



Bond Market Insight

Weekly review: New financing but old conditions

TUESDAY, 13 MAY, 2014

RESEARCH INSIGHT

Although Ukraine received its debut IMF tranche last week, these funds only increased FX reserves and did not change the situation in Ukraine's financial sector. With no significant improvement in the Eurobond market, the ongoing global political situation, particularly in regard to the impending invasions of Lugansk and Donetsk, Ukraine is still considered to be very risky.

Domestic bond market. Although the domestic bond market remained steady with high liquidity following month-end tax payments, the cost of funds and yields remained high. While broader banking sector liquidity slightly rose above UAH40.0bn once more, the MoF appears to have used domestic QE to refinance part of the debt repayments, rejecting high interest rate bids that reflect the true cost of funds.

Eurobond market. The newly received IMF funds – which were mostly allocated to state budget reserves – had no significant impact on the Eurobond market. As a result, yields declined only slightly last week, with most remaining above 10.0%. This situation reflects the instability in eastern Ukraine and the possible escalation of the conflict over the weekend. Should the threat or actual forfeiture of the two oblasts escalate further, this could trigger loan covenants that could lead to default.

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Key market indicators (as of 12 May 2014)

	Last close	Weekly chg (%)	YTD chg (%)
Currencies			
USD/UAH (spot)	11.7850	-0.13	43.02
USD/UAH (1Y NDF)	14.1000	-1.57	49.68
Rates, yields & spreads (%)			
Kiev Prime ON	5.31	-19bp	-249bp
Kiev Prime 3M	18.13	13bp	213bp
UAH NDF 1Y	20.29	-177bp	530bp
Ukraine CDS 5Y	1bp	-73bp	361bp
Libor USD 1yr	0.54	-1bp	-5bp
UST 2yr	0.40	-3bp	2bp
UST 10yr	2.66	7bp	-37bp
UKRAINE 17	13.49	-88bp	393bp
UKRAINE 23	10.22	-19bp	117bp
Money market data (UAHbn)			
Accounts at NBU	30.44	-2.74	-6.91
NBU CDs outstanding	1.67	-83.90	0.00
Local currency bond market data (UAHbn)			
Govt bond outstanding	288.12	0.46	15.66
Held by			
NBU	174.81	0.00	20.68
Banks	86.47	0.96	7.85
Other residents	10.73	2.69	-13.43
Non-residents	16.12	1.43	37.76

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

Market update and news

Domestic bond market

Liquidity recovers slightly

Last week's liquidity started from below UAH40.0bn...

Last week started from UAH39.67bn of broader banking sector liquidity, reflecting April's month-end tax payments, banks' correspondent accounts with the NBU at the beginning of May, the NBU had to significantly decrease its CDs outstanding while the MoF repaid a large portion of funds in principal repayments. As a result, last week started from UAH39.67bn in broader banking sector liquidity, including UAH30.25bn in banks' correspondent accounts with the NBU, UAH5.87bn in total CDs outstanding, and UAH3.56bn in total debt repayments scheduled for the next 30 days.

...and during four days only slightly rose after the increase was cut to insignificant volumes

During the week, liquidity recovered slightly, as banks' correspondent accounts rose last Wednesday to UAH32.87bn and total CDs outstanding rose last Thursday to UAH8.06bn. However, after rising for two consecutive days, the broader banking sector liquidity increase was mostly cut. As a result, banks' correspondent accounts with the NBU rose only UAH0.20bn to UAH30.44bn, total CDs outstanding rose just UAH0.44bn to UAH6.30bn, and total debt repayments scheduled for the next 30 days rose UAH0.09bn to UAH3.66bn. Liquidity movements are shown in the left-hand chart below.

Chart 1. Banking sector liquidity (UAHbn) (last 3 months)

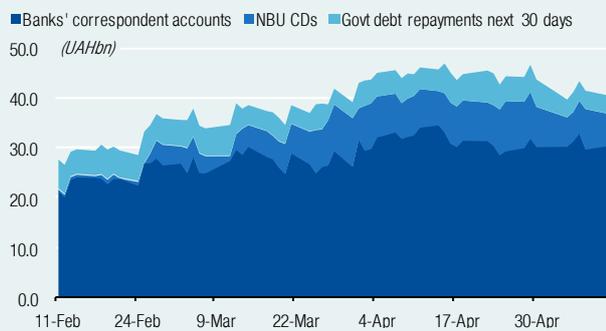
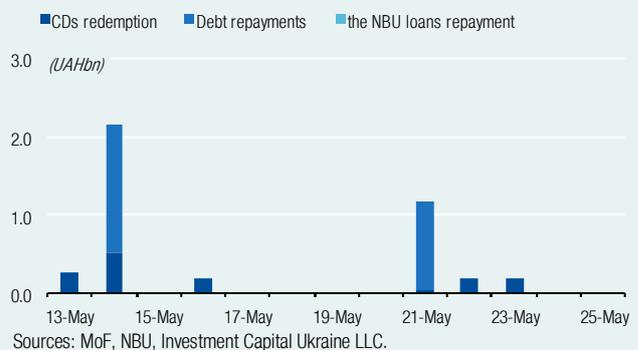


Chart 2. Future redemptions of CDs and UAH state bonds (UAHbn)



Liquidity should remain steady with no surprises

This week will be not surprising with debt repayments scheduled for Wednesday – which most likely will be refinanced - and with large volume daily ON CDs rollovers. We do not anticipate that the MoF will use FX received from the IMF for domestic expenditures and repayments, but will rather raise funds for FX debt repayments already made or scheduled in May and June. As a result, the MoF will need further domestic QE support at primary auctions which the NBU could achieve by issuing new loans or by redeeming CDs.

At the debut auction for this month, the MoF sold two bonds and rejected high rates

Last week's primary auction

At May's debut primary auction last Tuesday, the MoF offered an additional 3-month bond denominated in local currency as a last minute change to the list of offerings. Both 3-year and 3-month bonds were sold, but not all demand was satisfied. The 3-year bond received a routine single bid at the same 15% interest rate as last week but for a significantly lower amount of UAH100.0m. At the same time, the 3-month bond continued to attract several bids, part of which reflected the current situation and market interest rates. The MoF

accepted only one bid for UAH150.0m (par value) of the 3-month bonds at 9.95%, the same as last week, while other bids were submitted with interest rates of up to 20.0%, or 400bp higher than last week.

Part of the repayments was refinanced, denominated in local currency or possibly in FX

UAH246.60m of proceeds covered the majority of UAH293.21m in local currency debt repayments scheduled for last week. At the same time, the MoF received UAH146.60m from 3-month bond sales, which could cover UAH120m of FX-denominated debt repayments. The same day settlement could have been arranged to receive funds for immediate FX needs and FX-denominated debt repayments.

This week's repayments should be refinanced yet again

This week, the MoF is scheduled to repay UAH1.64bn in local currency, including UAH1.0bn of principal repayments, which most likely should be refinanced via domestic QE. We do not anticipate that the MoF will accept higher interest rates. Refinancing is necessary for the budget part of the IMF loan and for FX debt repayments scheduled in May and June, including IMF repayments and Eurobond redemptions.

Primary auction announcement for today

The MoF amended its original scheduled offering of 3-month, 3-year and 5-year bonds by adding a 2-year bond to the roster, all with same day settlements. The MoF sold similar bonds last week and in April, including 3-month bonds at 9.95% (rejecting bids at higher interest rates), while the 3-year and 5-year bonds were sold at 15.0% and 14.3%, respectively. At the same time, the 2-year local currency bond was offered only once at the debut auction in April when it did not see any bids. For details of this auction, please see the table on the next page.

Table 1. Details of the auction, announced for 13 May, 2014

ISIN	Type of placement	Bond type	Currency	Tenor (days)	Maturity	Coupon rate (%)	Volume outstanding (UAHm)
UA4000180442	Re-opening	Zero-coupon	UAH	77	30-Jul-14	N/M	170.00
	Primary	Coupon-bearing, bullet	UAH	714	27-Apr-16	N/A	0.00
UA4000180541	Re-opening	Coupon-bearing, bullet	UAH	1085	3-May-17	15.00	100.00
UA4000180426	Re-opening	Coupon-bearing, bullet	UAH	1792	10-Apr-19	14.30	74.73

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

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

We anticipate domestic QE supported bids for the 2-year, 3-year and 5-year bonds, possibly being focused on the 2-year bond which was added yesterday. The 3-month bond could see market demand, but bids submitted for low volumes at higher rates will most likely be rejected.

Eurobond market

Markets stable on negative anticipations

Yields still above 10.0%

Ukrainian Eurobonds last week were rather stable with insignificant movements. The decline in yields seen last week was insufficient and took place mostly at the short-term end of the yield curve, shifting from 10.54-17.10% to 10.08-13.91% (excluding UKRAIN 7.95% '14 and UKRAIN 5.00% '15). At the same time, yields declined a bit more last Wednesday as UKRAIN 7.5% '23 moved below 10.0%, only to rebound to 10.08% at the end of the week.

Chart 3. YTM of some Ukrainian Eurobonds

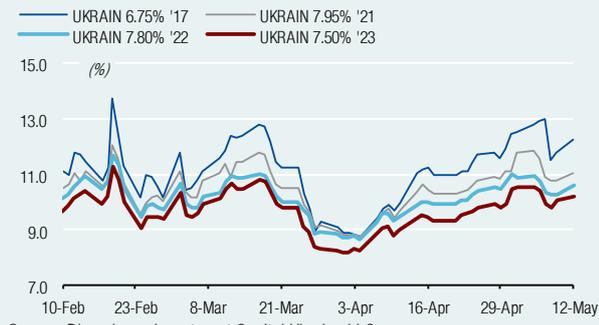


Chart 4. Ukrainian Eurobonds spreads



YTM remained high due to the situation in eastern Ukraine

The slight decline in yields last week was mostly influenced by Ukraine’s receipt of the debut tranche from the IMF. Unfortunately, the situation in eastern Ukraine overshadowed its impact. Any new escalations of the conflicts in Donetsk or Lugansk that results in a Russian invasion and/or the loss of the territories could not only increase the debt burden, but also decrease the GDP, ultimately triggering a default or the breach of debt ratio covenants.

Until this situation is resolved, Ukrainian Eurobond yields could remain high and creep even higher.

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 12 May 2014

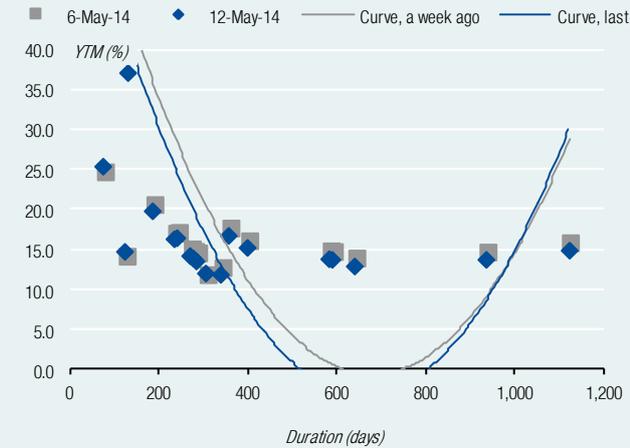
Ticker	Volume (UAHm)	Coupon rate (%)	Maturity	Price (% of par)	YTM (%)	Weekly price chg (bp)	Weekly yield chg (bp)	Duartion (years)	1W daily avg turnover (UAHm)	1W total turnover (UAHm)	Total turnover (UAHm)	Liquidity ratio*
157135	3,464.79	7.97	23-Jul-14	99.438	25.44	25	71	0.20	0.00	0.00	168.98	0.05
158794	1,785.43	7.5	10-Sep-14	99.108	14.81	4	61	0.33	0.00	0.00	1,675.30	0.94
149231	1,438.81	8.32	19-Nov-14	98.875	19.87	63	-78	0.50	13.09	52.37	2,065.98	1.44
151278	1,733.48	8.5	7-Jan-15	98.500	16.38	63	-69	0.64	0.00	0.00	1,451.55	0.84
000999	226.80	9.6	14-Jan-15	99.125	16.52	63	-67	0.65	0.00	0.00	0.00	0.00
155485	2,575.02	8.09	11-Feb-15	98.000	14.28	75	-84	0.73	0.00	0.00	5,692.98	2.21
157143	589.25	8.02	18-Feb-15	97.875	13.98	75	-82	0.75	0.00	0.00	0.00	0.00
157127	582.37	8.02	25-Feb-15	97.875	13.61	88	-100	0.77	0.00	0.00	2,305.70	3.96
160642	2,379.71	7.75	18-Mar-15	97.991	12.11	4	20	0.83	0.00	0.00	6,301.41	2.65
142699	3,674.21	9.45	22-Apr-15	98.625	11.94	88	-84	0.92	0.00	0.00	11,527.32	3.14
142681	648.50	4.8	6-May-15	102.688	-0.58	0	6,348	0.48	0.00	0.00	0.00	0.00
141071	1,786.04	9.45	27-May-15	98.125	16.80	100	-91	0.97	0.00	0.00	6,570.62	3.68
142673	2,062.38	4.5	17-Jun-15	93.000	154.82	113	684	0.10	0.00	0.00	0.00	0.00
144083	26.28	9.45	8-Jul-15	97.750	15.30	100	-83	1.09	0.00	0.00	0.00	0.00
152441	3,793.59	8.25	27-Jan-16	94.625	13.89	150	-99	1.59	0.00	0.00	55.17	0.01
153282	105.00	8.25	3-Feb-16	94.500	13.81	150	-98	1.61	0.00	0.00	71.92	0.68
160923	3,535.50	7.5	16-Mar-16	92.875	37.13	163	-473	0.35	0.00	0.00	0.00	0.00
160907	338.05	8	23-Mar-16	93.625	12.98	163	-100	1.75	0.00	0.00	160.05	0.47
160915	3,535.50	8.25	22-Mar-17	89.250	13.81	200	-91	2.56	0.00	0.00	0.00	0.00
151286	6,246.05	7.5	20-Dec-17	83.875	14.96	225	-93	3.07	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 5. Shape of the local-currency sovereign yield curve

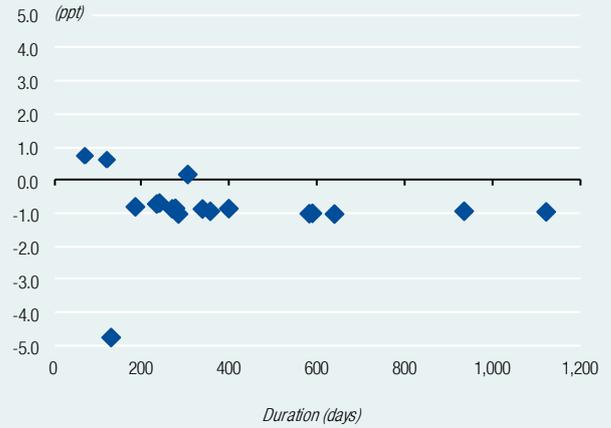
Last one compared to 1 week ago



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

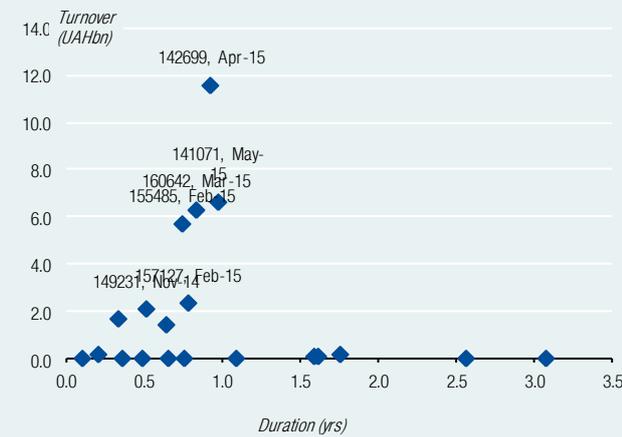
Chart 6. Movement of the local-currency sovereign yield curve

Over last week, in percentage points



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

Chart 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 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 12 May 2014

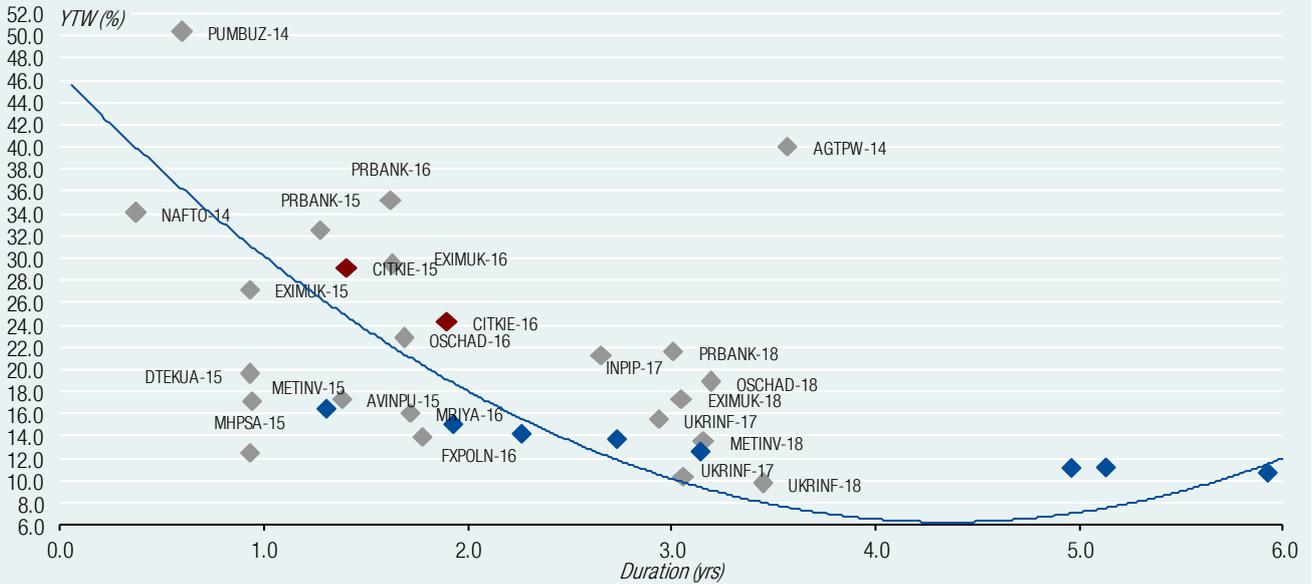
Ticker	Issuer	Ratings	Volume (million)	Curr- ency	Coupon rate (%)	Maturity	Price (% of par)	YTM (%)	Weekly price chg (bp)	Weekly yield chg (bp)	Spread (bp)	Duration (years)
UKRAIN-14	Ministry of Finance	Caa3/CCC/CC C	1,000.0	USD	7.95	4-Jun-14	98.500	37.18	100	-1,120	2,227	0.05
UKRAIN-15	Ministry of Finance	Caa3/CCC/CC C	500.0	USD	6.875	23-Sep-15	89.421	15.84	170	-150	1,477	1.30
UKRAIN-15	Ministry of Finance	Caa3/CCC/CC C	600.0	EUR	4.95	13-Oct-15	89.119	13.90	179	-157	1,210	1.36
UKRAIN-16	Ministry of Finance	Caa3/CCC/CC C	1,250.0	USD	6.25	17-Jun-16	85.563	14.51	203	-125	1,348	1.92
UKRAIN-16	Ministry of Finance	Caa3/CCC/CC C	1,000.0	USD	6.58	21-Nov-16	85.186	13.75	215	-113	1,282	2.26
UKRAIN-17	Ministry of Finance	Caa3/CCC/CC C	2,600.0	USD	9.25	24-Jul-17	89.270	13.49	208	-88	1,229	2.73
UKRAIN-17	Ministry of Finance	Caa3/CCC/CC C	700.0	USD	6.75	14-Nov-17	84.650	12.28	158	-62	1,101	3.14
UKRAIN-20	Ministry of Finance	Caa3/CCC/CC C	1,500.0	USD	7.75	23-Sep-20	85.541	10.96	314	-78	906	4.96
UKRAIN-21	Ministry of Finance	Caa3/CCC/CC C	1,500.0	USD	7.95	23-Feb-21	85.587	11.02	225	-53	813	5.12
UKRAIN-22	Ministry of Finance	Caa3/CCC/CC C	2,250.0	USD	7.8	28-Nov-22	84.638	10.58	87	-17	772	5.92
UKRAIN-23	Ministry of Finance	Caa3/CCC/CC C	1,250.0	USD	7.5	17-Apr-23	84.325	10.22	101	-19	740	6.39
CITKIE-15	Kyiv	Caa3/CCC/CC C	250.0	USD	8	6-Nov-15	77.063	28.07	250	-252	2,657	1.41
CITKIE-16	Kyiv	Caa3/CCC/CC C	300.0	USD	9.375	11-Jul-16	76.688	23.80	225	-161	2,290	1.90
AGTPW-14	Agroton	NR/NR/WD	50.0	USD	12.5	14-Jul-14	31.438	38.33	-19	33	3,506	3.57
NAFTO-14	Naftogaz of Ukraine	NR/NR/CCC	1,595.0	USD	9.5	30-Sep-14	92.125	32.84	281	-850	3,155	0.37
PUMBZ-14	FUIB	Caa3/NR/NR	252.5	USD	11	31-Dec-14	82.250	45.23	25	6	4,228	0.60
EXIMUK-15	Ukreximbank	Caa3/NR/CCC	750.0	USD	8.375	27-Apr-15	85.250	27.02	344	-481	2,644	0.93
DTEKUA-15	DTEK	Caa2/NR/CCC	500.0	USD	9.5	28-Apr-15	91.750	19.40	194	-239	1,884	0.93
MHPSA-15	MHP	Caa2/NR/CCC	584.8	USD	10.25	29-Apr-15	98.625	11.80	44	-49	1,069	0.93
METINV-15	Metinvest Holding	Caa2/NR/CCC	500.0	USD	10.25	20-May-15	94.313	16.58	6	0	1,568	0.94
PRBANK-15	Pryvatbank	Caa3u/NR/CC C	200.0	USD	9.375	23-Sep-15	77.000	31.47	44	-33	3,007	1.28
AVINPU-15	Avangard	NR/NR/CCC	200.0	USD	10	29-Oct-15	91.813	16.56	75	-59	1,537	1.38
PRBANK-16	Pryvatbank	Cau/NR/NR	150.0	USD	8.75	9-Feb-16	65.169	34.00	-9	27	3,236	1.62
EXIMUK-16	Ukreximbank	Ca/NR/C	125.0	USD	8.4	9-Feb-16	71.625	27.43	31	-16	2,516	1.63
OSCHAD-16	Oshchadbank	Caa3/NR/CCC	500.0	USD	8.25	10-Mar-16	80.125	22.08	169	-130	2,099	1.68
MRIYA-16	Mriya Agroholding	NR/CCC/CCC	250.0	USD	10.95	30-Mar-16	92.188	15.91	25	-14	1,531	1.71
FXPOLN-16	Ferrexpo PLC	Caa2/CCC+/C CC	500.0	USD	7.875	7-Apr-16	90.500	13.73	119	-75	1,317	1.77
INPIP-17	Interpipe	NR/NR/C	200.0	USD	10.25	2-Aug-17	76.438	20.61	0	3	1,905	2.65
UKRINF-17	Infrastructure Projects Fin	Caa3/NR/NR	538.0	USD	8.375	3-Nov-17	95.529	9.93	1,103	-424	860	3.06
UKRINF-17	Infrastructure Projects Fin	(P)Caa3/NR/N R	550.0	USD	9	7-Dec-17	83.471	15.18	223	-93	1,392	2.94
EXIMUK-18	Ukreximbank	Caa3/NR/CCC	500.0	USD	8.75	22-Jan-18	77.313	17.32	138	-59	1,563	3.05
METINV-18	Metinvest Holding	Caa2/NR/CCC	750.0	USD	8.75	14-Feb-18	86.875	13.30	25	-8	1,141	3.16
PRBANK-18	Pryvatbank	Caa3u/NR/CC C	175.0	USD	10.875	28-Feb-18	74.000	21.18	-38	20	1,910	3.00

OSCHAD-18	Oshchadbank	Caa3/NR/CCC	500.0	USD	8.875	20-Mar-18	74.188	18.54	81	-35	1,657	3.19
UKRINF-18	Infrastructure Projects Fin	Caa3/NR/NR	690.0	USD	7.4	20-Apr-18	94.295	9.16	904	-307	692	3.45
VABANK-14	VAB Bank	Caa1 /*- /NR/WD	112.5	USD	10.5	14-Jun-14	90.100	38.87	0	0	4,071	0.38
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.

Chart 9. Term structure of yields of Ukrainian Eurobonds as of 12 May 2014

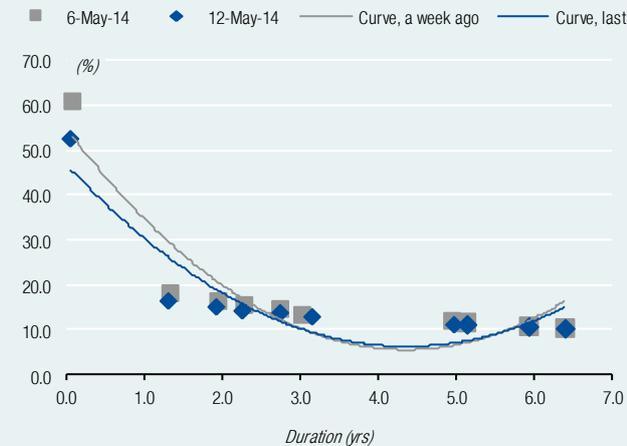
Blue dots are Ukraine sovereign Eurobonds; grey dots are corporate Eurobonds and red ones are municipal Eurobonds



Sources: Bloomberg, Investment Capital Ukraine LLC..

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

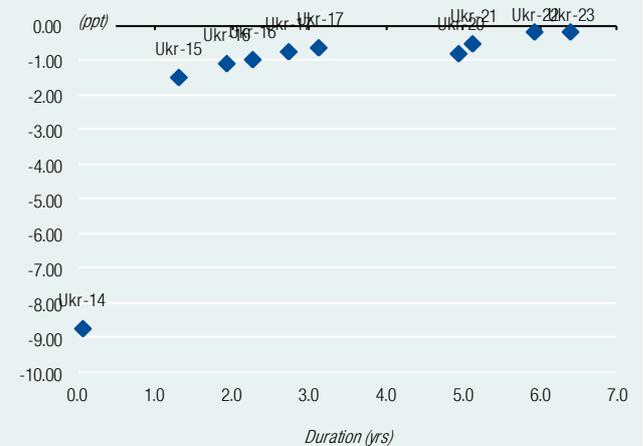
Last one compared to 1 week ago



Sources: Bloomberg, Investment Capital Ukraine LLC.

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

Over last week, in percentage points



Note: each point of the chart has a label, where "Ukr" means Ukraine sovereign bond 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

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

Date	Qty of bonds offered/sold	Proceeds (UAHm)	Volume of bonds sold* (UAHm)	Volume of bids submitted (UAHm)	Qty of bids submitted	Lowest yield asked** (%)	Highest yield asked** (%)	MoF cut-off yield (%)	Qty of bids accepted	Average yield (%)	WA yield (%)	Average duration (years)	WA duration (years)
6-May-14	2	246.60	100.00	320.00	4	9.95	20.00	12.48	2	15.15	14.96	1.40	1.17
29-Apr-14	2	1,636.78	20.00	1,620.00	7	9.95	16.00	12.48	3	15.11	15.60	1.38	2.42
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	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	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	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	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	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	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	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-Oct-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-Oct-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-Oct-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-Oct-13	1	613.39	606.94	606.94	3	14.25	14.25	14.25	3	14.79	14.79	3.66	3.66

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

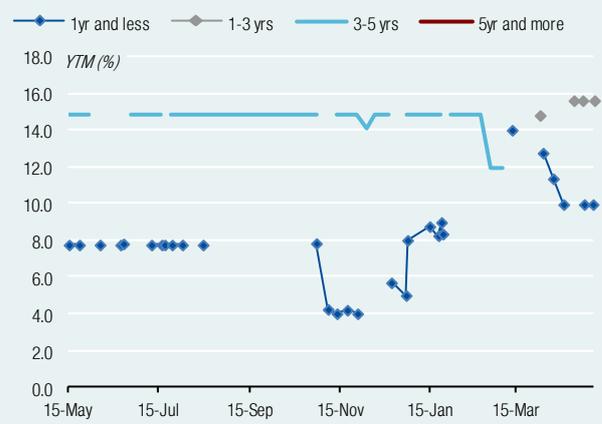
Last 12-month period



Sources: Ministry of Finance, Investment Capital Ukraine LLC.

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

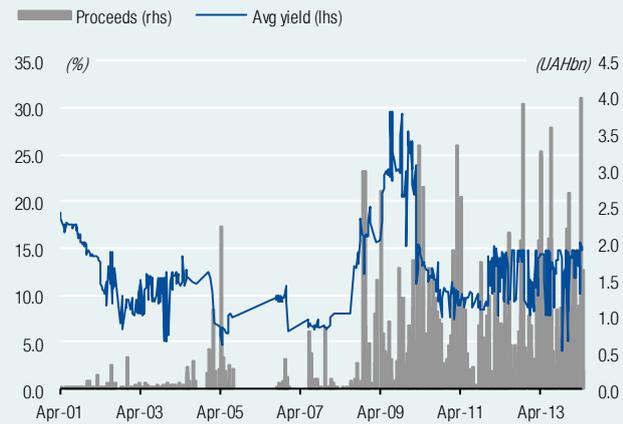
Last 12-month period



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

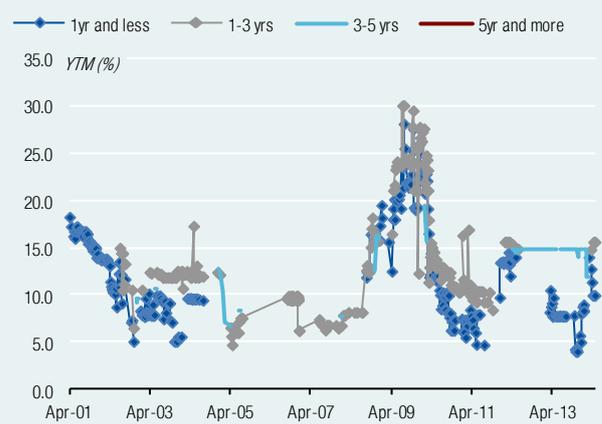
History since April 2001 to present



Sources: Ministry of Finance, Investment Capital Ukraine LLC.

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

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								
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
UA4000180442	Zero-coupon bonds	170,000,000.00		Upon maturity	No	No		30-Jul-2014
UA4000180210	Zero-coupon bonds	410,000,000.00		Upon maturity	No	No		1-Oct-2014
UA4000178883	Zero-coupon bonds	25,000,000.00		Upon maturity	No	No		15-Oct-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
UA4000180459	Coupon bonds	1,600,000,000.00	15.00	Semi-annually	No	No		29-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
UA4000180541	Coupon bonds	100,000,000.00	15.00	Semi-annually	No	No		3-May-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-Oct-2017
UA4000148571	Coupon bonds	1,890,000,000.00	14.30	Semi-annually	No	No		18-Oct-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-Oct-2018
UA4000176093	Coupon bonds	1,644,780,000.00	14.25	Semi-annually	No	No		24-Oct-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
UA4000180426	Coupon bonds	74,733,000.00	14.30	Semi-annually	No	No		10-Apr-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

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
UA4000148589	Coupon bonds	2,000,000,000.00	14.30	Semi-annually	No	No		23-Oct-2019
UA4000148944	Coupon bonds	500,000,000.00	14.30	Semi-annually	No	No		30-Oct-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
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-Oct-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		82,078,359,500.00						
Government recap'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-Oct-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-Oct-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

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
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
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-Oct-2018
UA4000059323	Coupon bonds	1,000,000,000.00	9.50	Semi-annually	No	No		31-Oct-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-Oct-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		112,971,577,000.00						
Government VAT bonds 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 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-Oct-2014
UA4000130595	Coupon bonds	200,000,000.00	8.25	Semi-annually	No	No		29-Oct-2014

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
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
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 foreign-currency bonds								
UA4000140362	Coupon bonds	2,013,184,410.00	9.20	Semi-annually	No	No		21-May-2014
UA4000157135	Coupon bonds	3,464,790,000.00	7.97	Semi-annually	No	No		23-Jul-2014
UA4000158794	Coupon bonds	1,785,427,500.00	7.50	Semi-annually	No	No		10-Sep-2014
UA4000174247	Coupon bonds	972,757,470.00	4.80	Semi-annually	No	Yes	29-Oct-2014	29-Oct-2014
UA4000149231	Coupon bonds	1,438,807,080.00	8.32	Semi-annually	No	No		19-Nov-2014
UA4000173058	Coupon bonds	1,178,500,000.00	7.75	Semi-annually	No	No		26-Nov-2014
UA4000177133	Coupon bonds	2,651,625,000.00	7.88	Semi-annually	No	No		10-Dec-2014
UA4000171649	Coupon bonds	1,169,484,475.00	8.25	Semi-annually	No	No		24-Dec-2014
UA4000151278	Coupon bonds	1,733,479,220.00	8.50	Semi-annually	No	No		7-Jan-2015
UA4000133771	Coupon bonds	226,802,325.00	9.60	Semi-annually	No	No		14-Jan-2015
UA4000155485	Coupon bonds	2,575,022,500.00	8.09	Semi-annually	No	No		11-Feb-2015
UA4000157143	Coupon bonds	589,250,000.00	8.02	Semi-annually	No	No		18-Feb-2015
UA4000157127	Coupon bonds	582,367,560.00	8.02	Semi-annually	No	No		25-Feb-2015
UA4000160642	Coupon bonds	2,379,709,695.00	7.75	Semi-annually	No	No		18-Mar-2015
UA4000142699	Coupon bonds	3,674,209,450.00	9.45	Semi-annually	No	No		22-Apr-2015
UA4000166821	Coupon bonds	3,141,881,000.00	7.75	Semi-annually	No	No		6-May-2015
UA4000142681	Coupon bonds	648,504,980.00	4.80	Semi-annually	No	Yes	6-May-2015	6-May-2015
UA4000141071	Coupon bonds	1,786,040,320.00	9.45	Semi-annually	No	No		27-May-2015
UA4000167837	Coupon bonds	2,047,172,350.00	7.75	Semi-annually	No	No		3-Jun-2015
UA4000142673	Coupon bonds	2,062,375,000.00	4.50	Semi-annually	No	Yes	17-Jun-2015	17-Jun-2015
UA4000144083	Coupon bonds	26,280,550.00	9.45	Semi-annually	No	No		8-Jul-2015
UA4000171409	Coupon bonds	1,230,094,730.00	8.25	Semi-annually	No	No		15-Jul-2015
UA4000152441	Coupon bonds	3,793,591,500.00	8.25	Semi-annually	No	No		27-Jan-2016
UA4000153282	Coupon bonds	105,004,350.00	8.25	Semi-annually	No	No		3-Feb-2016
UA4000160923	Coupon bonds	3,535,500,000.00	7.50	Semi-annually	No	Yes	16-Mar-2016	16-Mar-2016
UA4000160907	Coupon bonds	338,052,725.00	8.00	Semi-annually	No	No		23-Mar-2016
UA4000166847	Coupon bonds	877,393,250.00	8.00	Semi-annually	No	No		25-May-2016
UA4000172506	Coupon bonds	2,660,899,795.00	8.75	Semi-annually	No	No		10-Aug-2016
UA4000177414	Coupon bonds	3,517,822,500.00	7.75	Semi-annually	No	Yes	26-Oct-2016	26-Oct-2016
UA4000177752	Coupon bonds	588,377,910.00	7.75	Semi-annually	No	Yes	30-Nov-2016	30-Nov-2016
UA4000178305	Coupon bonds	1,176,520,120.00	7.75	Semi-annually	No	No		14-Dec-2016
UA4000160915	Coupon bonds	3,535,500,000.00	8.25	Semi-annually	No	No		22-Mar-2017

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
UA4000166854	Coupon bonds	3,830,125,000.00	7.45	Semi-annually	No	Yes	17-May-2017	17-May-2017
UA4000151286	Coupon bonds	6,246,050,000.00	7.50	Semi-annually	No	No		20-Dec-2017
UA4000177554	Coupon bonds	2,356,021,845.00	7.50	Semi-annually	No	Yes	21-Nov-2018	21-Nov-2018
Total		69,938,624,610.00						
Grand total		282,642,435,010.00						

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 ¹	0.00	0.00	0.00	0.00	0.00
	External debt repayment ²	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 ¹	0.00	0.00	0.00	0.00	
	External debt repayment ²	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 ¹	0.00	0.00	0.00	0.00	
	External debt repayment ²	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 ¹	0.00	0.00	0.00	0.00	0.00
	External debt repayment ²	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 ¹	0.00	0.00	0.00	0.00	0.00
	External debt repayment ²	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 ¹	0.00	0.00	0.00	0.00	
	External debt repayment ²	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 ¹	0.00	0.00	0.00	0.00	0.00
	External debt repayment ²	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 ¹	0.00	0.00	0.00	0.00	
	External debt repayment ²	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 ¹	0.00	0.00	0.00	0.00	
	External debt repayment ²	0.00	0.00	0.00	0.00	
	Total	0.00	0.00	0.00	0.00	
October	Auction date	1-Oct-13	8-Oct-13	15-Oct-13	22-Oct-13	29-Oct-13
	Local debt repayment ¹	0.00	0.00	0.00	0.00	0.00
	External debt repayment ²	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 ¹	0.00	0.00	0.00	0.00	
	External debt repayment ²	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 ¹	0.00	0.00	0.00	0.00	0.00
	External debt repayment ²	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

Period	Repayments (UAHm)									Repayments, US dollar equivalent (US\$m)							
	Interest			Principal			Total			Interest			Principal			Total	
	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 QUARTERS																	
2Q14	1,076.3		2,167.6	2,322.1		1,598.3	4,481.9	5,933.5		91.6		184.5	197.6		136.0	381.4	505.0
3Q14	2,275.8	135.6	2,551.4	1,922.8	1,643.6	1,500.0	6,388.9	11,926.6		193.7	11.5	217.1	163.6	139.9	127.7	543.7	1,015.0
4Q14	3,383.7		3,371.4	435.8		4,696.5	8,557.9	14,368.6		288.0		286.9	37.1		399.7	728.3	1,222.9
1Q15	2,108.5	90.4	2,169.8	453.7	1,643.6	2,000.0	5,523.7	12,883.9		179.4	7.7	184.7	38.6	139.9	170.2	470.1	1,096.5
2Q15	3,254.4		2,833.2	250.8			7,531.9	15,081.0		277.0		241.1	21.3		641.0	1,283.5	
3Q15	2,409.2	45.2	2,560.9	0.8	1,643.6	1,000.0	5,894.7	5,225.8		205.0	3.8	218.0	0.1	139.9	85.1	501.7	444.7
4Q15	3,160.3		2,961.1	0.8		6,000.0	6,891.4	6,909.8		269.0		252.0	0.1		510.6	586.5	588.1
1Q16	2,279.9		2,201.9	0.8		2,750.0	5,247.6	11,139.9		194.0		187.4	0.1		234.0	446.6	948.1
2Q16	3,160.2		2,642.4	0.8		9,085.0	6,530.3	9,963.2		269.0		224.9	0.1		773.2	555.8	847.9
3Q16	2,279.8		2,071.3	80.8		7,135.0	4,781.7	12,666.7		194.0		176.3	6.9		607.2	407.0	1,078.0
4Q16	3,144.0		2,245.7				6,082.3	5,759.7		267.6		191.1			517.6	490.2	
1Q17	2,263.6		1,732.4	2,750.0		1,250.0	4,188.1	7,535.5		192.7		147.4	234.0		106.4	356.4	641.3
2Q17	3,144.0		2,245.7	7,788.5		6,357.9	5,854.9	17,976.5		267.6		191.1	662.8		541.1	498.3	1,529.9
3Q17	2,061.7		1,673.0	1,810.0		6,550.0	3,781.0	8,360.0		175.5		142.4	154.0		557.4	321.8	711.5
4Q17	2,572.8		1,895.7	5,212.9		7,658.3	4,791.0	19,117.2		219.0		161.3	443.6		651.8	407.7	1,627.0
1Q18	1,932.3		1,337.9	4,318.9		6,375.0	3,316.5	10,693.9		164.5		113.9	367.6		542.6	282.3	910.1
2Q18	2,200.1		1,435.9	11,845.3		7,157.9	3,724.4	19,003.3		187.2		122.2	1,008.1		609.2	317.0	1,617.3
3Q18	1,623.5		1,011.1	5,101.3		10,145.1	2,680.8	15,246.5		138.2		86.1	434.2		863.4	228.2	1,297.6
4Q18	1,355.5		1,066.2	5,108.8		4,655.3	2,510.0	12,120.2		115.4		90.7	434.8		396.2	213.6	1,031.5
BY YEARS																	
2014	6,735.7	135.6	8,090.5	4,680.7	1,643.6	7,794.8	19,428.8	32,228.7		573.3	11.5	688.6	398.4	139.9	663.4	1,653.5	2,742.9
2015	10,932.3	135.6	10,525.1	706.0	3,287.2	9,000.0	25,841.6	40,100.4		930.4	11.5	895.8	60.1	279.8	766.0	2,199.3	3,412.8
2016	10,863.9		9,161.4	82.4		18,970.0	22,642.0	39,529.5		924.6		779.7	7.0		1,614.5	1,927.0	3,364.2
2017	10,042.2		7,546.8	17,561.3		21,816.2	18,615.1	52,989.2		854.7		642.3	1,494.6		1,856.7	1,584.3	4,509.7
2018	7,111.4		4,851.1	26,374.4		28,333.4	12,231.7	57,063.8		605.2		412.9	2,244.6		2,411.4	1,041.0	4,856.5

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

Period	Repayments, hryvnia equivalent (UAHm)						Repayments, US dollar equivalent (US\$m)					
	Interest		Principal		Total		Interest		Principal		Total	
	Eurobond	Loan	Eurobond	Loan	Interest	Principal	Eurobond	Loan	Eurobond	Loan	Interest	Principal
BY QUARTERS												
2Q14	3,310.6	1,154.1	11,106.2	3,911.0	4,464.7	15,017.2	298.1	103.9	1,000.0	352.1	402.0	1,352.1
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	3,825.6	11,106.2	25,004.6	13,512.6	36,110.8	872.2	344.5	1,000.0	2,251.4	1,216.7	3,251.4
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

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	Revenues	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.

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.

Chart 16. Ukraine's companies by sales (LTM)



Source: Company data, Investment Capital Ukraine LLC.

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



Source: Company data, Investment Capital Ukraine LLC.

Chart 18. Ukraine's companies by leverage ratio



Note: leverage – net debt to EBITDA (LTM).

Source: Company data, Investment Capital Ukraine LLC.

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 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.

¹ 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 exchange 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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INVESTMENT CAPITAL UKRAINE
INVESTMENT BANKING

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

Julia Pecheritsa, International Equity
Sales
julia.pecheritsa@icu.ua

RESEARCH DEPARTMENT TEL. +38 044 2200120

Alexander Valchyshen,
Head of Research
alexander.valchyshen@icu.ua

Alexander Martynenko
Senior equity analyst (Metals & Mining)
alexander.martynenko@icu.ua

Taras Kotovych
Fixed-income analyst
taras.kotovych@icu.ua

Lee Daniels, Rolfe Haas
Editors

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