# **Bond Market Insight**

Weekly review: Week of negative news and anticipations

### MONDAY, 28 APRIL, 2014

Mostly under the pressure of outflows to the state budget, local banking sector liquidity was little affected by the negative pressure caused by external markets and the local instability arising from the chaos in eastern Ukraine that dominated last week's news.

**Domestic bond market.** The MoF sold UAH4.07bn of new bonds last week while it repaid only UAH1.43bn in local currency, causing a significant decline in banking sector liquidity. Moreover, month-end tax payments that began last week also had a negative impact on liquidity. Bonds appear to have been sold via domestic QE support as the MoF placed intermediate-term bonds with 3-year and 5-year maturities at sub-market interest rates, most likely to fund current needs or to collect funds for future debt repayments.

**Eurobond market.** The Eurobond market was under the pressure of negative anticipations arising not just from a possible Russian invasion of eastern Ukraine but also from the lack of financing from external creditors prior to large external debt repayments scheduled at the beginning of May. As a result, YTMs of Ukrainian Eurobonds remained high and rose even higher last week.



## RESEARCH INSIGHT

#### CONTENTS

Market update and news 2
Appendixes 5
UAH bond market 6
Eurobond market 8
Primary market for UAH state bonds. 11
UAH state bonds outstanding13
2011 weekly state debt payback 18
5yr sovereign local debt payback 19
5yr sovereign external debt payback. 20
Ukraine issuers' credit metrics 21
Glossary 23

### Key market indicators (as of 25 Apr 2014)

	Last close	Weekly chg (%)	YTD chg (%)
Currencies			
USD/UAH (spot)	11.5000	1.77	39.56
USD/UAH (1Y NDF)	14.0000	3.70	48.62
Rates, yields & spreads	s (%)		
Kiev Prime ON	5.05	-45bp	-275bp
Kiev Prime 3M	18.00	Obp	200bp
UAH NDF 1Y	22.41	67bp	742bp
Ukraine CDS 5Y	1bp	67bp	381bp
Libor USD 1yr	0.55	Obp	-3bp
UST 2yr	0.43	Зbр	5bp
UST 10yr	2.66	-6bp	-37bp
UKRAINE 17	12.45	17bp	289bp
UKRAINE 23	9.70	-2bp	66bp
Money market data (U/	AHbn)		
Accounts at NBU	29.36	-6.70	-10.22
NBU CDs outstanding	17.96	16.22	0.00
Local currency bond m	arket data	(UAHbn)	
Govt bond outstanding	286.98	1.16	15.20
Held by			
NBU	173.68	1.76	19.91
Banks	86.75	0.22	8.21
Other residents	10.68	-0.62	-13.84
Non-residents	15.86	1.01	35.58

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

### **Research team**

### Taras Kotovych

http://www.icu.ua

Bloomberg: ICUA <GO>

READ THE DISCLOSURES SECTION FIRST FOR IMPORTANT DISCLOSURES AND ANALYST CERTIFICATION.

# Market update and news

## Domestic bond market

### Liquidity slight decline

Liquidity slightly declined for the second consecutive week Banking sector liquidity slightly declined last week, mostly due to the beginning of monthend tax payments and rare demand for FX. Significant new government borrowings also reduced liquidity (see comment below). Banks' correspondent accounts with the NBU declined from UAH31.38bn last Tuesday to UAH29.36bn last Friday, while the NBU increased its CDs outstanding from UAH7.70bn to UAH10.00bn. After the MoF repaid UAH1.43bn in debt repayments last Wednesday, total local currency debt repayments scheduled for the next 30 days declined to UAH4.98bn. Broader banking sector liquidity declined insignificantly to UAH44.34bn at the end of last week.

The lowest level of liquidity was seen last Thursday after the NBU included Wednesday's deals as follows: UAH1.43bn in debt repayments, UAH1.02bn in CDs outstanding, UAH4.0bn of new government bond purchases, and UAH1.90bn in new loans. Only UAH0.92bn in new loans issued last Thursday caused liquidity to slightly recover last Friday



Liquidity will decline more due to tax payments This week we will also mostly see liquidity decline due to month-end tax payments. Debt repayments scheduled for this Wednesday most likely will be refinanced, but the result of redemptions and new financing will be seen the following week after public holidays conclude. The NBU should be more active at the market and we could see a decline in CDs outstanding and new loans to support liquidity prior to the end of the month. CDs are mostly ON, which usually are refinanced. We expect much the same this week.

#### Last week's primary auctions

The MoF held auctions twice last week with different offerings The MoF held auctions twice last week, with one on Tuesday and an additional one on Thursday. While the MoF only extended its list of offered bonds on Tuesday by adding a new 3-year bond, last Thursday it offered only a 5-year bond, per routine over the past year.



Of the three bonds offered last Tuesday, only the 3-year bond was sold...

purchased bonds from banks' portfolios and issued UAH4.42bn in loans last week. From the three bonds offered last Tuesday, only the 3-year bond attracted four bids for a total of UAH4.0bn at 15.0%, which the MoF accepted. The 3-month and 12-month bond offerings received no bids and were cancelled.

Last Tuesday's auction was typical over the last few years, with significant demand from

several participants at a below-market interest rate. Prior to this auction, the NBU

...while the MoF offered and sold only the 5-year bond last Thursday, per routine last year Following Tuesday's auction that raised UAH4.0bn, last Thursday's unscheduled primary auction provided the state budget with insufficient proceeds as it disappointingly received only one bid. The sole bid was for UAH74.73m (par value) at 14.30%, just 5bp above the usual interest rate for 5-year bonds sold during the period from last year to January and February of this year. In March, the MoF sold similar bonds at 11.50%, but bids changed dramatically after that. Compared with Tuesday's auction, the MoF decreased the cost of borrowings and increased the bond's maturity.

These two auctions show that the MoF needs funds for current expenditures and repayments or to collect funds for upcoming repayments Whenever an unscheduled auction elicits low proceeds, the MoF needs funds. On the one hand, the auction could be held to collect funds for future debt repayments scheduled the following week or month. Domestic repayments are in fact scheduled next week and the second half of May, and external debt repayments have to be repaid at the beginning of May. The MoF appears to be preparing for these repayments in the event that the new IMF loan is not received prior to the due date. On the other hand, unscheduled auctions that elicit large proceeds occur when there are immediate refinancing needs.

#### **Primary auction announcement**

9-month bond was replaced with 3-month and 3-year local currency bonds For the last auction in April, the MoF once more decided not to offer the originally scheduled bonds. The 9-month local currency bond was replaced with 3-month and 3-year local currency bonds, while the 4-month FX-denominated bonds will be offered as scheduled. For details of this auction, please see the table below.

#### Table 1. Details of the auction announced for 29 April 2014

ISIN	Type of placement	Bond type	Currency	Tenor (days)	Maturity	Coupon rate (%)	Volume outstanding (UAHm)
	Primary	Zero-coupon	UAH	91	30-Jul-14	N/M	0.00
	Primary	Coupon-bearing, bullet	UAH	1092	26-Apr-17	N/A	
	Primary	Zero-coupon	USD	119	27-Aug-14	N/M	0.00

Notes: N/A - not available; N/M not meaningful.

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

The MoF could repeat last week's auction procedure Investment implications: The MoF could repeat last week's auction procedure and raise a large portion of demand via domestic QE, most likely for the 3-year bond and possibly for other bonds as well.

## Eurobond market

### **Eurobond conditions weaken further**

## Numerous issues led to negative anticipations

The situation in eastern Ukraine continues to worsen as Russia appears to be one step from invading Ukrainian territory. As financing promised two months ago has not yet been received, the IMF still just recommends to its board of directors to approve the new program while the execution awaits their decision. With significant repayments to the IMF scheduled at the beginning of May, causing significant need for FX, investor sentiment remains negative on Ukrainian debt, and Eurobond prices remain low as a result.



YTMs are in the range of 9.82-14.84%

As a result, the yield curve of Ukrainian Eurobonds was high in the range of 9.82-14.84% last week, where only UKRAIN 7.50% '23 remained below 10.0%. During last week, the YTM of UKRAIN 6.875% '15 was up to 14.84%, UKRAIN 6.75% '17 rose to 11.69%, UKRAIN 7.95% '21 was up to 10.79% and UKRAIN 7.80% '22 rose to 10.39, while UKRAIN 7.50% '23 rose to 9.82%.

However, after Ukraine receives external financing, we anticipate that the situation in the Eurobond market will significantly improve and we could see the yield curve adjust significantly, even more so if the political situation at eastern Ukraine stabilizes.

# 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.

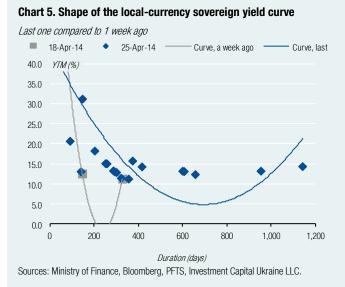
# **UAH bond market**

Ticker	Volume (UAHm)	Coupon rate (%)	Maturity	Price (% of par)	YTM (%)	Weekly price chg (bp)	Weekly yield chg (bp)	Duartion 1 (years)	W daily avg turnover (UAHm)	1W total turnover (UAHm)	Total turnover (UAHm)	Liquidity ratio*
140362	1,964.50	9.2	21-May-14	99.913	90.34	2	2,388	0.07	21.69	86.77	2,944.96	1.50
157135	3,381.00	7.97	23-Jul-14	99.313	20.75			0.24	0.00	0.00	168.98	0.05
158794	1,742.25	7.5	10-Sep-14	99.004	13.18	4	55	0.38	0.00	0.00	1,662.88	0.95
149231	1,404.01	8.32	19-Nov-14	98.750	18.32			0.55	2.76	11.04	1,972.83	1.41
151278	1,691.56	8.5	7-Jan-15	98.500	15.19			0.68	0.00	0.00	1,451.55	0.86
000999	221.32	9.6	14-Jan-15	99.250	15.13			0.70	0.00	0.00	0.00	0.00
155485	2,512.75	8.09	11-Feb-15	98.000	13.37			0.78	0.09	0.09	5,692.93	2.27
157143	575.00	8.02	18-Feb-15	97.875	13.12			0.80	0.00	0.00	0.00	0.00
157127	568.28	8.02	25-Feb-15	97.750	12.97			0.82	31.66	31.66	2,305.70	4.06
160642	2,322.16	7.75	18-Mar-15	97.902	11.54	3	22	0.88	0.00	0.00	6,301.41	2.71
142699	3,585.36	9.45	22-Apr-15	98.625	11.34			0.97	0.00	0.00	11,328.64	3.16
142681	636.36	4.8	6-May-15	102.813	-11.51			0.03	0.00	0.00	0.00	0.00
141071	1,742.85	9.45	27-May-15	98.250	15.83			1.02	3.64	14.54	6,570.62	3.77
142673	2,012.50	4.5	17-Jun-15	92.875	91.56			0.15	0.00	0.00	0.00	0.00
144083	25.65	9.45	8-Jul-15	98.000	14.37			1.13	0.00	0.00	0.00	0.00
152441	3,701.85	8.25	27-Jan-16	94.875	13.29			1.64	0.00	0.00	55.17	0.01
153282	102.47	8.25	3-Feb-16	94.750	13.22			1.66	0.00	0.00	71.92	0.70
160923	3,450.00	7.5	16-Mar-16	93.125	31.25			0.40	0.00	0.00	0.00	0.00
160907	329.88	8	23-Mar-16	93.875	12.46			1.80	0.00	0.00	160.05	0.49
160915	3,450.00	8.25	22-Mar-17	89.750	13.30			2.61	0.00	0.00	0.00	0.00
151286	6,095.00	7.5	20-Dec-17	84.500	14.45			3.12	0.00	0.00	0.00	0.00

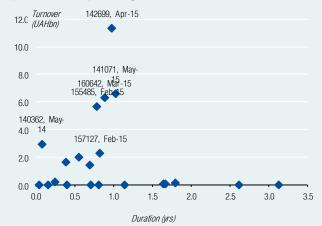
Table 2. Ukrainian local-currency government bonds as of 25 Apr 2014

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

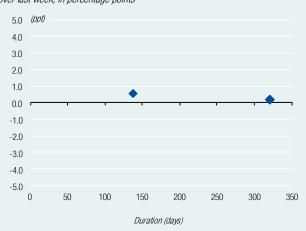


Note: Total turnover and duration are taken from Table 2, page 6. The bonds with turnover of UAH2bn and more have labels, which consist of PFTS ticker and after a coma month and year of maturity.

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

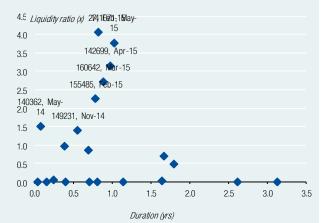
Chart 6. Movement of the local-currency sovereign yield curve

Over last week, in percentage points



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

### Chart 8. 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 6. 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**

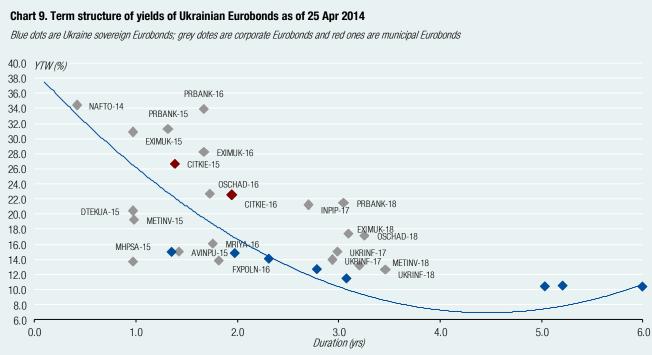
## Table 3. Ukrainian Eurobonds as of 25 Apr 2014

Ticker	lssuer	Ratings	Volume (million)		Coupon rate (%)	Maturity	Price (% of par)	YTM (%)	Weekly price chg (bp)	Weekly yield chg (bp)	Spread (bp)	Duration (years)
CITKIE-15	Kyiv	Caa3/CCC/CC C	250.0	USD	8	6-Nov-15	78.625	25.95	25	-1	2,478	1.38
CITKIE-16	Kyiv	Caa3/CCC/CC C	300.0	USD	9.375	11-Jul-16	78.875	21.99	-25	28	2,103	1.95
AGTPW-14	Agroton	NR/NR/WD	50.0	USD	12.5	14-Jul-14	34.375	1,031.13	256	-881	85,900	0.20
NAFTO-14	Naftogaz of Ukraine	NR/NR/CCC	1,595.0	USD	9.5	30-Sep-14	90.938	34.22	-38	221	3,394	0.41
PUMBUZ-1	4FUIB	Caa3/NR/NR	252.5	USD	11	31-Dec-14	82.250	43.09	-469	1,008	4,165	0.64
EXIMUK-15	Ukreximbank	Caa3/NR/CCC	750.0	USD	8.375	27-Apr-15	82.563	30.03	225	-275	2,879	0.97
DTEKUA-15	DTEK	Caa2/NR/CCC	500.0	USD	9.5	28-Apr-15	91.313	19.55	206	-233	1,827	0.97
MHPSA-15		Caa2/NR/CCC	584.8	USD		29-Apr-15	97.500	13.01	81	-84	1,187	0.97
	Metinvest Holding	Caa2/NR/CCC	500.0	USD		20-May-15	92.563	18.31	-75	101	1,695	0.98
PRBANK-1	5 Pryvatbank	Caa3u/NR/CC C	200.0	USD	9.375	23-Sep-15	77.500	30.28	-206	253	2,888	1.32
AVINPU-15	Avangard	NR/NR/CCC	200.0	USD	10	29-0ct-15	94.313	14.36	-163	133	1,328	1.42
	Ukreximbank	Ca/NR/C	125.0	USD		9-Feb-16	71.938	26.64	-6	31	2,467	1.67
OSCHAD-10	6 Oshchadbank	Caa3/NR/CCC	500.0	USD		10-Mar-16	80.000	21.89	-19	30	2,067	1.73
	Mriya Agroholding	NR/CCC/CCC	250.0	USD		30-Mar-16	92.188	15.82	75	-45	1,510	1.76
FXPOLN-16	Ferrexpo PLC	Caa2/CCC+/C CC	500.0	USD	7.875	7-Apr-16	90.563	13.58	-63	46	1,286	1.82
INPIP-17	Interpipe	NR/NR/C	200.0	USD	10.25	2-Aug-17	76.813	20.31	-31	22	1,856	2.70
UKRINF-17	Infrastructure Projects Fin	(P)Caa3/NR/N R	550.0	USD	9	7-Dec-17	84.912	14.52	-80	35	1,316	2.99
EXIMUK-18	Ukreximbank	Caa3/NR/CCC	500.0	USD	8.75	22-Jan-18	77.313	17.24	-131	61	1,531	3.09
METINV-18	Metinvest Holding	Caa2/NR/CCC	750.0	USD	8.75	14-Feb-18	87.875	12.89	-38	16	1,088	3.20
PRBANK-18	<b>B</b> Pryvatbank	Caa3u/NR/CC C	175.0	USD	10.875	28-Feb-18	74.375	20.91	-50	28	1,859	3.05
OSCHAD-18	<b>B</b> Oshchadbank	Caa3/NR/CCC	500.0	USD	8.875	20-Mar-18	77.938	16.83	-175	76	1,475	3.25
UKRAIN-14	Ministry of Finance	Caa3/CCC/CC C	1,000.0	USD	7.95	4-Jun-14	97.500	34.17	0	444	2,606	0.09
UKRAIN-15	Ministry of Finance	Caa3/CCC/CC C	500.0	USD	6.875	23-Sep-15	90.766	14.39	-148	136	1,335	1.35
UKRAIN-15	Ministry of Finance	Caa3/CCC/CC C	600.0	EUR	4.95	13-0ct-15	88.000	14.63	-150	142	1,314	1.40
UKRAIN-16	Ministry of Finance	Caa3/CCC/CC C	1,250.0	USD	6.25	17-Jun-16	86.191	13.95	-218	137	1,265	1.97
UKRAIN-16	Ministry of Finance	Caa3/CCC/CC C	1,000.0	USD	6.58	21-Nov-16	85.711	13.35	-279	147	1,218	2.30
UKRAIN-17	Ministry of Finance	Caa3/CCC/CC C	2,600.0	USD	9.25	24-Jul-17	91.662	12.45	-38	17	1,126	2.78
UKRAIN-17	Ministry of Finance	Caa3/CCC/CC C	700.0	USD	6.75	14-Nov-17	87.171	11.24	-58	24	1,007	3.07
UKRAIN-20	Ministry of Finance	Caa3/CCC/CC C	1,500.0	USD	7.75	23-Sep-20	88.260	10.30	1	0	842	5.03
UKRAIN-21	Ministry of Finance	Caa3/CCC/CC C	1,500.0	USD	7.95	23-Feb-21	88.463	10.35	-29	7	745	5.20
UKRAIN-22	Ministry of Finance	Caa3/CCC/CC C	2,250.0	USD	7.8	28-Nov-22	85.990	10.30	-120	24	748	5.99
UKRAIN-23	Ministry of Finance	Caa3/CCC/CC C	1,250.0	USD	7.5	17-Apr-23	86.991	9.70	13	-2	685	6.48
VABANK-14	4VAB Bank	Caa1 /*-	112.5	USD	10.5	14-Jun-14	90.100	38.87	0	0	4,071	0.38 <b>8</b>



	/NR/WD									
PRBANK-16 Pryvatbank	Cau/NR/NR	150.0	USD	8.75 9-Feb-16	65.695	32.74	6,570	3,274	3,117	1.67
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
UKRINF-17 Infrastructure Projects Fin	Caa3/NR/NR	538.0	USD	8.375 3-Nov-17	86.438	13.34	0	3	1,188	2.94
UKRINF-18 Infrastructure Projects Fin	Caa3/NR/NR	690.0	USD	7.4 20-Apr-18	85.250	12.19	0	2	1,005	3.46

Sources: Bloomberg, Investment Capital Ukraine LLC.



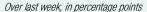
Sources: Bloomberg, Investment Capital Ukraine LLC..

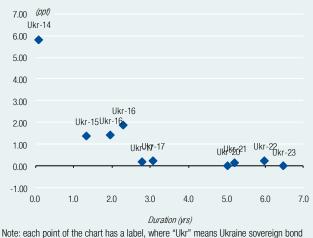
# Chart 10. Shape of the USD sovereign yield curve at Eurobond market

Last one compared to 1 week ago



# Chart 11. Movement of the USD sovereign yield curve at Eurobond market





and a two-digit figure after a dash means year of maturity of the bond. Sources: Bloomberg, Investment Capital Ukraine LLC.

# **Primary market for UAH state bonds**

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)
24-Apr-14	1	74.96	74.73	74.73	1	14.30	14.30	14.30	1	14.85	14.85	3.70	3.70
22-Apr-14	1	4,000.00	4,000.00	4,000.00	4	15.00	15.00	15.00	4	15.59	15.59	2.52	2.52
15-Apr-14	1	587.66	600.00	600.00	1	9.95	9.95	9.95	1	10.21	10.21	0.21	0.21
9-Apr-14	1	391.04	400.00	400.00	1	9.95	9.95	9.95	1	10.34	10.34	0.23	0.23
8-Apr-14	1	103.66	110.00	110.00	2	12.75	12.75	12.75	2	13.09	13.09	0.48	0.48
1-Apr-14	1	282.07	300.00	330.00	4	12.75	23.50	12.75	1	13.08	13.08	0.50	0.50
31-Mar-14	. 1	1,155.23	1,150.00	1,150.00	3	14.25	14.25	14.25	3	14.80	14.80	2.50	2.50
12-Mar-14	- 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		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	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	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	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		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		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		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	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		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		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		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			1,021.00	1,081.01	6	4.80	14.30	11.12	5	13.68	14.66	3.20	3.87

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

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

Last 12-month period

# Chart 13. Yield-to-maturity of government bonds sold at auctions, breakdown by duration of bonds sold

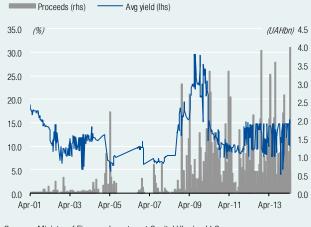
Last 12-month period



### Sources: Ministry of Finance, Investment Capital Ukraine LLC.

# Chart 14. Effective yield of debt raised by MoF and total volume of proceeds at the government bond auctions

History since April 2001 to present



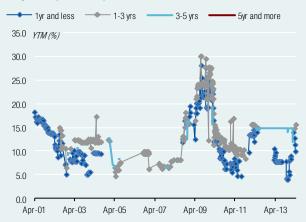
Sources: Ministry of Finance, Investment Capital Ukraine LLC.



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

History since April 2001 to present



Sources: Ministry of Finance, Investment Capital Ukraine LLC.



# **UAH state bonds outstanding**

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
Government UAH	bonds							
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
UA4000180319	Zero-coupon bonds	1,000,000,000.00		Upon maturity	No	No		2-Jul-2014
UA4000123863	Coupon bonds	752,000,000.00	10.10	Semi-annually	No	No		9-Jul-2014
UA4000180210	Zero-coupon bonds	410,000,000.00		Upon maturity	No	No		1-0ct-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	7,087,500.00	12.50	Quarterly	Yes	No		20-Jul-2016
UA4000180202	Coupon bonds	1,150,000,000.00	14.25	Semi-annually	No	No		15-Mar-2017
UA4000138853	Coupon bonds	1,928,720,000.00	14.30	Semi-annually	No	No		5-Apr-2017
UA4000180400	Coupon bonds	4,000,000,000.00	15.00	Semi-annually	No	No		19-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
UA4000157119	Coupon bonds	2,500,330,000.00	14.30	Semi-annually	No	No		7-Feb-2018
UA4000160626	Coupon bonds	1,818,593,000.00	14.30	Semi-annually	No	No		7-Mar-2018
UA4000162127	Coupon bonds	2,751,160,000.00	14.30	Semi-annually	No	No		4-Apr-2018
UA4000165765	Coupon bonds	1,585,600,000.00	14.25	Semi-annually	No	No		11-Apr-2018
UA4000166219	Coupon bonds	400,000,000.00	14.25	Semi-annually	No	No		18-Apr-2018
UA4000166201	Coupon bonds	2,254,507,000.00	14.25	Semi-annually	No	No		2-May-2018
UA4000168082	Coupon bonds	3,050,250,000.00	14.25	Semi-annually	No	No		16-May-2018
UA4000171391	Coupon bonds	1,803,816,000.00	14.25	Semi-annually	No	No		27-Jun-2018
UA4000170732	Coupon bonds	3,853,400,000.00	14.25	Semi-annually	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
UA40001778891	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
UA4000179190	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
UA4000179700	Coupon bonds	600,000,000.00	14.30	Semi-annually	No	No		13-Feb-2019
UA4000179091	Coupon bonds	1,500,000,000.00	14.50	Semi-annually	No	No		20-Feb-2019
UA4000179741	Coupon bonds	2,100,000,000.00	11.50	Semi-annually	No	No		27-Feb-2019
	Coupon bonds	2,100,000,000.00	14.30	Semi-annually	No	No		10-Apr-2019
UA4000180426	•							
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-20 <sup>-</sup>

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
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
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		81,645,709,500.00						
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
UA4000151476	Coupon bonds	2,000,000,000.00	14.30	Semi-annually	No	No		29-Nov-2017
UA4000153126	Coupon bonds	500,000,000.00	14.30	Semi-annually	No	No		13-Dec-2017
UA4000130082	Coupon bonds	2,000,000,000.00	9.50	Semi-annually	No	No		27-Dec-2017
UA4000130090	Coupon bonds	2,000,000,000.00	9.50	Semi-annually	No	No		17-Jan-2018
UA4000115638	Coupon bonds	1,975,000,000.00	9.50	Semi-annually	No	No		21-Feb-2018
UA4000160758	Coupon bonds	1,000,000,000.00	14.30	Semi-annually	No	No		14-Mar-2018
UA4000061790	Coupon bonds	1,400,000,000.00	9.50	Semi-annually	No	No		28-Mar-2018
UA4000119952	Coupon bonds	1,750,000,000.00	9.50	Semi-annually	No	No		25-Apr-2018
UA4000055586	Coupon bonds	1,000,000,000.00	9.50	Semi-annually	No	No		9-May-2018
UA4000057319	Coupon bonds	936,172,000.00	9.50	Semi-annually	No	No		30-May-2018

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
UA4000057129	Coupon bonds	1,033,333,000.00	9.50	Semi-annually	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
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
UA4000063135	Coupon bonds	1,500,000,000.00	9.50	Semi-annually	No	No		9-Jun-2021
UA4000121529	Coupon bonds	1,100,000,000.00	9.50	Semi-annually	No	No		22-Sep-2021
UA4000063143	Coupon bonds	1,500,000,000.00	9.50	Semi-annually	No	No		1-Jun-2022
Total	. 1	112,971,577,000.00						
Government VAT bo	nds 2010							
UA4000078141	Coupon bonds	14,532,000.00	5.50	Semi-annually	Yes	No		27-Jul-2015
UA4000082531	Coupon bonds	614,344,500.00	5.50	Semi-annually	Yes	No		21-Aug-2015
UA4000082622	Coupon bonds	2,491,461,900.00	5.50	Semi-annually	Yes	No		24-Aug-2015
UA4000083059	Coupon bonds	1,810,435,500.00	5.50	Semi-annually	Yes	No		25-Aug-2015
Total		4,930,773,900.00						
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

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
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
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		28-0ct-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 foreign-	-currency bonds							
UA4000140362	Coupon bonds	1,964,499,000.00	9.20	Semi-annually	No	No		21-May-2014
UA4000157135	Coupon bonds	3,381,000,000.00	7.97	Semi-annually	No	No		23-Jul-2014
UA4000158794	Coupon bonds	1,742,250,000.00	7.50	Semi-annually	No	No		10-Sep-2014
UA4000174247	Coupon bonds	954,546,000.00	4.80	Semi-annually	No	Yes	29-0ct-2014	29-0ct-2014
UA4000149231	Coupon bonds	1,404,012,000.00	8.32	Semi-annually	No	No		19-Nov-2014
UA4000173058	Coupon bonds	1,150,000,000.00	7.75	Semi-annually	No	No		26-Nov-2014
UA4000177133	Coupon bonds	2,587,500,000.00	7.88	Semi-annually	No	No		10-Dec-2014
UA4000171649	Coupon bonds	1,141,202,500.00	8.25	Semi-annually	No	No		24-Dec-2014
UA4000151278	Coupon bonds	1,691,558,000.00	8.50	Semi-annually	No	No		7-Jan-2015
UA4000133771	Coupon bonds	221,317,500.00	9.60	Semi-annually	No	No		14-Jan-2015
UA4000155485	Coupon bonds	2,512,750,000.00	8.09	Semi-annually	No	No		11-Feb-2015
UA4000157143	Coupon bonds	575,000,000.00	8.02	Semi-annually	No	No		18-Feb-2015
UA4000157127	Coupon bonds	568,284,000.00	8.02	Semi-annually	No	No		25-Feb-2015
UA4000160642	Coupon bonds	2,322,160,500.00	7.75	Semi-annually	No	No		18-Mar-2015
UA4000142699	Coupon bonds	3,585,355,000.00	9.45	Semi-annually	No	No		22-Apr-2015
UA4000166821	Coupon bonds	3,065,900,000.00	7.75	Semi-annually	No	No		6-May-2015
UA4000142681	Coupon bonds	636,364,000.00	4.80	Semi-annually	No	Yes	6-May-2015	6-May-2015
UA4000141071	Coupon bonds	1,742,848,000.00	9.45	Semi-annually	No	No		27-May-2015
UA4000167837	Coupon bonds	1,997,665,000.00	7.75	Semi-annually	No	No		3-Jun-2015
UA4000142673	Coupon bonds	2,012,500,000.00	4.50	Semi-annually	No	Yes	17-Jun-2015	17-Jun-2015
UA4000144083	Coupon bonds	25,645,000.00	9.45	Semi-annually	No	No		8-Jul-2015
UA4000171409	Coupon bonds	1,200,347,000.00	8.25	Semi-annually	No	No		15-Jul-2015
UA4000152441	Coupon bonds	3,701,850,000.00	8.25	Semi-annually	No	No		27-Jan-2016
UA4000153282	Coupon bonds	102,465,000.00	8.25	Semi-annually	No	No		3-Feb-2016
UA4000160923	Coupon bonds	3,450,000,000.00	7.50	Semi-annually	No	Yes	16-Mar-2016	16-Mar-2016
UA4000160907	Coupon bonds	329,877,500.00	8.00	Semi-annually	No	No		23-Mar-2016
UA4000166847	Coupon bonds	856,175,000.00	8.00	Semi-annually	No	No		25-May-2016
UA4000172506	Coupon bonds	2,596,550,500.00	8.75	Semi-annually	No	No		10-Aug-2016
UA4000177414	Coupon bonds	3,432,750,000.00	7.75	Semi-annually	No	Yes	26-0ct-2016	26-0ct-2016
UA4000177752	Coupon bonds	574,149,000.00	7.75	Semi-annually	No	Yes	30-Nov-2016	30-Nov-2016
UA4000178305	Coupon bonds	1,148,068,000.00	7.75	Semi-annually	No	No		14-Dec-2016
UA4000160915	Coupon bonds	3,450,000,000.00	8.25	Semi-annually	No	No		22-Mar-2017
UA4000166854	Coupon bonds	3,737,500,000.00	7.45	Semi-annually	No	Yes	17-May-2017	17-May-2017
0/10001		. ,	-		-		,	.,

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
UA4000177554	Coupon bonds	2,299,045,500.00	7.50	Semi-annually	No	Yes	21-Nov-2018	21-Nov-2018
Total		68,256,134,000.00						
Grand total		280,527,294,400.00						

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

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
February	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	
	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
	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
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
	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	
	External debt repayment <sup>2</sup>	0.00	0.00	0.00	0.00	
	Total	0.00	0.00	0.00	0.00	
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

	Repayments (UAHm)							Repayments, US dollar equivalent (US\$m)								
	Interest			Principal		To	tal	Interest		Principal		Total				
Period	Ordin-	VATs	Recaps	Ordin-	VATs	Recaps	Inte-	Prin-	Ordin-	VATs	Recaps	Ordin-	VATs	Recaps	Inte-	Prin-
	aries			aries			rest	cipal	aries			aries			rest	cipal
BY QUAR	RTERS															
2Q14	1,750.4		2,298.3	3,759.4		1,598.3	5,606.9	7,322.2	156.3		205.2	335.7		142.7	500.6	653.8
3Q14	2,275.8	135.6	2,551.4	1,752.8	1,643.6	1,500.0	6,361.0	11,629.6	203.2	12.1	227.8	156.5	146.7	133.9	567.9	1,038.4
4Q14	3,256.2		3,371.4	435.8		4,696.5	8,394.1	14,194.7	290.7		301.0	38.9		419.3	749.5	1,267.4
1Q15	2,108.5	90.4	2,169.8	453.7	1,643.6	2,000.0	5,500.7	12,688.3	188.3	8.1	193.7	40.5	146.7	178.6	491.1	1,132.9
2Q15	3,126.9		2,833.2	250.8			7,374.8	14,761.4	279.2		253.0	22.4			658.5	1,318.0
3Q15	2,289.2	45.2	2,560.9	0.8	1,643.6	1,000.0	5,759.7	5,195.4	204.4	4.0	228.7	0.1	146.7	89.3	514.3	463.9
4Q15	3,152.8		2,961.1	0.8		6,000.0	6,866.8	6,909.8	281.5		264.4	0.1		535.7	613.1	616.9
1Q16	2,159.9		2,201.9	0.8		2,750.0	5,113.9	10,952.0	192.8		196.6	0.1		245.5	456.6	977.9
2Q16	3,152.7		2,642.4	0.8		9,085.0	6,505.8	9,942.0	281.5		235.9	0.1		811.2	580.9	887.7
3Q16	2,159.8		2,071.3	80.8		7,135.0	4,655.4	12,602.3	192.8		184.9	7.2		637.1	415.7	1,125.2
4Q16	3,136.5		2,245.7				6,058.6	5,632.0	280.0		200.5				540.9	502.9
1Q17	2,143.6		1,732.4	1,150.0		1,250.0	4,064.6	5,850.0	191.4		154.7	102.7		111.6	362.9	522.3
2Q17	3,136.5		2,245.7	7,688.5		6,357.9	5,836.2	17,783.9	280.0		200.5	686.5		567.7	521.1	1,587.8
3Q17	2,061.7		1,673.0	1,810.0		6,550.0	3,781.0	8,360.0	184.1		149.4	161.6		584.8	337.6	746.4
4Q17	2,572.8		1,895.7	5,212.9		7,658.3	4,783.2	18,966.1	229.7		169.3	465.4		683.8	427.1	1,693.4
1Q18	1,932.3		1,337.9	4,318.9		6,375.0	3,316.5	10,693.9	172.5		119.5	385.6		569.2	296.1	954.8
2Q18	2,200.1		1,435.9	11,845.3		7,157.9	3,722.2	19,003.3	196.4		128.2	1,057.6		639.1	332.3	1,696.7
3Q18	1,623.5		1,011.1	5,101.3		10,145.1	2,680.8	15,246.5	145.0		90.3	455.5		905.8	239.4	1,361.3
4Q18	1,355.5		1,066.2	5,108.8		4,655.3	2,507.9	12,063.2	121.0		95.2	456.1		415.7	223.9	1,077.1
BY YEAR	S															
2014	7,282.4	135.6	8,221.1	5,948.0	1,643.6	7,794.8	20,362.1	33,146.5	650.2	12.1	734.0	531.1	146.7	696.0	1,818.0	2,959.5
2015	10,677.3	135.6	10,525.1	706.0	3,287.2	9,000.0	25,502.0	39,554.9	953.3	12.1	939.7	63.0	293.5	803.6	2,277.0	3,531.7
2016	10,608.9		9,161.4	82.4		18,970.0	22,333.6	39,128.2	947.2		818.0	7.4		1,693.8	1,994.1	3,493.6
2017	9,914.7		7,546.8	15,861.3		21,816.2	18,465.0	50,960.0	885.2		673.8	1,416.2		1,947.9	1,648.7	4,550.0
2018	7,111.4		4,851.1	26,374.4		28,333.4	12,227.4	57,006.8	634.9		433.1	2,354.9		2,529.8	1,091.7	5,089.9

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

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

	Repayments, hryvnia equivalent (UAHm)						Repayments, US dollar equivalent (US\$m)							
Interest		est	Princ	ipal	Tot	al	Interest		Princi	pal	Tot	al		
Period	Eurobond	Loan	Eurobond	Loan	Interest	Principal	Eurobond	Loan	Eurobond	Loan	Interest	Principal		
BY QUART	ERS													
2Q14	3,310.6	1,412.6	11,106.2	5,350.9	4,723.2	16,457.1	298.1	127.2	1,000.0	481.8	425.3	1,481.8		
3Q14	2,834.2	1,137.1	0.0	10,174.9	3,971.3	10,174.9	255.2	102.4	0.0	916.1	357.6	916.1		
4Q14	3,542.2	1,534.3	0.0	10,918.7	5,076.6	10,918.7	318.9	138.2	0.0	983.1	457.1	983.1		
1Q15	2,834.2	916.8	0.0	9,634.6	3,750.9	9,634.6	255.2	82.5	0.0	867.5	337.7	867.5		
2Q15	3,542.2	1,165.6	0.0	14,404.0	4,707.8	14,404.0	318.9	105.0	0.0	1,296.9	423.9	1,296.9		
3Q15	2,834.2	592.8	5,553.1	2,174.7	3,426.9	7,727.8	255.2	53.4	500.0	195.8	308.6	695.8		
4Q15	3,542.2	668.2	39,479.8	990.7	4,210.4	40,470.4	318.9	60.2	3,554.7	89.2	379.1	3,644.0		
1Q16	2,643.3	536.4	0.0	7,324.5	3,179.7	7,324.5	238.0	48.3	0.0	659.5	286.3	659.5		
2Q16	2,556.8	664.4	13,882.8	826.9	3,221.2	14,709.6	230.2	59.8	1,250.0	74.5	290.0	1,324.5		
3Q16	2,643.3	247.1	0.0	2,507.6	2,890.4	2,507.6	238.0	22.3	0.0	225.8	260.3	225.8		
4Q16	2,123.0	631.4	11,106.2	4,978.4	2,754.3	16,084.6	191.2	56.8	1,000.0	448.3	248.0	1,448.3		
1Q17	2,643.3	137.4	0.0	3,331.9	2,780.7	3,331.9	238.0	12.4	0.0	300.0	250.4	300.0		
2Q17	1,757.6	438.5	0.0	3,609.5	2,196.0	3,609.5	158.3	39.5	0.0	325.0	197.7	325.0		
3Q17	2,643.3	0.0	28,876.1	0.0	2,643.3	28,876.1	238.0	0.0	2,600.0	0.0	238.0	2,600.0		
4Q17	1,757.6	304.0	7,774.3	5,886.3	2,061.6	13,660.6	158.3	27.4	700.0	530.0	185.6	1,230.0		
1Q18	1,307.8	0.0	0.0	0.0	1,307.8	0.0	117.8	0.0	0.0	0.0	117.8	0.0		
2Q18	1,495.2	83.3	0.0	0.0	1,578.4	0.0	134.6	7.5	0.0	0.0	142.1	0.0		
3Q18	1,307.8	0.0	0.0	0.0	1,307.8	0.0	117.8	0.0	0.0	0.0	117.8	0.0		
4Q18	1,495.2	83.3	0.0	2,220.3	1,578.4	2,220.3	134.6	7.5	0.0	199.9	142.1	199.9		
BY YEARS														
2014	9,687.0	4,084.0	11,106.2	26,444.6	13,771.1	37,550.8	872.2	367.7	1,000.0	2,381.1	1,239.9	3,381.1		
2015	12,752.8	3,343.3	45,032.9	27,204.1	16,096.1	72,236.9	1,148.3	301.0	4,054.7	2,449.4	1,449.3	6,504.2		
2016	9,966.3	2,079.3	24,989.0	15,637.4	12,045.6	40,626.4	897.4	187.2	2,250.0	1,408.0	1,084.6	3,658.0		
2017	8,801.7	879.9	36,650.5	12,827.7	9,681.6	49,478.1	792.5	79.2	3,300.0	1,155.0	871.7	4,455.0		
2018	5,605.9	166.5	0.0	2,220.3	5,772.4	2,220.3	504.8	15.0	0.0	199.9	519.7	199.9		

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

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**

lssuer	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	NAFTO	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.

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

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.



Source: Company data, Investment Capital Ukraine LLC.

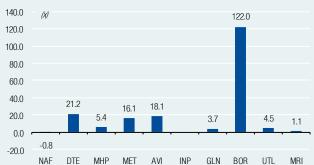




#### Chart 17. Ukraine's companies by EBITDA margin (LTM)



#### Chart 19. Ukraine's companies by interest coverage ratio



Note: interest coverage – EBITDA to interest expenses (LTM). Source: 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 buffer<sup>1</sup>, 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.

<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:

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

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.

This page is intentionally left blank

# **Disclosures**

## ANALYST CERTIFICATION

This research publication has been prepared by the analyst(s), whose name(s) appear on the front page of this publication. The analyst(s) hereby certifies that the views expressed within this publication accurately reflect her/his own views about the subject financial instruments or issuers and no part of her/his compensation was, is, or will be directly or indirectly related to the inclusion of specific recommendations or views within this research publication.



Office 44, 11th floor, LEONARDO Business Centre 19-21 Bogdan Khmelnytsky Street Kiev, 01030 Ukraine Phone/Fax +38 044 2200120

#### CHAIRMAN OF THE BOARD OF DIRECTORS

Valeria Gontareva valeria.gontareva@icu.ua

#### CORPORATE FINANCE TEL. +38 044 2200120

	Makar Paseniuk, Managing Director makar.paseniuk@icu.ua	Volodymyr Demchyshyn, Director volodymyr.demchyshyn@icu.ua	Ruslan Kilmukhametov, Vice-president ruslan.kilmukhametov@icu.ua				
	FIXED-INCOME SALES AND TRADING TEL.	+38 044 2201621					
	Konstantin Stetsenko, Managing Director konstantin.stetsenko@icu.ua	Sergiy Byelyayev, Fixed-Income Trading sergiy.byelyayev@icu.ua	Vitaliy Sivach, Fixed-Income Trading vitaliy.sivach@icu.ua				
EQUITY SALES AND TRADING TEL. +38 044 2201621							
	Vlad Sinani, Director, Equities vlad.sinani@icu.ua	<b>Julia Pecheritsa</b> , International Equity Sales julia.pecheritsa@icu.ua					
RESEARCH DEPARTMENT TEL. +38 044 2200120							
	Alexander Valchyshen,	Alexander Martynenko	Taras Kotovych				

Alexander Valchyshen,	Alexander Martynenko	Taras Kotovych
Head of Research	Senior equity analyst (Metals & Mining)	Fixed-income analyst
alexander.valchyshen@icu.ua	alexander.martynenko@icu.ua	taras.kotovych@icu.ua

Lee Daniels, Rolfe Haas Editors

Investment Capital Ukraine LLC is regulated by Securities and Stock Market State Commission of Ukraine (licence numbers: dealer activity AE 263019, broker activity AE 263018, underwriting activity AE 263020 dated 11 April 2013).

### DISCLAIMER

This research publication has been prepared by Investment Capital Ukraine LLC solely for information purposes for its clients. It does not constitute an investment advice or an offer or solicitation for the purchase of sale of any financial instrument. While reasonable care has been taken to ensure that the information contained herein is not untrue or misleading at the time of publication, Investment Capital Ukraine makes no representation that it is accurate or complete. The information contained herein is subject to change without notice. Copyright and database rights protection exists in this report and it may not be reproduced, distributed or published by any person for any purpose

without the prior express consent of Investment Capital Ukraine LLC. All rights are reserved. Any investments referred to herein may involve significant risk, are not necessarily available in all jurisdictions, may be illiquid and may not be suitable for all investors. The value of, or income from, any investments referred to herein may fluctuate and/or be affected by changes in exchange rates. Past performance is not indicative of future results. Investors should make their own investigations and investment decisions without relying on this report. Only investors with sufficient knowledge and experience in financial matters to evaluate the merits and risks should consider an investment in any issuer or market discussed herein and other persons should not take any action on the basis of this report.



Additional information is available upon request.