

## Equities

22 August 2011 | 52 pages

# Kernel Holding SA (KERN.WA)

## Operationally defensive in uncertain times: initiate with Buy

- Company Update
- Initiation of Coverage

- **Kernel is one of Ukraine's largest vertically-integrated agricultural holdings** — In Ukraine, Kernel is the leading sunflower seed crusher and exporter of sunflower oil, the leading domestic producer of bottled sunflower oil, and one of the country's largest grain traders. Kernel operates Ukraine's largest private grain silo network, a grain export terminal, an oil export terminal, and farms a land bank of ~180K hectares.
- **Operationally defensive model for uncertain times...** — Kernel's core businesses should be operationally defensive in uncertain economic times. Seed crushing is a spread business between the cost of seeds and the price of outputs (oil, cake, meal), which, until utilisation ratios fall, should allow Kernel to maintain its dollar margins regardless of the price direction of underlying commodities. Grain trading is a volume business, which should be supported by the favourable outlook for Ukraine's harvest.
- **...and while organic growth appears limited, M&A could offer further upside** — Beyond the uptick in harvest levels and integration of new greenfield/M&A projects, we see limited organic growth opportunities. However, Kernel's M&A strategy has historically added shareholder value. The company is openly pursuing additional transactions across business segments and should be able to fund them with an average of ~\$250mln in annual FCF from FY12-16E.
- **Initiate with Buy/Medium Risk rating: 77PLN TP** — We note that Kernel offers: the highest liquidity amongst CIS agro stocks (ADV of >\$4mln); a high degree of vertical integration; leading positions in all of its major business segments; direct leverage to an expected increase in Ukraine's grain exports; strong cash flow generation; an experienced management team; and a strong M&A track record.
- **Investment risks** — The key downside risks we see for Kernel are 1) potential oversupply of crushing capacity which could decrease crushing margins 2) volatility of soft commodity prices 3) volatility of Ukrainian harvest and 4) unpredictable government regulation.

<b>Buy/Medium Risk</b>	<b>1M</b>
Price (19 Aug 11)	ZL60.35
Target price	ZL77.00
Expected share price return	27.6%
Expected dividend yield	0.0%
<b>Expected total return</b>	<b>27.6%</b>
Market Cap	ZL4,809M
	US\$1,647M

### Price Performance (RIC: KERN.WA, BB: KER PW)



### Kernel Holding SA (USD)

Year to 30 Jun	2009A	2010A	2011E	2012E	2013E
Sales (\$M)	1,047.1	1,020.5	1,777.0	2,129.2	2,346.4
Net Income (\$M)	135.5	152.0	209.7	224.8	231.2
Diluted EPS (\$)	1.97	2.06	2.78	2.83	2.90
Diluted EPS (Old) (\$)	1.97	2.06	2.78	2.83	2.90
PE (x)	10.5	10.0	7.4	7.3	7.1
EV/EBITDA (x)	9.5	9.7	6.6	5.6	5.2
DPS (\$)	0.00	0.00	0.00	0.00	0.72
Net Div Yield (%)	0.0	0.0	0.0	0.0	3.5

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See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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Fiscal year end 30-Jun	2009	2010	2011E	2012E	2013E
<b>Valuation Ratios</b>					
P/E adjusted (x)	10.5	10.0	7.4	7.3	7.1
EV/EBITDA adjusted (x)	9.5	9.7	6.6	5.6	5.2
P/BV (x)	4.0	2.5	1.7	1.4	1.2
Dividend yield (%)	0.0	0.0	0.0	0.0	3.5
<b>Per Share Data (US\$)</b>					
EPS adjusted	1.97	2.06	2.78	2.83	2.90
EPS reported	1.97	2.06	2.78	2.83	2.90
BVPS	5.18	8.22	12.05	14.82	16.91
DPS	0.00	0.00	0.00	0.00	0.72
<b>Profit &amp; Loss (US\$M)</b>					
Net sales	1,047	1,020	1,777	2,129	2,346
Operating expenses	-880	-853	-1,507	-1,812	-2,032
<b>EBIT</b>	<b>167</b>	<b>167</b>	<b>270</b>	<b>318</b>	<b>314</b>
Net interest expense	-32	-23	-49	-33	-21
Non-operating/exceptionals	-8	7	-24	-8	-9
<b>Pre-tax profit</b>	<b>127</b>	<b>152</b>	<b>198</b>	<b>276</b>	<b>284</b>
Tax	5	0	12	-28	-28
Extraord./Min.Int./Pref.div.	4	0	0	-24	-24
<b>Reported net income</b>	<b>136</b>	<b>152</b>	<b>210</b>	<b>225</b>	<b>231</b>
Adjusted earnings	136	152	210	225	231
Adjusted EBITDA	190	190	302	365	365
<b>Growth Rates (%)</b>					
Sales	57.9	-2.5	74.1	19.8	10.2
EBIT adjusted	49.4	0.5	61.3	17.6	-1.1
EBITDA adjusted	54.2	0.0	59.1	20.6	0.2
EPS adjusted	62.9	4.3	35.4	1.6	2.4
<b>Cash Flow (US\$M)</b>					
<b>Operating cash flow</b>	<b>129</b>	<b>85</b>	<b>-91</b>	<b>203</b>	<b>252</b>
Depreciation/amortization	23	23	32	47	51
Net working capital	46	-181	-314	-92	-55
<b>Investing cash flow</b>	<b>-95</b>	<b>-126</b>	<b>-191</b>	<b>-47</b>	<b>-51</b>
Capital expenditure	-93	-57	-78	-47	-51
Acquisitions/disposals	-5	-70	-80	0	0
<b>Financing cash flow</b>	<b>36</b>	<b>4</b>	<b>344</b>	<b>-172</b>	<b>-190</b>
Borrowings	39	51	203	-172	-132
Dividends paid	0	0	0	0	-58
<b>Change in cash</b>	<b>39</b>	<b>-40</b>	<b>62</b>	<b>-15</b>	<b>11</b>
<b>Balance Sheet (US\$M)</b>					
<b>Total assets</b>	<b>700</b>	<b>1,125</b>	<b>1,621</b>	<b>1,707</b>	<b>1,779</b>
Cash & cash equivalent	129	59	122	106	117
Accounts receivable	32	65	116	123	123
Net fixed assets	222	379	505	505	505
<b>Total liabilities</b>	<b>342</b>	<b>520</b>	<b>619</b>	<b>456</b>	<b>331</b>
Accounts payable	8	11	20	23	26
Total Debt	295	345	548	377	245
<b>Shareholders' funds</b>	<b>357</b>	<b>605</b>	<b>1,002</b>	<b>1,251</b>	<b>1,448</b>
<b>Profitability/Solvency Ratios (%)</b>					
EBITDA margin adjusted	18.2	18.6	17.0	17.1	15.6
ROE adjusted	36.0	31.7	27.0	21.1	18.3
ROIC adjusted	30.8	23.7	24.4	19.9	18.6
Net debt to equity	46.2	47.2	42.6	21.6	8.8
Total debt to capital	45.2	36.3	35.4	23.1	14.5

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# INVESTMENT SUMMARY

## Key investment positives

We initiate on Kernel with a Buy/Medium Risk (1M) rating and a target price of 77PLN/share. In our view, the key investment positives for Kernel are the following:

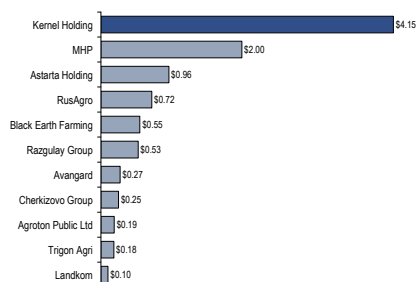
Figure 1. Kernel positioning by segment

Segment	Position
Sunflower seed crushing	#1
Bulk sunflower oil export	#1
Bottle sunflower oil	#1
Grain trading	#3
Grain/oil export capacity (%)	20%/22%
Private silo network	#1
Sugar beet processing capacity	#2

Source: Company data

- **Leading positions in all core segments:** In Ukraine, Kernel is the leading sunflower seed crusher and exporter of sunflower oil, the leading domestic producer of bottled sunflower oil, and one of the country's largest grain traders. With the Ukrro acquisition (assuming it is approved by the Anti-Monopoly Committee) the company controls the second-largest sugar beet processing capacity in Ukraine.
- **Control of core infrastructure assets:** Kernel operates Ukraine's largest private grain silo network, a grain export terminal, an oil export terminal, and farms a land bank of ~180K hectares.
- **Direct leverage to upside potential for Ukrainian grain production:** Grain trading and related services generate almost half of Kernel's sales and operating profit. As the current outlook for Ukraine's total grain harvest in MY2011/12 assumes a 20% increase y-o-y in MY2011/12 and implies a 50% increase in grain export, this should be supportive for Kernel's near term sales growth.
- **High degree of vertical integration:** Kernel has a high degree of vertical integration from grain/seed production, storage, transport, processing and export terminals.
- **Experienced, stable management team:** We believe Kernel has a quality, experienced management team, the core members of which have been with the company since before the 2007 IPO.
- **Highest liquidity of all CIS agro stocks:** Kernel is currently trading >\$4m per day, which is more than 2x that of MHP (one of its Ukrainian peers) and more than 4x that of any other CIS agro stock.
- **Attractive valuations:** Kernel trades at 5.6x 2012E and 5.2x 2013E EV/EBITDA which, on our estimates, represents 27% and 21% discounts to global edible oil producers (the segment from which Kernel generates over 50% of its sales and operating profit).

Figure 2. CIS agro stocks ADV, \$m



Source: CIRA, Datastream, RTS.

Our target price for Kernel is  
77PLN/share based on equal weighting  
of...

...our DCF value of 76PLN/share...

## Valuation

Our target price for Kernel is 77PLN/share. To set our target price we use an equally-weighted DCF and multiples-based approach, as we believe a combination of valuation approaches captures both long-term cash flow generation as well as near-term valuation vs. peers.

In our DCF valuation for Kernel we use a WACC of 11.9% and a terminal growth rate of 1%. We use the APT method to calculate our WACC. Our cost of equity is 13.5% based on: 5.5% risk free; 6% market risk premium; 100bpt operational risk premium related to the risk that crushing margins contract faster than forecast due to falling market utilisation capacity on increased capacity; and a 100bpt adjustment for regulatory risk linked to the unpredictability of Ukrainian government policies across Kernel's business segments. We use a 9.0% cost of debt (effective cost of debt), a 30/70 debt/equity split and a long-term tax rate of 10%. Our DCF valuation for Kernel returns a target price of 76PLN/share.

Figure 3. Kernel DCF valuation

	2011E	2012E	2013E	2014E	2015E	2016E
EBIT, \$ mln	\$270	\$318	\$314	\$323	\$332	\$344
Taxes, \$ mln	12	(28)	(28)	(30)	(31)	(32)
Depreciation, \$ mln	32	47	51	52	53	53
Capex, \$ mln	(78)	(47)	(51)	(52)	(53)	(53)
Working capital change, \$ mln	(314)	(92)	(55)	(35)	(26)	(35)
Unleveraged FCF, \$ mln	(78)	198	231	258	275	276
Discount factor		1.12	1.25	1.40	1.57	1.75
PV of forecast		177	185	184	175	158
WACC		11.9%				
Perpetual growth		1.0%				
Discounted CF, \$ mln		\$879				
Terminal value		2,566				
PV of Terminal Value, \$ mln		1,464				
Net debt, \$mln		426				
Minority interest		49				
EV, \$ mln		2,343				
Fair Equity value, \$ mln		1,867				
Number of shares, mln		79.47				
Fair value, \$		23.5				
PLN/USD		2.9				
<b>12-month target price, PLN</b>		<b>76</b>				

Source: Citi Investment Research and Analysis

...and our multiples-based valuation of  
78PLN/share

For our multiples-based valuation we apply historical forward median EV/EBITDA multiples for global edible oils producers (8x) and grain traders of (4.5x) weighted by the split of Kernel's EBITDA in these two main business segments. Applied to our FY13E forecasts, this returns a valuation of 78PLN/GDR.

Figure 4. Kernel multiples-based valuation

Multiple by peer group	Target multiple of peer group	Kernel FY13E EBITDA by segment, USDmln	Target EV, USDmln
Edible oil producers	8.0	205	1,641
Grain trading and services	4.5	160	721
Total EV FY13E, \$mln			2,362
Net debt FY13E, \$mln			\$127
Minority interest FY13E, \$mln			\$97
Equity value, \$mln			2,137
<b>Price/share, PLN</b>			<b>78</b>

Source: Citi Investment Research and Analysis

## Where should Kernel trade vs. peers?

Finding a true “peer” to Kernel is not self-evident

We have compared Kernel to two sets of global peers which we have grouped into “edible oil producers” and “grain trading and services.” Finding a pure peer for Kernel is not self-evident, as we see few companies that have a largely-similar revenue/profit mix to Kernel and most edible oil producers are focused on other oil types that may have significantly different cost and margin drivers vs. that of sunflower oil.

Kernel trades at average EV/EBITDA and P/E discounts of 24% and 34%, respectively, to edible oil peers for FY12-13E

When compared to global edible oil producers, Kernel trades at average EV/EBITDA and P/E discounts of 24% and 34%, respectively, for FY12-13E. However, for FY12E, the shares trade at slight premiums to global grain traders and Ukrainian agricultural producers under coverage.

Figure 5. Kernel comparable valuations

Company Name	Country	Primary RIC	Primary BB	Citi Rating	Share Currency	Share Price	Mkt Cap Min US\$	EV/EBITDA			P/E			EV/S			EBITDA % FY11	CAGR 2011-13		
								2011E	2012E	2013E	2011E	2012E	2013E	2011E	2012E	2013E		Sales	EBITDA	EPS
<b>KERNEL HOLDING</b>	Ukraine	KERN.WA	KER PW	1M	PLN	60.4	1,647	6.6	5.6	5.2	7.4	7.3	7.1	1.2	1.0	0.8	17.0%	15%	10%	2%
<b>Edible oil producers</b>																				
Astra Agro Lesta	Indonesia	AALI.JK	AALI IJ	1L	IDR	21,600	3,985	8.4	7.6	6.6	12.3	11.6	10.5	1.9	1.7	1.8	20.4%	7%	9%	8%
Sampoerna Agro	Indonesia	SGRO.JK	SGRO IJ	--	IDR	3,425	758	7.3	7.0	6.5	11.7	11.3	10.4	3.0	2.9	2.9	41.6%	1%	5%	6%
BW Plantation	Indonesia	BWPT.JK	BWPT IJ	--	IDR	1,180	558	7.1	6.8	6.0	11.4	11.2	10.5	2.2	2.1	2.0	30.8%	3%	7%	4%
Wilmar	Singapore	WLIL.SI	WIL SP	1L	SGD	5.0	26,456	9.9	8.2	6.6	14.9	12.2	10.5	6.0	4.9	3.6	59.9%	24%	19%	14%
Golden Agri	Singapore	GAGR.SI	GGR SP	1M	SGD	0.6	6,334	12.3	10.8	10.0	13.7	12.1	11.2	1.0	0.9	0.8	7.8%	9%	10%	11%
First Resources	Singapore	FRLD.SI	FR SP	1L	SGD	1.2	1,502	6.7	6.5	6.4	8.5	8.5	8.9	1.3	1.4	1.3	19.9%	-2%	-1%	-2%
Kencana Agri	Singapore	KCAL.SI	KAGR SP	--	SGD	0.4	330	5.7	5.4	5.5	8.8	8.5	9.2	3.3	3.0	2.8	57.5%	7%	1%	-2%
IOI	Malaysia	IOIB.KL	IOI MK	3L	MYR	4.5	9,702	11.4	9.9	8.5	16.3	14.8	10.6	2.0	1.8	2.1	17.4%	1%	20%	26%
KL Kepong	Malaysia	KLKK.KL	KLK MK	1L	MYR	21.4	7,674	8.4	8.0	7.7	13.2	13.1	13.2	1.8	1.6	1.6	21.0%	3%	2%	0%
Genting plant	Malaysia	GENP.KL	GENP MK	1L	MYR	7.2	1,832	10.2	9.9	9.8	15.5	15.7	15.7	2.4	2.2	2.1	23.7%	8%	2%	-1%
China Agr Ind	Hong Kong	0606.HK	606 HK	1L	HKD	6.6	3,425	8.0	7.3	5.9	12.9	11.9	10.0	4.3	3.7	3.1	53.0%	12%	12%	14%
Thai Veeo Oil	Thailand	TVO.RK	TVO TR	--	THB	24.0	622	9.9	13.3	10.9	8.5	11.2	9.8	0.7	0.6	0.5	6.9%	14%	-8%	-7%
								8.4	7.1	6.5	10.5	9.0	8.2	0.8	0.7	0.7	9.8%	9%	10%	12%
<b>Grain trading and services</b>																				
Archer Daniels	United States	ADM.N	ADM US	1H	USD	27.7	17,644	4.8	4.7	5.1	9.3	9.0	9.4	0.2	0.2	0.3	4.5%	-4%	5%	7%
Bunge Limited	United States	BG.N	BG US	2S	USD	60.5	8,917	4.7	4.7	4.0	9.3	8.9	8.3	0.2	0.2	0.2	4.5%	-7%	6%	6%
Andersons	United States	ANDE.OQ	ANDE US	--	USD	38.4	714	7.8	6.5	5.7	10.1	9.5	8.6	0.2	0.2	0.2	2.9%	-3%	13%	8%
Viterra	Canada	VT.TO	VT CN	--	CAD	10.0	3,757	3.8	4.1	-	8.5	9.0	-	0.2	0.2	-	4.2%	NM	NM	NM
GrainCorp	Australia	GNC.AX	GNC AU	1H	AUD	7.1	1,456	6.7	6.2	5.5	12.8	12.2	11.8	0.4	0.4	0.4	6.6%	1%	4%	7%
<b>Ukrainian peers</b>																				
MHPC	Ukraine	MHPCq.L	MHPC LI	1M	USD	12.8	1,369	4.8	5.0	4.3	5.6	5.7	5.1	1.7	1.6	1.4	35.2%	9%	6%	4%
Avangard	Ukraine	AVGRq.L	AVGR LI	1M	USD	12.5	798	5.8	6.2	5.6	6.9	7.2	6.3	1.9	1.9	1.7	31.8%	9%	6%	5%
								4.0	3.8	3.0	4.3	4.3	4.0	1.5	1.3	1.0	38.6%	10%	5%	4%

Source: Citi Investment Research and Analysis. IBES, FirstCall. Prices as of 19 August 2011.

Edible oil peers are mostly 1) from emerging markets and 2) primarily produce other types of oils...

In our peer group of edible oil producers, we would note, first, that they are from primarily emerging markets and second that they produce primarily palm oil (Malaysia and Indonesia), so they may not be true comparables.

...while grain trading/services peers are 1) primarily from developed markets and 2) derive a significant portion of revenues from activities other than grain trading

In our peer group of global grain traders, we would note, first, that the companies are primarily from developed markets (US, Canada, Australia) and second that few derive their revenues from grain trading alone (both Archer Daniels Midland and Bunge, for instance, also have significant oil crushing businesses as well as other revenue streams).

For information we also provide comparison of Kernel with Ukrainian agricultural producers under our coverage, where Kernel trades at slight premiums. However, given the fact that Kernel's export-oriented business is materially-different to the primarily domestic businesses of MHP and Avangard, we believe this comparison is less informative, similar to our belief that subsectors of Russian stocks under coverage are less relevant when compared to each other (vodka vs. food retail, food retailers vs. consumer electronics, etc.).

### Arguments for a premium:

- **Barriers to entry:** We believe that currently there are significant barriers to entry for both of Kernel's core sunflower oil and grain trading segments. In the sunflower oil segment, the key barriers to entry are significant capex requirements to build additional crushing capacity and the accompanying silo network that secures access both to seed and to trade financing (available to only a handful of local and global crushers) to fund seed acquisition. In the grain trading segment, we believe the key barriers to entry are the access to a reliable procurement network as well as potential government impediments for international traders.
- **Potential for sustainable margin advantage over global peers:** Currently, we believe crushing margins in Ukraine are higher than those attainable by global peers due to a number of factors including 1) high crushing capacity utilisation for the market 2) VAT retention for seed crushing and 3) export barriers on raw seeds such as export duties and limited export infrastructure. While the drivers of superior margins are likely to fall away in the long run, in the medium term we would not expect a dramatic shift in margins.
- **Superior vertical integration:** We agree with management that the company's growing vertical integration (farming, storage, crushing, export terminals, etc.) does provide the company a significant competitive advantage which, we believe, should be reflected in the company's financial multiples.

### Arguments for a discount:

- **Over-reliance on Ukrainian harvest:** As compared to global grain traders, one could argue for a discount to global peers (Bunge, ADM) due to the fact that, since Kernel is focused on a single market (Ukraine), its origination volumes are likely to be more volatile. For example, if the Ukrainian harvest is weak, Bunge/Cargill can focus on origination in other markets to serve the same customers while Kernel will have to wait for the next season.
- **Unpredictability of government intervention:** Agriculture remains an important sector of the Ukrainian economy and we believe that it does have the potential to contribute to long-term GDP growth. However, sales and profits in Kernel's core sunflower oil and grain trading business can be materially influenced by government policies on both a short- and long-term basis, which we believe provides greater uncertainty in the outlook of Ukrainian companies than that of global peers.
- **Near-term organic growth outlook appears limited...:** We believe that Kernel's organic expansion opportunities are limited – particularly in the sunflower oil business. The fact that Kernel already holds the #1 market position in Ukraine for both bulk oil production/export and sale of bottled oil implies a certain limitation in organic growth opportunities for the company.
- **...and M&A likely to be directed to new markets and/or secondary segments:** Kernel estimates its share of total Ukrainian crushing capacity at 36%. As a result, we believe further growth in this segment (the largest current contributor to both sales and operating profit) will likely be limited by the Ukrainian State Anti-Monopoly Committee, which may force the company to look outside of Ukraine for further development in this segment. In the company's 30 March 2011 presentation on the Ukrros acquisition, the company mentioned the possibility of acquiring crushing capacity in Russia, and on 15 August 2011 the company announced just such a deal, acquiring Russian Oils for \$60mln. While

the deal appears accretive (the company expects \$20mln in EBITDA contribution in the first year, implying an EV/EBITDA of only 3x), it is unlikely that Kernel will fully benefit from the same level of vertical integration the company enjoys in its Ukrainian operations. In the same March presentation, the company also states its intention to increase its land bank to expand the farming division; while this business could generate higher margins than the current group average margins, farming margins are notoriously volatile and may not be attractive to current Kernel shareholders who can gain direct exposure to the segment by investing in pure-play farming companies.



## Risks: crushing capacity, commodity cycle and government

We rate Kernel Medium Risk. While a commodity-related stock in an uncertain pricing environment may generally be considered “High” risk, as we explain below (see “Why Kernel’s business model is operationally-defensive”), while Kernel’s sales may be linked to the price of underlying commodities (either sunflower oil or the price of exported grain), the operating income generated from these business is much less so. We believe the following risks could prevent the shares from reaching our target price:

We are concerned that capacity expansion projects across Ukraine will pressure crushing margins

■ **Potential over-capacity in crushing:** Sunflower seed crushing is a profitable business in Ukraine, in part due to government export tariffs on sunflower seed. As a result, there has been a significant amount of new organic crushing capacity brought online in recent years and we believe that other crushers (such as ViOil, which recently canceled its Warsaw listing) intend to further invest in new crushing capacity. As we believe dollar margins in the seed crushing industry to be more determined by crushing capacity utilisation (i.e. competition amongst crushers for sunflower seed), a significant increase in seed crushing capacity (and resulting decline in capacity utilisation) could have a material impact on Kernel’s crushing margins.

■ **Soft commodity price cycle leads to margin volatility:** While Kernel’s oil business operates under a balanced book approach, reducing price risk per contract, FIFO inventory accounting could lead to temporary margin distortions on an IFRS basis.

Government intervention is intensifying and remains unpredictable

■ **Government intervention:** The Ukrainian government actively participates in the agricultural sector and constantly considers and enacts proposals that may have an unpredictable effect on Kernel’s earnings.

– **Export limitations:** In order to limit domestic food inflation, last year the Ukrainian government enacted a system of export quotas for grain. As a result, Kernel’s grain segment had a significant decline in export volumes y-o-y.

– **Export duties:** Once export quotas were lifted, the Ukrainian government enacted a system of export duties on grain. The current export duties are in place from 1 July 2011 until 1 January 2012 and currently there is no indication whether such duties will be extended further. We assume that grain traders will be able to pass on a significant portion of these cost increases to producers, though this may not be the case. Recent export data from Ukraine seems to indicate that, despite a strong harvest, exported volumes for July 2011 were actually down y-o-y, implying that farmers may be showing some resistance to selling at prices demanded by grain traders.

– **State’s role in grain trading is likely bad news for traders:** We understand that there are a number of proposed laws before the Ukrainian parliament that call for a greater role of the state in grain trading and export. Should any such proposals be adopted, this would be negative for Kernel, which generated 22% of FY10 operating profit directly from grain trading and an additional 19% from related businesses such as transshipment and silo services.

■ **Increasing competition:** As concerns the grain business, Ukrainian government officials have a bullish outlook for Ukraine’s potential to significantly increase both the harvest and export of grain. While Kernel should benefit from this trend, we

Grain trading is a volume business. While we expect a strong harvest in MY2011/12, history has shown that Ukrainian grain production is very volatile

Kernel is an acquisitive company. So far deals appear to have added shareholder value. However, there is no guarantee this will remain the case.

would also expect it to attract increasing competition, both from international and domestic players. We also believe competition will continue to intensify in Kernel's other business segments (crushing, bottled oil, silos, etc.) as long as margins remain high.

- **Harvest volatility:** Over the last ten years, the Ukrainian grain harvest has been volatile: from a low of 20.2mln tons of grain produced in the 2003/04 (when severe winter weather and persistent ice destroyed nearly two-thirds of the planted area) grain production reached a 20-year high of 53.3mln tons in 2008/09 (due to exceptionally favourable weather conditions and an increase in harvested area). While the harvest for MY2011/12 is expected to be strong, there is no way to accurately predict harvest levels for future periods.
- **Ukrainian macro:** Kernel is primarily an export rather than a domestic business. In FY10, 81% of the company's revenues were derived from exports. The company is not, however, completely insulated from Ukrainian macroeconomic trends. In the bottled oil segment, which generated 12% of FY10 operating profit, Kernel had a 35% market share. During the financial crisis, when consumer buying power was reduced, overall consumption of vegetable oils declined and consumers traded down to cheaper brands and/or unrefined oil. In addition, the bulk of Kernel's export revenues are directly correlated to the level of the Ukrainian harvest which is indirectly dependent upon functioning credit markets which allow farmers to fund the required working capital to deliver on their harvest targets.
- **Biofuel demand:** A decrease in the demand for biofuels could reduce demand for corn and rapeseed and therefore reduce the demand and prices for other edible oils including sunflower oil.
- **Empire building:** From its early history, Kernel was built primarily through a long list of acquisitions. Since the IPO in 2007, acquisitions have been funded at least in part by a series of additional share offerings. In a recent company presentation from 30 March 2011 announcing the Ukross transaction, the company announced a further pipeline across several business segments and spanning other geographies. At the time the deals are announced, information on the acquisition targets is often limited, and it is difficult to measure the performance of these acquisitions post-deal as they are integrated into existing business segments. There are no guarantees that 1) future acquisitions (likely to be funded at least partially in equity) will be accretive to shareholders or that 2) the company returns to shareholders what we forecast to be considerable free cash flows in future periods.

## Why Kernel's business model is "operationally defensive"

**We believe that, from an operational standpoint, Kernel's business is more defensive than the typical agricultural stock**

While focusing on the fundamental valuation of Kernel, in a period of volatile prices for both equities and commodities, we also try to remain cognisant of the potential drivers of short-term stock performance. In our view, in its core businesses, Kernel's business model exhibits certain defensive characteristics from an operational point of view that may not be self-evident at first glance.

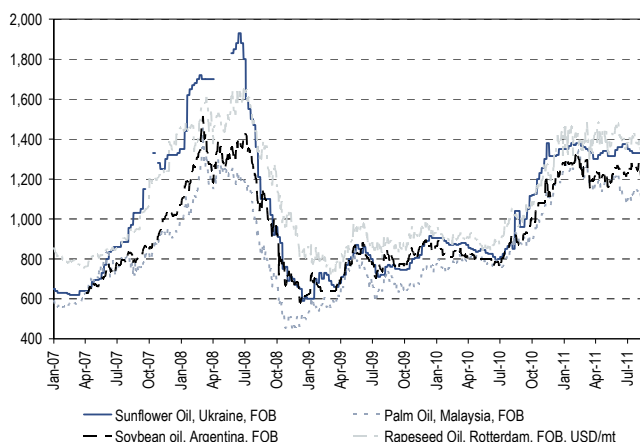
While Kernel reports under six distinct operating segments (soon to be seven with the addition of sugar), Kernel can be simplified into two businesses, each of which contributes roughly 50% of sales and operating profit: sunflower oil (comprised of the segments "bottled sunflower oil" and "bulk oil") and a vertically-integrated grain trading business (consisting of farming, grain trading, silo services, and grain handling and transshipment). In a period of unusual economic uncertainty, we consider both of the core businesses to be defensive in nature.

### Sunflower oil is a spread business

**Edible oil prices are high vs. historical levels: while Kernel's sales would be sensitive to a downward correction in oil prices, we believe operating profit would be less so**

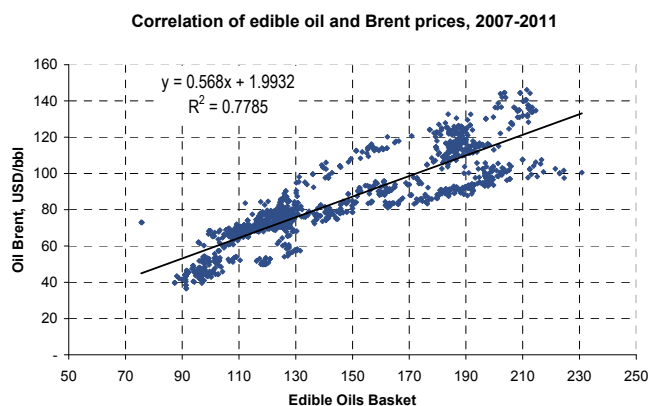
Edible oil prices have bounced back from 2009 lows and, though still below the highs of mid-2008, they are well above long-term averages (average sunflower oil export price for Ukraine FOB from 2002-2005 was ~\$500/ton according to APK-Inform vs. a YTD average of ~\$1,350/ton). With the high correlation of edible oils with each other, the increasing correlation with crude oil prices and the recent correction in oil prices, investors may worry that edible oil prices are also overdue for a downward correction. In our view, however, while Kernel's reported sales are sensitive to crude oil prices, operating profit in the segment is much less so.

**Figure 6. Edible oil prices are 1) correlated with each other and 2) remain above LT averages, USD/ton**



Source: Bloomberg. APK-Inform for Ukraine.

**Figure 7. In recent years, edible oil prices appear increasingly-correlated with crude oil price**



Source: Citi Investment Research and Analysis, Bloomberg. APK-Inform for Ukraine.  
Note: Basket defined as weighted share of major oils (sunflower, soybean, palm, rape)

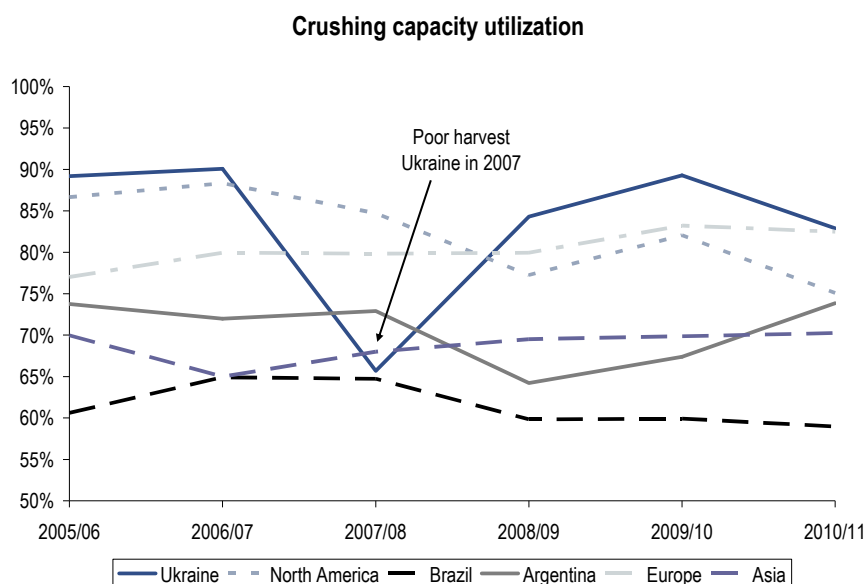
Seed crushing is a spread business where the crusher profits from the difference between the cost of seeds and the sale price of outputs (oil, cake, meal). While the dollar value of this spread can be affected by many factors (harvest level, increase in market crushing capacity, export tariffs/bans, etc.), we believe the spread to be considerably less volatile than the underlying commodities themselves. Forecasting

**Seed crushing is a spread business: margins are more determined by capacity utilization than absolute price levels of the underlying commodities, in our view.**

the price of agricultural commodities is more of a theoretical exercise than a scientific certainty, and we can see valid arguments why the price of sunflower oil could make sharp moves either up (continued tight stocks-to-use levels, increasing biofuel demand) or down (overproduction, declining oil price resulting in a decrease in biofuel demand). Therefore, in a period of extreme economic uncertainty, oil crushing earnings should provide a more than average level of predictability.

According to detailed analysis done by CIRA analyst David Driscoll, CFA, whose coverage includes some of Kernel's major global peers such as Bunge and Archer Daniels Midland, seed crushing margins over time depend more on the level of capacity utilisation in the market than the underlying price levels of seed/oils. Currently, the level of capacity utilisation in Ukrainian sunflower seed crushing remains higher than that of relevant global markets, which would imply that Ukrainian crushing margins should remain high near term.

**Figure 8. Ukrainian crushing capacity utilisation has been of the highest globally**



Source: Citi Investment Research and Analysis, APK-Inform for Ukrainian sunflower seed crushing.  
Note: Estimates for other markets provided by CIRA US Food Manufacturing analyst David Driscoll, CFA.

**However, medium term, the risk of new capacity outstripping increased harvest poses a risk to margins should capacity utilisation fall**

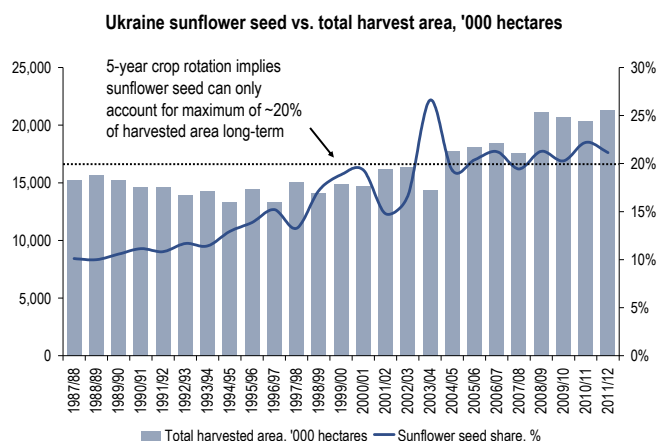
We would note, however, that one of the key medium-term risks of Kernel's investment case, in our view, is the potential for on-going crushing capacity expansion to overshoot demand, resulting in decreasing capacity utilisation and, therefore, lower margins. However, in the near term, we believe that the expectations of a strong harvest in Ukraine in the current marketing year should be more than enough to keep capacity utilisation (and therefore crushing margins) high in the near term.

It is possible that we are too conservative in forecasting a correction in crushing margins in Ukraine. The Ukrainian government, agricultural producers, and crushers in Ukraine remain positive on the ability of Ukraine to increase the production of sunflower seeds. However, we would not expect a significant increase in Ukrainian sunflower seed production in the near term.

According to the USDA, sunflower seeds' share of the overall cropped area within Ukraine is limited by crop rotation requirements (supported by farmers, local

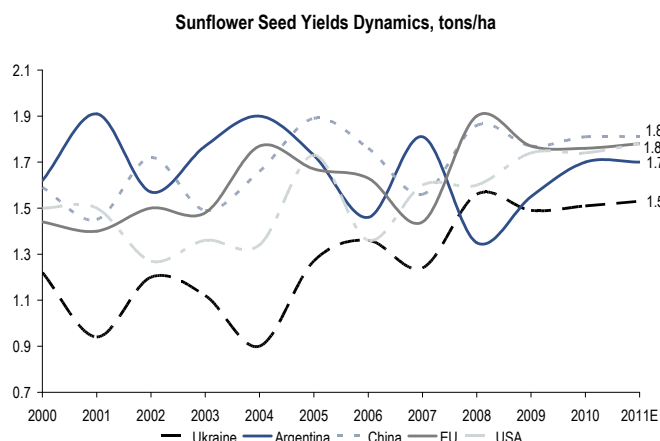
industry experts and the Ministry of Agrarian Policy of Ukraine). The belief seems to stem from a combination of goals to reduce fertiliser costs and to sustain long-term productivity. According to Kernel management, sunflower crops can only be planted once every 5 years, which would imply that, on average, sunflowers' share in overall harvested area should not exceed 20% long-term.

**Figure 9. As sunflower share in harvested is at theoretical maximum, additional seed can only come from increase in harvested area...**



Source: USDA, Citi Investment Research and Analysis

**Figure 10. ... or through an improvement in yield, which has risen in recent years in Ukraine but still remains below other major producers**



Source: FAPRI

**As we believe sunflower seed share of land under harvest is at its theoretical maximum, increased production can only come through either 1) an increase in overall land under harvest or 2) through an increase in yields.**

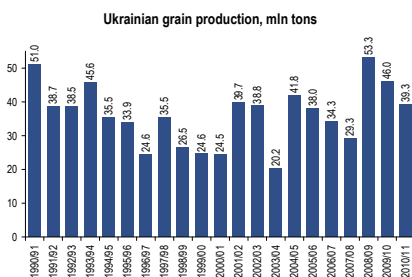
Over the last twenty-five years, the share of sunflower seeds in Ukraine's overall harvested area has risen from a low of 10% in 1988/89 to an average of slightly above 20% over the last four harvest seasons. If the 5-year crop rotation cycle cannot be improved, this would imply that there are only two ways that Ukraine could increase its sunflower crop: either increase the total harvest area or increase yields.

## Grain trading is a volume business

While the term "grain trading" would seem to imply a certain amount of speculation, we would describe Kernel's business model more as one of "grain procurement." As in the sunflower oil business, Kernel pursues a balanced-book policy, where the company first initiates the export contract and then procures the grain, either from its own silos, third-party silos or its own production, effectively charging a fixed dollar margin to compensate the company for its services. Pursued in this manner, the key driver for absolute profit (though not sales) in the business is volume rather than the price of underlying commodities.

After producing 39.3mtn tons of grain in MY2010/11, experts are now predicting a ~20% increase in production y-o-y in MY2011/12. As Ukrainian domestic grain consumption is likely to remain stable at ~25mtn tons, this would imply >50% increase in exports y-o-y. Should these estimates be realised, it would mark the third-largest harvest since 1990 according to Ukrstat estimates.

**Figure 11. Ukrainian harvest levels have been volatile historically**



Source: CIRA, Ukrstat

**Figure 12. Experts are expecting a good harvest in Ukraine in MY2011/12**

	Estimated MY11/12 harvest	Source
Ministry of Agrarian Policy and Food of Ukraine	48-51mln tons	APK-Inform
HydroMeteorological Center, Ukraine	44-45mln tons	APK-Inform
Kernel	48 mln tons	Company
USDA	47mln tons	USDA
UkrAgroConsult	46mln tons	Reuters

Source: Citi Investment Research and Analysis, APK-Inform, Company, USDA.

**Better harvest should mean higher sales  
from grain trading in MY2011/12;  
operating profit levels will likely be lower**

Medium-term forecasts are even more bullish, with some Ukrainian officials predicting up to 71mln tons by 2015 and ~80tons annually in the medium term assuming continued modernisation and proper application of fertilizers.

However, we would note that government intervention can have seemingly contradictory effects on the sector, such as last year's introduction of grain export quotas which had the effect of significantly limiting export volumes (Kernel's grain export volumes fell 20% y-o-y in 9M11) while significantly increasing profitability of such contracts (grain trading operating margins in 9M11 rose to 11.3% vs. 8.7% in 9M10). In the coming year, we would expect that Kernel's sales in the grain segment to rise on higher volumes; however, as last year's export contracts for companies which managed to receive quota allocations were unusually profitable, we actually forecast a decline in absolute operating profit for the segment.

## COMPANY OVERVIEW

Kernel is one of Ukraine's largest vertically-integrated agricultural holdings. In Ukraine, Kernel is the leading sunflower seed crusher and exporter of sunflower oil, the leading domestic producer of bottled sunflower oil, and one of the country's largest grain traders. Kernel operates Ukraine's largest private grain silo network, a grain export terminal, an oil export terminal, and farms a land bank of ~180K hectares. The company operates under six business segments (seven with sugar) including bulk oil, bottled oil, grain trading, grain handling and transshipment, silo services, and farming.

Figure 13. Kernel Segment Overview

Segment	Bottled oil	Bulk oil	Grain handling and transshipment	Farming	Grain	Silo services
Business description	Production, refining, bottling, marketing and distribution of bottled sunflower oil.	Production and sales of sunflower oil in bulk (crude and refined) and meal, primarily for export.	Handling and shipment of grain and oil for export for Kernel and other major grain exporters.	Cultivation of grains including wheat, corn, sunflower seeds, soybeans, peas and barley.	Origination and sale of wholesale grain in Ukraine for export.	Storing, cleaning, drying, loading/offloading of grain.
Sales FY10 (% total)	10%	36%	5%	4%	42%	2%
EBIT FY10 (% total)	12%	39%	14%	8%	22%	5%
EBIT margin FY10	20%	18%	46%	34%	9%	36%
Market positioning	- #1 producer/ vendor	- #1 oilseed crusher - #1 bulk oil exporter	- Second-largest grain export terminal - ~20% of grain export capacity - ~22% of oil export capacity.	- N/A	- #3 exporter (10% share)	- Largest private silo network in Ukraine.
Key competitors	- Bunge (Oleina brand)	- Cargill, Bunge	- TransInvestServices	- Multiple	- Nibulon (16% share), Bunge, Glencore, Toepfer International	
Assets / Capacity	- 2.6mln tons crushing capacity - 1mln tons of crude oil - 875K tons of sunflower meal - 175K tons of refined oil - 145K tons of bottled oil		- <b>TransBulkTerminal</b> : annual throughput capacity of 4.2mln tons; daily capacity of 256 rail cars and up to 120 trucks. - <b>Oil Transshipment Terminal (OTT)</b> : could handle up to 40-50% of bulk oil exports.	- 85K hectares. - (178K hectares including Ukrros) - 300K tons of grain - (~600K tons of grain with Ukrros)		- 39 silos - 2.3mln tons of storage capacity
Volume drivers	- Market share - Competition - Shift to bottled over bulk oil - Customer oil type preference	- Increased crushing capacity - Harvest level	- Harvest level - Export bans/tariffs - Ukrainian grain infrastructure	- Land bank increase/decrease - Increased/decreased yield - Harvest size	- Harvest level - Export bans/tariffs	- Harvest level - Ukrainian grain infrastructure
Margin drivers	- Kernel crushing capacity utilisation - Market crushing capacity utilisation - Brand mix; trading up/down - Share of bottled oil sales through retail		- Harvest levels/capacity utilisation	- Global supply & demand - Better mix (more wheat/sunflower; less barley/peas) - Global supply & demand		- Harvest levels/capacity utilisation
Regulatory issues	- Price controls	- (Potential) export tariffs on oil - Existing export tariffs on seed	- N/A	- Land reform	- Export tariffs	- N/A

Source: Citi Investment Research and Analysis, company data



## Company history

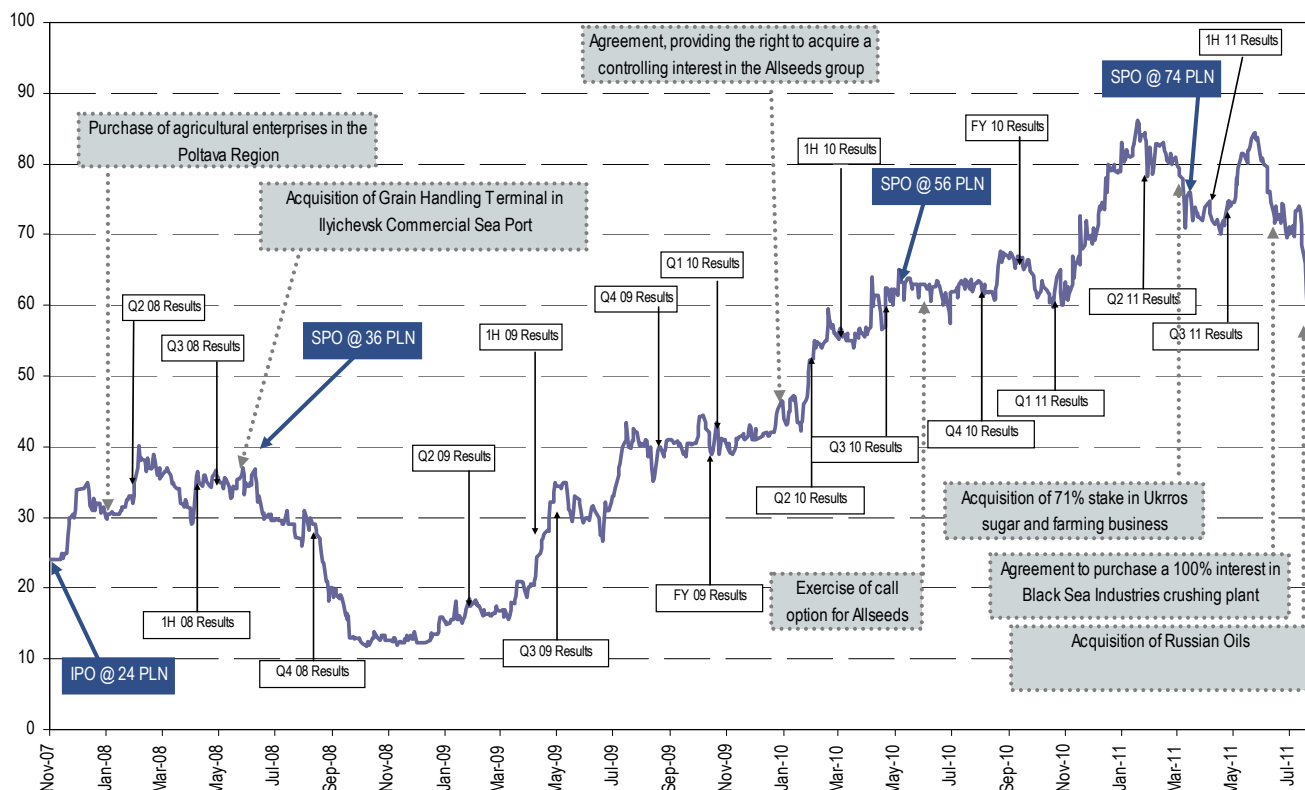
Kernel began in 1995 as a grain trader/exporter and acquired grain silos to facilitate its grain origination business over the next five years. Since 2000, Kernel has expanded into farming, bulk/bottled oil, and grain transport/services.

Figure 14. Kernel company history

Date	Event
1995	Kernel founded as grain trader/exporter
1995-2000	Acquisition of multiple grain silos
2002	Acquisition of Poltava crushing plant and initial land bank
2004	Expansion into bottled oil with acquisition of Shchedryi Dar brand
2006	Acquisition from Evrotek: processing facilities, silos, 700K tons storage and Stozhar brand.
2007	Acquisition of brands Chumak Zolota and Chumak Domashnia.
November-2007	IPO on Warsaw Stock Exchange raising \$221mln (\$153mln primary)
April-2008	SPO raising \$84mln to acquire 55K hectares of land.
June-2008	Acquisition of Transbulkterminal
4Q09-1Q09	Volschank plant upgrade
September-2009	Reached agreement to lease 50% crushing capacity of Black Sea Industries
October-2009	Modernization of Poltava.
January-April 2010	Finalised Allseeds acquisition (integrated from April).
2010	Completed construction of Bandurka green-field crushing plant
June-2010	SPO raising \$81.4mln for refinancing Allseeds acquisition and increasing working capital.
March 2011	Acquisition of 71% in Ukrros sugar and farming business for EV of \$160mln.
June-2011	Enters agreement to buy 100% interest in Black Sea Industries crushing plant for \$140mln.
August 2011	Acquisition of Russian Oils (3 crushing plants in Russia) for EV of \$60mln.

Source: Citi Investment Research and Analysis, company data

Figure 15. Kernel share price map, PNL/share



Source: Citi Investment Research and Analysis, company data.



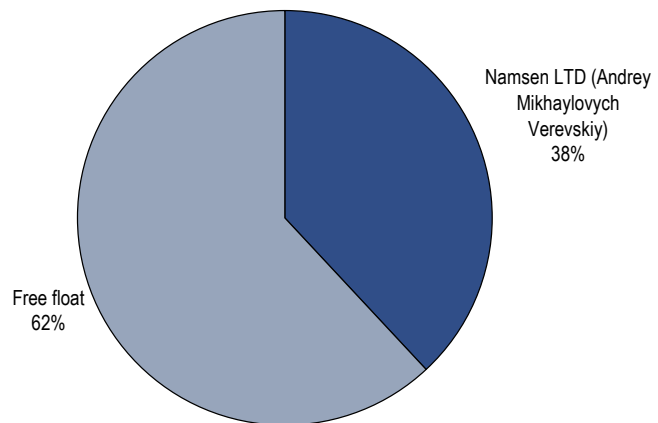
Kernel has a considerable free float,  
which supports share liquidity

## Shareholder structure

Kernel's main shareholder is Namsen Ltd., a holding company controlled by Andrey Verevskiy, the founder of the group and the current Chairman of the Board. According to our calculations, the current free float is 62% with Namsen controlling the remaining 38%.

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Figure 16. Kernel shareholder structure



Source: Company data

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## BUSINESS OVERVIEW BY SEGMENT

### Bulk oil

Kernel's bulk oil business covers the production and sales of sunflower oil in bulk (crude and refined) as well as of sunflower meal, primarily for export. Currently, Kernel is the largest oilseed crusher by capacity in Ukraine with 36% share. The bulk oil business is the largest profit contributor, generating 38% of FY10 EBITDA, and we expect this number to exceed 50% in FY11. Almost 70% of crude oil produced in FY10 was sold as bulk oil (a number we expect to be almost 90% in FY11). The company believes it is the largest Ukrainian producer and exporter of bulk sunflower oil and in FY10 sold its products (via brokers) to Europe, the Middle East and North Africa. The steps in the process are as follows:

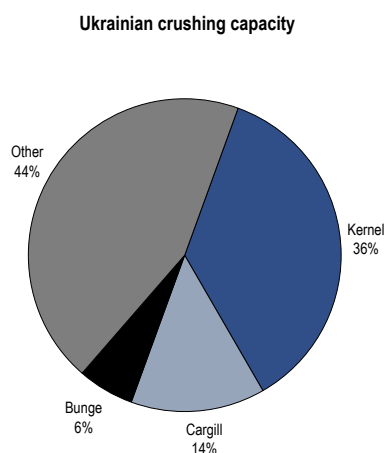
- **Seed procurement:** First the company buys sunflower seeds either from third-party silos, from seeds stored in its own grain silos as well as a small part from its own farms. In FY10, the procurement of seeds was split 76.5%, 21% and 2.5%, respectively. According to the company, the main factors farmers consider when selling their seed crop are price, proximity, counterparty reliability and speed of payment. The company believes that transportation costs are a major factor in this decision, and therefore the company's extensive silo network across Ukraine is a significant competitive advantage both at harvest time when farmers store their seed and at the time when they decide to sell their crop.
- **Seed processing:** Next the company processes the seed in one its seven processing plants (including the greenfield Bandurka plant and Black Sea Industries plant recently acquired from Bunge). Six of the seven plants use solvent extraction technologies to increase the oil yield which involves treating sunflower cake left over from the initial crushing process with a solvent (such as hexane gas), which increases the overall oil yield. The Nikolaev plant uses simple crushing technology without extraction, resulting in a lower yield than in the other plants.

Figure 17. Kernel crushing capacities

Crushing plant	Crushing capacity ('000 tons)
Poltava	430
Volchansk	360
Prikolotnoe	170
Kirovograd (Allseeds)	420
Nikolayev (Allseeds)	145
Bandurka	510
Black Sea Industries	495
<b>TOTAL</b>	<b>2,530</b>

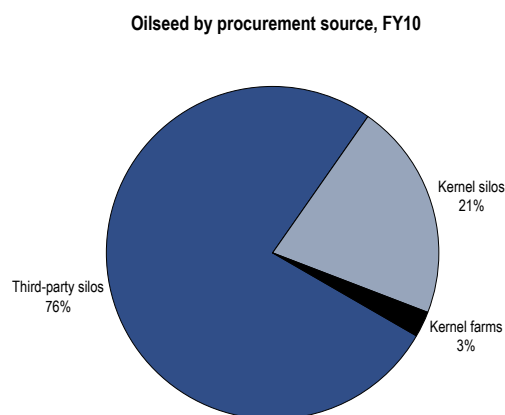
Source: CIRA, company data

Figure 18. Kernel has over one-third of Ukraine's crushing capacity



Source: Company data

Figure 19. Most of Kernel's seed is sourced from third-party silos



Source: Citi Investment Research and Analysis, company data

Figure 20. Kernel oil/meal capacity

Crushing plants	Crude oil, 000 tons	Meal, 000 tons
Poltava	193.5	163
Prikolotnoe	76	65
Kirovograd (Allseeds)	189	160
Nikolayev (Allseeds)	55	61
Bandurka	230	194
Black Sea Industries	112	95
TOTAL	1,018	875

Source: CIRA, company data

Currently, multi-seed crushing at Kernel is more about potential than reality

- **Bulk oil outputs:** The crushing process results in a number of outputs that the company can then sell separately, including:
  - **Crude sunflower oil:** Crude sunflower oil is a commodity that is sold in bulk, the vast majority of which is sold for export (98% of FY10 crude oil sales) and through global commodity traders (which accounted for 72% of FY10 crude oil sales).
  - **Sunflower meal:** Sunflower meal is the primary by-product of sunflower seed crushing and can be sold both domestically and for export to be used as the protein component of animal fodder. While the value of sunflower meal is significantly less valuable than that of sunflower oil, it is not negligible.
  - **Refined sunflower oil:** The majority of the company's refined oil is sold as bottled oil but a small portion is sold in bulk. According to the company, the primary export destinations for bulk refined oil are Poland and Belarus.
  - **Sunflower cake:** Sunflower cake is a by-product which results when using the simple crushing technology. However, as only the Nikolaev plant uses this technology, volumes are negligible (20K tons vs. 434K tons of meal in FY10).

### Observations on the bulk oil segment:

- **Multi-seed crushing capacity implies potential for diversity:** Two of Kernel's newer crushing plants (Bandurka and BSI) have multi-seed crushing capacity (rape and soybean), though both currently crush only sunflower seeds. Should all planned sunflower crushing capacity expansion projects come to market, this would imply Kernel has some potential for diversity to counterbalance a decline in crushing margin as a result of a market-wide fall in capacity utilisation.
- **Balanced-book approach reduces price risk on a per contract basis....:** Kernel operates what the company calls a balanced-book approach to the sunflower business. When Kernel contracts to sell bulk sunflower oil, the company immediately buys the required sunflower seed from the market, theoretically removing price risk until the time of delivery.
- **...but accounting policies could show margin volatility under IFRS:** The use of FIFO accounting could increase volatility of reported margins under IFRS on forward contracts as the seed crushed in a particular quarter from an IFRS standpoint may not be at the same price as that assumed in the contract.

## Bottled oil segment

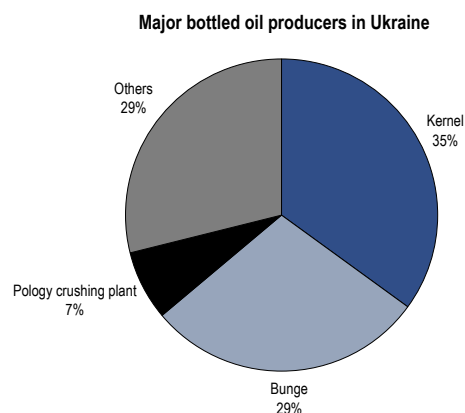
Figure 21. Kernel refining/bottling capacity

Plants	Refined oil, 000 tons	Bottling, 000 tons
Poltava	70	68
Prikolotnoe	103	77
<b>Total</b>	<b>173</b>	<b>145</b>

Source: CIRA, company data

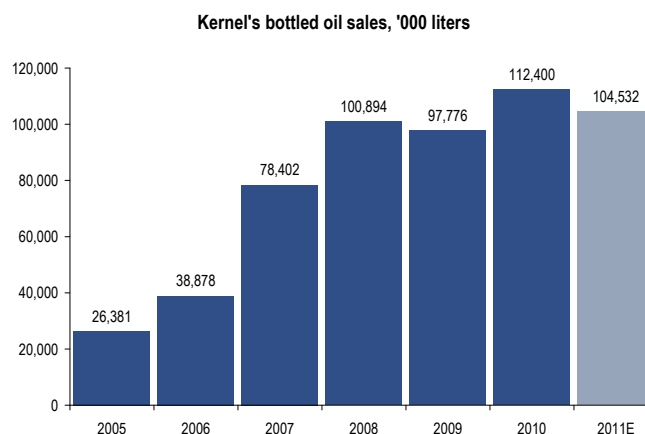
Kernel is Ukraine's largest producer of bottled sunflower oil with an estimated 35% market share. The bottled sunflower oil market in Ukraine is consolidated, with the top three producers accounting for 71% of the market.

Figure 22. Kernel is Ukraine's largest bottled oil seller with 35% share; Kernel and Bunge dominate the market with ~64% combined share



Source: Company data

Figure 23. Kernel's bottled oil sales have stabilized at ~100mln litres annually though the company still has significant spare capacity



Source: Company data

Kernel has 173K tons of capacity in refined oil and 134K tons of bottling capacity at two plants (Poltava and Prikolotnoe). The company sells its bottled oil under three primary brands as well as private label and distributes them through a network of over 40 regional distributors as well as direct distribution to major Ukrainian retail chains.

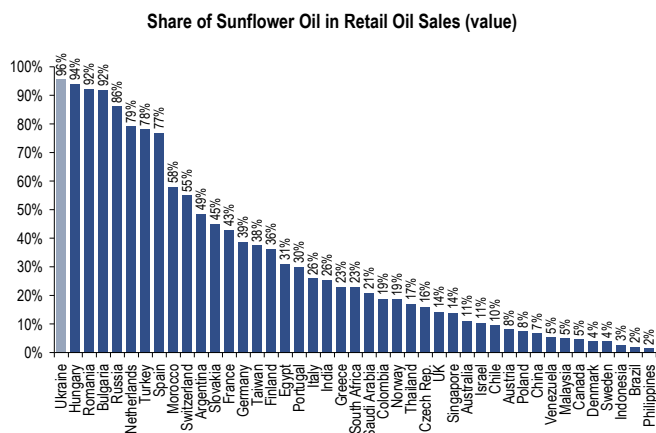
### Observations on the bottled oil business:

Domestically, we see limited growth opportunity for Kernel in bottled oil...

- **Consolidated sector:** According to the company, Kernel has 35% market share in bottled oil, Bunge has 29% and no other company had either nationwide coverage or >7% market share.
- **Domestically, Ukraine is a sunflower oil market...** According to Euromonitor, sunflower oil makes up 96% of total retail sales of edible oils – the highest share of any market globally. The share of various types of oil in overall oil consumption by country appears to be driven primarily by cultural/geographic factors.
- **...and though domestic growth opportunities are limited...** Kernel expects the bottled oil market to grow no more than 4-5% annually in Ukraine, driven mainly by improvements in consumer buying power. (Though given high levels of current oil consumption, we believe this expectation to be aggressive.)

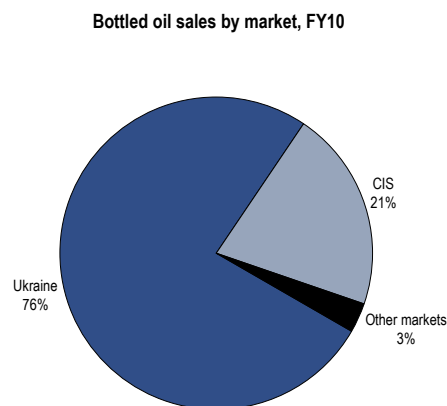
...though the export market may offer upside

Figure 24. Sunflower oil in Ukraine has highest share in overall edible oil consumption of any country globally at 96%



Source: Euromonitor, Citi Investment Research and Analysis

Figure 25. Ukrainian market accounts for over 75% of Kernel's bottled oil sales



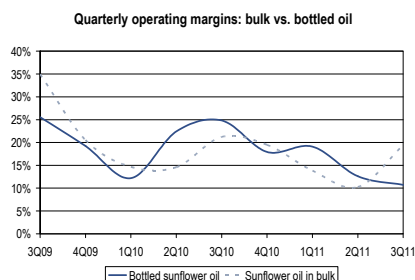
Source: Company data

#### Ukrainian government is sensitive to price growth in bottled oil

- **...we see potential for growing exports:** Kernel exported ~25% of its total bottled oil sales by volume in FY10, primarily to CIS countries. As Ukraine is a major producer of oil globally, we do see some potential for Kernel to increase its penetration in neighbouring CIS countries.

- **Government is sensitive to price growth:** According to the USDA, as of FY10 the Ukrainian government considered sunflower seed oil as a socially-sensitive product, which means the government monitors price growth and prices can be controlled in order to slow food inflation. The company confirmed that, over the last year, they did feel government pressure to contain price growth on the domestic market, which contributed to weaker segment margins in FY11 (segment operating margins were 14.2% in 9M11 vs. 20.1% in 9M10).

Figure 26. Kernel targets higher margins in bottled oil; recently they have been weaker



Source: CIRA, company data

- **Bottled sunflower oil is a commodity with little price differentiation:** Kernel believes bottled oil generates premium margins to bulk oil. However, within the category, bottled sunflower oil is also a commodity. We do not see any significant pricing differential, either between Kernel's three main brands or vs. competitors.

Figure 27. As bottled oil is essentially a commoditised product, price differential among major brands is minimal

Brands	Company	Pack size (liters)	UAH/liter
Chumak sunflower oil rafinovana	Kernel	1 litres	11.69
Olkom	Kiev Margarine Plant	1.5 litres	11.61
Stozhar sunflower oil	Kernel	1 litres	11.58
Schedry Dar rafinovana	Kernel	1 litres	11.45
Oleina sunflower oil	Bunge	5 litres	11.16
Slaviya rafinovana	Slaviya	5 litres	10.47
Sonyachna Dolyna sunflower oil	Odessa Oil Plant	1 litres	10.41

Source: Euromonitor (prices as of June 2010)

## Grain segment

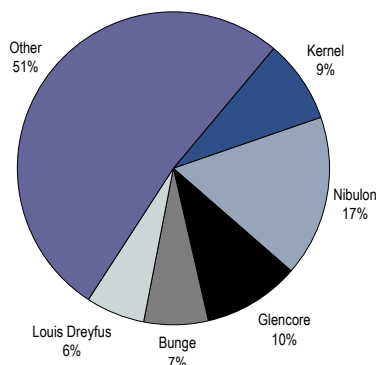
Kernel is one of Ukraine's largest grain traders. Kernel's grain business involves the origination, marketing and export of grain and oilseeds through commodity traders to destinations across Europe, the Middle East and Asia.

**Kernel is one of Ukraine's largest grain traders**

Kernel estimates its average export share over the last three years to be ~10% of total Ukrainian grain exports. Over the 2009/10 season, five traders accounted for roughly 50% of total grain exports from Ukraine. While Kernel sells its grain directly through global commodities trading firms (Cargill alone accounted for ~30% of Kernel's grain exports in FY10), the top eventual importers of the group's grain products include Israel, Belgium, Bangladesh, Saudi Arabia, Syria, Egypt and Spain.

**Figure 28. Kernel is one of the largest exporters of grain from Ukraine with average of ~10% market share in recent years**

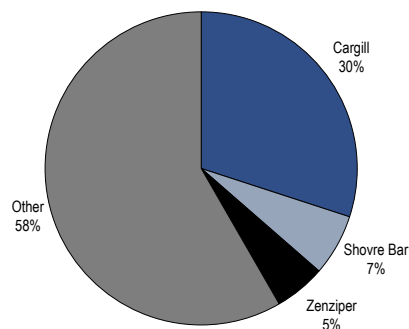
Major grain exporters from Ukraine in 2009/10 season



Source: Company data. Note: excludes oil seeds.

**Figure 29. Other than Cargill, no one customer accounted for >7% of Kernel's total grain exports**

Grain export by customer, FY10



Source: Company data

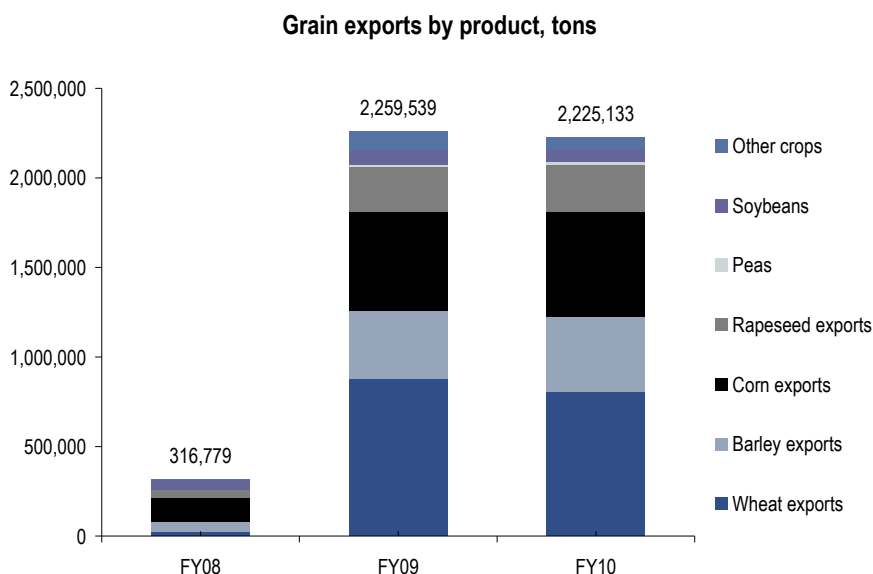
**Kernel grain export volumes rose 7x from FY07 to FY10 but are due to contract in FY11E**

Kernel grain export volumes rose 7x from FY07 to FY10 from 317K tons to 2.2mln tons driven by a combination of factors including improving harvests, lack of export restrictions and expansion of the group's transshipment services. However, in FY11 we expect volumes to contract 24% y-o-y due to the fact that the Ukrainian government instituted export quotas last autumn in an effort to slow domestic price growth.

**Wheat, corn and barley account for >90% of Kernel's grain exports**

Kernel exports a variety of Ukrainian crops including wheat, barley, corn, rapeseed, peas, and soybeans. By volume, wheat, corn and barley account for >90% of exports.

Figure 30. Kernel exports a wide variety of grain and oilseed crops

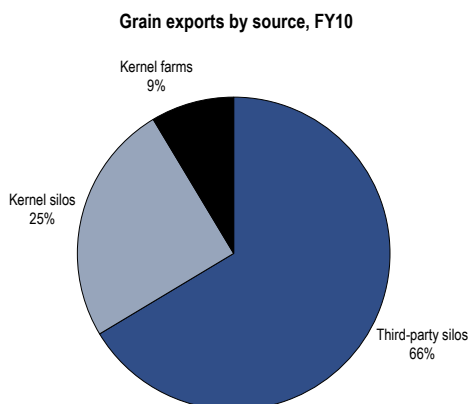


Source: Company data

**Vertical integration makes Kernel a preferred partner**

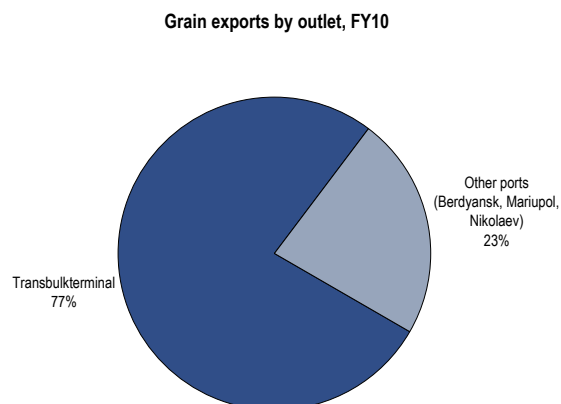
Kernel's grain export business is supported by a number of its other business segments including silo services, farming, and grain handling and transshipment. As Kernel believes that proximity is one of the deciding factors for farmers when deciding where to sell/store their crops and that transportation costs are one of the major cost elements in grain production, the company's internal silo network is a distinct advantage. Further, vertical integration into ports (specifically the TransBulkTerminal) is an added bonus.

Figure 31. Kernel's internal silos and farms supply one third of grain the company exports



Source: Company data

Figure 32. In FY10, 77% of the grain Kernel exported went through TransBulkTerminal



Source: Company data

## Observations on the grain business:

- **Segment is directly-levered to Ukraine's harvest:** Grain trading volumes are directly correlated to Ukraine's total harvest, which we expect to expand in the future. Currently, Ukraine has export capacity of 15-25mln tons but Kernel believes this should grow almost twofold to 30-40mln tons over the next ten years through increased crop yields and further investment.
- **Balanced-book approach also applies to Kernel's grain business:** As with the bulk oil business, Kernel applies a balanced-book approach, whereby the company attempts to reduce price risk by first contracting the export of grain and then procuring it through third-party or via its own silos and farms.

## Grain handling and transshipment services

The grain handling and transshipment business handles the export of the company's grain and bulk sunflower oil as well as outsourcing services for other exporters. The two key assets in the segment are TransBulkTerminal (TBT) and OilTransTerminal (OTT).

- **TransBulkTerminal (TBT):** Located in Illyichevsk, TBT was acquired in 2008. The company believes TBT to have a theoretical throughput capacity of 4.2mln tons of grain a year, roughly 20% of Ukraine's total export capacity.
- **OilTransTerminal (OTT):** Located in Nikolaev, OTT was acquired in April 2010 as part of the Allseeds deal. We believe OTT to have an export capacity of ~650K tons of oil annually (~54K tons/month).

## Observations on the handling/transshipment business:

- **Outsourcing helps pay the bills for now...:** According to the company, in FY10 Kernel's own exports accounted for 57% of TBT's total throughput with the remaining capacity used by third-parties (Bunge, Glencore, etc.) while OTT only exports Kernel's bulk oil production and none of the capacity is outsourced.
- **...but long-term Kernel will occupy full capacity:** In future periods, we would expect the share of third-party use to decline as Kernel's export volumes increase. In 2010, 45% of Transbulkterminal revenue was generated from services to third parties.

## Silo services

The silo services segment provides services such as grain storage, drying, cleaning and intake/loading. Kernel operates the largest private silo network in Ukraine with 39 silos and 2.3mln tons of grain storage capacity (67% of which is in the form of flat storage and 33% of which is in vertical silos) in what the company believes to be strategic locations throughout the country. The company continues to expand its silo network, with an additional 6 silos commissioned in FY12-FY13.

**Silo services is a small revenue/EBIT contributor but is a key competitive advantage for both the seed crushing and grain trading businesses**

While the segment is not a major revenue (~2% of FY10 sales) or profit contributor (~5% of FY10 EBIT), the company considers the silo business as a strategic advantage to its origination functions for other businesses given 1) proximity to farmers and 2) logistical advantages for farmers as sales to Kernel would not require further transportation charges to another potential buyer. Kernel buys, on average, ~50% of wheat, barley and corn and over 70% of sunflower seed stored in company silos

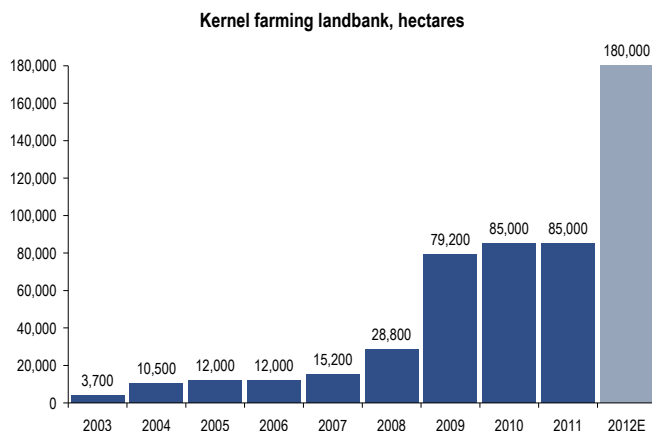


## Farming

As of FY10, the farming division consisted of 85,000 hectares on 25 farms in 5 large clusters. Assuming the Anti-Monopoly Committee approves the Ukrros acquisition, the land bank will more than double to ~180K hectares and, in the 30 March 2011 presentation explaining the Ukrros transaction, the company stated it was in negotiation to almost double the land bank once again.

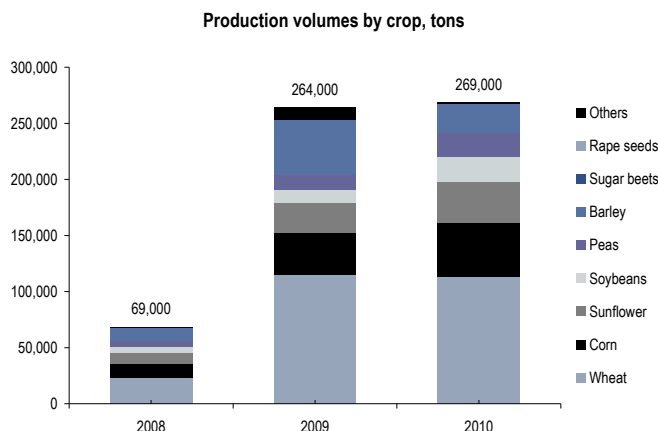
The company maintains that it has no plans to become self-sufficient in either feedstock for the crushing plant or for grain export but will continue to pursue this business as the company believes in the “competitive advantages” of farming in Ukraine.

**Figure 33. Kernel has steadily increased its land bank since 2003 and recently doubled it with the Ukrros acquisition**



Source: Company data

**Figure 34. Wheat and corn dominate Kernel's production volumes, followed by sunflower seeds and barley**



Source: Company data

## Sugar business

**With the Ukrros acquisition, Kernel will have the second-largest sugar beet processing capacity in Ukraine after Astarta**

With the finalisation of the Ukrros acquisition, Kernel will enter the sugar business. Kernel will have four sugar plants with the capacity to process 2mln tons of sugar beet per year and produce ~250K tons of sugar per year, which the company believes to be the second-largest in Ukraine after Astarta. The company believes the key attractions of the Ukrainian sugar market to be: domestic production deficit where average annual consumption is 2mln tons while production is 1.3-2mln tons; consolidation opportunities as the largest producer has only 13% market share; potential to raise sugar yield through increased plant efficiency.

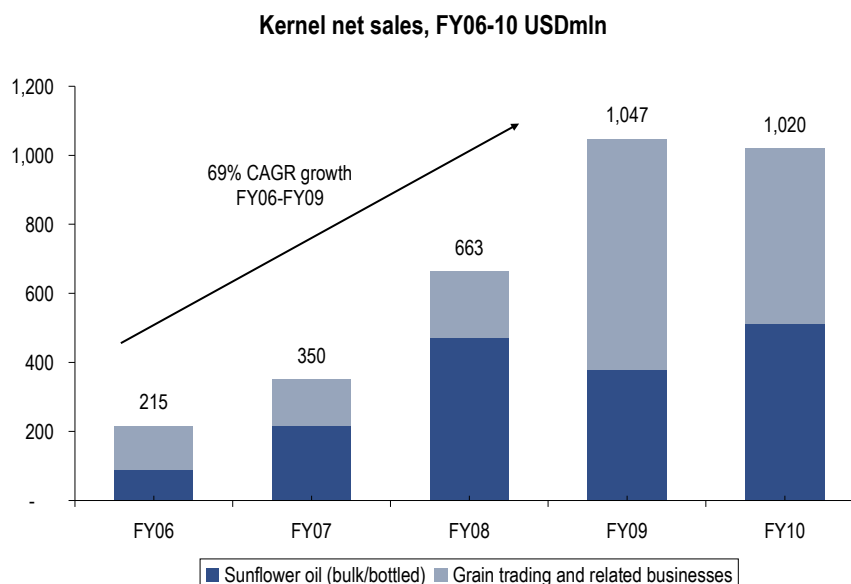
## FINANCIAL OVERVIEW

### Growth rates have been high historically

In FY06-09, Kernel demonstrated EBITDA and net income CAGRs of 124% and 372%, respectively

Kernel has been a high growth story since the company's IPO, demonstrating a 69% sales CAGR from FY06-FY09. CAGR growth rates in operating profit (140%), EBITDA (124%) and net income (372%) have been even more impressive.

Figure 35. Kernel has been a high growth story since the IPO



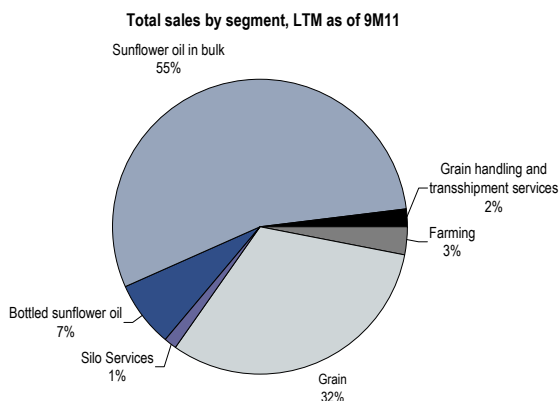
Source: Citi Investment Research and Analysis, company data.

### Sales/EBIT dominated by sunflower oil & grain trading

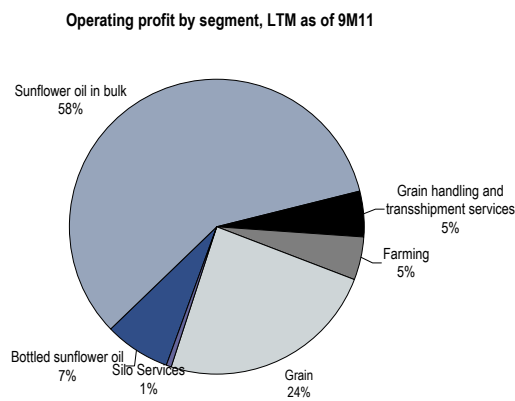
Sunflower oil and grain trading have accounted for 82% of operating profit over the last twelve months

While Kernel currently reports under six different operating segments, the company's bulk oil and grain trading businesses dominate both sales and operating profit, over the last twelve months accounting for 87% and 82% of total sales and operating profit, respectively. On our forecasts, the dependence on bulk oil is likely to wane over time as grain trading should increase its share in overall revenues, with a rising Ukrainian harvest, and the farming and sugar businesses should gain a greater share of both revenues and operating profit following recent acquisitions.

Figure 36. Bulk oil and grain trading accounted for 87% of LTM sales... Figure 37. ...and 82% of LTM operating profit



Source: Citi Investment Research and Analysis, company data

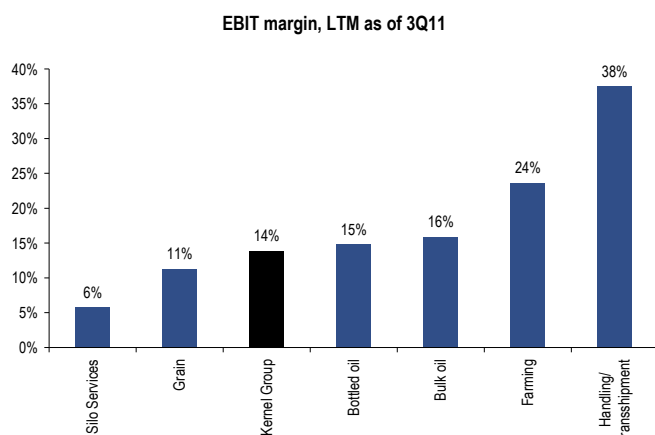


Source: Citi Investment Research and Analysis, company data

## Margins are volatile and vary widely by segment

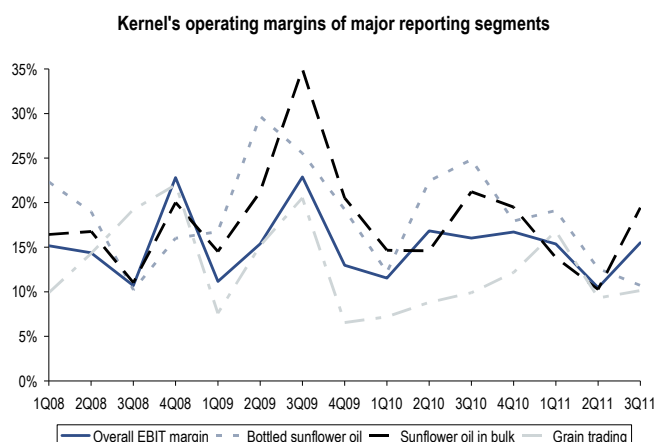
Based on the last twelve months, on a segment basis operating margins have demonstrated a wide range from as low as 6% for silo services (though admittedly low due to lower throughput) to as high as 38% for grain handling/transshipment services. Group margins of ~14% over this same period, however, are driven primarily by the largest sales and profit contributors of bulk oil (~15% operating margins) and grain trading (~11%).

Figure 38. Group margins driven by core grain/oil segments



Source: Citi Investment Research and Analysis, company data

Figure 39. Operating margins show significant quarterly volatility



Source: Citi Investment Research and Analysis, company data

Margins have historically been volatile both on a quarterly, annual and per segment basis driven by a number of factors including seasonality of the business, increased capacity utilisation, and government intervention. While we forecast more stability in margins going forward, in reality we would expect the volatility is likely to continue.

## Local currency exposure: limited

As an export-oriented business, Kernel has low exposure to domestic currency

While incorporated in Luxembourg, Kernel is a Ukrainian company, where effectively all of the company's assets and operations are currently located. However, as the company is primarily export- and USD-oriented, it has limited exposure to Ukrainian domestic and economic factors.

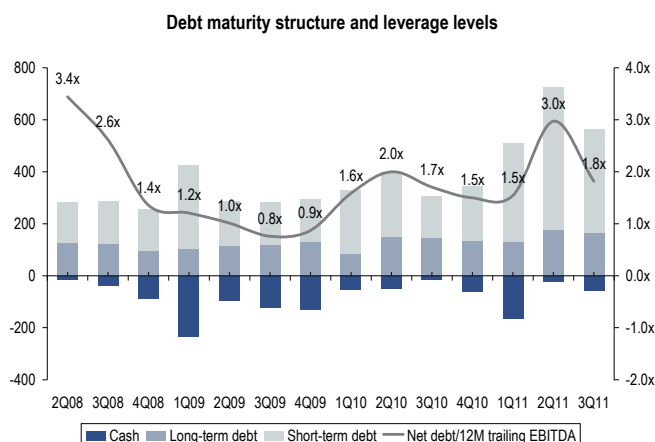
- **USD-denominated revenues and COGS:** According to the company, ~85% of sales and 92% of COGS are driven primarily by USD-denominated global commodity prices and 81% of revenues in FY10 were derived from export.
- **USD-denominated debt:** According to the company's financial statements, as of 31 March 2011, ~91% of debt was denominated in USD (with the remaining 9% in hryvnia), which is a close match to the company's revenue streams.
- **Hryvnia exposure primarily limited to opex...:** As the company operates in Ukraine, a large portion of payroll and administrative costs remain denominated in hryvnia.
- **...and bottled oil revenues:** On the revenue side, Kernel's primary exposure is in the bottled oil segment (~7% of 9M11 sales and EBIT), of which ~75% is sold on the domestic market (the remaining ~25% is exported to other CIS countries).

## Leverage: reasonable but mostly short-term

Following the company's November 2007 IPO (2Q08 according to Kernel's June 30 financial calendar reporting), Kernel's leverage levels slowly declined from 3.4x net debt/EBITDA at the end of 2Q08 to as low as 0.8x by 3Q09. In recent quarters, however, leverage has increased due to a number of factors including: increased working capital needs (see below), sizeable acquisitions (such as Allseeds) and significant organic capex (such as the Bandurka greenfield crushing plant).

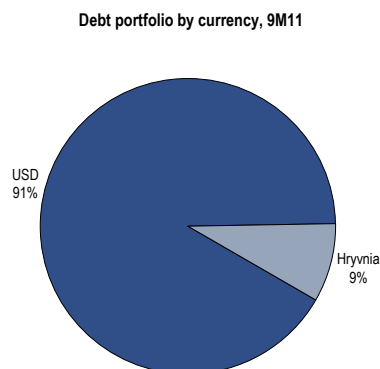
Kernel's debt is primarily USD-denominated (91% of total portfolio as of 9M11), which matches the company's revenue profile (explained above).

**Figure 40. Leverage ratios spiked recently on inventory investment and organic capex but due to fall in 4Q11E**



Source: Citi Investment Research and Analysis, company data.

**Figure 41. As of 31 March 2011, 91% of Kernel's debt was denominated in USD, which roughly matches the company's revenue stream**



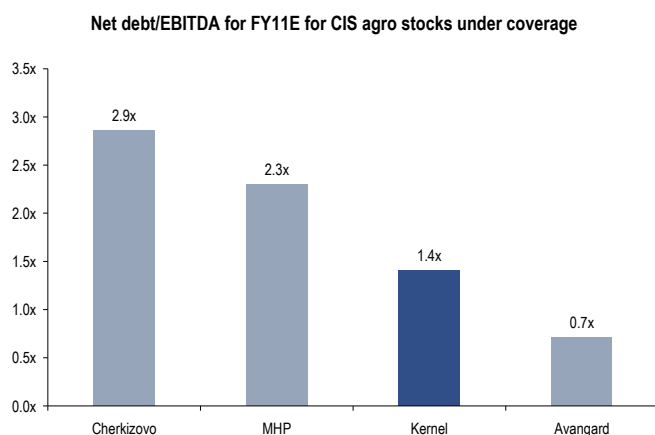
Source: Citi Investment Research and Analysis, company data.

**\$500mln credit agreement signed last week should be more than sufficient to meet short-term refinancing needs**

However, we would note that a significant portion of the company's debt portfolio matures in 1Q12 (August-September 2011), including the largest loan in the portfolio of \$215mln in August 2011. On 18 August 2011, Kernel issued a press release stating that the company had entered into a USD500mln credit agreement with a syndicate of global banks, which we believe is sufficient to cover short-term refinancing needs. The new facility has a dual-tranche structure in which USD222mln is available through 31 July 2012 and USD278mln is available through 31 July 2014, which should help also mitigate facing the same re-financing risks next year.

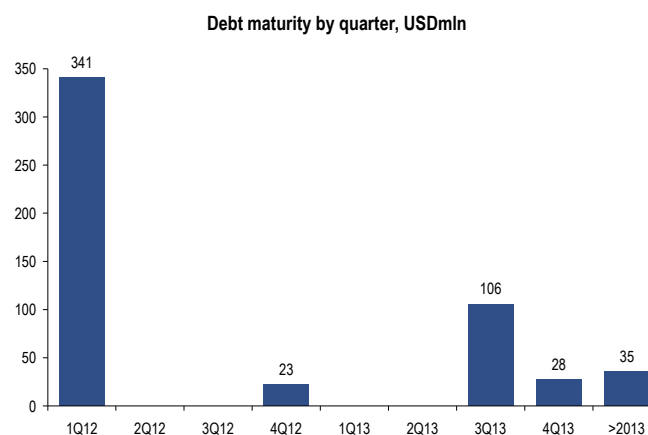
Relative to CIS agro peers under our coverage, we do not consider Kernel to be overly-levered. For FY11E, we expect net debt/EBITDA of ~1.4x for Kernel vs. 2.9x and 2.3x, respectively, for peers Cherkizovo (CHEq.L; US\$16.00; 2M) and MHP.

Figure 42. We consider Kernel's current leverage levels manageable and are not overly-concerned about short-term financing



Source: Citi Investment Research and Analysis

Figure 43. Majority of Kernel's debt matures in August-September 2011, but recently-secured \$500m credit facility reduces refinancing risk



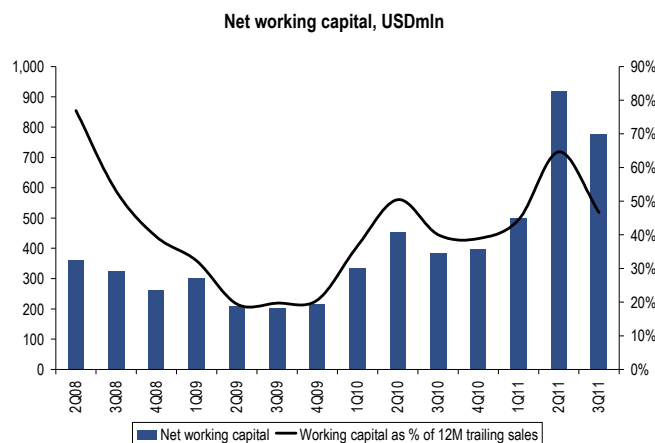
Source: Citi Investment Research and Analysis, Company data

## Working capital: higher than historical levels

Working capital investments have been a serious cash drain in recent quarters, though the situation with VAT reimbursement is improving

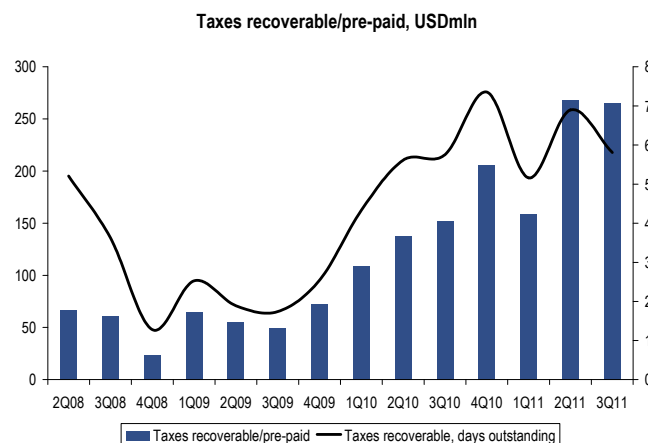
Kernel's business segments are working-capital intensive. While the company's balanced-book approach to both its bulk oil and grain businesses mitigates price risk and smoothes margins from the point of view of the income statement, this practice does not smooth the working capital requirements on the balance sheet. That is, while having a signed export contract for a certain quantity of grain or bulk oil does reduce price risk when the contract is delivered and it does help the company secure financing for required purchases, it does not reduce the amount of working capital on the balance sheet. Since 1Q09, working capital on average has totaled ~38% of 12M trailing sales but has fluctuated widely from 19-65%.

Figure 44. Working capital needs have been rising...



Source: Citi Investment Research and Analysis, company data

Figure 45. ...driven partly by issues in recovering VAT from government



Source: Citi Investment Research and Analysis, company data

In recent quarters, the primary working capital challenge has come from the government as VAT reimbursement has come with greater and greater delay. As of 9M11, Kernel reported \$265m in taxes recoverable (mostly VAT reimbursement)

up from \$152mln a year ago. However, in 2Q11 the company sold VAT bonds for a nominal value of UAH1bln (~\$130mln) at a discount. If the company had not sold this asset, total VAT recoverable would have been ~\$400mln which, for reference, is both above the company's last reported fixed asset base as well as 30% higher than FY11E EBITDA guidance.

## FORECASTS AND OUTLOOK

### Modeling assumptions:

With seven distinct business segments, significant intercompany sales, and frequent M&A, Kernel can be a difficult company to model. We forecast each business segment separately and account for both intersegment sales and minority interest (primarily from the Ukrros acquisition). Our key model assumptions and near-term growth drivers are as follows:

- **Bulk oil: Margins likely up in FY12, though we expect a decline thereafter on rising market capacity and decreasing utilisation rates.** Excluding acquisitions, we expect operating margins and profit for bulk oil to peak in FY12. Prices for sunflower oil are at near historical peaks, market capacity utilisation remains high, and Ukraine is expecting a bumper harvest – all of which should be positive for seed crushers. However, we believe that, due to high margins and export duties on seed (which make seed crushing more attractive than raw seed export), additional crushing capacity is likely to continue to grow faster than the seed harvest. Kernel alone has added an additional 510K tons of new crushing capacity over the last year with its Bandurka greenfield project and we believe that other seed crushers are also increasing capacity.
- **Bottled oil: We expect a recovery in margins in FY12:** In recent quarters, bottled oil margins uncharacteristically trailed those of the bulk oil segment. The company attributed this margin weakness to government pressure not to raise prices on bottled oil in an effort to slow food inflation. According to the company, such pressures have eased in the final quarter of FY11 and we would expect margins to recover in the next fiscal year.
- **Grain trading: Higher volumes, lower margins.** We believe that MY2010/11 has so far been an exceptional year for grain trading margins in Ukraine. Government-imposed export quotas kept domestic grain prices considerably lower than on international markets and we believe that grain traders captured this extra margin. This was evident through 9M11 where Kernel generated operating margins in the grain segment of 11.3% vs. 8.7% in 9M10 despite a 20% y-o-y decline in volumes. With export barriers lifted and Ukraine expected to deliver a near record harvest in the 2011/12 marketing year, we expect volumes to be significantly higher (we forecast Kernel volumes to be up almost 50% vs. FY11E) but margins to stabilise to long-term levels (6%), implying 39% increase in segment sales but a 30% decline in EBITDA.
- **Farming: Increased farming acreage and moderate yield increases to drive segment revenues/profit:** With the Ukrros acquisition, Kernel should effectively double its land bank and the company has stated its intention to potentially double it again from current levels. Yields are likely to show moderate near-term gains but, longer term, we would expect that cost growth exceeds soft commodity price growth, resulting in a slow erosion of segment margins.
- **Sugar: new segment should contribute ~5% of EBITDA from FY13E.** With the Ukrros acquisition approved, Kernel will have the second-largest sugar beet processing capacity in Ukraine. We expect the segment to contribute ~5% of EBITDA from FY13E.

Figure 46. Kernel model assumptions

<b>BULK OIL SEGMENT</b>	<b>2011E</b>	<b>2012E</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>
Seed crush, tons	2,053,800	2,059,104	2,306,655	2,325,877	2,345,099	2,364,321
Volumes, tons	801,432	800,636	906,604	912,311	918,517	925,257
Average price, \$/ton	1,175	1,232	1,103	1,113	1,123	1,133
Net sales, \$mln	1,082	1,134	1,149	1,167	1,186	1,205
EBITDA, \$mln	189	197	184	184	185	186
EBITDA margin	17.4%	17.4%	16.0%	15.8%	15.6%	15.4%
EBITDA/ton	235	246	203	202	201	200
<b>BOTTLED OIL SEGMENT</b>	<b>2011E</b>	<b>2012E</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>
Volumes, '000 liters	104,532	107,668	110,898	113,670	115,944	117,683
Average price, \$/ton	1,257	1,355	1,229	1,252	1,274	1,297
Net sales, \$mln	131	146	136	142	148	153
EBITDA, \$mln	20	25	21	23	24	26
EBITDA margin	15.6%	17.3%	15.7%	16.1%	16.5%	17.0%
EBITDA/ton	196	234	193	201	211	220
<b>GRAIN SEGMENT</b>	<b>2011E</b>	<b>2012E</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>
Volumes, tons	1,700,000	2,549,876	3,137,850	3,522,021	3,811,093	4,215,225
Net sales, \$mln	531	740	925	1,054	1,157	1,298
EBITDA, \$mln	61	42	53	61	67	75
EBITDA margin	11.5%	5.7%	5.8%	5.8%	5.8%	5.8%
EBITDA/ton	36	17	17	17	18	18
<b>FARMING SEGMENT</b>	<b>2011E</b>	<b>2012E</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>
Hectares	85,350	178,350	178,350	178,350	178,350	178,350
Volumes, tons	230,971	1,146,574	1,377,320	1,384,206	1,391,128	1,398,083
Yield, tons/ha (ex. sugar)	2.7	3.8	4.0	4.0	4.0	4.0
Yield, tons/ha	2.7	6.4	7.7	7.8	7.8	7.8
Total sales, \$mln	51	146	153	156	158	160
Net sales, \$mln	4	10	9	8	6	5
EBITDA, \$mln	19	62	61	61	61	62
EBITDA margin	36.4%	42.9%	39.8%	39.0%	38.6%	38.8%
EBITDA/hectare	219	350	342	340	342	349
<b>HANDLING/TRANSHIP.</b>	<b>2011E</b>	<b>2012E</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>
Throughput, tons	2,500,000	3,512,960	3,585,920	3,625,920	3,665,920	3,705,920
Total sales, \$mln	40	57	59	61	63	65
Net sales, \$mln	16	19	15	13	11	8
EBITDA, \$mln	25	34	35	36	37	37
EBITDA margin	62.1%	60.3%	59.5%	58.8%	58.2%	57.7%
EBITDA/ton	10	10	10	10	10	10
<b>SILO SERVICES SEGMENT</b>	<b>2011E</b>	<b>2012E</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>
Grain received, tons	1,300,000	1,536,000	1,859,000	2,002,000	2,145,000	2,288,000
Total sales, \$mln	26	32	39	43	47	51
Net sales, \$mln	13	15	18	19	20	21
EBITDA, \$mln	16	19	22	24	25	27
EBITDA margin	61.1%	58.8%	56.9%	55.3%	53.9%	52.7%
EBITDA/ton	12	12	12	12	12	12
<b>SUGAR SEGMENT</b>	<b>2011E</b>	<b>2012E</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>
Volumes, tons	-	95,107	137,206	143,877	150,549	157,223
Total sales, \$mln	-	65	94	100	105	111
Net sales, \$mln	-	65	94	100	105	111
EBITDA, \$mln	-	15	21	21	22	23
EBITDA margin	-	22.9%	22.1%	21.4%	20.8%	20.2%
EBITDA/ton	-	156	152	149	146	143

Source: Citi Investment Research and Analysis

## Sources for further growth

- **Further acquisitions in neighbouring countries:** On 15 August 2011, Kernel announced that it had acquired a seed crusher in Russia for an enterprise value of \$60mln with expected EBITDA contribution in FY12 of \$20mln. (As the deal is expected to close in September and currently information on the deal is limited, we do not include it into our forecasts for Kernel).



- **Further expansion of the farming land bank:** After potentially doubling its farming land bank with the Ukrros acquisition, Kernel is considering additional acquisitions to potentially double the land bank again in the near future.

## Citi vs. consensus

We are above consensus on sales but below on net profit

On average, we are 6% above, 4% above and 8% below consensus on sales, EBITDA, and net income, respectively. We do not forecast revaluation gains on biological assets (though we attempt to capture this in our farming segment margins), which could explain part of the reason we are below consensus on net income. We also factor in a considerable amount of near-term working capital investment which raises debt levels and interest costs.

Figure 47. Citi vs. consensus, USDmln

	2011			2012			2013		
	Citi	Cons.	Diff.	Citi	Cons.	Diff.	Citi	Cons.	Diff.
Sales	1,777	1,786	-1%	2,129	2,023	5%	2,346	2,064	14%
EBITDA	302	299	1%	365	336	9%	365	355	3%
Net income	210	218	-4%	225	246	-9%	231	261	-12%
EPS, \$	2.78	2.90	-4%	2.83	3.26	-13%	2.90	3.45	-16%

Source: Citi Investment Research and Analysis. IBES, FirstCall.

## FY11 preview: likely to miss net target ex-revaluation

We are below Kernel's net income guidance for FY11, though revaluation gains (which we do not forecast) are likely the difference

Kernel will report FY11/4Q11 results around 30 August. Our estimates are in-line with management guidance of \$1.8bln in sales and \$300mln in EBITDA. As we do not forecast revaluation gains on the company's harvest (we believe our farming segment forecasts for future periods capture revaluation in gross profit) our net income forecast for FY11 is below management guidance of \$225mln. Including revaluation gains, our forecasts would likely be similar to management guidance.

Figure 48. Kernel FY11 results preview (June year-end), USDmln

	Citi	Consensus	Citi vs. Consensus	Guidance	Citi vs. Guidance
Sales	1,777	1,786	-1%	1800	-1%
EBITDA	302	299	1%	300	1%
Net income	210	218	-4%	225	-7%
EPS	2.78	2.90	-4%		

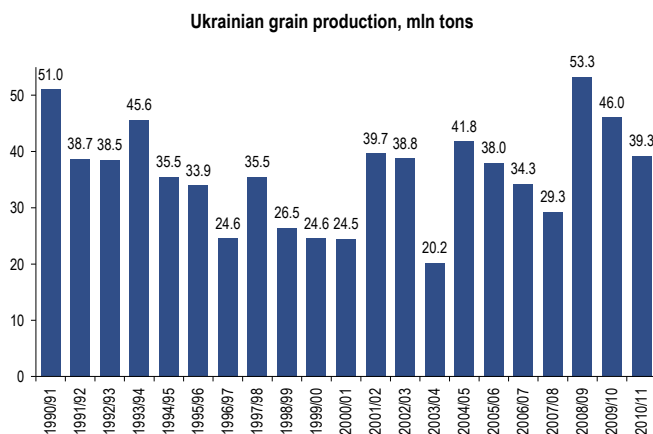
Source: Citi Investment Research and Analysis. IBES, FirstCall.

## APPENDIX A: Overview of Ukrainian grain production

**The Ukrainian grain harvest is volatile: the average absolute change in total harvest over the past 20 years has been 27%**

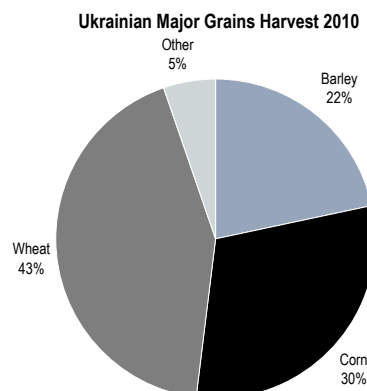
Total Ukrainian grain production over the past 20 years has ranged from as low as 20mtn tons in the 2003/04 marketing year to as high as 53mtn tons in the 2008/09 marketing year. The Ukrainian grain market has proven particularly volatile: the average absolute change in total harvest over the past 20 years has been 27%.

**Figure 49. Ukrainian grain production remains volatile but adjusting for weather has trended up in recent years**



Source: Citi Investment Research and Analysis, Ukrstat

**Figure 50.**



Source: Citi Investment Research and Analysis, Ukrstat

Wheat, corn and barley account for roughly 95% of total Ukrainian production by volume. According to FAPRI, the overall harvested area for these three crops has remained stable over the last three years at roughly 13.5mtn hectares.

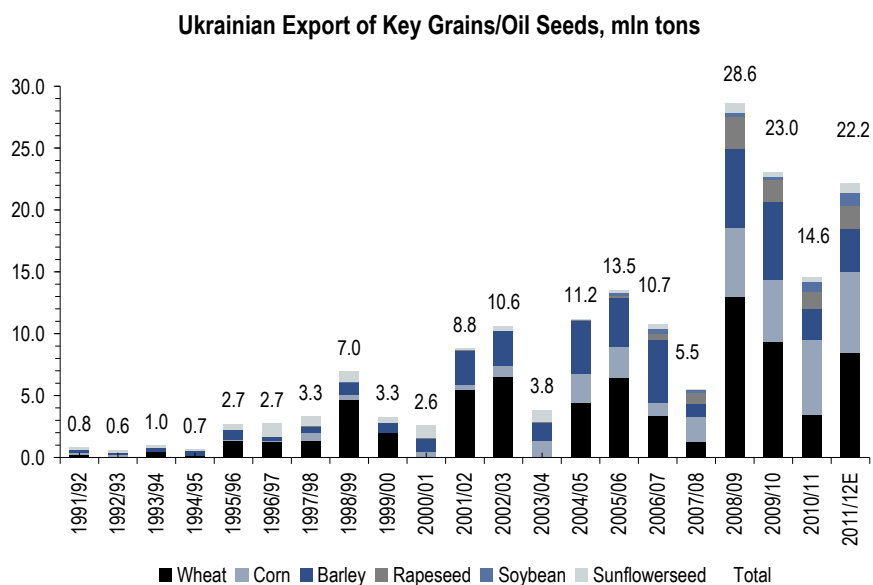
### Ukraine's role in global grain trade

Ukraine's domestic consumption of grains remains relatively stable at ~25mtn tons a year; there is generally a significant amount of grain available for export. However, while the general increase in exports has been steady, on a year-to-year basis they remain volatile.

**Ukraine's share in global grain trade has increased steadily in the last 20 years**

After the fall of the Soviet Union, exports of grain and oil seeds were under 1mtn tons per annum. Over time, through economic recovery, government support and investment into the sector, Ukrainian exports have become more and more significant. Over the last twenty years, the 5-year moving average has risen steadily since 1990: from marketing years 1991/1992-1995/1996 Ukraine exported an average of 1.2mtn tons; from 1996/97-2000/01 exports rose to 3.8mtn tons; from 2001/02-2005/06 to 9.6mtn tons; and over the last five years from 2006/07-2010/11 to 16.5mtn tons.

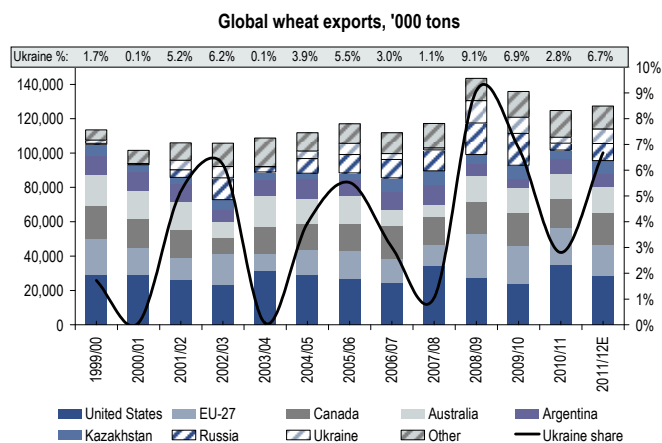
Figure 51. Ukrainian grain/seed exports (though volatile) continue to grow steadily



Source: Citi Investment Research and Analysis, USDA

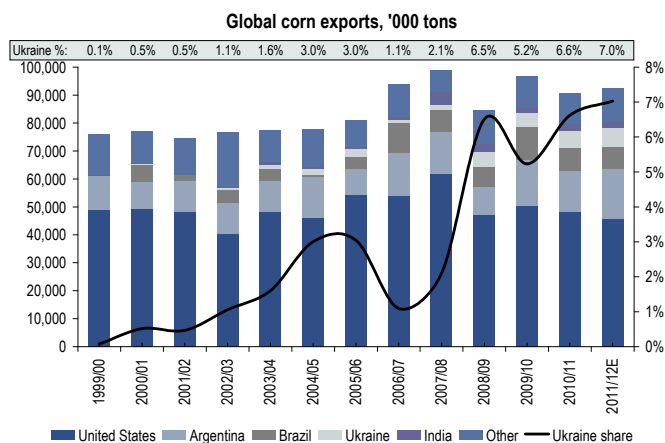
Despite the volatility, Ukraine maintains a sizeable share of global exports across all key export grains (wheat, corn, barley, rapeseed).

Figure 52. In MY2011/12 USDA expects wheat to be Ukraine's largest grain export and Ukraine to supply 6.7% of global exports



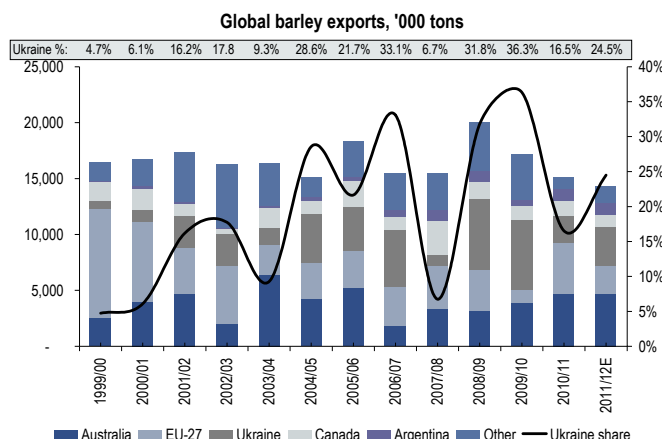
Source: USDA

Figure 53. In MY2011/12 USDA expects corn to be Ukraine's second-largest grain export and Ukraine to supply 7% of global exports



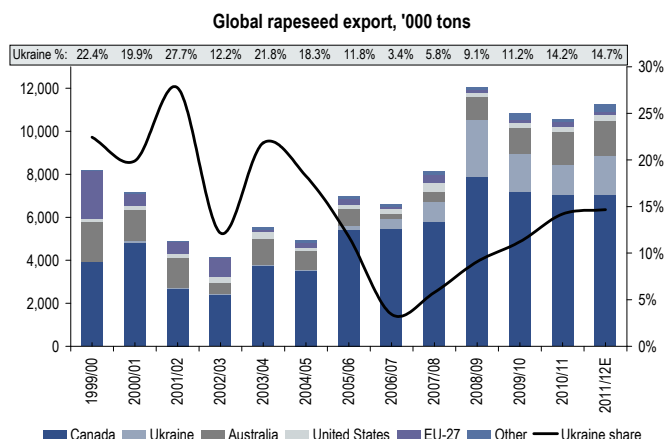
Source: USDA

**Figure 54. In MY2011/12 USDA expects barley to be Ukraine's third-largest grain export and Ukraine to supply 25% of global exports**



Source: USDA

**Figure 55. Rapeseed is also growing in importance. In MY2011/12 USDA expects Ukraine to supply 15% of global exports**



Source: USDA

## Improved yields could further increase Ukraine's role in global grain trade

### Further increases in Ukraine's grain harvest to come from improved yields

While we believe there is still potential for an increase in land under harvest, we consider the potential to increase Ukrainian yields across all major crops as providing more upside.

Despite the commonly-used argument for investing in Ukrainian agriculture that the country has a disproportionate share of the so-called "Black Earth" (a particularly-fertile agricultural soil), yields stubbornly remain considerably below those of global peers.

While Ukrainian yields remain amongst the lowest of major grain exporters globally, growth of Ukrainian yields has consistently been amongst the fastest in recent years, which gives us hope that there is upside towards global averages.

Figure 56. Ukraine has some of lowest yields of major export crops such as wheat, barley and corn...

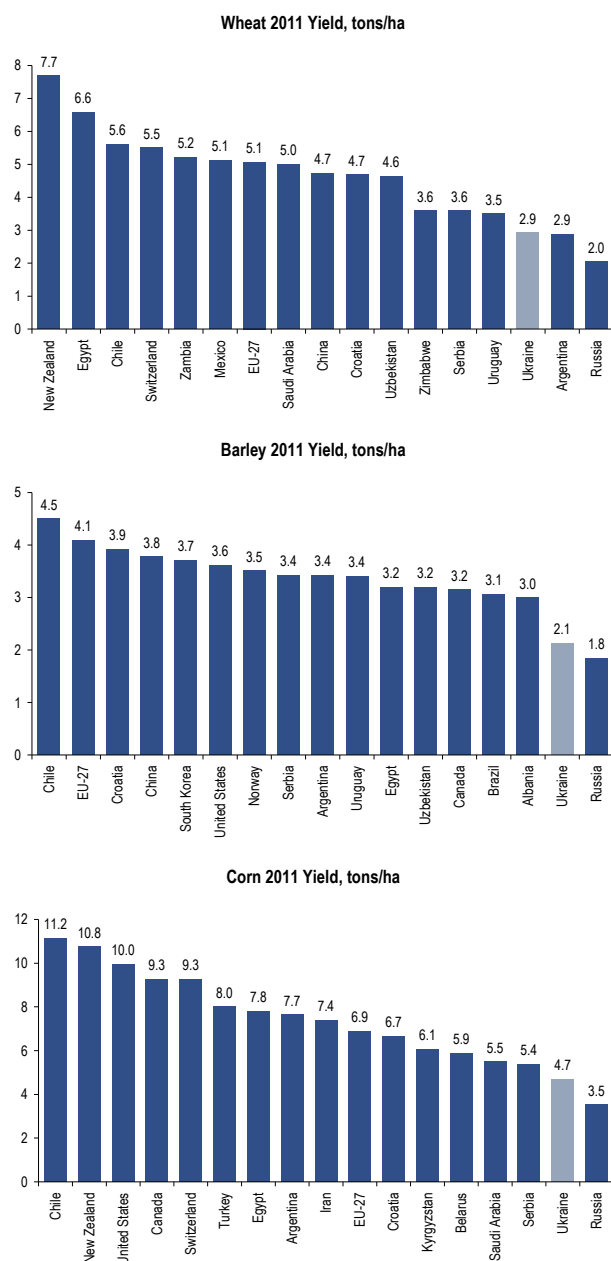
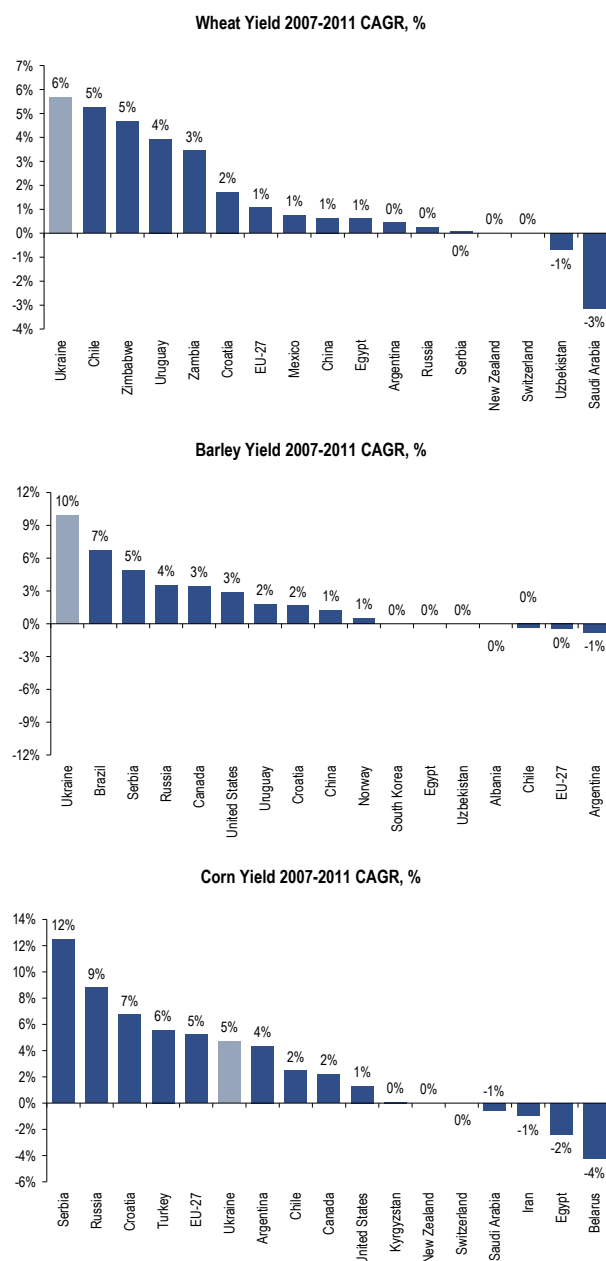


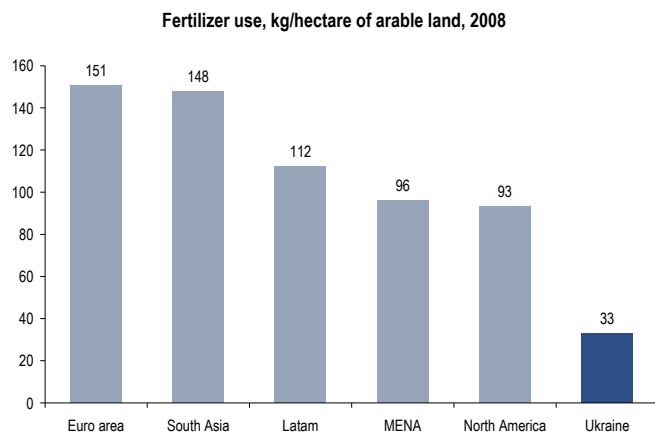
Figure 57. ...yet has demonstrated amongst the highest yield growth in recent years



Source: USDA, Citi Investment Research and Analysis

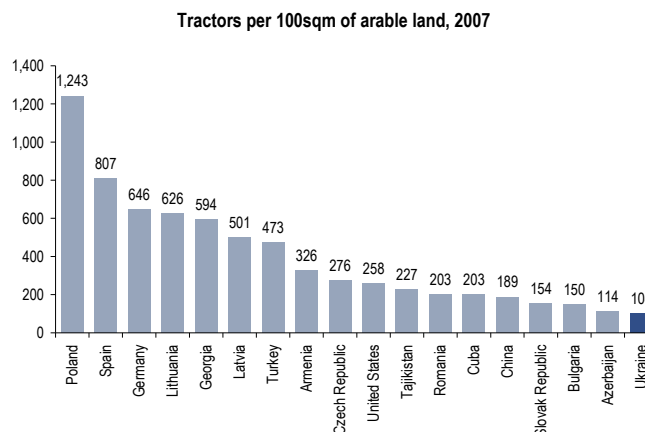
While there are number of reasons for low yields, we believe the most obvious one to be that of low relative investment vs. peers. While there are any number of examples available to demonstrate this point, two of the most telling are those of fertilizer use and investment in technology (for which we take tractors as a proxy). According to the World Bank, fertilizer use in Ukraine is only a fifth that of Europe and South Asia and only a third of that in North America. We find a similar story with investment into equipment (i.e. tractors), where Ukraine remains well below that of major peers.

Figure 58. Fertilizer use appears low in Ukraine in aggregate...



Source: Citi Investment Research and Analysis, World Bank

Figure 59. ...and investment in equipment is well below that of peers



Source: Citi Investment Research and Analysis, World Bank

**We believe structural reforms are required for significant yield enhancement**

Yields have been improving over time, which we believe has been in no small part due to investments by large agro-industrial companies such as Kernel and MHP which have gradually built up sizeable land banks and have made the investments required to improve the yields on lands harvested. Both companies regularly report achieved yields of well above Ukrainian averages, proving that, given proper investment and management, yield improvement is possible. To accelerate yield improvement for the overall market, however, we believe there must be significant progress made on proposed land reforms (such as allowing the sale of agricultural land) which, while progress is expected as early as January 2012, have undergone multiples delays in recent years.

## APPENDIX B: Brief overview of global edible oils industry

Edible oils (or vegetable oils) are consumed daily across the globe either directly as food (such as salad oil), as an ingredient in other foods (margarines or spreads), indirectly in food processing (as frying oil), as well as for various industrial purposes (soap, shampoo, cosmetics, etc.). Vegetable oils are also increasingly used as primary feed stocks in the production of biofuels. Byproducts from the production of edible oils include oil cakes/meals (used as protein for livestock or for fertilizer) and hulls (for fuel).

Sunflower oil accounts for 7% of global edible oil production

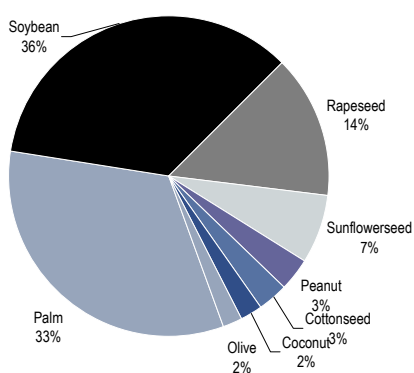
According to the USDA, in FY10 153mln tons of edible oils were consumer globally of which sunflower oil accounted for ~7%. Combined, palm, soybean, rapeseed and sunflower seed oils make up almost 90% of global edible oil consumption.

The primarily edible oils and their uses are as follows:

- **Palm oil:** cooking oil; processed foods; biodiesel production; Indonesia and Malaysia account for >85% of global production according to the USDA
- **Soybean oil:** frying, baking; salad dressing; printing ink and oil paints; China, US, Argentina and Brazil account for ~80% of global production.
- **Rapeseed oil:** cooking oil; ~80% of feedstock for biodiesel in Europe.
- **Sunflower seed oil:** dressing or frying oil; production of cosmetics; also used in biodiesel; Ukraine, EU, Russia and Argentina account for 75% of global production.

Figure 60. Sunflower seed is ~7% of global edible oil production

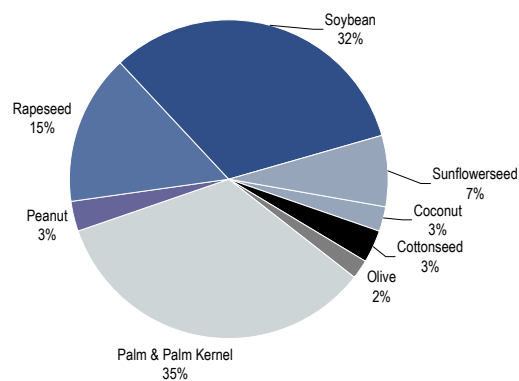
Global Edible Oil Production 2010, total 160 mln t



Source: Citi Investment Research and Analysis, USDA

Figure 61. Palm, soybean, rape and sunflower = ~90% global oil use

Global Edible Oil Consumption 2010, Total - 153 mln t



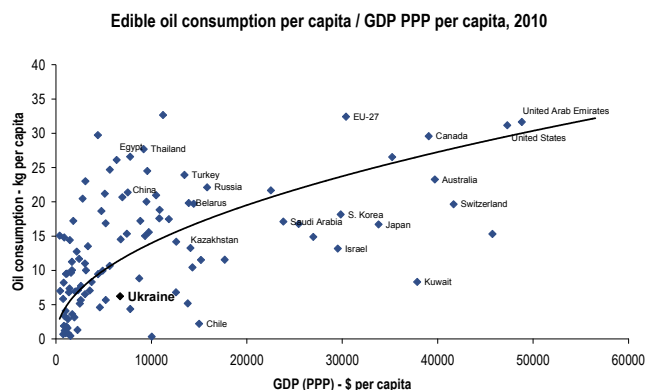
Source: Citi Investment Research and Analysis, USDA

Edible oil consumption is correlated to buying purchasing power at low levels of GDP per capita

Based on USDA data, the total per capita consumption of edible oils on a country-by-country basis appears loosely-correlated to purchasing power. However, this correlation requires some explanation as it does not mean that as GDP per capita rises, people begin to consume more salad dressing or fry more foods at home. In fact, Euromonitor data of retail sales of vegetable and seed oils would suggest the opposite. Euromonitor data suggests that retail sales of edible oils are correlated to

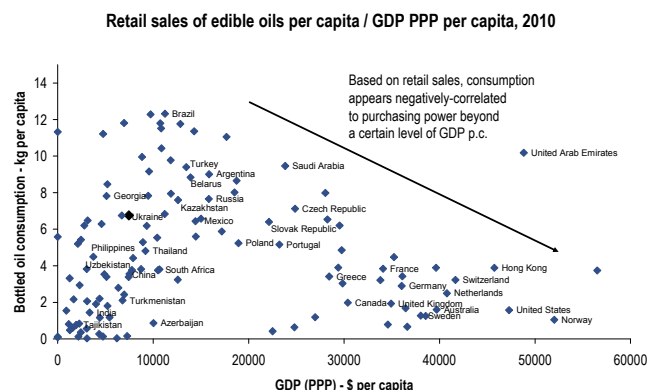
purchasing powers – but only at low levels of GDP (up to ~\$10,000 per capita). Beyond this threshold, per capita retail sales of edible oils are negatively correlated to GDP per capita.

Figure 62. Edible oil consumption only loosely-correlated to purchasing power on a PPP-basis...



Source: Citi Investment Research and Analysis, USDA, IMF

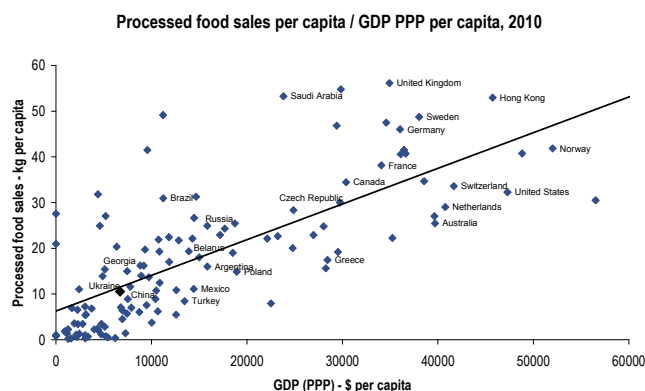
Figure 63. ...though oil consumption appears negatively-correlated to purchasing power beyond GDP p.c. of \$10,000



Source: Citi Investment Research and Analysis, Euromonitor, IMF

While the two charts above may initially seem contradictory, we believe the differences in the data are a result of what each data provider is trying to capture: remember that Euromonitor is capturing retail sales of oil products while USDA is capturing total use per capita. USDA captures two important uses of edible oil not reflected in Euromonitor retail sales: processed foods and biofuel. Processed foods are clearly correlated with purchasing power and the use of edible oils as feedstock for biofuels – particularly in Europe – is becoming increasingly important in recent years.

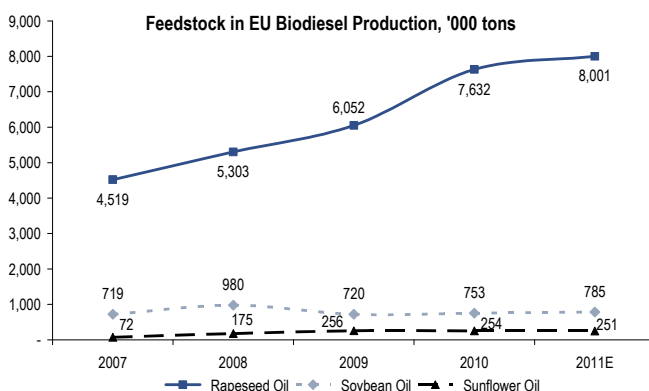
Figure 64. Processed food consumption is highly correlated with purchasing power\*



Source: CIRA, IMF, Euromonitor

\*Based on total of Euromonitor categories of chilled, dried and frozen processed food.

Figure 65. Up to 35% of European oil consumption is diverted to the production of bio fuels



Source: Citi Investment Research and Analysis, FAPRI, USDA

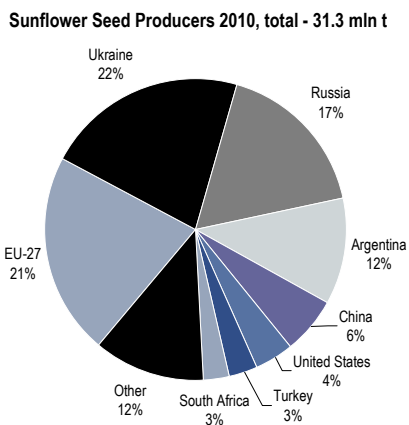


## APPENDIX C: Ukraine and the global sunflower seed/oil trade

**Ukraine is the largest producer of sunflower seed/oil globally**

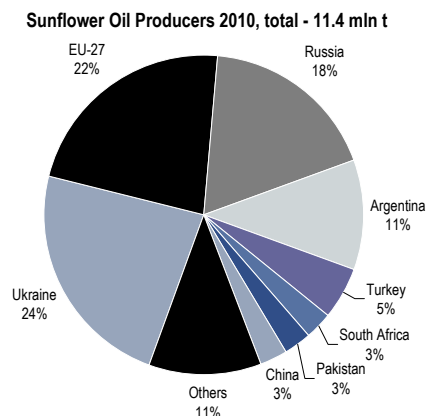
Ukraine is the largest producer of both sunflower seed and sunflower oil globally at 22% and 24%, respectively. Other major producers include Russia, the European Union and Argentina which together account for roughly 75% of global production.

Figure 66. Ukraine is the largest producer of sunflower seed...



Source: Citi Investment Research and Analysis, USDA

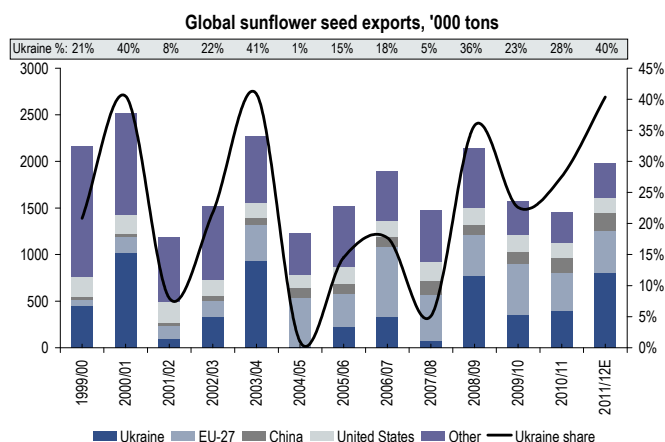
Figure 67. ...and sunflower oil globally



Source: Citi Investment Research and Analysis, USDA

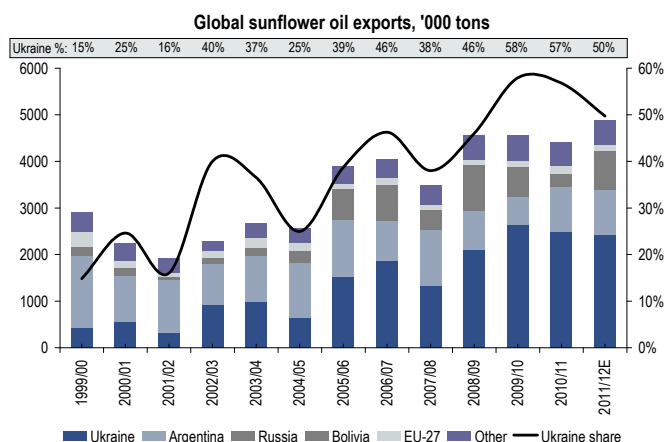
While Ukraine's share in global sunflower seed & oil is impressive, when it comes to export, Ukraine is dominant. On average, for the last three years, Ukraine has made up 29% of global sunflower seed exports and 54% of global sunflower oil exports.

Figure 68. Ukraine is the largest exporter of sunflower seed...



Source: Citi Investment Research and Analysis, USDA

Figure 69. ...and dominates sunflower export with >50% global share

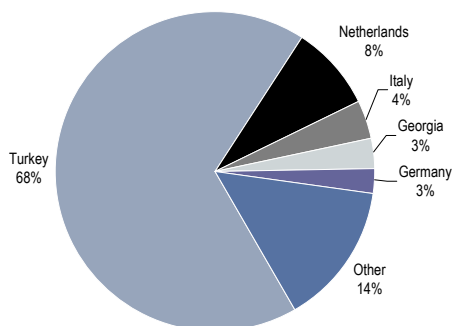


Source: Citi Investment Research and Analysis, USDA

In the marketing year 2009/10, Turkey accounted for 68% of Ukraine's sunflower seed exports according to the USDA & State Customs Committee of Ukraine. In the 2008/09 marketing year, the primary export destinations were France (22%), Pakistan (18%) and Turkey (17%).

Figure 70. Turkey is the largest importer of Ukrainian sunflower seeds

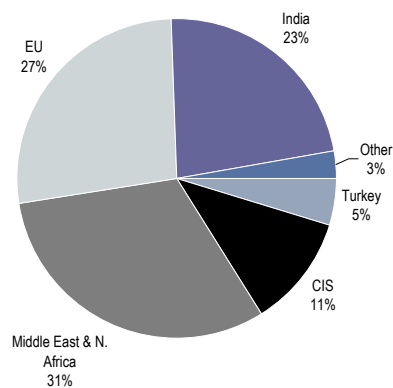
Ukrainian Sunflower Seed Exports by Destination, 2009/10



Source: CIRA, USDA, State Customs Committee of Ukraine

Figure 71. >80% of Ukrainian sunflower oil is exported to EU, MENA and India

Ukrainian Sunflower Oil Exports by Destination, 2009/10



Source: CIRA, USDA, State Customs Committee of Ukraine

Primary export destinations for Ukrainian sunflower oil are Middle East & North Africa and the EU which, combined, accounted for over 80% of total exports in 2009/10. On a country basis, the primary importers of Ukrainian sunflower oil were India (23% of total exports) and Egypt (14%).

## APPENDIX D: Ukrainian government's support (and challenges)

### Export duties / quotas a mixed blessing

**Sunflower seed customs duty:** In 1999, Ukraine introduced a customs duty on sunflower seed exports on the level of 23%. As expected, the duty had the effect of encouraging the expansion of crushing capacity on the market as it became considerably more attractive to export sunflower oil rather than raw seeds. With WTO entry, Ukraine agreed to reduce this duty to 10% by 2012.

Figure 72. Ukraine's new grain export duties

Commodity	Export duty
Wheat	9% but no less than 17 Euro/ton
Barley	14% but no less than 23 Euro/ton
Corn	12% but no less than 20 Euro/ton

Source: Ukrainian Rada

**Export duty on grain:** When the Ukrainian government lifted export quotas in 2011 it replaced them with export duties on grain. The duties came into effect on 1 July 2011 and are valid through 1 January 2012 though they could be extended. Kernel believes that the company will be able to pass on the duty costs to farmers.

**Export duty on sunflower oil?** Over the past year there have been numerous press reports that the Ukrainian government was considering an export on sunflower oil. The enactment of export duties on grain further fueled speculation, however there is no visibility on whether this will be enacted or not.

### VAT retention: "yes" for seed/oil, "no" for grain exports

One of the most material means of (indirect) government support for Ukrainian agricultural producers is VAT retention. Under Ukraine's law "On Value Added Tax", Ukrainian agricultural companies can retain the difference of input VAT they pay on purchases and the VAT they charge on the sale of their products. While Kernel continues to benefit from this indirect subsidy in its oil and farming business, recent regulatory changes no longer allow such benefits in the grain trading segment, which previously was a distinct competitive advantage vs. international competitors. According to press reports, there is growing support within the government on re-instating the VAT retention for exporters but we do not expect clarity until later this year. While Kernel does not disclose the full impact of VAT retention, judging from the financial reports of Ukrainian peers such as MHP and Avangard, we believe this to be substantial.

### Land reform remains a barrier for further development

Under the Moratorium Act of 1992, the sale or purchase of farmland in Ukraine is prohibited. The Ukrainian government intends to remove the ban on land sales from January 2012 (previously the target was January 2008), though many industry participants remain sceptical. We believe credible land reform is a requirement for significant further improvement in Ukrainian yields due to the fact that:

- **Lack of land market discourages investment...** As land is not owned, it cannot be used for collateral to raise bank lending required to acquire the necessary machinery, equipment and quality seed.
- **...discourages needed improvement...** As leases are medium- to short-term (~10 years), agricultural enterprises cultivating the land may not be interested in making the required investments into fertilizers and other enhancements for the long-term health of the soil. In addition, short-term leases may not lead to the optimal crop rotation choices to maintain soil longevity.

The fate of land reform remains uncertain but we believe it is required for significant improvement in market yields

- **...as well as prevents “best use” of land:** Small farms are inherently less efficient than large farms. Lack of a market in agricultural land slows the process of combining farms into large holdings to attain required levels of efficiency. While entrepreneurs have been able to combine lease contracts and then “sell” the lease contract to large agro-industrial groups, this process is less efficient than allowing such groups to buy up suitable individual land plots themselves.

Even when land reform comes to Ukraine, there is still a large amount of uncertainty regarding the implementation and the effect on Ukrainian agricultural producers under our coverage. For instance, foreigners are currently prohibited from owning agricultural land, which could imply that, even if the land code is reformed, no true market in land will be established. And what constitutes a foreigner? Would Kernel, a Luxembourg-registered company, be considered “foreign”? In addition, issues may arise when the owners and lessees do not agree on whether the land should be sold or the lease continued, which for agricultural producers could force additional capital investment (if forced to buy existing land) or risk losing the land (should the seller find another buyer).

## Kernel Holding SA

### Company description

Kernel is one of Ukraine's largest vertically-integrated agricultural holdings. In the Ukraine, Kernel is the leading sunflower seed crusher and exporter of sunflower oil, the leading domestic producer of bottled sunflower oil, and one of the country's largest grain traders. Kernel operates Ukraine's largest private grain silo network, a grain export terminal, an oil export terminal, and farms a land bank of ~180K hectares.

### Investment strategy

We rate Kernel Buy/Medium Risk (1M). We believe Kernel offers a quality management team, high degree of vertical integration, high market share in its main business segments, earnings directly levered to Ukraine's export volumes, and share liquidity compared to other CIS agro stocks. We believe the company's export-oriented business and combination of grain trading and oil seed crushing businesses give the shares an operationally defensive character in uncertain economic times. While we see limited opportunities for organic earnings growth for Kernel, we believe that Kernel's M&A strategy has historically added shareholder value. The company is openly pursuing additional transactions across business segments and should be able to fund them with an average of ~\$250mln in annual FCF from FY12-16E and reasonable leverage of ~1.5x net debt/EBITDA as of FY11E. Such potential deals may provide additional upside to the shares though they must be priced-in on a case-by-case basis.

### Valuation

Our target price for Kernel is 77PLN/share. To set our target price we use an equally-weighted DCF and multiples-based approach. For our multiples-based valuation we apply historical forward median EV/EBITDA multiples for global edible oils producers (8x) and grain traders of (4.5x) weighted by the split of Kernel's EBITDA in these two main business segments. Applied to our FY13E forecasts this returns a valuation of 78PLN/GDR. In our DCF valuation for Kernel we use a WACC of 11.9% and a terminal growth rate of 1%. We use the APT method to calculate our WACC. Our cost of equity is 13.5% based on: 5.5% risk free; 6% market risk premium; 100bpt operational risk premium related to the risk that crushing margins contract faster than forecasted due to falling market utilisation capacity on increased capacity; and a 100bpt adjustment for regulatory risk linked to unpredictability of Ukrainian government policies across Kernel's business segments. We use a 9.0% cost of debt (effective cost of debt), a 30/70 debt/equity split and a long-term tax rate of 10%. Our DCF valuation for Kernel returns a target price of 76PLN/share.

### Risks

We rate Kernel Medium Risk. The key downside risks we see to our target price are 1) potential oversupply of crushing capacity in the market that could lead to decreased capacity utilisation and therefore a decrease in crushing margins 2) volatility of soft commodity prices that could cause volatility in reported margins 3) volatility of Ukrainian harvest, the export of which is the primary driver of the company's grain trading business, and 4) unpredictable government regulation.

## Notes

## Notes

## Appendix A-1

### Analyst Certification

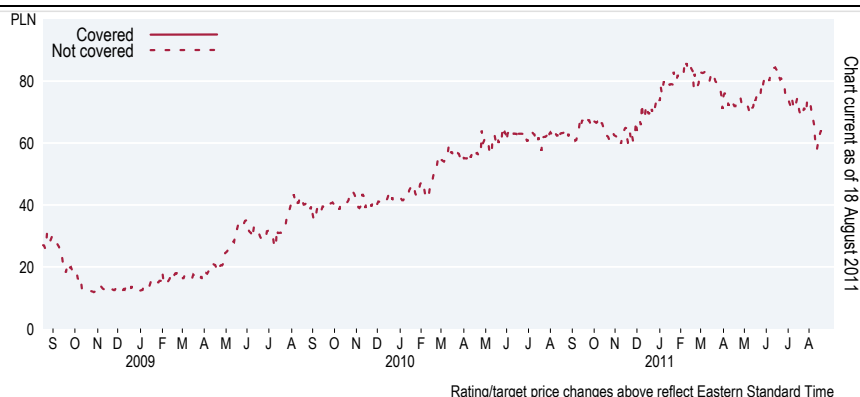
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### IMPORTANT DISCLOSURES

#### Kernel Holding SA (KERN.WA)

##### Ratings and Target Price History

##### Fundamental Research

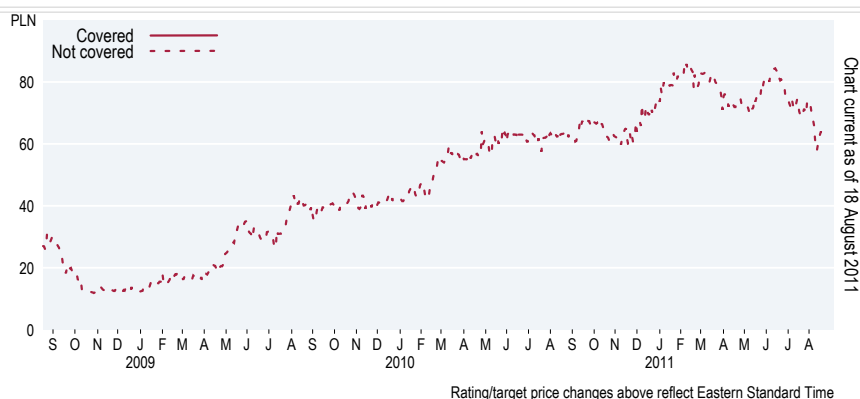


#### Kernel Holding SA (KERN.WA)

##### Ratings and Target Price History

##### Best Ideas Research

##### Relative Call (3 Month)



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#### Citi Investment Research & Analysis Ratings Distribution

<i>Data current as of 30 Jun 2011</i>	<b>12 Month Rating</b>			<b>Relative Rating</b>		
	<b>Buy</b>	<b>Hold</b>	<b>Sell</b>	<b>Buy</b>	<b>Hold</b>	<b>Sell</b>
Citi Investment Research & Analysis Global Fundamental Coverage	54%	36%	11%	10%	81%	10%
% of companies in each rating category that are investment banking clients	45%	41%	42%	50%	42%	44%

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CIRA's stock recommendations include a risk rating and an investment rating.

**Risk ratings**, which take into account both price volatility and fundamental criteria, are: Low (L), Medium (M), High (H), and Speculative (S).

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