# **Bond Market Insight**

Weekly review: Week of rebounding



MONDAY, 31 MARCH, 2014

Last week was quite positive for domestic and foreign markets as conditions improved, albeit slightly. Although the increase in liquidity could be short-term due to the week of tax payments, it was very important. Moreover, positive announcements from many countries and organizations had a positive impact on **Eurobonds prices.** 

Domestic bond market. Domestic liquidity significantly rose last week shows to the month's record levels last Friday. The NBU issued a significant volume of loans for banks while it also issued a significant volume of CDs. At the same time, the MoF fulfilled debt repayments last week without refinancing, likely in preparation to take some new steps at the primary market in April.

Eurobond market. Ukrainian Eurobonds saw a significant rebound last week as the yield curve moved below 10.0%, excluding only two Eurobonds that remained above this level but also moved significantly lower. Ample news about agreed upon IMF reforms for the new stand-by loan, approved support from the US, and many declarations from the EU substantiated the yield declines. At the same time, without concert market anticipations still with high risks on Ukrainian debt.

### RESEARCH INSIGHT



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### Key market indicators (as of 28 Mar 2014)

	Last close	Weekly chg (%)	YTD chg (%)
Currencies			
USD/UAH (spot)	11.1000	5.21	34.71
USD/UAH (1Y NDF)	12.6230	0.18	34.00
Rates, yields & spread	s (%)		
Kiev Prime ON	3.96	-284bp	-384bp
Kiev Prime 3M	18.04	0bp	204bp
UAH NDF 1Y	14.36	-575bp	-63bp
Ukraine CDS 5Y	890bp	-293bp	73bp
Libor USD 1yr	0.56	-1bp	-2bp
UST 2yr	0.45	3bp	7bp
UST 10yr	2.72	-2bp	-31bp
UKRAINE 17	10.16	-297bp	60bp
UKRAINE 23	8.65	-130bp	-39bp
Money market data (U	AHbn)		
Accounts at NBU	29.37	1.58	-10.18
NBU CDs outstanding	18.26	54.21	0.00
Local currency bond n	narket data	(UAHbn)	
Govt bond outstanding	278.90	0.96	11.96
Held by			
NBU	169.44	-0.15	16.98
Banks	83.26	2.56	3.85
Other residents	11.08	0.75	-10.61
Non-residents	15.12	5.29	29.23

Notes: chg - percentage change; bp - basis points. Sources: Ministry of Finance of Ukraine, National Bank of Ukraine, Bloomberg, Investment Capital Ukraine LLC.

### **Research team**

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Bloomberg: ICUA <GO> READ THE DISCLOSURES SECTION FIRST FOR IMPORTANT DISCLOSURES AND ANALYST CERTIFICATION.

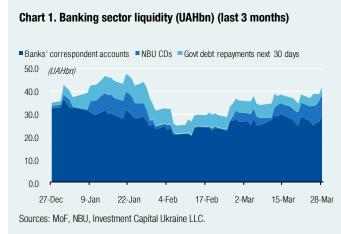


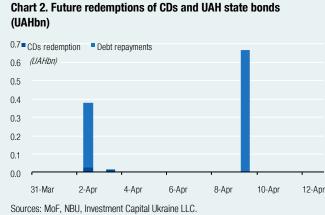
# Market update and news

## Domestic bond market

### **Liquidity improves on NBU support**

Broader banking sector liquidity rose last week to the record of the month, partially due to a MoF inflow Last week was quite positive for the money market, with a significant increase in liquidity last Thursday which was included in last Friday's data. Having begun at UAH36.95bn of broader banking sector liquidity, this indicator rose to UAH41.83bn last Friday after an increase in loans issued by the NBU a day before. Most interesting is the fact that after the MoF repaid UAH1.96bn in local currency debt repayments without any new borrowings (see comments on auction results below), the MoF's inflow had a positive impact, but these funds were likely mostly invested in NBU CDs, while banks' correspondent accounts with the NBU remained steady the same day.





Fund reallocations
between liquidity
indicators occurred every
day likely due to FX
regulations on FX
purchasing

Banks' correspondent accounts with the NBU significantly rose last week, after having declined last Tuesday most likely due to investing funds in NBU CDs. The reallocations of funds that occurred last week was quite likely the result of significant volumes of funds deposited by clients for FX purchases. As the purchase of FX is possible five days after submitting bids, banks could deposit these funds in the NBU overnight. As a result, total CDs outstanding rose last week from UAH6.51bn last Monday to UAH9.30bn till last Friday (see the left-hand chart below).

The MoF started this month with a low level of debt repayments. The same situation that occurred during the last two weeks when auctions had little to no demand or a low volume of submitted bids could continue. There could be attempts to find a new balance between the MoF and the market on possible new benchmark rates and bond maturities which could satisfy needs of both sides of the primary government bond auction. The NBU's CDs redemptions will mostly depend on banks' needs for funds to satisfy all client bids for at FX.

### Last week's primary auction

Auction was cancelled last week with using other sources for repayments After a week ago the MoF received two indicative bids at insufficient volumes, last week's auction was anticipated to have more bids at higher volumes. However, the MoF received no bids at last week's auction which was summarily cancelled. With UAH3.27bn of debt repayments made during the last two weeks, without funds from the primary auction,



repayments likely were made from tax payment budget proceeds or from additional NBU revenues normally transferred to the state budget.

The MoF could test the market during the next two weeks

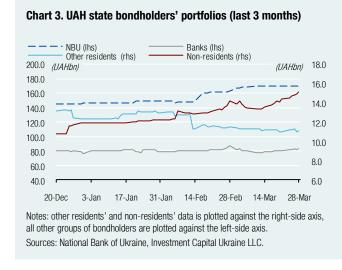
Most likely, the MoF will have a few weeks to test the market with a different list of offered bonds and interest rates. We could see changes in the list of bond offerings as well as interest rates. This week's and next week's low volume of repayments scheduled could allow the MoF to test these auctions.

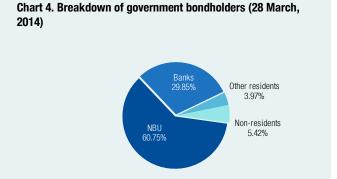
#### **Bondholder structure movements**

Large changes in portfolios occur due to redemptions and some small deals

Per routine for the last month, movements in bondholders' portfolios resulted from changes in the official UAH/USD exchange rate. If we will look at the non-residents' and NBU portfolios and exclude all changes caused by the exchange rate, we could see that only last Wednesday did large changes in portfolios occur due to redemptions and possibly also due to some small deals.

The NBU portfolio slid a mere UAH0.26bn while other portfolios increased The NBU portfolio declined last Wednesday UAH0.26bn, excluding small increases caused by the FX exchange rate increase. According to our assumptions, the NBU has in its portfolio a small portion of FX-denominated bonds amounting to about UAH50,000. Excluding the NBU's portfolio which declined after the debt redemption, other groups increased their portfolios outstanding due to the local currency devaluation, causing an increase in FX-denominated bonds outstanding (see the charts below).





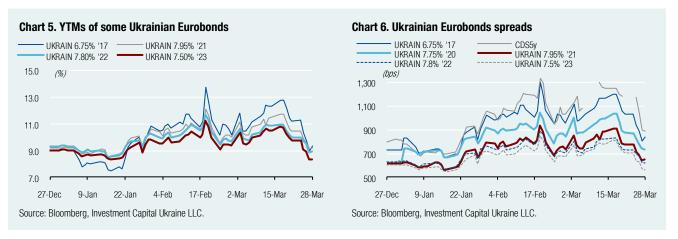
Sources: National Bank of Ukraine, Investment Capital Ukraine LLC.

### **Eurobond market**

### **Eurobond yield curve flattens**

Yields significantly declined and became more stable with slight volatility at about 9.0% The rebound in Ukrainian Eurobonds began about two weeks ago and continues with only a slight correction that occurred last Friday. Last week, the yield curve declined below 10.0%, excluding only two Eurobonds, YTMs of which declined too, but still a bit higher than 10.0%. The yields declined on significant pressure of positive news that Ukraine met the agreements with the IMF on the new program for a 2-year stand-by loan which could be approved soon. Also, last week the US Senate adopted a resolution on Ukrainian financial support. The EU kept its support on hold with support due but not yet a formally signed agreement with the IMF. As a result, this decline in the yield curve reflected lower political risks, including the situation that until the IMF press-release the policy with the new Ukrainian government was unclear.





We saw a small correction at the midpoint of the yield curve, but this correction increased the YTMs of some Eurobonds just slightly 2-35bp last Friday, causing slight volatility, to about 9.0%. The highest YTM was for UKRAIN 7.95% '14 which declined from above 40.0% to 16.48% last Friday.

If the MoF begins to receive external support for FX reserves and the state budget, we could see yields continue to decline, mostly below 9.0%. At the same time, the Crimean crisis remains unresolved and ample political snares could take place this week. Short-term risks remain high and the YTM of UKRAIN 7.95% '14 should remain higher than other Eurobonds.

Yield curve moved to the range of 8.32%-9.66%

At end of last week, only two Eurobonds had YTMs above 10.0%, excluding two Eurobonds issued in 2012, namely UKRAIN 9.25% '17 which had a YTM of 10.19% and UKRAIN 7.95% '14 with a YTM of 16.48%. Excluding these two Eurobonds and the UKRAIN 5.00% '15 which normally remains low, the yield curve moved to the range of 8.32%-9.66%, including UKRAIN 6.875% '15, which declined 9.66%, UKRAIN 6.25% '16, declined to 9.31%, UKRAIN 6.75% '17, declined to 9.32%, UKRAIN 7.95% '21, declined to 9.19%, and UKRAIN 7.80% '22, declined to 9.91%, while UKRAIN 7.50% '23 declined 4bp to 8.32%.

### **DTEK's production grows in 2013**

According to its 2013 production results released yesterday, DTEK increased its output of ROM coal by 4.3% to 41.4mt, production of electricity by 3.1% YoY to 53TWh, and distribution of electricity by 10.8% YoY to 59.7TWh. The company increased electricity exports by 1.2% YoY to 9.8TWh and increased coal exports by 72.7% YoY to 4.7mt.

DTEK was able to increase its production of electricity despite a 6.6% decrease in electricity consumption by the Ukrainian industry, as the company filled the shortage in supply of Ukrainian thermal power plants resulting from the fire accident at Kurakhovo TPP, a plant controlled by state-owned Centerenergo. DTEK was also able to counter the trend of falling coal production in Ukraine, being helped primarily by the positive effect from the consolidation of Russian coal mines acquired by the company in March and July 2012, as well as from the company's rising coal exports.



We see such a significant rise in DTEK's coal exports as a positive surprise, as the company reported entering new markets in Asia and Morocco, extending its cooperation with steel makers in China and South Korea, and resuming exports to consumers in the Mediterranean region.

Table 1. DTEK Eurobond quotation as of market close, 26 March 2014

Issuer	Moody's/S&P/Fitch	Ссу	Volume	Coupon rate (%)	Maturity	Price (%)	YTW (%)	Spread (bp)
DTEK	Caa1//CCC	USD	500m	9.50	28-Apr-15	93	17.522	1,723
DTEK	Caa1//CCC	USD	750m	7.875	04-Apr-18	83.375	13.366	1,169

Source: Bloomberg



# **Appendixes**

The following pages contain tabular information on the local fixed-income market. There are tables that detail government debt repayments such as a weekly schedule for current year and quarterly schedule for next 5 years.



## **UAH** bond market

Table 2. Ukrainian local-currency government bonds as of 28 Mar 2014

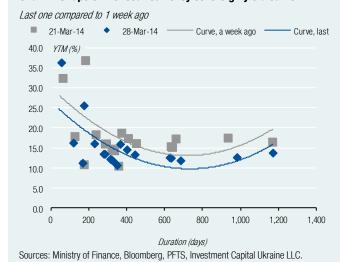
Ticker	Volume (UAHm)	Coupon rate (%)	Maturity	Price (% of par)	YTM (%)	Weekly price chg (bp)	Weekly yield chg (bp)	Duartion 1	W daily avg turnover (UAHm)	1W total turnover (UAHm)	Total turnover (UAHm)	Liquidity ratio*
140362	1,896.17	9.2	21-May-14	99.915	36.31	11	387	0.15	12.00	24.01	2,439.10	1.29
157135	3,263.40	7.97	23-Jul-14	99.063	16.33	75	-162	0.32	0.00	0.00	168.98	0.05
158794	1,681.65	7.5	10-Sep-14	98.815	11.31	5	37	0.45	0.00	0.00	1,662.88	0.99
149231	1,355.18	8.32	19-Nov-14	98.625	16.14	150	-226	0.63	0.00	0.00	1,938.76	1.43
151278	1,632.72	8.5	7-Jan-15	98.500	13.55	194	-257	0.76	0.00	0.00	1,446.66	0.89
000999	213.62	9.6	14-Jan-15	99.250	13.54	200	-259	0.78	0.00	0.00	0.00	0.00
155485	2,425.35	8.09	11-Feb-15	97.875	12.27	213	-256	0.86	0.69	1.38	5,639.68	2.33
157143	555.00	8.02	18-Feb-15	97.750	12.07	213	-250	0.88	0.00	0.00	0.00	0.00
157127	548.52	8.02	25-Feb-15	97.750	11.79	225	-262	0.90	17.09	17.09	2,274.04	4.15
160642	2,241.39	7.75	18-Mar-15	97.742	10.76	4	18	0.95	0.42	0.85	6,179.92	2.76
142699	3,460.65	9.45	22-Apr-15	98.375	16.01	263	-279	1.00	10.86	32.58	11,180.84	3.23
142681	610.59	4.8	6-May-15	102.750	-3.07	-6	1	0.11	0.00	0.00	0.00	0.00
141071	1,682.23	9.45	27-May-15	98.250	14.65	288	-282	1.10	13.48	26.95	6,447.58	3.83
142673	1,942.50	4.5	17-Jun-15	92.500	56.22	288	-1,547	0.22	0.00	0.00	0.00	0.00
144083	24.75	9.45	8-Jul-15	98.000	13.40	313	-280	1.21	0.00	0.00	0.00	0.00
152441	3,573.09	8.25	27-Jan-16	94.875	12.66	413	-277	1.72	0.00	0.00	55.17	0.02
153282	98.90	8.25	3-Feb-16	94.813	12.55	406	-270	1.73	0.00	0.00	71.92	0.73
160923	3,330.00	7.5	16-Mar-16	93.125	25.60	425	-1,126	0.47	0.00	0.00	0.00	0.00
160907	318.40	8	23-Mar-16	93.875	11.92	425	-544	1.87	0.00	0.00	151.96	0.48
160915	3,330.00	8.25	22-Mar-17	90.125	12.73	575	-485	2.69	0.00	0.00	0.00	0.00
151286	5,883.00	7.5	20-Dec-17	85.063	13.84	644	-273	3.21	0.00	0.00	0.00	0.00

Notes: 1W - last 7-day period; turnover figures are trade volumes for a bond reported by PFTS; total turnover - total volume of trades with the bond at PFTS since issue date; [\*] liquidity ratio - ratio of total turnover to bond's volume in outstanding.

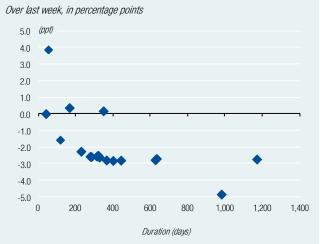
 $Sources: Bloomberg, PFTS, Investment \ Capital \ Ukraine \ LLC.$ 



### Chart 7. Shape of the local-currency sovereign yield curve

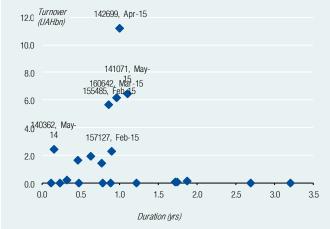


### Chart 8. Movement of the local-currency sovereign yield curve



Sources: Ministry of Finance, Bloomberg, PFTS, Investment Capital Ukraine LLC.

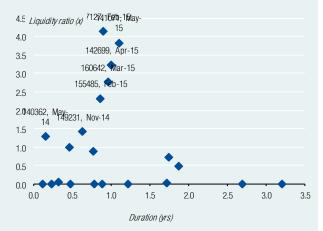
# Chart 9. Map of Ukraine's local-currency government bonds by total turnover plotted against their duration



Note: Total turnover and duration are taken from Table 2, page 7. The bonds with turnover of UAH2bn and more have labels, which consist of PFTS ticker and after a coma month and year of maturity.

Sources: Ministry of Finance, Bloomberg, PFTS, Investment Capital Ukraine LLC.

Chart 10. Map of Ukraine's local-currency government bonds by liquidity ratio plotted against their duration



Note: Total turnover and duration are taken from Table 2, page 7. The bonds with liquidity ratio of 1.1x and more have labels, which consist of PFTS ticker and after a coma month and year of maturity.

Sources: Ministry of Finance, Bloomberg, PFTS, Investment Capital Ukraine LLC.



## **Eurobond market**

Table 3. Ukrainian Eurobonds as of 28 Mar 2014

Ticker	Issuer	Ratings	Volume (million)		-	Maturity	Price (% of par)	YTM (%)	Weekly price chg (bp)	Weekly yield chg (bp)	Spread (bp)	Duration (years)
CITKIE-15	Kyiv	Caa2/CCC/CC	250.0	USD	8	6-Nov-15	84.688	19.64	700	-611	1,871	1.47
CITKIE-16	Kyiv	Caa2/CCC/CC C	300.0	USD	9.375	11-Jul-16	85.938	17.07	844	-535	1,598	2.04
AGTPW-14	Agroton	NR/NR/WD	50.0	USD	12.5	14-Jul-14	39.750	596.30	13	3,060	49,216	0.28
NAFTO-14	Naftogaz of Ukraine	NR/NR/CCC	1,595.0	USD	9.5	30-Sep-14	94.500	21.87	431	-1,002	2,058	0.49
PUMBUZ-1	<b>4</b> FUIB	Caa2/NR/NR	252.5	USD	11	31-Dec-14	88.750	28.34	438	-695	2,724	0.72
EXIMUK-15	Ukreximbank	Caa2/NR/CCC	750.0	USD	8.375	27-Apr-15	90.438	18.65	788	-940	1,812	1.00
DTEKUA-15	<b>5</b> DTEK	Caa1/NR/CCC	500.0	USD	9.5	28-Apr-15	96.000	13.63	688	-757	1,224	1.00
MHPSA-15	MHP	Caa1/NR/CCC	584.8	USD	10.25	29-Apr-15	99.188	11.06	400	-412	991	1.00
METINV-15	Metinvest Holding	Caa1/NR/CCC	500.0	USD	10.25	20-May-15	97.938	12.23	431	-430	1,098	1.06
PRBANK-1	<b>5</b> Pryvatbank	Caa1u/NR/CC C	200.0	USD	9.375	23-Sep-15	80.875	25.79	838	-868	2,447	1.40
AVINPU-15	Avangard	NR/NR/CCC	200.0	USD	10	29-0ct-15	98.188	11.28	263	-189	1,024	1.43
EXIMUK-16	Ukreximbank	Caa3/NR/C	125.0	USD	8.4	9-Feb-16	78.438	20.33	694	-563	1,856	1.75
OSCHAD-16	6 Oshchadbank	Caa2/NR/CCC	500.0	USD	8.25	10-Mar-16	87.500	16.00	769	-541	1,504	1.81
MRIYA-16	Mriya Agroholding	NR/CCC/CCC	250.0	USD	10.95	30-Mar-16	95.625	13.53	306	-187	1,270	1.84
FXPOLN-16	Ferrexpo PLC	Caa1/CCC+/C CC	500.0	USD	7.875	7-Apr-16	97.063	9.51	363	-208	895	1.82
INPIP-17	Interpipe	NR/NR/C	200.0	USD	10.25	2-Aug-17	78.000	19.52	-175	89	1,793	2.78
UKRINF-17	Infrastructure Projects Fin	Caa2/NR/NR	538.0	USD	8.375	3-Nov-17	79.000	16.34	0	3	1,499	2.98
UKRINF-17	Infrastructure Projects Fin	(P)Caa2/NR/N R	550.0	USD	9	7-Dec-17	87.644	13.35	495	-194	1,206	3.08
EXIMUK-18	Ukreximbank	Caa2/NR/CCC	500.0	USD	8.75	22-Jan-18	85.500	13.76	694	-276	1,181	3.21
METINV-18	Metinvest Holding	Caa1/NR/CCC	750.0	USD	8.75	14-Feb-18	93.500	10.85	606	-212	904	3.30
PRBANK-18	<b>B</b> Pryvatbank	Caa1u/NR/CC C	175.0	USD	10.875	28-Feb-18	75.938	20.04	313	-142	1,780	3.14
OSCHAD-18	<b>3</b> Oshchadbank	Caa2/NR/CCC	500.0	USD	8.875	20-Mar-18	85.313	13.81	644	-248	1,189	3.36
UKRINF-18	Infrastructure Projects Fin	Caa2/NR/NR	690.0	USD	7.4	20-Apr-18	78.625	14.57	0	3	1,219	3.36
UKRAIN-14	Ministry of Finance	Caa2/CCC/CC C	1,000.0	USD	7.95	4-Jun-14	97.750	20.94	425	-2,320	1,642	0.17
UKRAIN-15	Ministry of Finance	Caa2/CCC/CC C	500.0	USD	6.875	23-Sep-15	95.401	10.31	638	-507	914	1.42
UKRAIN-15	Ministry of Finance	Caa2/CCC/CC C	600.0	EUR	4.95	13-0ct-15	93.914	9.36	755	-607	773	1.48
UKRAIN-16	Ministry of Finance	Caa2/CCC/CC C	1,250.0	USD	6.25	17-Jun-16	94.971	8.80	788	-432	793	2.06
UKRAIN-16	Ministry of Finance	Caa2/CCC/CC C	1,000.0	USD	6.58	21-Nov-16	95.068	8.71	855	-401	791	2.40
UKRAIN-17	Ministry of Finance	Caa2/CCC/CC C	2,600.0	USD	9.25	24-Jul-17	97.473	10.16	769	-297	908	2.87
UKRAIN-17	Ministry of Finance	Caa2/CCC/CC C	700.0	USD	6.75	14-Nov-17	93.255	8.97	688	-246	778	3.17
UKRAIN-20	Ministry of Finance	Caa2/CCC/CC C	1,500.0	USD	7.75	23-Sep-20	93.567	9.09	697	-158	723	5.15
UKRAIN-21	Ministry of Finance	Caa2/CCC/CC C	1,500.0	USD	7.95	23-Feb-21	94.336	9.07	735	-159	626	5.34
UKRAIN-22	Ministry of Finance	Caa2/CCC/CC C	2,250.0	USD	7.8	28-Nov-22	93.535	8.88	712	-131	607	6.19



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UKRAIN-23 Ministry of Finance	Caa2/CCC/CC	1,250.0	USD	7.5 17-Apr-23	92.853	8.65	732	-130	581	6.39
	С									
VABANK-14 VAB Bank	Caa1 /*-	112.5	USD	10.5 14-Jun-14	90.100	38.87	0	0	4,071	0.38
	/NR/WD									
PRBANK-16 Pryvatbank	Caa2u/NR/NR	150.0	USD	8.75 9-Feb-16	68.515	28.89	6,852	2,889	2,709	1.75
OSCHAD-16 Oshchadbank	NR/NR/B	200.0	USD	8.25 10-Mar-16	0.000	0.00	0	0	0	0.00
NADRA-17 Nadra Bank	WR/NR/WD	59.7	USD	8 22-Jun-17	82.180	23.81	0	0	1,949	1.28

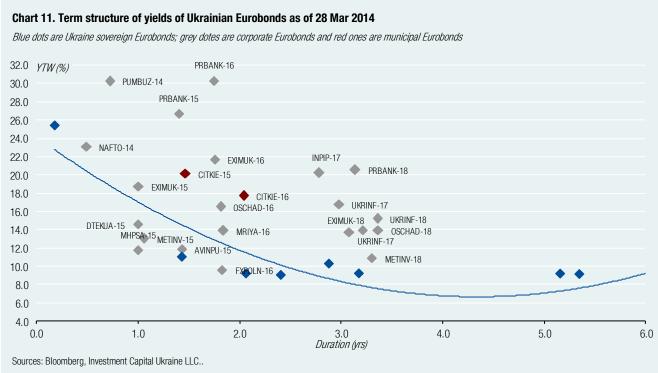
Sources: Bloomberg, Investment Capital Ukraine LLC.

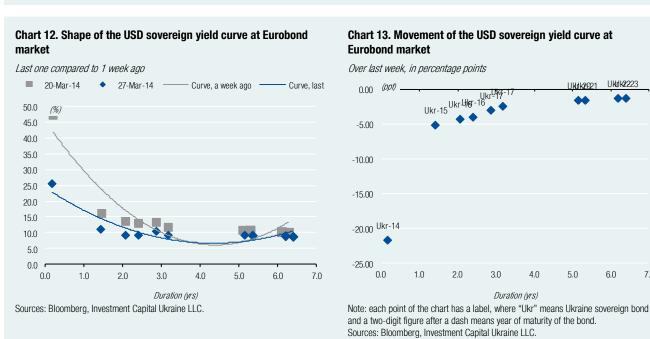


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6.0

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## **Primary market for UAH state bonds**

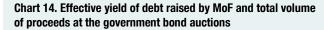
Table 4. Primary market for local-currency government bonds: results of recent auctions

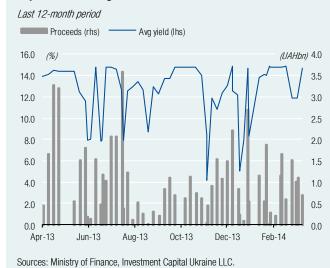
Date	Qty of bonds offered/ sold	Proceeds (UAHm)	bonds	Volume of bids submitted (UAHm)	Qty of bids sub- mitted	Lowest yield asked** (%)	Highest yield asked** (%)	MoF cutt- off yield (%)	Qty of bids accepted	Average yield (%)	WA yield (%)	Average duration (years)	WA duration (years)
12-Mar-14	1 2	684.52	712.08	712.08	3	14.00	14.00	14.00	3	14.71	14.71	0.29	0.29
6-Mar-14	1	1,100.34	1,100.00	1,100.00	1	11.50	11.50	11.50	1	11.86	11.86	3.92	3.92
4-Mar-14	1	1,000.00	1,000.00	1,000.00	1	11.50	11.50	11.50	1	11.86	11.86	3.93	3.93
27-Feb-14	1	1,503.69	1,500.00	1,500.00	1	11.50	11.50	11.50	1	11.86	11.86	3.91	3.91
26-Feb-14	1	1,500.00	1,500.00	1,500.00	1	11.50	11.50	11.50	1	11.86	11.86	3.93	3.93
18-Feb-14	1	600.00	600.00	600.00	1	14.25	14.25	14.25	1	14.84	14.84	3.73	3.73
13-Feb-14	1	1,655.00	1,650.00	1,650.00	1	14.25	14.25	14.25	1	14.80	14.80	3.71	3.71
11-Feb-14	1	1,151.08	1,145.00	1,145.00	2	14.25	14.25	14.25	2	14.79	14.79	3.69	3.69
4-Feb-14	1	209.27	208.71	208.71	2	14.25	14.25	14.25	2	14.79	14.79	3.71	3.71
29-Jan-14	1	273.01	273.01	0.00	2	14.25	14.25	14.25	2	14.80	14.80	3.73	3.73
28-Jan-14	1	10.11	10.00	10.00	1	14.30	14.30	14.30	1	14.85	14.85	4.56	4.56
23-Jan-14	3	1,881.79	688.05	1,958.05	11	8.25	14.25	10.67	10	14.03	14.13	1.48	1.59
21-Jan-14	3	537.93	340.00	540.28	10	5.00	14.25	9.17	7	14.15	14.48	1.41	1.83
14-Jan-14	2	1,150.73	1,152.26	1,152.26	19	8.75	14.25	11.50	6	13.85	14.76	2.35	3.68
31-Dec-13	3 1	544.86	550.00	550.00	1	8.00	8.00	8.00	1	8.29	8.29	0.12	0.12
30-Dec-13	3 4	2,695.11	2,374.81	2,645.12	6	5.00	14.30	9.64	6	14.67	14.81	2.09	3.81
24-Dec-13	3 1	99.96	99.83	99.83	1	7.75	7.75	7.75	1	7.92	7.92	2.71	2.71
19-Dec-13	3 2	234.96	184.00	234.00	4	4.80	5.00	4.90	4	5.00	5.06	0.02	0.02
17-Dec-13	3 2	837.39	123.30	823.30	2	7.75	14.25	11.00	2	12.14	14.09	3.07	3.49
10-Dec-13	3 2	405.47	47.49	397.49	2	7.75	14.30	11.03	2	12.53	14.40	3.59	4.31
9-Dec-13	2	2,211.89	2,200.00	2,200.00	2	14.25	14.30	14.28	2	14.83	14.84	4.14	4.31
3-Dec-13	4	1,480.13	1,405.00	1,454.93	5	7.75	14.30	12.10	5	13.04	14.66	3.60	3.96
26-Nov-13	3 5	1,083.86	862.07	1,082.98	13	4.00	14.30	9.56	13	12.39	11.66	2.63	1.82
19-Nov-13	5	1,542.65	761.35	1,536.85	9	4.00	14.25	9.10	9	10.87	10.94	3.11	2.68
12-Nov-13	3 5	906.07	654.81	900.81	15	4.00	14.25	8.65	14	11.93	10.63	1.43	0.58
6-Nov-13	1	458.93	460.00	565.00	11	4.00	10.00	4.25	4	4.12	4.12	0.06	0.06
5-Nov-13	1	49.89	48.65	48.65	1	8.25	8.25	8.25	1	8.41	8.41	1.58	1.58
29-0ct-13	2	614.19	625.55	665.55	7	7.75	14.25	11.13	5	14.03	14.02	2.19	2.18
22-0ct-13	1	739.96	738.00	738.00	3	14.25	14.25	14.25	3	14.79	14.79	3.71	3.71
15-0ct-13	2	1,128.68	1,126.01	1,126.01	3	14.25	14.30	14.28	3	14.82	14.82	4.17	4.12
8-0ct-13	1	613.39	606.94	606.94	3	14.25	14.25	14.25	3	14.79	14.79	3.66	3.66
24-Sep-13	3/2	694.79	677.00	678.61	6	8.25	14.30	9.52	4	14.82	14.84	4.07	4.42
17-Sep-13	3	1,093.44	1,021.00	1,081.01	6	4.80	14.30	11.12	5	13.68	14.66	3.20	3.87
10-Sep-13	3 4/3	840.87	794.63	820.02	10	8.25	14.30	9.20	9	13.73	14.70	3.34	3.52
3-Sep-13	5/2	207.13	207.00	282.10	11	0.00	16.00	4.86	3	12.29	10.40	5.37	6.44
27-Aug-13	3 4	302.20	166.64	319.64	14	7.75	14.30	11.26	12	12.91	13.24	3.09	2.79
20-Aug-13	3 2	20.07	20.00	20.00	3	8.25	8.75	8.50	3	8.74	8.85	2.23	2.46
13-Aug-13	3 5	250.03	228.63	249.60	8	7.75	14.30	10.66	8	12.70	13.99	2.68	2.06
6-Aug-13	2	513.53	496.03	530.43	9	8.25	14.30	11.28	4	13.44	14.80	3.08	4.50
30-Jul-13	3	120.84	85.84	149.34	12	7.75	14.25	10.08	7	12.92	10.47	1.82	1.50

Notes: the tables depicts the history of last 40 auctions; [\*] - volume of bonds sold at the auction at par value; [\*\*] - lowest and highest yields that are indicated in the bid orders submitted to the auction in order to buy all bonds offered by MoF.

Sources: Ministry of Finance, Investment Capital Ukraine LLC.







# Chart 15. Yield-to-maturity of government bonds sold at auctions, breakdown by duration of bonds sold

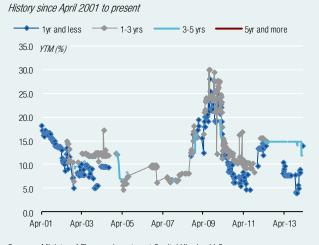


Sources: Ministry of Finance, Investment Capital Ukraine LLC.

# Chart 16. Effective yield of debt raised by MoF and total volume of proceeds at the government bond auctions



# Chart 17. Yield-to-maturity of government bonds sold at auctions, breakdown by duration of bonds sold



Sources: Ministry of Finance, Investment Capital Ukraine LLC.



# **UAH** state bonds outstanding

Table 5. Outstanding of local-currency government bonds

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
Government UAH	bonds							
UA4000176085	Zero-coupon bonds	1,002,052,000.00		Upon maturity	No	No		23-Apr-2014
UA4000118871	Coupon bonds	1,437,350,000.00	10.13	Semi-annually	No	No		30-Apr-2014
UA4000051403	Coupon bonds	1,000,000,000.00	15.60	Semi-annually	No	No		14-May-2014
UA4000179048	Zero-coupon bonds	610,000,000.00		Upon maturity	No	No		21-May-2014
UA4000179865	Zero-coupon bonds	712,080,000.00	14.00	Upon maturity	No	No		25-Jun-2014
UA4000123863	Coupon bonds	752,000,000.00	10.10	Semi-annually	No	No		9-Jul-2014
UA4000178883	Zero-coupon bonds	25,000,000.00		Upon maturity	No	No		15-0ct-2014
UA4000064026	Coupon bonds	1,000,000.00	18.50	Semi-annually	No	No		21-Jan-2015
UA4000064166	Coupon bonds	451,875,000.00	15.00	Semi-annually	No	No		28-Jan-2015
UA4000141592	Coupon bonds	250,000,000.00	14.30	Semi-annually	No	No		20-May-2015
UA4000106181	Coupon bonds	80,002,000.00	9.50	Quarterly	Yes	Yes	13-Jul-2016	13-Jul-2016
UA4000107528	Coupon bonds	7,875,000.00	12.50	Quarterly	Yes	No		20-Jul-2016
UA4000138853	Coupon bonds	1,928,720,000.00	14.30	Semi-annually	No	No		5-Apr-2017
UA4000142665	Coupon bonds	1,759,740,000.00	14.30	Semi-annually	No	No		24-May-2017
UA4000145973	Coupon bonds	1,810,000,000.00	14.30	Semi-annually	No	No		2-Aug-2017
UA4000148027	Coupon bonds	1,824,455,000.00	14.30	Semi-annually	No	No		11-0ct-2017
UA4000148571	Coupon bonds	1,890,000,000.00	14.30	Semi-annually	No	No		18-0ct-2017
UA4000177745	Coupon bonds	5,000,000.00	12.10	Semi-annually	No	No		15-Nov-2017
UA4000151203	Coupon bonds	1,493,409,000.00	14.30	Semi-annually	No	No		13-Dec-2017
UA4000157203	Coupon bonds	2,500,330,000.00	14.30	Semi-annually	No	No		7-Feb-2018
UA4000157119	Coupon bonds	1,818,593,000.00	14.30	Semi-annually	No	No		7-Nar-2018
UA4000160020	Coupon bonds	2,751,160,000.00	14.30	Semi-annually	No	No		4-Apr-2018
UA4000162127	·	1,585,600,000.00	14.25	-	No	No		·
UA4000165765 UA4000166219	Coupon bonds		14.25	Semi-annually	No	No		11-Apr-2018 18-Apr-2018
	Coupon bonds	400,000,000.00		Semi-annually				
UA4000166201	Coupon bonds	2,254,507,000.00	14.25	Semi-annually	No No	No No		2-May-2018
UA4000168082	Coupon bonds	3,050,250,000.00	14.25	Semi-annually	No No	No No		16-May-2018
UA4000171391	Coupon bonds	1,803,816,000.00	14.25	Semi-annually	No	No No		27-Jun-2018
UA4000170732	Coupon bonds	3,853,400,000.00	14.25	Semi-annually	No No	No		4-Jul-2018
UA4000174239	Coupon bonds	1,247,936,000.00	14.25	Semi-annually	No	No		5-Sep-2018
UA4000175467	Coupon bonds	1,364,010,000.00	14.25	Semi-annually	No	No		10-0ct-2018
UA4000176093	Coupon bonds	1,644,780,000.00	14.25	Semi-annually	No	No		24-0ct-2018
UA4000177919	Coupon bonds	2,100,000,000.00	14.25	Semi-annually	No	No		14-Nov-2018
UA4000178891	Coupon bonds	2,077,263,000.00	14.25	Semi-annually	No	No		9-Jan-2019
UA4000179196	Coupon bonds	1,626,723,000.00	14.25	Semi-annually	No	No		23-Jan-2019
UA4000179519	Coupon bonds	1,650,000,000.00	14.25	Semi-annually	No	No		30-Jan-2019
UA4000179766	Coupon bonds	1,500,000,000.00	11.50	Semi-annually	No	No		13-Feb-2019
UA4000179691	Coupon bonds	600,000,000.00	14.30	Semi-annually	No	No		13-Feb-2019
UA4000179741	Coupon bonds	1,500,000,000.00	11.50	Semi-annually	No	No		20-Feb-2019
UA4000179824	Coupon bonds	2,100,000,000.00	11.50	Semi-annually	No	No		27-Feb-2019
UA4000138861	Coupon bonds	2,160,000,000.00	14.00	Semi-annually	No	No		17-Apr-2019
UA4000142137	Coupon bonds	1,900,000,000.00	14.13	Semi-annually	No	No		22-May-2019
UA4000146997	Coupon bonds	1,996,041,000.00	14.30	Semi-annually	No	No		18-Sep-2019
UA4000148589	Coupon bonds	2,000,000,000.00	14.30	Semi-annually	No	No		23-0ct-2019
UA4000148944	Coupon bonds	500,000,000.00	14.30	Semi-annually	No	No		30-0ct-2019
UA4000157671	Coupon bonds	1,760,800,000.00	14.30	Semi-annually	No	No		12-Feb-2020
UA4000165773	Coupon bonds	1,820,000,000.00	14.30	Semi-annually	No	No		8-Apr-2020
UA4000166805	Coupon bonds	1,944,904,000.00	14.30	Semi-annually	No	No		6-May-2020
UA4000171094	Coupon bonds	2,403,338,000.00	14.30	Semi-annually	No	No		8-Jul-2020



Table 5. Outstanding of local-currency government bonds

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
UA4000175459	Coupon bonds	1,195,000,000.00	14.30	Semi-annually	No	No		23-Sep-2020
UA4000178024	Coupon bonds	2,024,807,000.00	14.30	Semi-annually	No	No		21-0ct-2020
UA4000177927	Coupon bonds	1,500,000,000.00	14.30	Semi-annually	No	No		18-Nov-2020
UA4000179170	Coupon bonds	10,000,000.00	14.30	Semi-annually	No	No		23-Dec-2020
UA4000173371	Coupon bonds	330,000,000.00	10.00	Semi-annually	No	No		23-Aug-2023
Total		76,013,816,000.00						
Government recap'r	n bonds							
UA4000063200	Coupon bonds	1,598,269,000.00	9.75	Semi-annually	No	No		11-Jun-2014
UA4000136436	Coupon bonds	1,500,000,000.00	9.65	Semi-annually	No	No		30-Jul-2014
UA4000136451	Coupon bonds	1,500,000,000.00	9.75	Semi-annually	No	No		8-0ct-2014
UA4000063218	Coupon bonds	1,598,270,000.00	9.75	Semi-annually	No	No		12-Nov-2014
UA4000063226	Coupon bonds	1,598,270,000.00	9.75	Semi-annually	No	No		17-Dec-2014
UA4000136469	Coupon bonds	1,500,000,000.00	9.95	Semi-annually	No	No		4-Feb-2015
UA4000092100	Coupon bonds	500,000,000.00	9.50	Semi-annually	No	No		18-Mar-2015
UA4000146393	Coupon bonds	1,000,000,000.00	9.95	Semi-annually	No	No		2-Sep-2015
UA4000048789	Coupon bonds	2,000,000,000.00	9.50	Semi-annually	No	No		18-Nov-2015
UA4000050090	Coupon bonds	4,000,000,000.00	9.50	Semi-annually	No	No		16-Dec-2015
UA4000092118	Coupon bonds	1,500,000,000.00	9.50	Semi-annually	No	No		17-Feb-2016
UA4000115190	Coupon bonds	1,250,000,000.00	9.50	Semi-annually	No	No		9-Mar-2016
UA4000050199	Coupon bonds	3,885,000,000.00	9.50	Semi-annually	No	No		13-Apr-2016
UA4000050017	Coupon bonds	3,700,000,000.00	9.50	Semi-annually	No	No		10-May-2016
UA4000092126	Coupon bonds	1,500,000,000.00	9.50	Semi-annually	No	No		29-Jun-2016
UA4000092134	Coupon bonds	1,500,000,000.00	9.50	Semi-annually	No	No		13-Jul-2016
UA4000119945	Coupon bonds	1,750,000,000.00	9.50	Semi-annually	No	No		24-Aug-2016
UA4000050207	Coupon bonds	3,885,000,000.00	9.50	Semi-annually	No	No		14-Sep-2016
UA4000115208	Coupon bonds	1,250,000,000.00	9.50	Semi-annually	No	No		15-Feb-2017
UA4000092142	Coupon bonds	1,200,000,000.00	9.50	Semi-annually	No	No		12-Apr-2017
UA4000057111	Coupon bonds	1,033,333,000.00	9.50	Semi-annually	No	No		31-May-2017
UA4000057277	Coupon bonds	1,188,431,000.00	9.50	Semi-annually	No	No		7-Jun-2017
UA4000057301	Coupon bonds	936,171,000.00	9.50	Semi-annually	No	No		14-Jun-2017
UA4000156863	Coupon bonds	2,000,000,000.00	14.30	Semi-annually	No	No		28-Jun-2017
UA4000058606	Coupon bonds	3,100,000,000.00	9.50	Semi-annually	No	No		19-Jul-2017
UA4000158315	Coupon bonds	1,000,000,000.00	14.30	Semi-annually	No	No		16-Aug-2017
UA4000092167	Coupon bonds	1,200,000,000.00	9.50	Semi-annually	No	No		23-Aug-2017
UA4000115216	Coupon bonds	1,250,000,000.00	9.50	Semi-annually	No	No		13-Sep-2017
UA4000058614	Coupon bonds	1,658,263,000.00	9.50	Semi-annually	No	No		4-0ct-2017
UA4000153340	Coupon bonds	1,500,000,000.00	14.30	Semi-annually	No	No		8-Nov-2017
UA4000153340	Coupon bonds	2,000,000,000.00	14.30	Semi-annually	No	No		29-Nov-2017
UA4000151476	Coupon bonds	500,000,000.00	14.30	Semi-annually	No	No		13-Dec-2017
UA4000133126 UA4000130082	Coupon bonds	2,000,000,000.00	9.50	Semi-annually	No	No		27-Dec-2017
UA4000130082	Coupon bonds	2,000,000,000.00	9.50	Semi-annually	No	No		17-Jan-2018
UA4000130090 UA4000115638	Coupon bonds	1,975,000,000.00	9.50	Semi-annually	No			21-Feb-2018
UA4000115056 UA4000160758	•	1,000,000,000.00	14.30	Semi-annually	No	No No		14-Mar-2018
	Coupon bonds			•				
UA4000061790 UA4000119952	Coupon bonds	1,400,000,000.00 1,750,000,000.00	9.50 9.50	Semi-annually	No No	No No		28-Mar-2018
	Coupon bonds			Semi-annually	No No	No No		25-Apr-2018
UA4000055586	Coupon bonds	1,000,000,000.00	9.50	Semi-annually	No No	No No		9-May-2018
UA4000057319	Coupon bonds	936,172,000.00	9.50	Semi-annually	No No	No No		30-May-2018
UA4000057129	Coupon bonds	1,033,333,000.00	9.50	Semi-annually	No No	No No		6-Jun-2018
UA4000057285	Coupon bonds	1,188,431,000.00	9.50	Semi-annually	No	No		13-Jun-2018
UA4000173314	Coupon bonds	1,250,000,000.00	14.25	Semi-annually	No	No		20-Jun-2018
UA4000058622	Coupon bonds	1,916,119,000.00	9.50	Semi-annually	No	No		18-Jul-2018



Table 5. Outstanding of local-currency government bonds

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
UA4000173306	Coupon bonds	1,250,000,000.00	14.25	Semi-annually	No	No		25-Jul-2018
UA4000173298	Coupon bonds	1,250,000,000.00	14.25	Semi-annually	No	No		1-Aug-2018
UA4000120877	Coupon bonds	604,000,000.00	9.50	Semi-annually	No	No		8-Aug-2018
UA4000173280	Coupon bonds	1,250,000,000.00	14.25	Semi-annually	No	No		15-Aug-2018
UA4000115224	Coupon bonds	1,250,000,000.00	9.50	Semi-annually	No	No		22-Aug-2018
UA4000062525	Coupon bonds	650,000,000.00	9.50	Semi-annually	No	No		12-Sep-2018
UA4000115646	Coupon bonds	1,975,001,000.00	9.50	Semi-annually	No	No		19-Sep-2018
UA4000058630	Coupon bonds	1,355,345,000.00	9.50	Semi-annually	No	No		3-0ct-2018
UA4000059323	Coupon bonds	1,000,000,000.00	9.50	Semi-annually	No	No		31-0ct-2018
UA4000121495	Coupon bonds	1,000,000,000.00	9.50	Semi-annually	No	No		7-Nov-2018
UA4000064307	Coupon bonds	1,000,000,000.00	9.50	Semi-annually	No	No		21-Nov-2018
UA4000177943	Coupon bonds	300,000,000.00	9.50	Semi-annually	No	No		28-Nov-2018
UA4000061808	Coupon bonds	1,400,000,000.00	9.50	Semi-annually	No	No		6-Feb-2019
UA4000064315	Coupon bonds	1,294,999,000.00	9.50	Semi-annually	No	No		13-Mar-2019
UA4000058648	Coupon bonds	1,933,060,000.00	9.50	Semi-annually	No	No		3-Apr-2019
UA4000121503	Coupon bonds	1,100,000,000.00	9.50	Semi-annually	No	No		15-May-2019
UA4000057293	Coupon bonds	1,188,432,000.00	9.50	Semi-annually	No	No		29-May-2019
UA4000057327	Coupon bonds	936,172,000.00	9.50	Semi-annually	No	No		5-Jun-2019
UA4000057137	Coupon bonds	1,033,334,000.00	9.50	Semi-annually	No	No		12-Jun-2019
UA4000064323	Coupon bonds	1,000,000,000.00	9.50	Semi-annually	No	No		17-Jul-2019
UA4000063119	Coupon bonds	1,276,191,000.00	9.50	Semi-annually	No	No		21-Aug-2019
UA4000064349	Coupon bonds	1,295,000,000.00	9.50	Semi-annually	No	No		25-Sep-2019
UA4000064117	Coupon bonds	900,000,000.00	9.50	Semi-annually	No	No		16-0ct-2019
UA4000064125	Coupon bonds	900,000,000.00	9.50	Semi-annually	No	No		20-Nov-2019
UA4000063010	Coupon bonds	950,000,000.00	9.50	Semi-annually	No	No		11-Mar-2020
UA4000061816	Coupon bonds	1,400,000,000.00	9.50	Semi-annually	No	No		15-Apr-2020
UA4000121511	Coupon bonds	1,100,000,000.00	9.50	Semi-annually	No	No		20-May-2020
UA4000063127	Coupon bonds	1,500,000,000.00	9.50	Semi-annually	No	No		17-Jun-2020
UA4000063028	Coupon bonds	949,981,000.00	9.50	Semi-annually	No	No		12-Aug-2020
UA4000061824	Coupon bonds	1,400,000,000.00	9.50	Semi-annually	No	No		4-Nov-2020
UA4000177950	Coupon bonds	1,400,000,000.00	9.50	Semi-annually	No	No		25-Nov-2020
UA40000177330	Coupon bonds	1,500,000,000.00	9.50	Semi-annually	No	No		9-Jun-2021
	Coupon bonds	1,100,000,000.00						
UA4000121529 UA4000063143	Coupon bonds	1,500,000,000.00	9.50 9.50	Semi-annually Semi-annually	No No	No No		22-Sep-2021 1-Jun-2022
Total	·	112,971,577,000.00	9.50	ociiii-aiiiiuaiiy	NO	INU		1-Juli-2022
Government VAT bo								
UA4000078141	Coupon bonds	14,532,000.00	5.50	Semi-annually	Yes	No		27-Jul-2015
UA4000078141 UA4000082531	Coupon bonds	614,344,500.00	5.50	Semi-annually	Yes	No		21-Aug-2015
UA4000082531	Coupon bonds	2,491,461,900.00	5.50	Semi-annually	Yes			24-Aug-2015
						No No		
UA4000083059 <b>Total</b>	Coupon bonds	1,810,435,500.00 <b>4,930,773,900.00</b>	5.50	Semi-annually	Yes	No		25-Aug-2015
Government indexed	d bonds							
UA4000129100	Coupon bonds	1,610,000,000.00	8.22	Semi-annually	No	No		24-Sep-2014
UA4000129902	Coupon bonds	175,000,000.00	8.22	Semi-annually	No	No		22-0ct-2014
UA4000130595	Coupon bonds	200,000,000.00	8.25	Semi-annually	No	No		29-0ct-2014
UA4000130603	Coupon bonds	1,200,100,000.00	8.22	Semi-annually	No	No		5-Nov-2014
UA4000132278	Coupon bonds	250,000,000.00	9.75	Semi-annually	No	No		3-Dec-2014
UA4000137822	Coupon bonds	700,000,000.00	9.30	Semi-annually	No	No		4-Mar-2015
UA4000138242	Coupon bonds	470,000,000.00	9.30	Semi-annually	No	No		8-Apr-2015
UA4000139513	Coupon bonds	900,000,000.00	9.30	Semi-annually	No	No		13-May-2015
UA4000141600	Coupon bonds	100,000,000.00	9.30	Semi-annually	No	No		3-Jun-2015



Table 5. Outstanding of local-currency government bonds

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
UA4000144075	Coupon bonds	600,000,000.00	9.30	Semi-annually	No	No		15-Jul-2015
UA4000146070	Coupon bonds	200,000,000.00	9.30	Semi-annually	No	No		12-Aug-2015
UA4000146500	Coupon bonds	525,000,000.00	9.30	Semi-annually	No	No		9-Sep-2015
UA4000148217	Coupon bonds	329,000,000.00	9.30	Semi-annually	No	No		28-Oct-2015
UA4000149082	Coupon bonds	580,000,000.00	9.30	Semi-annually	No	No		11-Nov-2015
UA4000151500	Coupon bonds	557,000,000.00	9.19	Semi-annually	No	No		13-Jan-2016
UA4000160634	Coupon bonds	60,000,000.00	9.10	Semi-annually	No	No		16-Mar-2016
UA4000129233	Coupon bonds	850,000,000.00	8.75	Semi-annually	No	No		10-Aug-2016
UA4000129118	Coupon bonds	1,940,000,000.00	8.75	Semi-annually	No	No		28-Sep-2016
UA4000177406	Coupon bonds	477,000,000.00	9.50	Semi-annually	No	No		16-Nov-2016
UA4000129241	Coupon bonds	1,000,000,000.00	9.25	Semi-annually	No	No		15-Sep-2021
Total		12,723,100,000.00						
Government forei	gn-currency bonds							
UA4000177125	Zero-coupon bonds	333,000,000.00		Upon maturity	No	No		23-Apr-2014
UA4000140362	Coupon bonds	1,896,168,600.00	9.20	Semi-annually	No	No		21-May-2014
UA4000157135	Coupon bonds	3,263,400,000.00	7.97	Semi-annually	No	No		23-Jul-2014
UA4000158794	Coupon bonds	1,681,650,000.00	7.50	Semi-annually	No	No		10-Sep-2014
UA4000174247	Coupon bonds	915,883,200.00	4.80	Semi-annually	No	Yes	29-0ct-2014	29-0ct-2014
UA4000149231	Coupon bonds	1,355,176,800.00	8.32	Semi-annually	No	No		19-Nov-2014
UA4000173058	Coupon bonds	1,110,000,000.00	7.75	Semi-annually	No	No		26-Nov-2014
UA4000177133	Coupon bonds	2,497,500,000.00	7.88	Semi-annually	No	No		10-Dec-2014
UA4000171649	Coupon bonds	1,101,508,500.00	8.25	Semi-annually	No	No		24-Dec-2014
UA4000151278	Coupon bonds	1,632,721,200.00	8.50	Semi-annually	No	No		7-Jan-2015
UA4000133771	Coupon bonds	213,619,500.00	9.60	Semi-annually	No	No		14-Jan-2015
UA4000155485	Coupon bonds	2,425,350,000.00	8.09	Semi-annually	No	No		11-Feb-2015
UA4000157143	Coupon bonds	555,000,000.00	8.02	Semi-annually	No	No		18-Feb-2015
UA4000157127	Coupon bonds	548,517,600.00	8.02	Semi-annually	No	No		25-Feb-2015
UA4000160642	Coupon bonds	2,241,389,700.00	7.75	Semi-annually	No	No		18-Mar-2015
UA4000142699	Coupon bonds	3,460,647,000.00	9.45	Semi-annually	No	No		22-Apr-2015
UA4000166821	Coupon bonds	2,959,260,000.00	7.75	Semi-annually	No	No		6-May-2015
UA4000142681	Coupon bonds	610,588,800.00	4.80	Semi-annually	No	Yes	6-May-2015	6-May-2015
UA4000141071	Coupon bonds	1,682,227,200.00	9.45	Semi-annually	No	No		27-May-2015
UA4000167837	Coupon bonds	1,928,181,000.00	7.75	Semi-annually	No	No		3-Jun-2015
UA4000142673	Coupon bonds	1,942,500,000.00	4.50	Semi-annually	No	Yes	17-Jun-2015	17-Jun-2015
UA4000144083	Coupon bonds	24,753,000.00	9.45	Semi-annually	No	No		8-Jul-2015
UA4000171409	Coupon bonds	1,158,595,800.00	8.25	Semi-annually	No	No		15-Jul-2015
UA4000152441	Coupon bonds	3,573,090,000.00	8.25	Semi-annually	No	No		27-Jan-2016
UA4000153282	Coupon bonds	98,901,000.00	8.25	Semi-annually	No	No		3-Feb-2016
UA4000160923	Coupon bonds	3,330,000,000.00	7.50	Semi-annually	No	Yes	16-Mar-2016	16-Mar-2016
UA4000160907	Coupon bonds	318,403,500.00	8.00	Semi-annually	No	No		23-Mar-2016
UA4000166847	Coupon bonds	826,395,000.00	8.00	Semi-annually	No	No		25-May-2016
UA4000172506	Coupon bonds	2,506,235,700.00	8.75	Semi-annually	No	No		10-Aug-2016
UA4000177414	Coupon bonds	3,313,350,000.00	7.75	Semi-annually	No	Yes	26-0ct-2016	26-0ct-2016
UA4000177752	Coupon bonds	554,178,600.00	7.75	Semi-annually	No	Yes	30-Nov-2016	30-Nov-2016
UA4000178305	Coupon bonds	1,108,135,200.00	7.75	Semi-annually	No	No		14-Dec-2016
UA4000160915	Coupon bonds	3,330,000,000.00	8.25	Semi-annually	No	No		22-Mar-2017
UA4000166854	Coupon bonds	3,607,500,000.00	7.45	Semi-annually	No	Yes	17-May-2017	17-May-2017
UA4000151286	Coupon bonds	5,883,000,000.00	7.50	Semi-annually	No	No		20-Dec-2017
UA4000177554	Coupon bonds	2,219,078,700.00	7.50	Semi-annually	No	Yes	21-Nov-2018	21-Nov-2018
Total		66,205,905,600.00						



## Table 5. Outstanding of local-currency government bonds

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
Grand total	272	2,845,172,500.00						

Note: the list of local-currency government bonds may not be complete as it reflects ICU knowledge regarding the outstanding stock of the government bonds, which is published by Ministry of Finance of Ukraine as its website (http://minfin.gov.ua/control/publish/article/main?art\_id=274776&cat\_id=234036).

Sources: Ministry of Finance, Investment Capital Ukraine LLC.



## 2014 weekly state debt payback

Table 6. Weekly schedule of state bond auctions and volume of state debt\* to be repaid within a 7-day period since auction date (UAH)

Month	Auction details	1st Tuesday	2nd Tuesday	3rd Tuesday	4th Tuesday	5th Tuesday
January	Auction date	1-Jan-13	8-Jan-13	15-Jan-13	22-Jan-13	29-Jan-13
	Local debt repayment <sup>1</sup>	0.00	0.00	0.00	0.00	0.00
	External debt repayment <sup>2</sup>	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00
ebruary	Auction date	5-Feb-13	12-Feb-13	19-Feb-13	26-Feb-13	
	Local debt repayment <sup>1</sup>	0.00	0.00	0.00	0.00	
Narch	External debt repayment <sup>2</sup>	0.00	0.00	0.00	0.00	
	Total	0.00	0.00	0.00	0.00	
March	Auction date	5-Mar-13	12-Mar-13	19-Mar-13	26-Mar-13	
	Local debt repayment <sup>1</sup>	0.00	0.00	0.00	0.00	
	External debt repayment <sup>2</sup>	0.00	0.00	0.00	0.00	
	Total	0.00	0.00	0.00	0.00	
April	Auction date	2-Apr-13	9-Apr-13	16-Apr-13	23-Apr-13	30-Apr-13
	Local debt repayment <sup>1</sup>	0.00	0.00	0.00	0.00	0.00
Nay	External debt repayment <sup>2</sup>	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.6 0.6 28-May-1 0.6 0.6 30-Jul-1 0.6
May	Auction date	30-Apr-13	7-May-13	14-May-13	21-May-13	28-May-13
	Local debt repayment <sup>1</sup>	0.00	0.00	0.00	0.00	0.00
	External debt repayment <sup>2</sup>	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00
June	Auction date	4-Jun-13	11-Jun-13	18-Jun-13	25-Jun-13	
	Local debt repayment <sup>1</sup>	0.00	0.00	0.00	0.00	
	External debt repayment <sup>2</sup>	0.00	0.00	0.00	0.00	
	Total	0.00	0.00	0.00	0.00	
July	Auction date	2-Jul-13	9-Jul-13	16-Jul-13	23-Jul-13	30-Jul-13
July	Local debt repayment <sup>1</sup>	0.00	0.00	0.00	0.00	0.00
	External debt repayment <sup>2</sup>	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00
August	Auction date	6-Aug-13	13-Aug-13	20-Aug-13	27-Aug-13	
	Local debt repayment <sup>1</sup>	0.00	0.00	0.00	0.00	
March  April  May  June  July  August  September	External debt repayment <sup>2</sup>	0.00	0.00	0.00	0.00	
	Total	0.00	0.00	0.00	0.00	29-Oct-1: 0.0 0.0 28-May-1. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
September	Auction date	3-Sep-13	10-Sep-13	17-Sep-13	24-Sep-13	
	Local debt repayment <sup>1</sup>	0.00	0.00	0.00	0.00	
	External debt repayment <sup>2</sup>	0.00	0.00	0.00	0.00	
	Total	0.00	0.00	0.00	0.00	
October	Auction date	1-0ct-13	8-0ct-13	15-0ct-13	22-0ct-13	29-0ct-13
	Local debt repayment <sup>1</sup>	0.00	0.00	0.00	0.00	0.00
	External debt repayment <sup>2</sup>	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00
November	Auction date	5-Nov-13	12-Nov-13	19-Nov-13	26-Nov-13	
	Local debt repayment <sup>1</sup>	0.00	0.00	0.00	0.00	
	External debt repayment <sup>2</sup>	0.00	0.00	0.00	0.00	
	Total	0.00	0.00	0.00	0.00	
December	Auction date	3-Dec-13	10-Dec-13	17-Dec-13	24-Dec-13	31-Dec-13
	Local debt repayment <sup>1</sup>	0.00	0.00	0.00	0.00	0.00
	External debt repayment <sup>2</sup>	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00

Notes: highlighted data — above UAH1bn in bold font, above UAH4bn shaded in blue; [\*] interest and principal; [1] — government bonds (ordinary bonds, VAT bonds and recapitalisation bonds; [2] — external debt means Eurobonds and loans denominated in local currency by most recent FX rates. Sources: Ministry of Finance of Ukraine, Investment Capital Ukraine LLC.



# 5yr sovereign local debt payback

Table 7. Local-currency bonds repayments for the upcoming 5-year period

		Repayments (UAHm)								Repayments, US dollar equivalent (US\$m)								
	ı	Interest			Principal		Total		Interest			Principal			Total			
Period	Ordin- aries	VATs	Recaps	Ordin- aries	VATs	Recaps	Inte- rest	Prin- cipal	Ordin- aries	VATs	Recaps	Ordin- aries	VATs	Recaps	Inte- rest	Prin- cipal		
BY QUAF	RTERS																	
2Q14	2,972.5		3,137.4	4,762.3		1,598.3	7,897.4	8,589.7	270.2		285.2	432.9		145.3	717.9	780.9		
3Q14	2,193.8	135.6	2,551.4	752.8	1,643.6	1,500.0	6,239.9	10,451.4	199.4	12.3	231.9	68.4	149.4	136.4	567.3	950.1		
4Q14	2,950.8		3,371.4	25.8		4,696.5	8,037.4	13,527.5	268.3		306.5	2.3		427.0	730.7	1,229.8		
1Q15	2,026.6	90.4	2,169.8	453.7	1,643.6	2,000.0	5,386.6	12,413.9	184.2	8.2	197.3	41.2	149.4	181.8	489.7	1,128.5		
2Q15	2,821.6		2,833.2	250.8			7,027.7	14,304.2	256.5		257.6	22.8			638.9	1,300.4		
3Q15	2,207.2	45.2	2,560.9	0.8	1,643.6	1,000.0	5,656.7	5,152.7	200.7	4.1	232.8	0.1	149.4	90.9	514.2	468.4		
4Q15	2,847.4		2,961.1	0.8		6,000.0	6,537.5	6,909.8	258.9		269.2	0.1		545.5	594.3	628.2		
1Q16	2,077.9		2,201.9	0.8		2,750.0	5,012.6	10,688.2	188.9		200.2	0.1		250.0	455.7	971.7		
2Q16	2,847.4		2,642.4	0.8		9,085.0	6,176.5	9,912.2	258.9		240.2	0.1		825.9	561.5	901.1		
3Q16	2,077.9		2,071.3	80.8		7,135.0	4,564.5	12,512.0	188.9		188.3	7.3		648.6	415.0	1,137.5		
4Q16	2,831.2		2,245.7				5,730.5	5,452.7	257.4		204.2				521.0	495.7		
1Q17	2,061.7		1,732.4			1,250.0	3,977.7	4,580.0	187.4		157.5			113.6	361.6	416.4		
2Q17	2,831.2		2,245.7	3,688.5		6,357.9	5,515.0	13,653.9	257.4		204.2	335.3		578.0	501.4	1,241.3		
3Q17	2,061.7		1,673.0	1,810.0		6,550.0	3,781.0	8,360.0	187.4		152.1	164.5		595.5	343.7	760.0		
4Q17	2,567.4		1,895.7	5,212.9		7,658.3	4,766.9	18,754.1	233.4		172.3	473.9		696.2	433.4	1,704.9		
1Q18	1,932.3		1,337.9	4,318.9		6,375.0	3,316.5	10,693.9	175.7		121.6	392.6		579.5	301.5	972.2		
2Q18	2,194.8		1,435.9	11,845.3		7,157.9	3,713.9	19,003.3	199.5		130.5	1,076.8		650.7	337.6	1,727.6		
3Q18	1,623.5		1,011.1	5,101.3		10,145.1	2,680.8	15,246.5	147.6		91.9	463.8		922.3	243.7	1,386.0		
4Q18	1,350.1		1,066.2	5,108.8		4,655.3	2,499.5	11,983.2	122.7		96.9	464.4		423.2	227.2	1,089.4		
BY YEAR	S																	
2014	8,117.1	135.6	9,060.3	5,540.8	1,643.6	7,794.8	22,174.7	32,568.6	737.9	12.3	823.7	503.7	149.4	708.6	2,015.9	2,960.8		
2015	9,902.8	135.6	10,525.1	706.0	3,287.2	9,000.0	24,608.5	38,780.6	900.3	12.3	956.8	64.2	298.8	818.2	2,237.1	3,525.5		
2016	9,834.4		9,161.4	82.4		18,970.0	21,484.2	38,565.1	894.0		832.9	7.5		1,724.5	1,953.1	3,505.9		
2017	9,522.0		7,546.8	10,711.3		21,816.2	18,040.7	45,348.0	865.6		686.1	973.8		1,983.3	1,640.1	4,122.5		
2018	7,100.7		4,851.1	26,374.4		28,333.4	12,210.7	56,926.9	645.5		441.0	2,397.7		2,575.8	1,110.1	5,175.2		

Notes: Ordinaries - the government bonds sold via auctions; VATs - VAT bonds; Recaps - recapitalisation bonds.

Sources: Ministry of Finance, Investment Capital Ukraine LLC.



## 5yr sovereign external debt payback

Table 8. Foreign-currency debt\* (Eurobonds and loans) repayments for the upcoming 5-year period

		Repaymo	ents, hryvnia	equivalent	(UAHm)	Repayments, US dollar equivalent (US\$m)							
	Intere	est	Princ	ipal	Tot	al	Intere	st	Princi	pal	Total		
Period	Eurobond	Loan	Eurobond	Loan	Interest	Principal	Eurobond	Loan	Eurobond	Loan	Interest	Principal	
BY QUART	ERS												
1Q14	0.0	22.9	0.0	1,023.1	22.9	1,023.1	0.0	2.1	0.0	93.4	2.1	93.4	
2Q14	3,931.4	1,630.0	10,954.6	8,867.0	5,561.4	19,821.6	358.9	148.8	1,000.0	809.4	507.7	1,809.4	
3Q14	2,795.5	1,122.3	0.0	10,107.4	3,917.8	10,107.4	255.2	102.5	0.0	922.7	357.6	922.7	
4Q14	3,496.0	1,514.1	0.0	10,805.6	5,010.1	10,805.6	319.1	138.2	0.0	986.4	457.4	986.4	
1Q15	2,795.5	904.6	0.0	9,530.6	3,700.1	9,530.6	255.2	82.6	0.0	870.0	337.8	870.0	
2Q15	3,496.0	1,150.0	0.0	14,240.5	4,646.0	14,240.5	319.1	105.0	0.0	1,300.0	424.1	1,300.0	
3Q15	2,795.5	584.8	5,477.3	2,158.5	3,380.2	7,635.8	255.2	53.4	500.0	197.0	308.6	697.0	
4Q15	3,496.0	659.1	39,025.0	990.7	4,155.1	40,015.6	319.1	60.2	3,562.4	90.4	379.3	3,652.9	
1Q16	2,607.2	529.1	0.0	7,224.5	3,136.3	7,224.5	238.0	48.3	0.0	659.5	286.3	659.5	
2Q16	2,521.9	655.4	13,693.3	815.6	3,177.3	14,508.8	230.2	59.8	1,250.0	74.5	290.0	1,324.5	
3Q16	2,607.2	243.8	0.0	2,473.4	2,851.0	2,473.4	238.0	22.3	0.0	225.8	260.3	225.8	
4Q16	2,094.0	622.7	10,954.6	4,910.5	2,716.7	15,865.1	191.2	56.8	1,000.0	448.3	248.0	1,448.3	
1Q17	2,607.2	135.6	0.0	3,286.4	2,742.8	3,286.4	238.0	12.4	0.0	300.0	250.4	300.0	
2Q17	1,733.6	432.5	0.0	3,560.2	2,166.0	3,560.2	158.3	39.5	0.0	325.0	197.7	325.0	
3Q17	2,607.2	0.0	28,482.0	0.0	2,607.2	28,482.0	238.0	0.0	2,600.0	0.0	238.0	2,600.0	
4Q17	1,733.6	299.8	7,668.2	5,805.9	2,033.4	13,474.2	158.3	27.4	700.0	530.0	185.6	1,230.0	
1Q18	1,289.9	0.0	0.0	0.0	1,289.9	0.0	117.8	0.0	0.0	0.0	117.8	0.0	
2Q18	1,474.8	82.1	0.0	0.0	1,556.9	0.0	134.6	7.5	0.0	0.0	142.1	0.0	
3Q18	1,289.9	0.0	0.0	0.0	1,289.9	0.0	117.8	0.0	0.0	0.0	117.8	0.0	
4Q18	1,474.8	82.1	0.0	2,190.0	1,556.9	2,190.0	134.6	7.5	0.0	199.9	142.1	199.9	
BY YEARS													
2014	10,222.9	4,289.3	10,954.6	30,803.0	14,512.2	41,757.6	933.2	391.6	1,000.0	2,811.9	1,324.8	3,811.9	
2015	12,582.9	3,298.5	44,502.3	26,920.4	15,881.4	71,422.6	1,148.6	301.1	4,062.4	2,457.4	1,449.7	6,519.9	
2016	9,830.2	2,051.0	24,647.9	15,424.0	11,881.2	40,071.8	897.4	187.2	2,250.0	1,408.0	1,084.6	3,658.0	
2017	8,681.5	867.9	36,150.2	12,652.6	9,549.4	48,802.7	792.5	79.2	3,300.0	1,155.0	871.7	4,455.0	
2018	5,529.3	164.3	0.0	2,190.0	5,693.6	2,190.0	504.8	15.0	0.0	199.9	519.7	199.9	

Notes: [\*] debt redemptions include also interest payments; debt comprises Eurobonds, IMF and VTB loans; IMF loan is meant all tranches received in 2008-10; [1] redemption of US\$2bn loan to VTB is a worst-case scenario within this loan agreement, it may be prolonged 2 times and this in effect may shift the redemption to 4Q11 or 2Q12. Sources: Ministry of Finance, IMF, Bloomberg, Reuters, Investment Capital Ukraine LLC.



## Ukraine issuers' credit metrics

Table 9. Ukrainian corporate bond issuers and their key financial figures and ratios\* (US\$m)

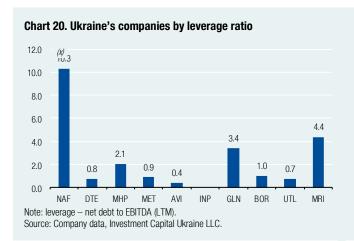
Issuer	Ticker	Filing	Reve- nues	EBITDA	Int exp	Cash	ST debt	LT debt	Debt	Net debt	EBITDA mrg (%)	Debt/ EBITDA (x)	Net debt/ EBITDA (x)	EBITDA int cov (x)
Naftogaz of Ukraine	NAFT0	4Q10	11,673.6	502.2	-613.5	333.2	685.2	4,824.9	5,510.1	5,176.9	4.3	11.0	10.3	Neg.
DTEK	DTEKUA	4Q11	4,965.0	1,294.6	60.9	1,304.1	429.4	1,878.3	2,307.7	1,003.6	26.1	1.8	0.8	21.2
MHP	MHPSA	1Q12	1,279.9	416.4	77.2	111.0	210.5	755.3	965.8	854.8	32.5	2.3	2.1	5.4
Metinvest Holding	METINV	4Q11	14,189.0	3,533.0	220.0	792.0	1,147.0	2,834.0	3,981.0	3,189.0	24.9	1.1	0.9	16.1
Avangard	AVINPU	4Q11	553.3	222.1	12.3	237.8	122.5	210.0	332.6	94.8	40.1	1.5	0.4	18.1
Interpipe	INPIP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concern Galnaftogaz	GLNGUZ	1Q12	1,647.2	96.8	26.3	13.9	136.9	203.9	340.8	326.9	5.9	3.5	3.4	3.7
Boryspil Int'l Airport	BORYS	1Q12	431.4	277.8	2.3	33.8	108.0	212.5	320.5	286.8	64.4	1.2	1.0	122.0
Ukrtelecom	UTLMUZ	2Q12	2,091.2	470.0	103.5	22.3	177.7	194.3	372.1	349.8	22.5	0.8	0.7	4.5
Mriya Agro Holding	MRIYA	3Q11	344.8	42.6	40.1	192.0	96.0	282.2	378.3	186.3	12.4	8.9	4.4	1.1
Ferrexpo	FXPOLN	4Q11	1,788.0	798.0	43.3	890.2	18.9	951.4	970.4	80.2	44.6	1.2	0.1	18.4
Agroton	AGTPW	2Q11	102.1	10.4	0.3	4.2	19.3	1.0	20.3	16.1	10.2	2.0	1.6	31.0
Agromat	AGROM	2Q11	149.7	28.3	16.0	3.3	23.5	30.1	53.5	50.2	18.9	1.9	1.8	1.8
KSG Agro	KSGPW	3Q11	3.2	1.7	-0.7	5.5	5.6	10.7	16.4	10.9	52.8	9.5	6.4	Neg.
IMC	IMCPW	3Q11	5.6	-2.3	0.2	13.4	4.0	18.1	22.1	8.7	Neg.	Neg.	Neg.	Neg.

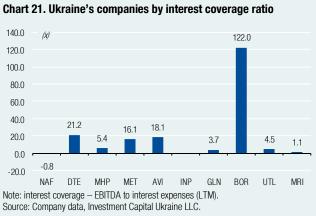
Notes: [\*] financial figures and appropriate ratios are calculated using LTM data; LTM - last 12-month period; Int exp - interest expenses; ST debt - short-term debt; LT debt - long-term debt; int cov - interest coverage.

Sources: Company data, Investment Capital Ukraine LLC.













# **Glossary**

The following is the list of terms, phrases and abbreviations that are frequently used in this report's weekly publications.

**Average duration**, or interchangeably, **bond auction average duration**: Duration calculated from all cash flows obtained from the bonds sold at the auction. Yield-to-maturity, price, and each cash flow (coupons and principal) are calculated on a per-bond basis.

**Average yield**, or interchangeably, **bond auction average yield**: A yield-to-maturity calculated from all cash flows obtained from the bonds sold at the auction and versus the total price paid per bond to acquire them. Price and each cash flow (coupons and principal) are calculated on a per-bond basis.

Basis point, or interchangeably, bp: One-hundredth of a percentage point, or 0.01%.

BoP: Balance of payments.

**Certificate(s) of Deposit**, or interchangeably, **CD(s):** Short-term money market instruments that allow the NBU, the central bank, to absorb excess liquidity from the local banks. Their durations are 2, 3, or up to 5 days; two weeks; one month; 1.5 months; two months; and up to three months.

**CDS:** A Credit default swap; a contract that references the performance of a loan or a bond (sovereign, corporate, or municipal). A CDS is normally quoted in basis points, or hundredths of a percent.

**CRA:** Credit rating agency. These include international industry majors Moody's, Standard & Poor's, and Fitch. It could refer also to other credit rating agencies, including Credit-Rating of Ukraine.

**EFSF:** European Financial Stability Facility (http://www.efsf.europa.eu), created on 9 May, 2010 by the euro area member states, as a Luxembourg-registered company owned by Euro Area Member States (EAMS), which has a mandate to lend to the EAMS in times of difficulty, e.g., in bail-outs. For the purpose of its operations, the EFSF is able to issue bonds EAMS-guaranteed for up to €440bn. Thanks to its structure of credit enhancements, including a cash reserve and a loan-specific cash buffer¹, the EFSF has top credit ratings from major CRAs: 'Aaa' by Moody's, 'AAA' by S&P, and 'AAA' by Fitch.

**MoE:** Ministry of Economy of Ukraine (http://www.me.gov.ua).

MoF: Ministry of Finance of Ukraine (http://www.minfin.gov.ua).

NBU: National Bank of Ukraine, the central bank of Ukraine (http://www.bank.gov.ua).

**Party of Regions**, or interchangeably, **PoR:** The *de facto* ruling political party in Ukraine currently. It won the presidency in the February 2010 presidential elections with a slim margin over Yulia Tymoshenko's Bloc, then consolidated power in the parliament, where it has a majority over minor loyal factions, while incapable of forming a majority itself. The next elections for Parliament and the president's office are expected to take place in 2012 and 2015, respectively.

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<sup>&</sup>lt;sup>1</sup> For instance, in order to lend €17.7bn to Ireland, the EFSF has to raise around €26.5bn from the financial market.



Percentage point, or interchangeably, ppt: one percent, 1%.

**Recaps**, or interchangeably, **recapitalisation bonds**: Local-currency bond(s), representing a general financial obligation by the government on par with other government's financial obligations, which was/were issued with the purpose of recapitalising state-owned entities like Naftogaz of Ukraine, commercial banks from Ukreximbank to Oschadbank, and the State Mortgage Institution (SMI).

**UAH:** Ukrainian national currency, the hryvnia.

**UAH TWI**, or interchangeably, **hryvnia trade-weighted index:** Index of the local currency calculated by Investment Capital Ukraine (ICU), which is calculated upon nominal exchanges rates to the US dollar and headline consumer price inflation indices of Ukraine and its 26 trading partners, which as a whole, comprise a 76% share of merchandise trade turnover. Please refer to *ICU Quarterly Report* "Ukraine's See-saw Puzzle" published on 14 July, 2009 for more details on the methodology of the index. There are nominal and real UAH TWIs, the former based on exchange rates, and the latter based on both exchange rates and inflation. There are monthly and daily UAH TWIs, which are tracked by ICU. Monthly TWI calculation is based on the monthly data for inflation and trade statistics as well as monthly average exchange rates. Daily TWI calculation is based on the monthly data for inflation and trade statistics; however, its core substance is to reflect daily movements of the exchange rates of Ukraine's currency as well as of its key trading partners.

**UAS:** Ukrainian accounting standards.

**VATs**, or interchangeably, **VAT bonds:** Local-currency bond(s), representing a general financial obligation by the government on par with other government's financial obligations, which was/were issued in accordance with the government's initiative to offload the government's accumulated arrears on VAT refunds to domestic exporters.

Weighted-average duration, or interchangeably, bond auction weighted-average duration: Duration calculated from all cash flows obtained from the bonds sold at the auction. Yield-to-maturity, price, and each cash flow (coupons and principal) are calculated for the total number of bonds sold at the auction.

**Weighted-average yield,** or interchangeably, **bond auction weighted-average yield:** A yield-to-maturity calculated from all cash flows obtained from the bonds sold at the auction and against the total price paid to acquire them. Price and each cash flow (coupons and principal) are calculated for the total number of bonds sold at the auction.

YTM, or interchangeably, yield-to-maturity: The interest rate that creates the present value of cash flows obtained from holding a bond equal to the price of the bond. The YTM factors in coupon income and any capital gain (loss) the investor will realise by holding the bond to maturity. It also takes into consideration the timing of coupon payments and principal repayment, which can be done at the maturity date (for a bullet bond) or in accordance with an amortisation schedule (amortisation bond). The YTM uses an interest-on-interest principle, assuming that coupon income can be reinvested at an interest rate equal to the YTM, and is calculated in accordance with the Ukraine's domestic bond market standard, which is represented by the following formula:

$$Price + AI = \sum_{i=1}^{n} \frac{CF_i}{(1+YTM)^{\frac{t_i}{365}}}$$

where Price and AI are clean price and accrued interest of the bond, respectively, as of the date of purchase; n is the number of cash flows to be obtained by a bond holder;  $CF_i$  is the



cash flow (coupon income, principal repayment) obtained from a bond;  $t_i$  is the number of days between a purchase date and i-th cash flow date, and YTM is yield-to-maturity.

**YTW**, or interchangeably, **yield-to-worst:** The same as yield-to-maturity (YTM); however, it is calculated assuming the worst-case scenario under the terms of a bond issue, e.g., the cash flow is trimmed to the earliest possible bond redemption such as due to a call or a put option, embedded into the bond.



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