

African cassava – unexploited potential?

As home to one billion people, Africa is the second most populated continent after Asia. However, the share of consumption of starches and derivative products accounts for just 2% of the global market. Cassava and maize, two leading starch raw materials, are mainly consumed as food. Production is concentrated in a handful of countries, dominated by South Africa. No significant investment in starch capacity has taken place in the sector over the last decade and the region depends on imports to meet its widening supply gap. However, Africa's large cassava sector has the potential to help address this deficit and reduce Africa's dependence on imports.

In this issue, we review the African market for starch products and assess the potential for cassava to meet the increasing demand for

starch and sweeteners. In our assessment, we distinguish between five regions/ countries:

North Africa, which consists of Algeria, Egypt, Libya, Morocco, Tunisia, Sudan and South Sudan;

East Africa, which spans the countries from Ethiopia to Zimbabwe and Mozambique;

Rest of Sub-Saharan Africa, which consists of Central and Southern Africa;

West Africa, which spans the countries from Mauritania to Namibia; and

South Africa.

We start our analysis by comparing African consumption of starch and starch sweeteners

Diagram A: Starch consumption per capita vs. GDP per capita, 2012

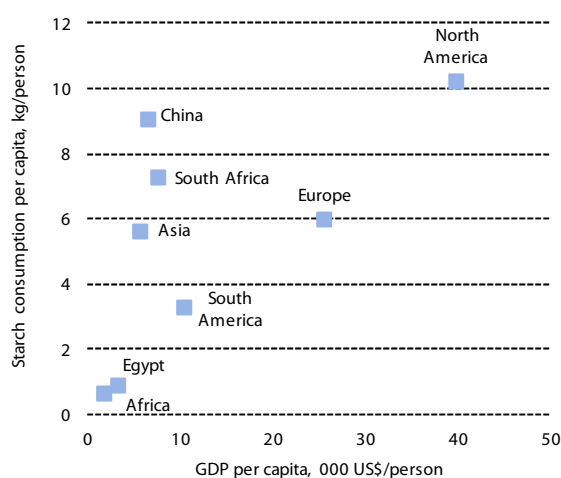
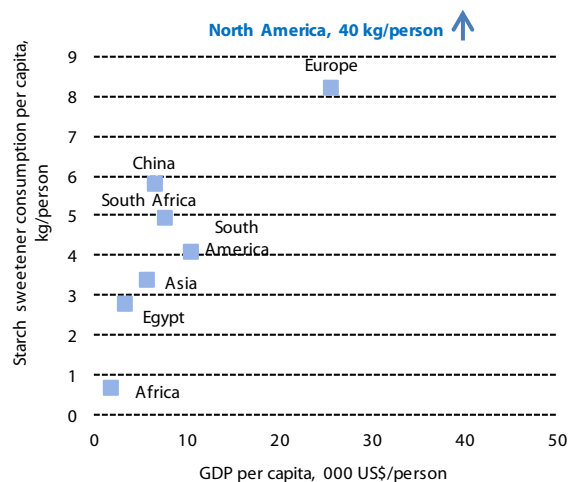


Diagram B: Sweetener consumption per capita vs. GDP per capita, 2012



Inside

The growth prospects for starch derivatives in Africa

Diagram C: Starch consumption by region, 2005 and 2012

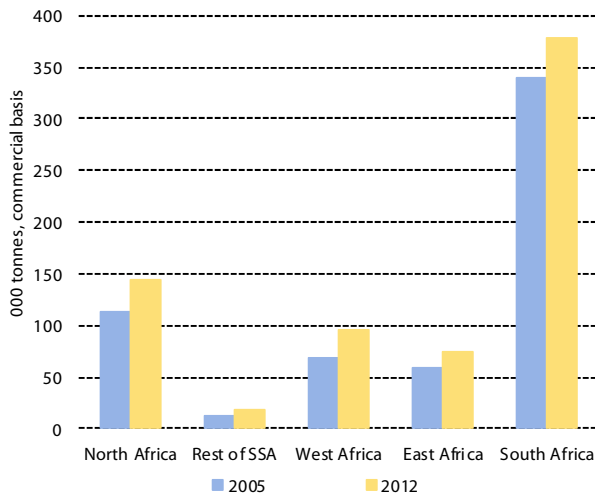
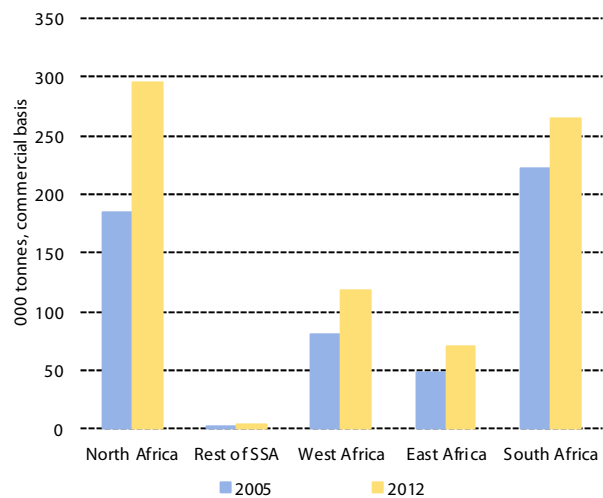


Diagram D: Starch sweetener consumption by region, 2005 and 2012



with that of other regions to gauge the scope for demand growth in the continent. Diagrams A and B plot per capita starch and starch sweetener consumption, respectively, as a function of per capita GDP. They reveal a positive correlation between per capita consumption of starches and syrups and level of per capita GDP. While Africa has the lowest position relative to the other countries, individual African countries with a higher GDP, such as South Africa, mirror consumption patterns of the rest of the world.

This very simple analysis reveals the potential increase in starch derivative use that can be expected as African incomes continue to rise.

Growing demand for starch and syrups

Total consumption in Africa is estimated to be close to 1.5 million tonnes of commercial products; half of which is sweeteners. Over the years 2005-2012, demand for these products experienced a compound annual growth rate (CAGR) of 3% and 5%, respectively. Looking ahead, we expect growth to remain at these healthy levels for the next few years.

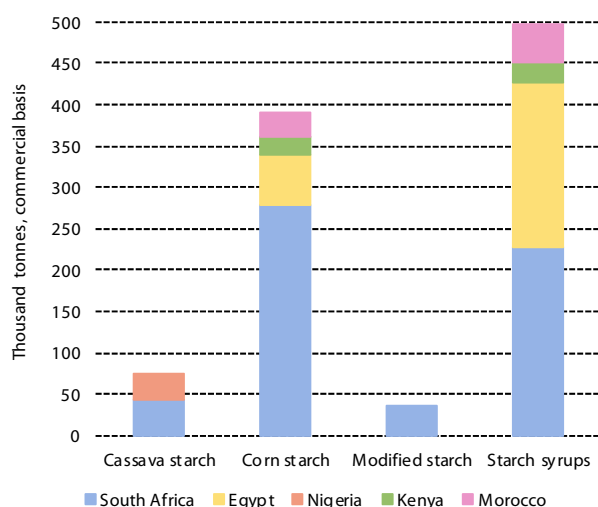
Over the period, corn starch accounted for the bulk (60%) of native starch demand, followed by cassava starch (20%) and modest amounts of modified starch. These shares have changed little, despite an overall increase in volume terms. One country, South Africa, is by far the largest market with nearly 380,000 tonnes, followed by the countries that make up North and West Africa with around 100,000-150,000 tonnes, respectively (Diagram C).

Within the sweeteners, North Africa's impressive 7% CAGR means it not only consumes nearly 300,000 tonnes of syrups but, by 2012, it overtook South Africa as the largest syrup market in the continent (Diagram D). This is down to the strong growth in Egypt, primarily for HFS 55. South African demand consists of glucose syrups, which are widely used in its beer brewing sector. Nigeria dominates West African syrup demand, and overall consumption in the region stands at over 100,000 tonnes.

There are several reasons why these three countries have relatively higher consumption. Egypt and South Africa have populations that number over 80 million and 51 million, half of which are under the age of 25. In Nigeria, this proportion rises to 65%, on a population of nearly 170 million. Younger segments of society tend to adopt westernised consumption patterns in their food and beverage choices, opting for fast and processed products. The carbonated soft drinks sector, the main user of HFS, particularly benefits from sizeable young and growing populations, urbanization and income growth. In addition, all three countries have GDP levels above the Africa average (see Diagrams A and B).

Looking ahead, Nigeria is ranked as an emerging African economy and has increasingly affluent and discerning consumers that demand a range of imported foods. The wealthiest country on the continent is South Africa and its demand for the broad range of starches and derivative products is markedly developed. As economies develop and process of urbanisation continues

Diagram E: Starch and syrup production by region, average 2010-2012



in the region, we are likely to see an increasing taste for convenience and fast food products that rely on starch and sweeteners.

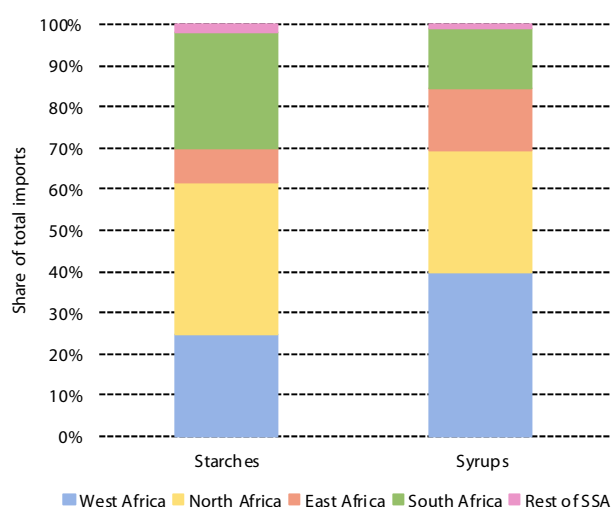
With 80% of the 1.5 million tonnes of consumption located in three countries, the other markets contribute little to regional demand. Put differently, 72% of Africa's population have yet to participate significantly in the formal starch and syrup markets. This number alone, highlight the potential for starch product growth in the continent.

Production

While starch and syrup use is concentrated in three countries, starch processing is more fragmented.

- South Africa accounts for the lion's share of Africa's 0.5 million tonnes of native starch output and all of modified starch output (approximately 35,000 tonnes). It is home to the continent's largest (corn) starch producer, Tongaat Hulett Starch. The company produces a full range of starches and sweeteners (not including HFCS). The company also produces sorbitol, a polyol.
- In North Africa, there are two sizeable corn processors located in Egypt and Morocco. Egypt's National Maize Products Company produces native starch and glucose syrups, primarily HFCS. Tate & Lyle have a wet milling facility in Casablanca manufacturing native starch and glucose syrups. There is also a small starch producer in Algeria.

Diagram F: Share of total imports, average 2010-2012



- There are a number of smaller cassava starch industries located in Sub Saharan countries: Nigeria, Uganda, Ghana and Cameroon.
- Ingredion's corn starch and glucose plant in Kenya stopped production in 2013.

Negligible levels of investment have taken place in the region over the last decade to develop the sector.

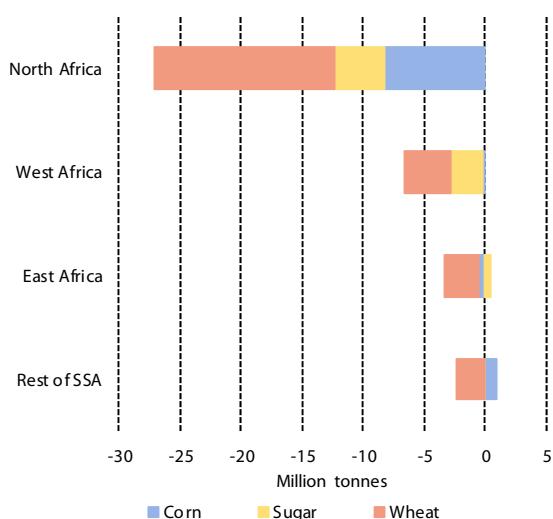
Trade and import dependence

African production of starch and derivative products lags behind demand. Around 200,000 tonnes of starches and 270-280,000 tonnes of sweeteners are imported every year to meet the supply shortfall. This equates to around 20% and 35% of consumption for starches and sweeteners, respectively. Corn and modified starches comprise the bulk of the region's starch imports; the majority of sweetener imports consist of glucose syrup.

West and North Africa account for 70% of Africa's imports (Diagram F), highlighting the imbalance between supply and demand in this area, particularly in North Africa. Meanwhile, the largest importers, South Africa and Nigeria, are moving at different paces. Nigeria now is the largest importer in the region, having witnessed a near 40% expansion in import demand.

In terms of exports, South Africa is the main exporter, and exports primarily corn starch and glucose syrups. South Africa's main markets are Australia, East Asia and South East Asia. In recent years, exports to neighbouring African countries

Diagram G: Grain and sugar market balance



accounted for around 15% and 25% of its total exports of corn starch and sweeteners, respectively.

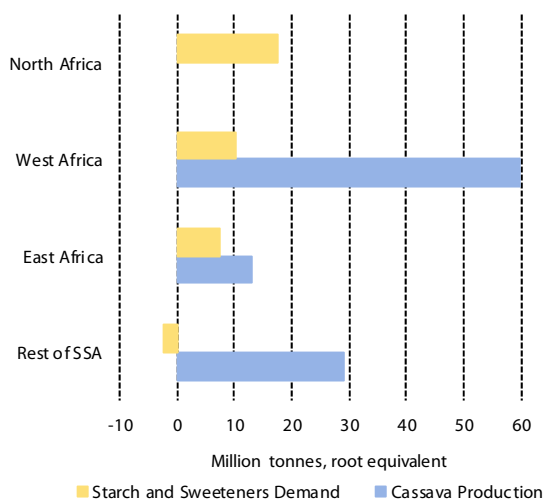
Most of Africa’s imports originate from Asia (China, India and Thailand) and Europe (EU and Turkey).

Africa’s carbohydrate deficit and the unrealised cassava potential

There has been a strong expansion in starch derivative use in recent years, and the outlook is for continued growth. At the same time, however, production has not kept pace with demand and a supply gap has opened.

Diagram G reveals that the supply gap is not for carbohydrates in the form of starch derivatives only, the region also has a deficit of carbohydrates in the form of grains and sugar.

Diagram H: Starch and sweetener deficit/surplus vs. cassava output, average 2010-2012



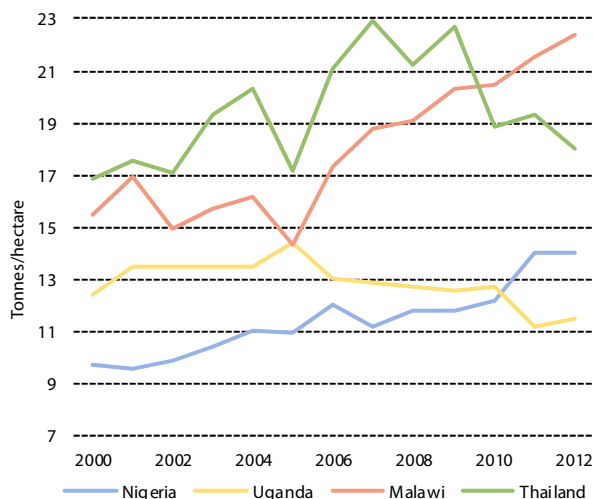
Interestingly, the continent has a large availability of carbohydrates in the form of cassava (Africa grows more cassava than any other continent). However, while there are smaller cassava starch industries, the commercial production of starches from this crop in Africa is limited.

Traditionally, the crop has been used as an important subsistence food. In contrast, in South East Asia, cassava is used primarily as an ‘industrial’ crop. Diagram H compares African cassava production with imports of starch products to make the point that current output of cassava, if turned into starch products, is more than enough to meet the current supply deficit (a positive number in the diagram), especially in West Africa and Rest of Sub-Saharan Africa.

Clearly, cassava is and will remain a subsistence crop for many years to come. However, average yields are low compared to other countries. Diagram I compares cassava yields in Thai and selected African producers and points to significant scope to increase output per unit of land. In addition, while not all soils and climate zones across Africa are suitable for cassava growing, there are nevertheless very large areas that are suitable for cassava growing (FAO).

With the future outlook for starch and sweetener demand looking robust, there are clear opportunities for Africa’s domestic cassava sector to be actively developed. This would enable it to play a greater role, not just as a source of starch but also for the production of sweeteners as a number of its local markets undergo rapid and significant development.

Diagram I: Cassava yields by principal producer



Market spotlight on starches & fermentation products: raw materials, by-products and end-uses

Diagram 1: Prices of major raw materials in the starch sector

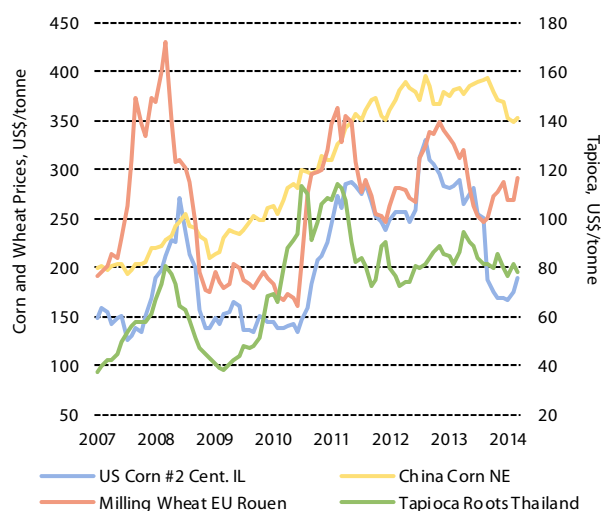


Diagram 2: Sugar and molasses prices

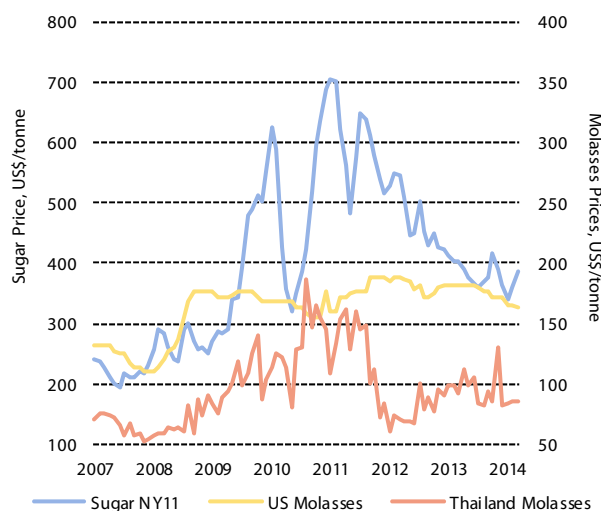


Table 1: Corn use in the US starch and fermentation sector (million tonnes)

	2011/12	2012/13	2012/13	2012/13	2012/13	2013/14	% Change on Same
	Total	Dec-Feb	Mar-May	Jun-Aug	Total	Sep-Nov	Quarter Last Year
HFCS	13.04	2.88	3.21	3.26	12.46	2.88	-7.6%
Fuel Alcohol	127.29	28.34	30.30	31.02	118.60	31.25	8.0%
Starch	6.45	1.49	1.58	1.58	6.27	1.54	-4.7%
Glucose & Dextrose	7.48	1.66	1.84	1.88	7.17	1.81	1.1%
Beverage Alcohol	3.44	0.91	0.95	0.83	3.56	0.87	0.1%
Total	157.69	35.29	37.88	38.56	148.06	38.35	5.6%
Corn Price (US\$/tonne)	264.0	282.3	276.2	262.0	280.9	176.5	-41.8%

Notes: Figures in *italics* are based on partial data.
Sources: USDA, LMC estimates.

Diagram 3: 12-month moving average of corn use in the US starch & fermentation sector

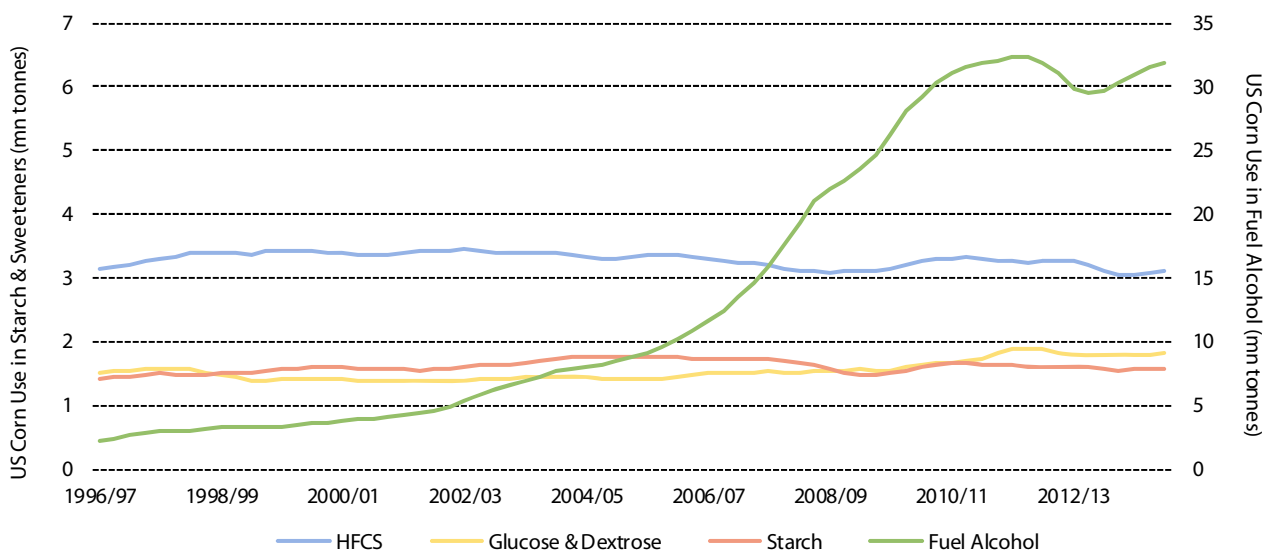


Table 2: Raw material and by-product prices (US\$/tonne)

Commodity	Country	Basis	2013	2013	2013	2013	2014	Change on Same Quarter Last Year
			Apr-Jun	Jul-Sep	Oct-Dec	Average	Jan-Mar	
Raw Materials								
Corn	US	Central IL (cash bids)	274	231	170	240	177	-38%
	EU	Bayonne (delivered)	261	226	231	253	231	-22%
Wheat	China	North East (futures)	383	391	372	382	350	-8%
	US HRW	Kansas City (futures)	272	258	261	270	249	-13%
	US SRW	Illinois (futures)	255	239	240	251	225	-17%
	EU Milling Wheat	Rouen (futures)	288	250	279	285	276	-15%
	EU Feed Wheat	Creil (delivered)	282	233	257	269	256	-16%
	Black Sea Milling	Black Sea, FOB	300	251	285	295	289	-16%
	Black Sea Feed	Ukraine, FOB	290	225	241	269	243	-24%
	Australia	Eastern States, FOB	305	293	275	296	264	-15%
Sugar	NY No.11	FOB	377	368	389	385	362	-11%
	LIFFE No.5	FOB	493	487	471	490	446	-12%
	EU Sugar for Chemicals	Ex-works	479	483	475	480	476	-1%
Molasses	US	US Gulf	182	177	171	178	165	-9%
	EU	Amsterdam, CIF	220	223	220	221	219	-2%
	Thailand	EUV, FOB	105	87	99	97	85	-13%
Tapioca	Thailand	NE, 30% starch	91	82	82	85	79	-6%
By-Products								
Vital Gluten	EU	IUV, CIF	1,724	1,758	1,694	1,715	1,670	-1%
Bran	EU	LMC estimates	218	160	163	189	166	-23%
CGF	US	Southwest	178	147	199	188	184	-19%
	EU	Austria, Vienna, bulk	248	224	212	238	221	-18%
CGM	US	Southwest	577	636	713	644	733	13%
	EU	IUV, intra-EU; high prot.	979	945	1,036	994	1,056	4%
Corn Oil	US	Decatur	1,022	897	853	978	874	-23%
	EU	IUV, intra-EU	1,058	1,091	1,096	1,119	1,173	-5%
Corn DDGS	US	Lawrenceburg, IN	259	258	241	264	237	-20%
Wheat DDGS	EU	Netherlands	403	336	352	377	377	-10%
Raw Material Cost Net of By-Products								
Wet Milling Unit								
US Corn	US\$/tonne of starch	Central IL (cash bids)	268	214	104	211	116	-55%
EU Corn	US\$/tonne of starch	Bayonne (delivered)	196	151	156	184	148	-36%
China Corn	US\$/tonne of starch	North East (futures)	383	393	353	374	319	-13%
EU Wheat	US\$/tonne of starch	Rouen (futures)	174	132	198	189	193	-24%
Thailand Tapioca	US\$/tonne of starch	North East	316	284	282	294	273	-6%
Dry Milling								
US Corn	US cents/litre of	Central IL (cash bids)	45	35	22	37	24	-46%
EU Wheat	US cents/litre of	Creil (delivered)	36	29	34	35	32	-23%

Notes: 1. Figures in Italics are based on partial data.

2. The cost of wheat net of by-products is expressed in US\$/tonne of A starch as B starch is not dried and sold as starch.

Sources: Eurostat, F.O.Lichts, HGCA, IGC, TTSA, USDA, LMC estimates.

Table 3: EU Raw material and by-product prices (€/tonne)

Commodity	Basis	2013	2013	2013	2013	2014	% Change on Same Quarter Last Year	
		Apr-Jun	Jul-Sep	Oct-Dec	Average	Jan-Mar		
Raw Materials								
Corn		Bayonne (delivered)	200	170	170	191	168	-25%
Wheat	Milling Wheat	Rouen (futures)	220	189	205	215	201	-18%
	Feed Wheat	Creil (delivered)	216	176	189	203	187	-19%
Sugar	Sugar for Chemicals	Ex-works	367	365	348	361	347	-5%
Molasses		Amsterdam, CIF	169	168	161	167	159	-6%
By-Products								
Vital Gluten		IUV, CIF	1,320	1,327	1,243	1,291	1,217	-4%
Bran		LMC estimates	167	121	119	142	121	-26%
CGF		Austria, Vienna, bulk	190	169	155	180	161	-21%
CGM		IUV, intra-EU; high prot.	749	713	761	748	769	0%
Corn Oil		IUV, intra-EU	810	824	805	842	855	-8%
DDGS		Netherlands	309	254	258	284	275	-13%
Raw Material Cost Net of By-Products								
EU Corn	€/tonne of starch	Bayonne (delivered)	150	114	115	138	108	-38%
EU Wheat	€/tonne of starch	Rouen (futures)	133	100	145	142	141	-26%

Notes: 1. Figures in Italics are based on partial data.

2. The cost of wheat net of by-products is expressed in €/tonne of A starch as B starch is not dried and sold as starch.

3. IUV stands for import unit values.

Sources: Eurostat, F.O.Lichts, HGCA, LMC estimates.

Diagram 4: Net costs of raw material per tonne of starch in various countries

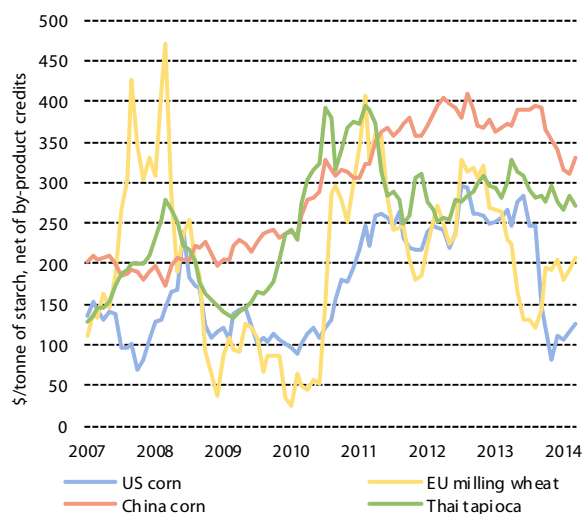


Diagram 5: Net costs of raw material per cubic metre of anhydrous ethanol in various markets

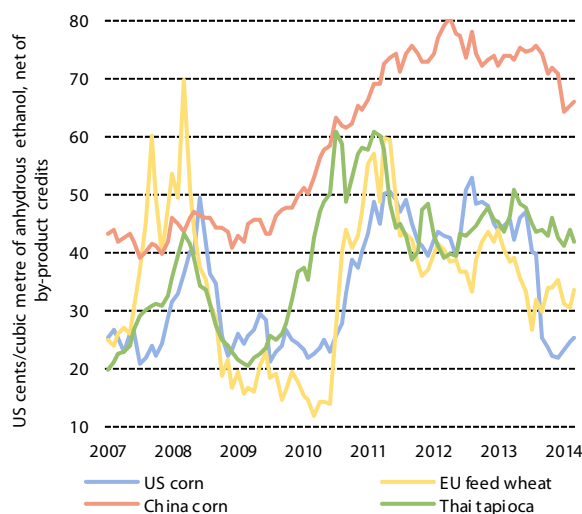


Table 4: Prices of principal starches (US cents/kg unless otherwise specified)

	2012 Average	2013 Apr-Jun	2013 Jul-Sep	2013 Oct-Dec	2013 Average	2014 Jan-Mar	% Change on Same Quarter Last Year
US							
Corn Starch - native ex-works	48.6	49.8	49.6	35.9	46.3	32.6	-34.7%
Corn Starch - native	61.9	65.3	64.6	69.4	65.4	66.0	5.6%
Corn Starch - modified	86.7	90.7	86.1	85.0	87.7	83.9	-5.7%
Net Cost of Corn/kg Starch	25.4	26.8	21.4	10.4	21.1	11.6	-54.9%
Illinois Corn Starch Price as % of US Net Corn Cost	192%	186%	232%	345%	239%	280%	44.7%
Potato Starch - food use	86.8	82.0	77.0	77.2	79.5	82.1	0.1%
Potato Starch - non-food use	50.0	58.2	46.4	49.9	51.7	48.9	-6.7%
EU							
Corn starch	68.5	71.1	70.8	73.2	72.0	73.5	0.7%
Wheat starch	56.2	53.5	51.2	55.0	54.7	54.7	-7.2%
Potato starch	79.0	76.3	75.2	80.5	77.9	82.3	3.6%
EU (€ cents/kg)							
Corn starch	53.2	54.4	53.4	53.8	54.2	53.6	-3.0%
Wheat starch	43.7	41.0	38.7	40.3	41.1	39.8	-10.6%
Potato starch	61.4	58.5	56.8	59.1	58.6	60.0	-0.2%
East Asia							
Cassava Starch (FOB)	44.1	50.5	48.2	44.5	47.2	42.9	-6.4%

Notes: 1. Figures in italics are based on partial data.
 2. US native corn starch prices are ex-works, Illinois; US corn starch values, both native and modified, are export unit values (EUVs) to all countries. US potato starch values, for both food and non-food use, are import unit values (IUVs).
 3. EU starch values are IUVs derived from trade within the EU27.
 4. The value for cassava starch is f.o.b. Bangkok.

Sources: Eurostat, IGC, TTSA, USITC, LMC estimates.

**Table 5: Ethanol, oxygenate and gasoline prices in key markets
(US cents/litre unless otherwise specified)**

	2012 Average	2013 Apr-Jun	2013 Jul-Sep	2013 Oct-Dec	2013 Average	2014 Jan-Mar	% Change on Same Quarter Last Year
US							
Ethanol	67.9	68.1	63.6	58.0	64.1	69.1	3.7%
Ethanol (net of Federal tax rebate)	67.9	68.1	63.6	58.0	64.1	69.1	3.7%
Motor Gasoline	74.3	71.2	73.2	65.7	71.2	71.4	-4.5%
Blending Margin ²	6.4	3.1	9.6	7.7	7.2	2.4	-71.3%
EU							
Ethanol T1 ³	69.5	74.6	68.2	63.9	69.4	71.3	0.7%
Ethanol T2 ³	81.5	84.0	81.4	75.0	81.2	66.7	-20.9%
Gasoline ³	77.0	70.4	72.6	68.6	71.7	69.2	-7.8%
EU (€ cents/litre)							
Ethanol T1 ³	54.1	57.1	51.5	46.9	52.3	52.1	-2.9%
Ethanol T2 ³	63.6	64.4	61.4	55.0	61.1	47.9	-25.0%
Gasoline ³	59.8	53.9	54.8	50.4	54.0	50.4	-11.2%
Brazil							
Hydrous Ethanol ⁴	57.2	56.4	49.0	53.4	54.7	57.9	-3.4%
Anhydrous Ethanol ⁴	64.6	64.5	55.9	60.1	61.9	64.3	-4.0%
Gasoline A ⁵	63.5	66.6	59.5	60.9	63.2	60.7	-7.9%

Notes: 1. Figures in Italics are based on partial data.
2. Blending margin is the price of motor gasoline minus the price of ethanol net of the Federal tax rebate.
3. Ethanol and gasoline prices in the EU are basis Rotterdam.
4. Brazilian ethanol prices are ex-mill net of taxes.
5. Gasoline A is the producer price of gasoline (before blending with anhydrous ethanol) and is quoted for south east Brazil excluding taxes.

Sources: ANP Brazil, Cepea, EIA, ICIS, F.O. Lichts, OPIS, LMC estimates.

Table 6: Prices of selected fermentation products in major markets (US\$/kg)

		2012 Average	2013 Apr-Jun	2013 Jul-Sep	2013 Oct-Dec	2013 Average	2014 Jan-Mar	% Change on Same Quarter Last Year
US								
Acetic Acid	EUV	0.53	0.57	0.53	0.55	0.55	0.58	3.1%
Citric Acid	EUV	2.14	2.16	2.14	2.07	2.16	2.07	-8.7%
Lysine	EUV	2.17	1.62	1.59	1.63	1.61	1.42	-10.9%
EU								
Citric Acid	IUV intra-EU27	1.48	1.54	1.55	1.57	1.55	1.57	2.7%
Lactic Acid	IUV intra-EU27	2.24	2.42	2.48	2.42	2.45	2.42	-1.5%
Lysine	IUV intra-EU27	2.31	1.49	1.45	1.47	1.54	1.36	-22.7%
EU (€ cents/kg)								
Citric Acid	IUV intra-EU27	1.15	1.18	1.17	1.16	1.17	1.15	-0.9%
Lactic Acid	IUV intra-EU27	1.74	1.85	1.88	1.78	1.84	1.77	-4.9%
Lysine	IUV intra-EU27	1.79	1.14	1.10	1.08	1.16	0.99	-25.3%
China								
Acetic acid	Ex-works	0.82	0.85	0.85	0.85	0.85	0.85	1.9%
Citric acid	China EUV	0.97	0.98	0.90	0.86	0.92	0.86	-5.8%
Lactic acid	Ex-works	1.48	1.46	1.39	1.40	1.42	1.39	-3.7%
MSG	US IUV from China	1.42	1.25	1.30	1.29	1.28	1.23	-3.3%
Vitamin C	China EUV	3.63	3.48	3.61	3.83	3.55	4.19	27.2%
Lysine	EU IUV from China	1.98	1.91	1.64	1.37	1.70	1.03	-45.4%

Notes: 1. Figures in Italics are based on partial data.
2. EUV stands for export unit value; IUV stands for import unit value.

Sources: CCR, Eurostat, USITC, LMC estimates.

Diagram 6: Principal market values of starches

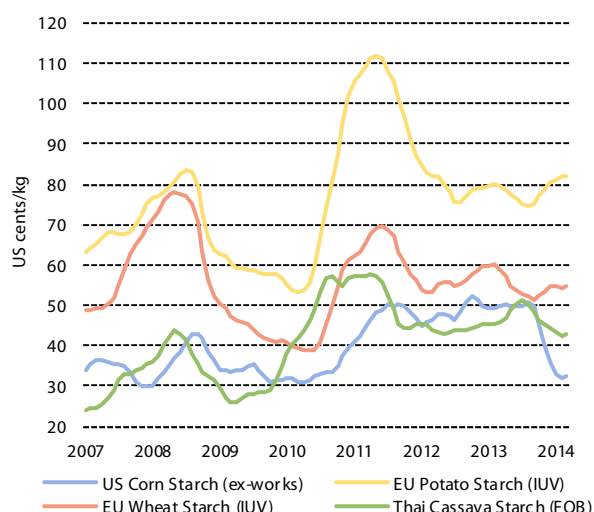


Diagram 7: Chinese prices of selected fermentation products

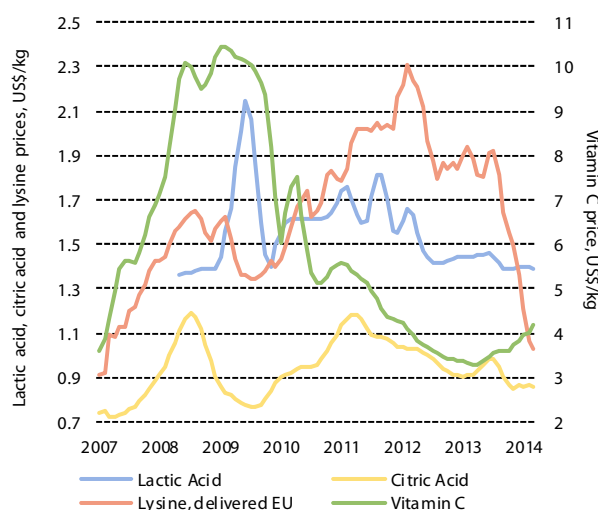


Table 7: Prices and output of sugar and selected starch-based sweeteners (US\$/tonne unless otherwise specified)

	Basis	2012 Average	2013 Apr-Jun	2013 Jul-Sep	2013 Oct-Dec	2013 Average	2014 Jan-Mar	% Change on Same Quarter Last Year
US								
HFCS Production	Dry basis, '000 tonnes	7,801	1,919	1,864	1,710	7,274	1,797	1.0%
Glucose/Dextrose Production	Dry basis, '000 tonnes	4,306	1,103	1,103	1,038	4,268	1,001	-2.3%
HFCS Price 55% Fructose	Midwest, delivered	615	670	670	629	659	555	-17.1%
HFCS Price 42% Fructose	Midwest, delivered	516	570	570	530	560	466	-18.4%
Glucose Syrup	Midwest, delivered	588	642	642	601	632	552	-14.0%
Beet Sugar Price	Ex-works, bulk	961	584	573	611	601	583	-8.4%
US - Canada - Mexico								
HFCS Price 55% Fructose	US IUV	421	427	429	430	429	402	-6.3%
HFCS Price 42% Fructose	US IUV	350	357	362	342	354	325	-7.9%
Crystalline Dextrose Price	US EUV	702	799	792	814	803	818	1.3%
Corn Syrup Price	US IUV	420	420	393	385	408	371	-14.9%
Mexican Refined Sugar Price	Wholesale price	903	721	667	657	704	651	-15.8%
EU								
Crystalline Dextrose	IUV intra-EU27	856	883	885	916	902	920	-0.5%
Glucose Syrups	IUV intra-EU27	633	760	771	815	778	817	6.4%
Glucose Blends	IUV intra-EU27	562	581	583	604	604	606	-6.4%
Isoglucose	IUV intra-EU27	716	846	859	845	851	851	-0.4%
Quota Sugar for Food Use	Ex-works, bulk	924	919	855	854	897	861	-10.3%
EU (€/tonne)								
Crystalline Dextrose	IUV intra-EU27	665	676	668	672	679	670	-4.2%
Glucose Syrups	IUV intra-EU27	492	582	582	598	586	595	2.5%
Glucose Blends	IUV intra-EU27	437	445	440	443	454	442	-9.8%
Isoglucose	IUV intra-EU27	557	648	648	620	641	620	-4.1%
Quota Sugar for Food Use	Ex-works, bulk	719	703	646	627	675	627	-13.6%
Japan								
HFCS Production 55% Fructose	'000 tonnes	819	255	243	172	846	181	2.8%
HFCS Production 42% Fructose	'000 tonnes	361	103	95	82	361	80	-1.0%
HFCS Price 55% Fructose	Wholesale price	1,747	1,475	1,470	1,431	1,488	1,381	-12.4%
HFCS Price 42% Fructose	Wholesale price	1,672	1,414	1,410	1,371	1,426	1,322	-12.5%
Refined Soft Sugar	Wholesale price	2,314	1,849	1,844	1,830	1,875	1,804	-8.8%

Notes: 1. Figures in Italics are based on partial data.
 2. Syrup production is estimated for the whole quarter; prices are based on monthly data available within the quarter.
 3. The basis of starch syrups is commercial unless specified otherwise.
 4. Starch-based sweetener values for US, Canada and Mexico are average unit values of US exports to Canada and Mexico.
 5. EUV stands for export unit values; IUV stands for import unit values.

Sources: ALIC, Eurostat, USDA, USITC, Milling & Baking News, LMC estimates.

Diagram 8: Monthly US net maize costs

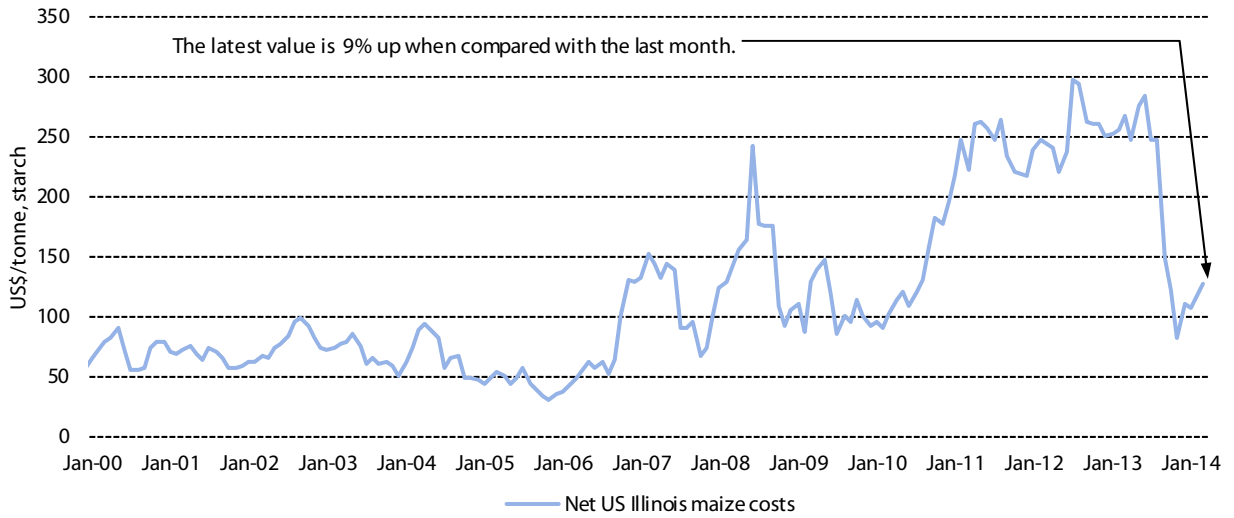


Diagram 9: Monthly EU net wheat costs

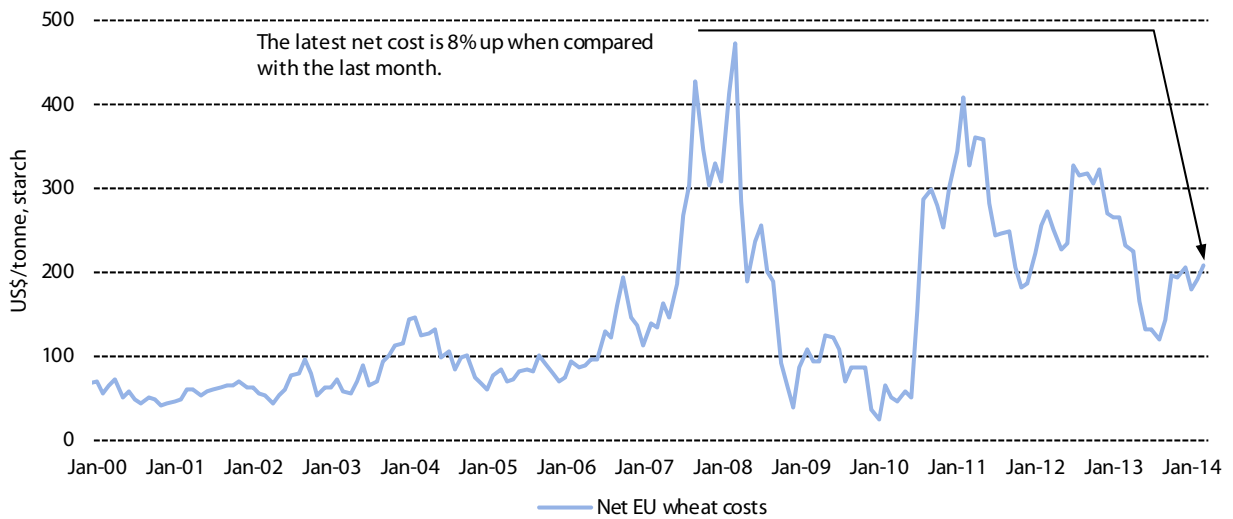


Diagram 10: Monthly white sugar prices (World and for EU chemical users)

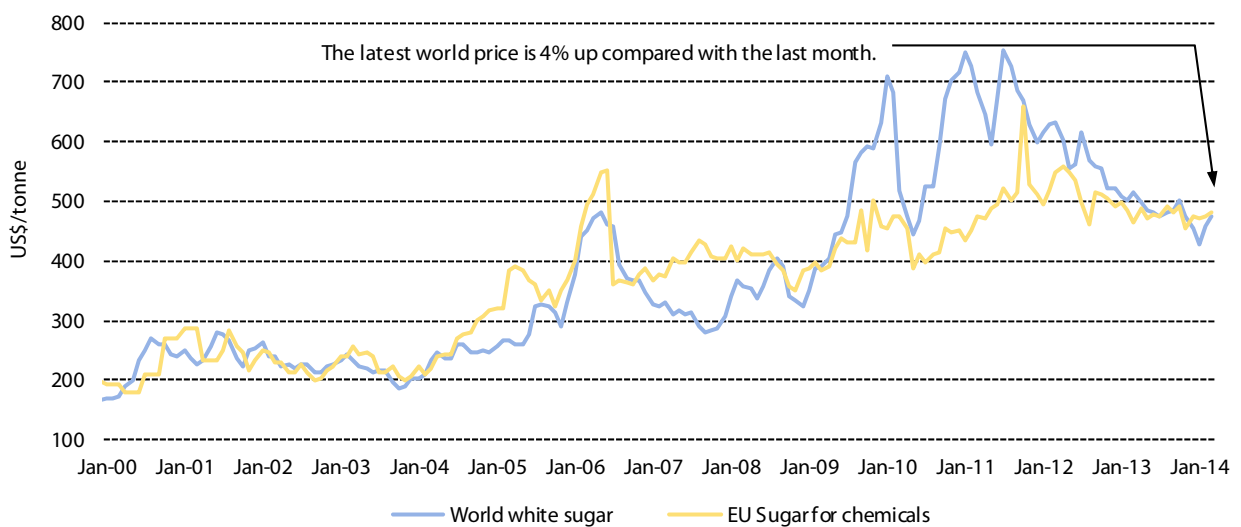


Diagram 11: Monthly US molasses prices

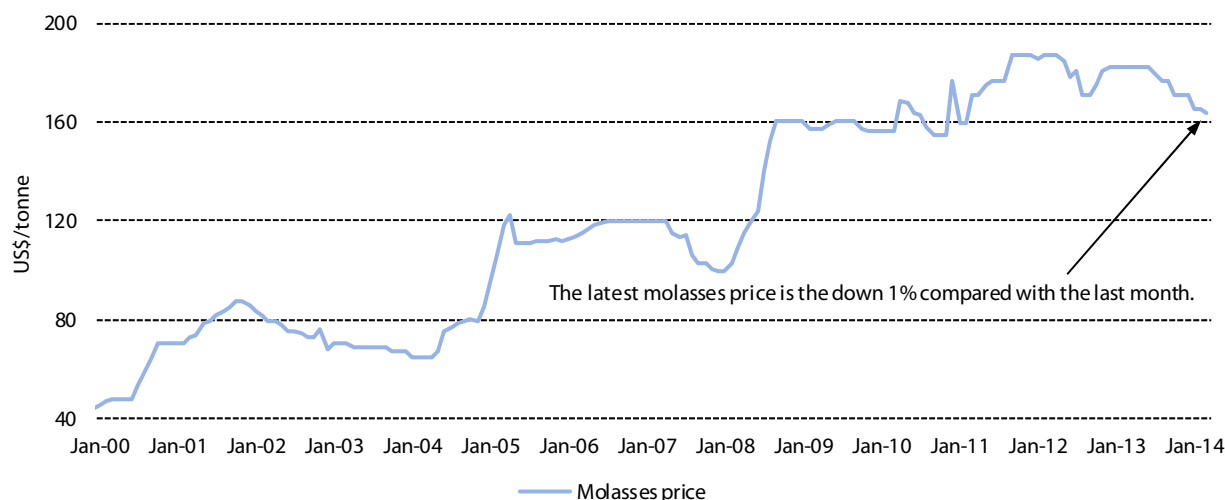


Diagram 12: Monthly Thai cassava prices

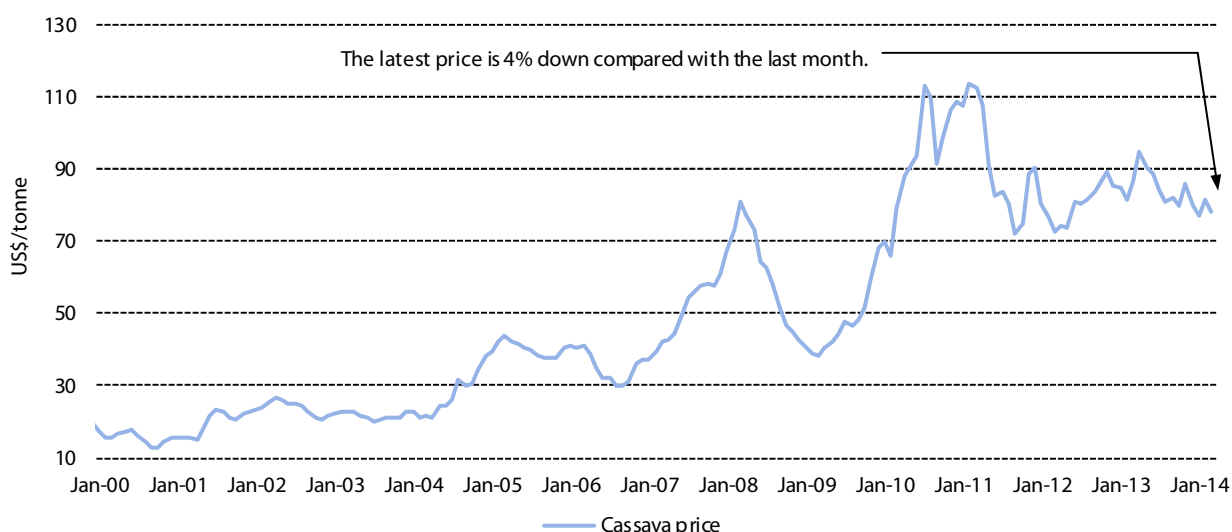


Table 8: Prices of selected polyhydric alcohols (US\$/kg)

	Basis	2012 Average	2013 Apr-Jun	2013 Jul-Sep	2013 Oct-Dec	2013 Average	2014 Jan-Mar	% Change on Same Quarter Last Year
US								
Mannitol	EUV	5.42	4.70	4.20	4.62	4.41	4.61	11.7%
Glycerol (refined)	Market price	0.84	0.99	0.95	0.94	0.95	0.97	4.1%
EU								
Sorbitol (powder)	IUV intra-EU27	1.58	1.62	1.69	1.75	1.67	1.76	7.6%
Sorbitol (liquid)	IUV intra-EU27	0.69	0.71	0.70	0.72	0.71	0.72	-0.8%
Mannitol	IUV intra-EU27	5.34	5.71	5.55	5.71	5.65	5.75	2.4%
Glycerol (refined)	Market price	0.79	0.78	0.84	0.78	0.83	0.60	-33.6%
EU (€/kg)								
Sorbitol (powder)	IUV intra-EU27	1.22	1.24	1.27	1.28	1.26	1.28	3.6%
Sorbitol (liquid)	IUV intra-EU27	0.54	0.54	0.53	0.53	0.54	0.53	-4.4%
Mannitol	IUV intra-EU27	4.15	4.38	4.19	4.19	4.25	4.19	-1.4%
Glycerol (refined)	Market price	0.61	0.59	0.64	0.58	0.62	0.44	-35.4%
China								
Glycerol (pharma)	Ex-works	0.95	1.03	1.10	1.10	1.05	1.09	12.1%
Glycerol (industrial)	Ex-works	0.81	0.83	0.83	0.84	0.83	0.84	1.9%

Notes: 1. Figures in Italics are based on partial data.
2. EUV stands for export unit value; IUV stands for import unit values.
Sources: CCR, Eurostat, Oleoline, USITC, LMC estimates.

Developments in raw material markets

- The USDA's March Prospective Plantings estimate of the 2014/15 US corn area, as indicated by intended plantings, came in below expectations at 91.7 million acres (37.1 million hectares), as the competing US soybean area reached a record high. If realised, this would be a 4% decline on 2013/14 but would still be the 5th largest corn area since 1944. This was combined with tighter corn stock estimates compared to trade estimates, implying increased corn feeding. However, the figure represents a 30% increase on March 2013. With both reports coming in with estimates below trade expectations, weather and crop developments will remain the main focus in coming months.
- US corn prices increased sharply to over US\$197 per tonne (US\$5 per bushel), which are over US\$30 per tonne higher than at the start of the year.
- The USDA also noted record global wheat trade, amid strong import demand from the Middle East and North Africa (MENA), driven by Europe's wheat exports racing nearly 40% ahead of last year's pace. Meanwhile, ample corn supplies in Europe have freed up EU wheat from feed use for export. End-season estimates of exports from Russia and Ukraine were also raised, suggesting there has yet to be a discernible impact on grain trade from the political situation.
- Official reports from China reported that a total of 909,000 tonnes of US corn, found with the MIR 162 GMO strain, has been rejected since November. China is reported to hold over 90 million tonnes of corn in state-held stocks and has continued to seek quotes from cheaper origins, namely Ukraine and Thailand. Ukrainian exports to China surged in February to 0.19 million tonnes.
- Since end-February, raw sugar prices have surged upwards amid concerns over the size of the 2014/15 Centre/South Brazilian cane crop due to dry weather. The ICE No.11 May futures contract traded at a level of around 17-18 cents/lb over March. Despite the reduced crop prospects in Brazil, forecasts of weaker global import demand in 2014, coupled with an increase in Thailand's exportable surplus and the possibility of greater Indian exports (where export subsidies have been implemented recently), means that there is still a plentiful global supply of sugar available. This should help at least limit the upside momentum of prices in the near term.
- Cassava root supplies, from key producing regions in Thailand, continued to fall short of processing needs, resulting in higher root prices being offered to draw roots away from cassava chips production into starch production.

LMC International

Oxford
4th Floor, Clarendon House
52 Cornmarket Street
Oxford, OX1 3HJ
UK

T +44 1865 791737
F +44 1865 791739
information@lmc.co.uk

New York
1841 Broadway
New York, NY 10023
USA

T +1 (212) 586-2427
F +1 (212) 397-4756
info@lmc-ny.com

Kuala Lumpur
B-03-19, Empire Soho
Empire Subang
Jalan SS16/1, SS16
47500 Subang Jaya
Selangor Darul Ehsan
Malaysia

T +603 5611 9337
analysis@lmc-kl.com

Singapore
Raffles Business Suites
16 Collyer Quay #21-00
Singapore 049318

T +65 6818 9231
info@lmc-sg.com

www.lmc.co.uk

Editors: Sara Girardello, Marsha Ribeiro, Jenny Elrington,
Martin Todd, Simon Bentley.

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In the text, the following abbreviations are used:

ton or mt = metric ton = tonne	bu = bushel
bn = billion	ha = hectare
mn = million	kg = kilogram
lt = litre	CGF = Corn gluten feed
HFCS = High Fructose Corn Syrup	CGM = Corn gluten meal
When we mention \$, this refers to \$US.	Corn (US) = Maize (EU)