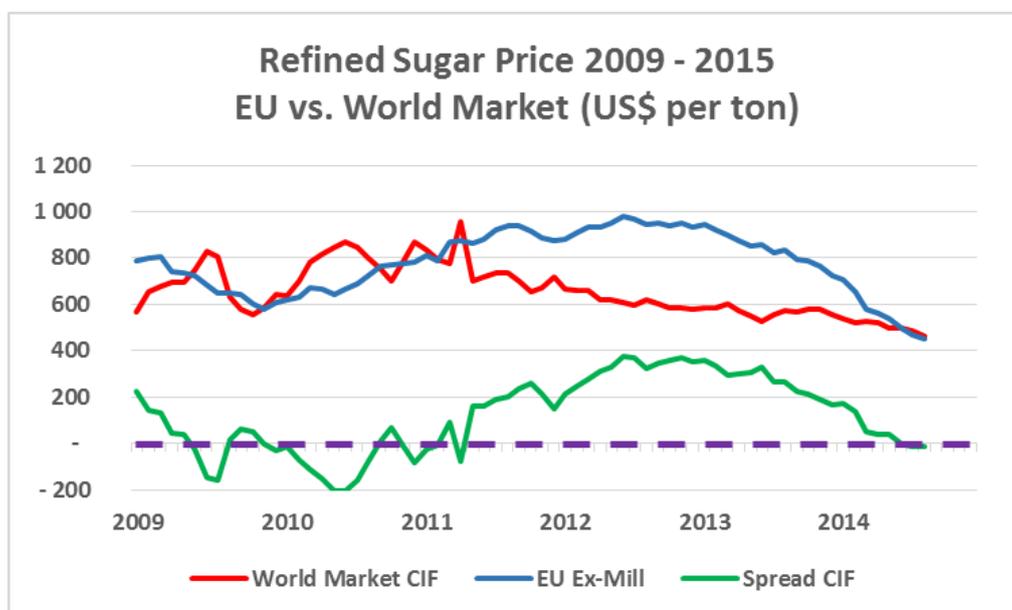
Since 2009, as the reference price fell to EUR 404.4/t (US\$ 455/t) and preferential imports were liberalized in practice, domestic EU prices have begun to track world market levels. Discrepancies are attributable to the slow supply response in preferential suppliers, which can arbitrage against world market prices but have been hampered by poor crops and processing incidents.

Annual domestic EU production has varied from 15.5 to 19.3 mmt. Annual total offtake for domestic and export sales is stable at around 20.6 mmt, including both quota and out-of-quota sugar. Given compulsory annual imports for the food market, the overall market is balanced if domestic production is 17 mmt. The EU sugar industry has shown that it can top that easily.

The effect of the current EU Sugar Regime on domestic prices has been dramatic.

Instead of the quasi-stability at a high level of previous decades (above US\$ 700/t), which had been based on a legal minimum price of EUR 631.9 per metric ton of refined white sugar, sugar prices became linked to the world market price. The result was wild gyrations and convergence to import-parity, staggered by on-going commercial contracts, preferential import supply constraints and logistical viscosities.

The next chart shows how EU prices have begun to reflect world market levels and variations. The large premium seen in 2012 and 2013 was due to a 13% drop in domestic production in 2010/11, which available preferential and CXL imports could not compensate for.



Sources: ISO; EU Commission; ProSunergy estimates.

On average over the 2009 to 2014 period, the EU domestic market price enjoyed a premium of 16% (US\$ 120/t) over the world market price CIF¹⁸. This is far from the 100 to 200%, which was the norm before 2006. The positive CIF spread is being squeezed and importing is less attractive. Moreover, since May 2014, the value of a euro in US dollars has dropped 20%. This makes imports less competitive than if the rate had remained stable.

The current EU price premium against CIF world market sugar is at best only about US\$ 70/t – and thus domestic price levels are too low to cover the duty imposed on CXL sugar imports. Imports will rise only if domestic prices rise enough to pay for the EUR 98/t duty on CXL imports (US\$ 110/t).

The 2014-2020 European Union Common Agricultural Policy and European Union Sugar Policy

The 2014-2020 CAP

Mid-2013, EU institutions agreed on a Common Agricultural Policy for the 2014 – 2020 period. This was the first time Agricultural policy was “co-decided” by the EU Parliament and the Council of Ministers acting together¹⁹ on proposals made by the EU Commission after extensive consultations.

The 2006 Sugar Regime was slated to end on 30 September 2015 and quotas could have ended with it. In the event, it was extended to 30 September 2017 and so were quotas.

Nonetheless, the measures decided in 2013 for sugar fulfill the thrust of the 1992 MacSharry reform of having farmers base production decisions on market signals. The EU sugar industry will soon come under general CAP rules. Indeed, another ideological driver of this CAP is “simplification” through standardizing policy tools across all products and aligning direct decoupled payment amounts across all EU farms, wherever located.

Beyond this “market-orientation”, in the 2014-2020 CAP financial incentives are given for environmental and territorial issues, though total expenditure was curtailed as part of a general move to limit public expenditure.

Ninety-five percent of the annual EUR 58 billion budget (US\$ 64 billion) expenditure are direct decoupled payments though, for policy presentations, EU financial support for agriculture is divided into two “pillars”.

The “First Pillar” contains “Direct Payments and market-related expenditure” and amounts to 76% of the total budget. Payments per hectare represent the brunt of how these are disbursed. The 24% of the budget that flows through the “Second Pillar”, called “Rural Development”, are spent as block grants, except for areas with natural constraints where payments can be per hectare. Second Pillar expenses are largely dedicated to externalities (environmental issues, helping young farmer installation, supporting cooperatives) and will not materially affect EU sugar production. Confusingly, Member States can transfer as much as 15% of the funds from one Pillar to the other. Further complications arise as some subsidies can be topped up by Member States, using national funds. It remains to be seen how far the EU introduces distortions to its internal market by expanding Member State options to tailor payments to local conditions (“subsidiarity”).

First Pillar expenses include market management mechanisms to face sudden market failures such as private storage aid, a crisis reserve for emergencies (the recent Russian embargo on EU food exports

¹⁸ “Cost, Insurance and Freight”: the price of imported sugar at destination port, i.e. including costs to bring it from port of loading.

¹⁹ Under the 2007 “Treaty of Lisbon Amending the Treaty on European Union and the Treaty Establishing the European Community”.

to Russia, for example), and aid for increasing use of milk and fruit in school cafeterias. The First Pillar also includes an option to “couple” payments – to tie financial support to a specific production – because, in some regions and for some products, the new rules create sudden and large variations in farm income that need to be smoothed out.

The main First Pillar tool is the new Basic Payment Scheme where financial support is set per hectare irrespective of what is produced. The Basic Payment is slated to “converge” by 2020 until all farms receive “similar” levels per hectare within a given Member State and, separately, between Member States. So that no farm receives less than 30% of the average national Basic Payment in 2019, payments to farms receiving more than the average will be cut.

Nonetheless, Member States can deduct part of the Basic Payment budget and use the amounts deducted to favor small farms, beginner farmers, areas with natural constraints and the environment²⁰. Thus, beyond the “converging” Basic Payment itself, a farm can receive additional fixed decoupled aid because of its location, the age of the farmer or because it suffers from natural handicaps.

To take France as an example, in 2019 the Basic Payment will amount to about 34% of the Basic Payment Scheme (estimated to be EUR 97/ha), with another 30% coming from respecting environmental rules (EUR 85/ha)²¹. The balance of First Pillar subsidies will come as specific per hectare support for the first 52 hectares, for small farms, etc. Because of convergence, large farms will see total average support drop by 25 to 40% to 2019. These large farms are the most likely to grow sugar beets.

The 2014 – 2020 CAP accentuates the disconnection between production choices and support. It also reduces overall support in real terms and facilitates future across-the-board reductions should they be needed. Often located on the better soils and larger than average, farms with sugar beet will suffer a large drop in support because of convergence and because of measures protecting/promoting support for small farms and farming in difficult areas.

EU Sugar under the 2014 – 2020 CAP

From October 2017, the minimum price for sugar beet is abolished, as is the sugar quota. Thereafter, grower organizations negotiate beet prices with their processors freely. EU domestic sugar producers supply domestic and foreign clients to the best of their ability. How they react will depend primarily upon their capacity to compete with each other and against imports.

From October 2017, immediately available duty-free imports still amount to some 3.5 million metric tons, or 18 to 20% of EU caloric sweetener demand. These volumes will be arbitrated against world market prices. Further, duty-free access to the EU sugar market is increasing with new Free Trade Agreements. South Africa shortly will be awarded a duty-free 150,000-ton TRQ when the already-negotiated EU-SADC EPA is ratified. FTAs with India, with Thailand and with Mercosur are being pursued. The 677,000 metric tons of CXL sugar imports with a EUR 98/t duty and the ability of EPA/EBA suppliers to ship the entirety of their domestic production also connects domestic EU pricing with the world market²².

A number of studies or analyses forecast the consequences of quota abolition on the EU’s domestic sugar market. Four stand out as relevant and influential. They are:

²⁰ The basic amount per hectare every farm will be entitled to may be as low as 8% of the whole Basic Payment Scheme budget, or as high as 68%.

²¹ These are forecasts and vary from source to source.

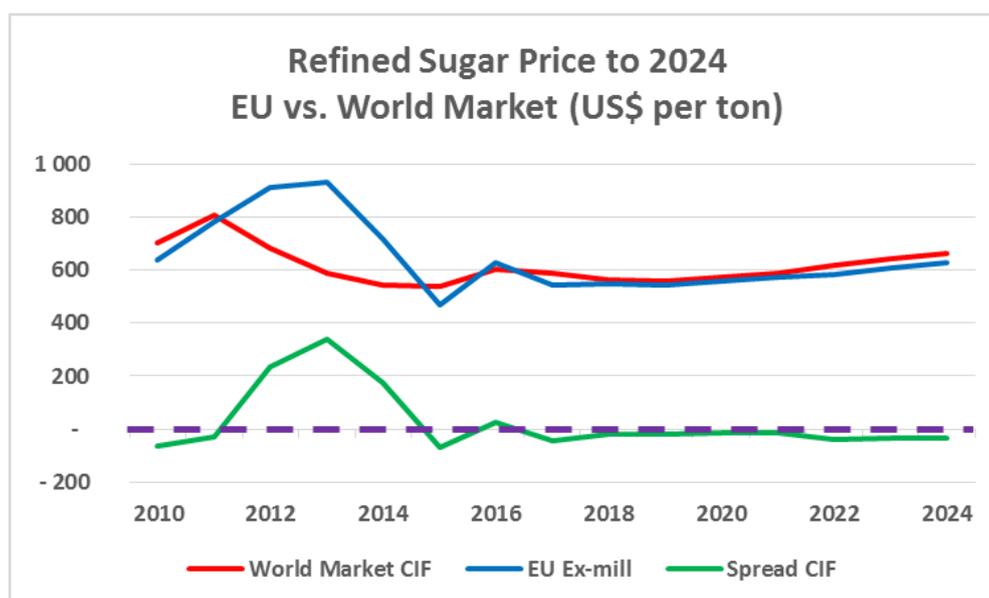
²² For EPA/EBA countries, shipping domestic production and importing for domestic consumption carries significant additional transport costs.

- “Prospects for Agricultural Markets and Income in the EU 2014-2024”, prepared and published by the EU Directorate General for Agriculture and Rural Development in December 2014²³;
- “The EU Sugar Market Post 2017” by the International Sugar Organization, published in April 2014²⁴;
- Presentations by LMC International: “Isoglucose: What are Its Prospects Post Quotas?” – 23rd ISO International Seminar, London, November 2014; “The EU Sweetener Market after 2017: Opportunities and Risks” – 44th CIBE Congress, Berlin, June 2015.
- A presentation by the French Beet Growers Association (CGB): “Isoglucose: State of Play and Outlook on the 2017 Horizon” – WABCG Consultation, London, 24 November 2014.

What do these studies predict?

- Prices will remain low, between export-parity and import-parity.
- Prices will be linked to world market prices and vary accordingly.
- Despite this, EU sugar production will cover total domestic consumption.
- High Fructose Starch Syrup output will grow; it maybe even treble from its current 700,000 tons.
- Imports will be squeezed, possibly falling 85% to 500,000 tons only
- Consequently, the EU may well return to being a regular net exporter, maybe even a significant one in years with high beet yields.

The next chart shows the Commission’s own numbers²⁵ for prices from 2010 to 2024, corrected to reflect CIF position, not FOB:



Source: EU Commission; ProSunergy estimates.

²³ Which can be found at http://ec.europa.eu/agriculture/markets-and-prices/medium-term-outlook/index_en.htm; for sugar, see pp.25 – 28. See also “EU Sugar Policy: A Sweet Transition after 2015?” Joint Research Centre, European Commission, 2014, EUR 26530 EN.

²⁴ MECAS(14)05; US\$ 515; can be ordered from http://www.sugaronline.com/webshop/shop_products/view/52784

²⁵ “Prospects for Agricultural Markets and Income in the EU 2014-2020”, EU Directorate General for Agriculture and Rural Development in December 2014

The EU Commission expects domestic EU prices for refined sugar to converge to the import-parity price, which it estimates to be the FOB World Market price plus EUR 40 to 50/t (US\$ 60/t). In relation, the price paid for sugar beet will fall to about EUR 25/t (US\$ 27.5/t). This is based on a world market price level that is much higher than current depressed levels, which are unsustainable.

Structurally, EU prices will indeed trend toward import-parity. With domestic supply virtually sufficient to cover demand and a large amount of duty-free imports fighting over a residual import market, it cannot be otherwise.

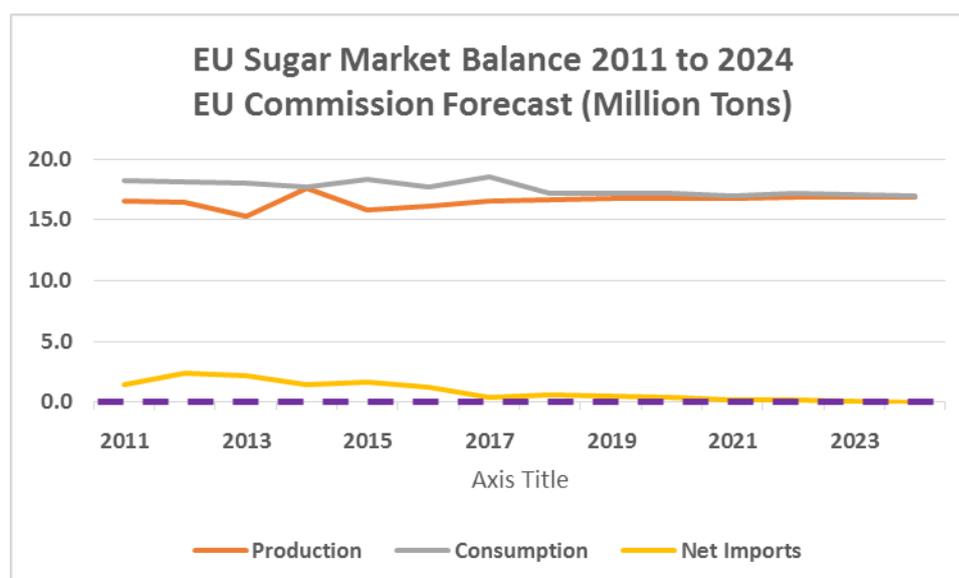
Because the vast majority of preferential suppliers are not amongst the world's lowest-cost producers, it is nonetheless likely that the price of sugar imports will be higher than a fully liberalized import regime would allow.

If it can be proven that a surge in imports is the cause of market disturbances, such as company bankruptcies, EU trade agreements contain a safeguard clause can be used to suspend or tax imports temporarily. The clause has never been used but import-restrictions could be imposed, perhaps for example if a dramatic sudden shift in exchange rates causes imports to surge.

The existence of an EU “reference” price for sugar has no effective bearing on domestic prices, and this is the case in for the other Common Agricultural Policy commodities too. The European reference price of EUR 404.4 per metric ton (US\$ 445/t) is only an indicator of a reasonable price level. If prices dip below the reference price, the EU has no legal obligation whatsoever to act. Today at least, the EU Commission is determined not to intervene in agricultural markets. (It currently is firmly opposed to member State requests for help in milk, pork meat, beef and sugar.)

In practice, the Commission has only one tool with which to influence supply and demand: it can force and pay for storage. In structural terms, this is a weak tool: storage can only be temporary and domestic production will drop the following year. But the Commission has stated publicly and repeatedly its reluctance to use “private storage” for sugar and for other markets.

Low prices will prevent imports from thriving. Quite the opposite, in fact, as the Commission's numbers for future volumes show that net imports should trend towards zero.



Source: EU Commission

For the EU Commission, European sugar production should stabilize at around 17 million metric tons (not counting about one million metric tons for ethanol).

Whereas on prices there is consensus amongst analysts that domestic EU prices will track world market at close to import-parity, the Commission's view of future balances appears far too conservative to many: in 2014/15, the EU sugar industry already produced more than 19 million metric tons of sugar.

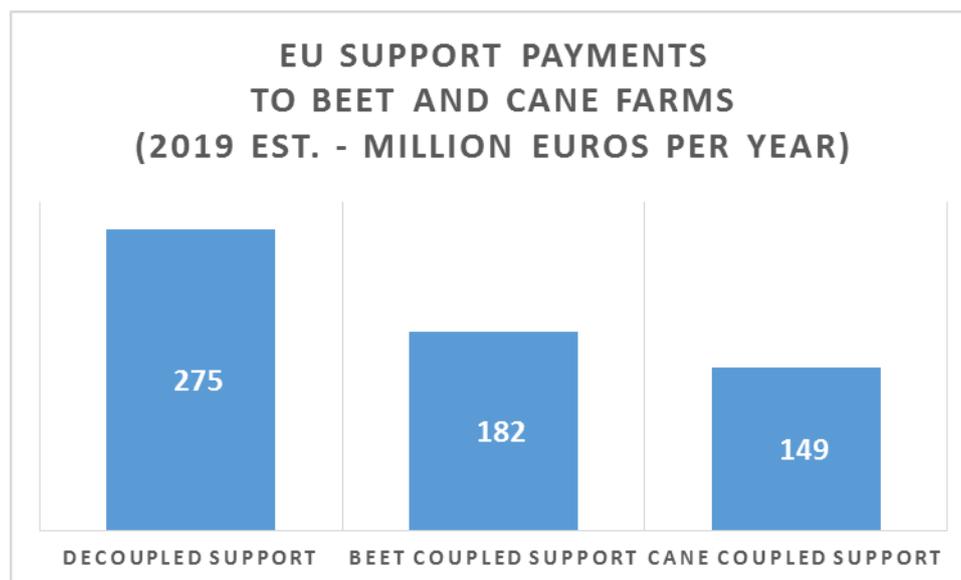
There is general agreement that imports will diminish, but also that the EU will likely become a significant exporter again. The Commission has stated publicly that the end of the quotas will lift the WTO-imposed 1.35 million metric ton annual export limit.

An important side effect of the end of quotas and of the connection with world market prices is the nearly total destruction of the commercial value of preferential access to the EU. ACP countries and Less Developed countries stand to lose between 2 and 3 billion Euros in terms of the Net Present Value of their sugar exports to the EU, when compared to previous levels. This "collateral damage" is the inevitable consequence of the EU seeking domestic prices in line with world market prices. Ultimately, the EU's Common Agricultural Policy will have lost any role as a tool for foreign development. EU development assistance will be confined to its development aid budget and other trade rules.

EU Support for Sugar in the 2014 – 2020 CAP

Even before the September 2017 abolition of sugar and High Fructose Starch Syrup quotas, EU support to sugar industry operators will have transitioned to blanket direct decoupled farm payments, targeted coupled payments for sugar beet and sugarcane in selected areas, and restrictions on imports.

By 2019, direct financial EU support for sugar beet and sugarcane farmers should amount to an estimated EUR 606 million (US\$ 667 million). This will be distributed through decoupled payments (45%) and through coupled payments (55%).



Sources: EU Commission, French Ministry of Agriculture, ProSunergy estimates.

Beyond this, the EU will support its sugar industry with R&D assistance. Further, there will remain limited Member State support for struggling areas, such as the sugarcane-producing French overseas territories, and support for sugar beet and sugarcane R&D.

Decoupled Payments

Whereas coupled payments indisputably influence supply and prices, there is uncertainty about the economic effects of decoupled payments. Not being conditional upon the production of a given crop, they are deemed by the WTO to be minimally trade distorting, if at all.

Nonetheless, direct decoupled payments represent 10 to 11% of EU farm turnover overall, so they must affect farm economics.

Before 2015, the level of direct payments could be connected to historical earnings²⁶. Therefore, even if sugar beet was only one of the crops used to determine decoupled payment levels per hectare for a given farm, high beet margins of the past influenced the amount of support.

By 2019, however, because of payment “convergence”, the legacy effect of past sugar beet margins will disappear. On a sugar beet farm, not only will there be no connection between direct payments and which crops are planted, as is the case since 2009, there soon will be no connection between the level of decoupled payments and past sugar (or other) activity.

²⁶ This is not the case in the East European countries that joined the EU in 2004 (ten countries), 2007 (two countries) and 2013 (one country) where support started at lower levels than in the older Member States.

In France, for example, a large cereal and sugar beet farm is expecting its decoupled support income to be EUR 400/ha (US\$ 440/ha, or US\$ 180 per acre) in 2015; by 2019, this will have dropped to EUR 180/ha (US\$ 75 per acre), a 55% reduction.

Should the EU's direct decoupled payments for areas planted with sugar beets be considered as support for its sugar industry? Indisputably, such payments increase expected farm income and thus increase the value of the underlying farmland. In some EU member States, the expected support income stream can be sold to investors in exchange for a lump sum (which should represent the net present value of that income stream). In other words, direct decoupled payments increase the recipient farm's financial wherewithal²⁷.

One could therefore argue that the support allows farms to price their production lower than would otherwise be the case. Either because there will be less pressure to maximize income from market prices or because the recipient will use his wealth to improve productivity beyond what would be the case without the direct payments, or because of a combination of the two. While the exact effects of these decoupled supports on sugar production and price cannot be determined, the fact remains that they provide a subsidy for every hectare planted with sugar beets.

The effect of direct decoupled payments on the level of EU sugar output could be to maintain output in marginal farming areas, where revenues are too small or too variable to support farming structurally. But this effect should be limited in practice: in the case of sugar beet, the vast majority of land involved is not marginal and will be planted.

Without decoupled payments, the price for farmland would drop and reduced revenue would push farms to improve economies of scale by merging and would accelerate the spread of best practices. In the EU, there is scope for such improvements. Without further investigation, it is impossible to determine whether such improvements would compensate for the disappearance of direct decoupled payments partially or totally.

Targeted Coupled Payments for Sugar Beets

The 2014-2020 CAP rules allow Member States to divert up to 8% of their Basic Payment Scheme funds to coupled payments from the 2015 calendar year²⁸. These payments are linked to specific products, which are named in the regulation: if they are not produced, no aid is paid. Further, the coupled support is contingent upon production limitations.

Ten Member States have decided to give coupled support to sugar beet. The payments amount to EUR 181.7 million per year (US\$ 200 million). The payments come with conditions, one of which is that beet plantings cannot increase beyond a declared maximum number of hectares.

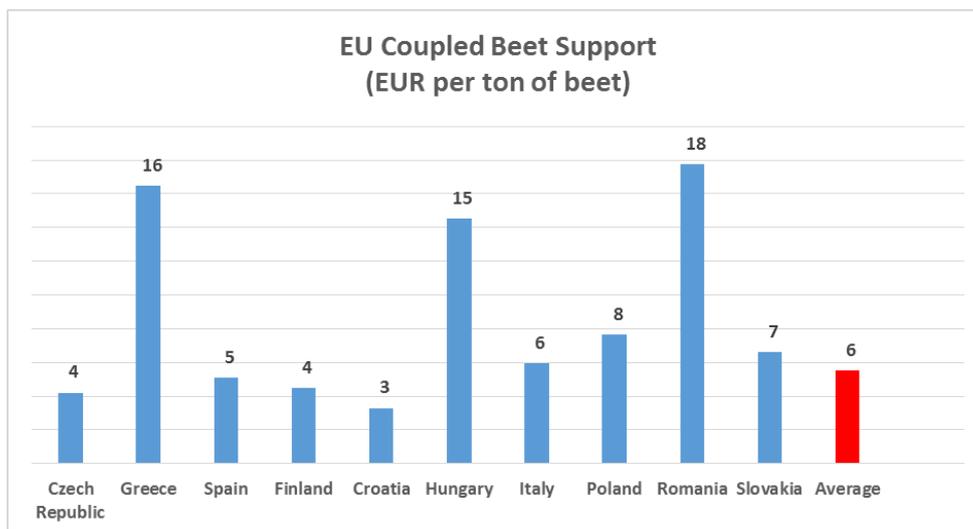
Relative to total EU sugar output, this subsidy alone would represent about 4% of average EU grower revenue, but in the areas concerned it increases grower income by 10% at least.

The eligible hectares represent about 30% of EU land under sugar beet and produce about 25% of the Union's sugar. (Poland alone accounts for 46% of the aid and 40% of the area concerned.)

²⁷ Agricultural Economics Review, "Single Payments of the CAP: Where Do the Rents Go?" by Stefan Kilian and Klaus Salhofer, Technische Universitaet Muenchen, Alte Akademie 14, Freising, Germany; 2008.

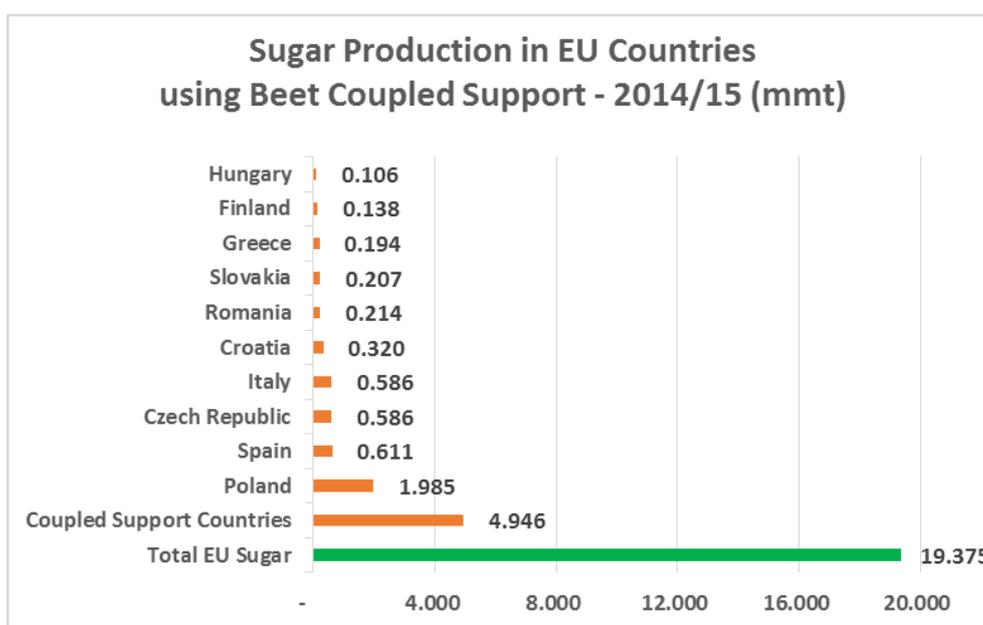
²⁸ Regulation EU n° 1307/2013 of 17 December 2013, articles 52 to 55. Exceptionally, coupled payment funds can exceed the 8% of the Basic Payment Scheme limit; this is the case for Finland, where coupled payments for sugar beets amount to 14% of the country's BPS.

When applied to the recipient areas, however, the distortion to domestic competition is undeniable. Support per ton of sugar beet actually produced in eligible areas amounts to EUR 6/t (US\$ 7/t of beet) on average²⁹ or about 20 to 25% of the cost of producing sugar beets in these countries.



Source: EU Commission, ProSunergy estimates

The volume of sugar thus aided is significant – some 5 million tons today. Moreover, the EUR 182 million of coupled support could cover 66,000 hectares more than are farmed today so that it may encourage planting more beet (albeit at a lower support level per ton since the same total funds would be spread over more supply). Based on the 2014/15 volumes of sugar produced in these areas, coupled support amounts to some EUR 36 per ton of refined sugar (US\$ 40/t).



Source: EU Commission

Would EU sugar output be materially lower without this coupled support? Yes, but not by the total amount involved and probably not forever as these subsidies are intended to be transitional and may be

²⁹ On the basis of sugar beets processed in the 2014/15 campaign.

phased out or eliminated after 2020. If the coupled payments for sugar beet were not given today, EU production might drop by as much as 2 million tons within two years.

Sugarcane Coupled Payments

The European Union still produces sugarcane and, from it, sugar. The French West Indies islands and La Réunion (Indian Ocean) together produce some 255,000 tons of sugar, and Spain's Azores islands (in the Atlantic, west of Portugal) another 800 tons of sugar. Of these overseas territories, La Réunion is the major supplier by far, with about 200,000 tons produced annually, and followed by La Guadeloupe in the Caribbean with about 45,000 tons.

Though the volumes involved are small, the economic and social importance of sugarcane to these small islands cannot be overestimated. The EU therefore supports these industries financially and allows the Member States concerned to supplement this support. Allowed annual support amounts to over EUR 165 million (US\$ 182 million), but not all is disbursed and not all is allocated to sugar³⁰. This support, which is direct and coupled, represents 60 to 70% of a sugarcane grower's income. In La Réunion for example, aid per ton of sugarcane amounts to EUR 85 per metric ton (US\$ 94/t).

Without this support, the production of sugar in these overseas territories would virtually disappear³¹.

Import Protection

Despite unlimited duty-free access to the EU bestowed by Economic Partnership Agreements for ACP countries and the "Everything But Arms" GSP rules for Least Developed Countries, and despite Free Trade Agreements that include zero-tariff sugar import quotas, duty-free imports to the EU represent only about 7% of international trade in sugar. With its very high standard tariffs, the EU will remain out of reach for much of the sugar traded on the open international market.

A majority of the EU's preferential suppliers cannot long sell at world market conditions. Their costs are too high. Over the medium and long term, they can supply the EU only if they obtain a better price than the world market one. In other words, the EU is open for trade with relatively expensive suppliers.

As the Chairman of the United Kingdom's National Farmers Union Sugar Board said: "It is important to remember that import restrictions and tariff rates which currently protect the EU sugar market will remain in their current form even after quota removal. The same countries as today, such as the ACP and Less Developed Countries, will continue to have free access to our market, but major world sugar producers, such as Brazil and Thailand, will continue to face restrictions. The EU market will still not be a completely open market."³²

Regardless, the forecast volume of imports required to balance the EU market is small and will come from the most competitive EPA/EBA beneficiaries and TRQ holders. With maybe 3.5 million tons of duty-free sugar chasing maybe 1 million tons of import demand, remaining imports will be priced close to world market levels.

Non-Tariff Barrier: Opposition to Genetically Modified Organisms (GMO's)

In principle, in matters pertaining to GM crops and foods, the EU sets legal definitions, overall regulations, risk evaluation methods, GMO authorization procedures, the conditions under which

³⁰ Source: "Evaluation des aides à la filière sucre des Départements d'Outre-Mer", ODEADOM, September 2014.

³¹ Sugarcane would still be planted to produce rum.

³² William Martin, Chairman, Nation Farmers Union Sugar Board, United Kingdom, 27 May 2014.

Member States may prohibit GMO's, and labelling issues³³. In principle, this should result in GMO's being authorized but these procedures do not work, because of opposition to GMO's in a number of Member States, amongst which Germany and France.

To date, the EU is a reluctant market for GM food. Nonetheless, the EU Commission first authorized cultivation of GM plants almost ten years ago, and GM corn has been grown in Spain since 1998, but unease towards GM foods remains widespread.

Under EU law, farmers, or food and feed producers, who introduce a GM product in the supply chain or buy a GM product, must identify their supplier and to whom the products have been delivered. They must inform customers that the product contains, or is obtained from, GMO's. In the case of pre-packaged GM food (and feed) products, the list of ingredients on the label must indicate "genetically modified" or "produced from genetically modified [name of the organism]".

In practice, the combination of this compulsory labelling with the public's aversion to GMO's constitutes a strong barrier to the import of GM sugar or of food products containing GM sugar. Commercially, GM food remains "a hard sell" in most EU countries and it will take time for this to change.

Worldwide, there have been field trials of GMO sugarcane since 1998 but commercial production of sugar from GMO sugarcane is still practically nil.

GMO sugarcane was first approved for commercial planting in Indonesia in 2013. In Brazil, the Centro da Tecnologia da Cana has announced sales of GMO seedlings for 2017. The future development of GMO sugarcane is thus probable and GMO sugar beet is extensively planted, notably in the USA.

US sugar beet production is 95% GMO and represents about 55% of U.S. sugar production. This sugar is a key ingredient for the U.S. food industry. Thus, the prospects for U.S. exports to the EU of sugar or food products containing sugar would, be very limited, even if tariffs were reduced or eliminated.

Customer preferences clearly prevent GM sugar imports into the EU. This may change if there is a perceived benefit for the customer but, thus far, there is no sign of such a change in public sentiment. The EU sugar industry will not use GM sugar beets because its customers do not want to risk consumer rejection.³⁴

³³ Regulation 2001/18 and Regulation 1829/2003.

³⁴ The industry hopes for improved crop performance through traditional genetic selection spearheaded by the French AKER sugar beet genome research program. This EUR 18.5 million program (US\$ 20 million, of which US\$ 5.5 million are public funds) budget is spread over 8 years (2012-2020). The aim is to double annual yield improvement from 2 to 4%.