



# Bond Market Insight

Weekly review: Between two giants

TUESDAY, 11 MARCH, 2014

RESEARCH INSIGHT

**Ukraine was torn between two global political giants last week. On the one side, Russia, the largest neighbour on Ukraine's eastern border, stood with its troops hovering along Crimea. On the other side, the EU and the US offered financial support and diplomatic attempts to resolve the Crimean crisis. Significant economic challenges, low FX reserves, a highly volatile FX market, and low budget revenues forced significant new borrowings that resulted in heightened market scepticism. At this point, the market will await actual financial support rather than offerings.**

**Domestic bond market.** The domestic money market and bond market mostly were influenced by NBU interventions via loan issuances and large government bond purchases. As a result, both banking sector liquidity and money market interest rates were extremely volatile as rates rose through the end of last week.

Although the NBU significantly increased its portfolio with new government bond purchases, these deals had short-term results due to new primary market issues. Bondholders' portfolios were volatile mostly due to movements of the official exchange rate, causing bonds outstanding to rise and decline significantly.

**Eurobond market.** The Eurobond market reacted to Ukraine's political situation and the new crisis in Crimea. While yields jumped on news about the heightened possibility of war with Russia in Crimea at the beginning of last week, news of potential negotiations to restructure Ukraine's debt had little impact. Although yields did not move above last Monday's levels through the end of last week, they did continue to increase yesterday.

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## Key market indicators (as of 7 Mar 2014)

	Last close	Weekly chg (%)	YTD chg (%)
<b>Currencies</b>			
USD/UAH (spot)	9.2325	-7.21	12.04
USD/UAH (1Y NDF)	11.9000	0.85	26.33
<b>Rates, yields &amp; spreads (%)</b>			
Kiev Prime ON	12.00	266bp	420bp
Kiev Prime 3M	18.00	25bp	200bp
UAH NDF 1Y	29.60	1,035bp	1,462bp
Ukraine CDS 5Y	N/A		
Libor USD 1yr	0.55	0bp	-3bp
UST 2yr	0.37	5bp	-1bp
UST 10yr	2.79	14bp	-24bp
UKRAINE 17	12.56	80bp	300bp
UKRAINE 23	9.61	14bp	57bp
<b>Money market data (UAHbn)</b>			
Accounts at NBU	24.96	-5.99	-23.68
NBU CDs outstanding	7.21	-2.83	374.01
<b>Local currency bond market data (UAHbn)</b>			
Govt bond outstanding	273.68	-0.72	9.86
Held by			
NBU	168.95	3.68	16.63
Banks	79.88	-8.17	-0.36
Other residents	11.33	-1.43	-8.60
Non-residents	13.52	-4.93	15.56

Notes: chg – percentage change; bp – basis points.

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

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# Market update and news

## Domestic bond market

### Liquidity significant volatility

**Liquidity declined last week despite rising significantly last Wednesday**

Broader banking sector liquidity declined last week, having begun at UAH35.54bn, rising to UAH37.82bn last Wednesday, and then declining to UAH33.86 last Friday. The main impact on this indicator includes banks' correspondent accounts with the NBU and total CDs outstanding.

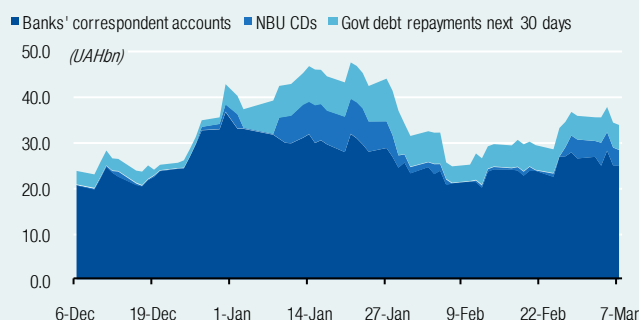
**NBU inflows did not make liquidity stable at a high level**

Last week, the NBU purchased UAH2.50bn of government bonds, issued UAH1.11bn of loans for 13 and 29 days. At the same time, the NBU did not publish actual information on secondary market turnover and volumes of its REPO transactions. Despite these inflows, banks' correspondent accounts with the NBU last week declined UAH1.95bn after it began the week at UAH26.91bn. Last Tuesday, this indicator rose UAH3.28bn and then fell UAH3.21bn, likely due to supporting deals with state-owned companies.

**The NBU absorbed funds last Monday but later returned them to the banks' accounts**

The NBU issued a high volume of CDs last Monday, causing a significant increase in CDs outstanding last Tuesday from UAH3.42bn to UAH5.00bn, but this indicator moved down to the same level last Monday as it was last Friday: UAH3.43bn. The NBU used these redemptions to support banks with funds and to increase banks' correspondent accounts with the NBU.

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



Sources: MoF, NBU, Investment Capital Ukraine LLC.

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



Sources: MoF, NBU, Investment Capital Ukraine LLC.

**Liquidity could be unstable due to debt repayments and Naftogaz talks**

This week, the only large scheduled debt redemption is which the MoF will refinance via domestic QE (see comment below). If Naftogaz already paid for Russian natural gas last week, liquidity should fall today and should slightly recover with inflows from the NBU.

**The MoF sold only 5-year bonds last week...**

### Last week's primary auctions

The MoF once more held two primary auctions last week. At last Tuesday's auction, of the five offered bonds, only one 5-year local currency bond was sold. The remaining bonds received no bids. Later, last Thursday, the MoF held a new auction under similar circumstances, but there only one 5-year bond was offered and sold.

**...at new yields under domestic QE**

At last week's auctions, the 5-year bonds were sold under the same conditions as last week via a single bid at 11.50%, the new benchmark rate set after the new NBU governor and new government were appointed. Most likely, last week's demand was supported by the NBU using its standard support instruments. Moreover, the NBU likely purchased part of these bonds into its portfolio. Over the last two weeks, the NBU purchased UAH7.50bn of government bonds from banks' portfolios, while the MoF sold UAH5.10bn of new bonds.

**Proceeds were likely used to cover current budget needs**

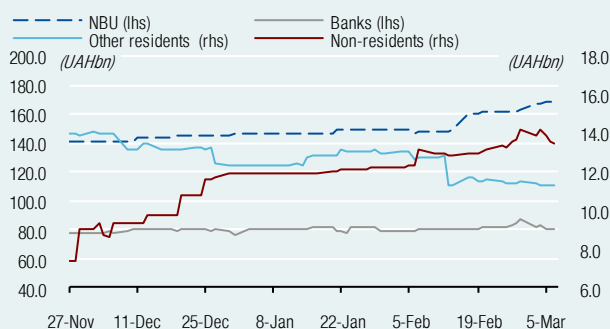
Proceeds from last week's auctions were used for current budget expenditures, particularly as debt repayments last Wednesday were not exceeding UAH100.0m. Also, due to a challenged budget performance, these funds most likely were not deposited for future debt repayments.

**Bondholders structure: Impact of FX market**

**Portfolio changes were due to exchange rate volatility and new bond purchases by the NBU**

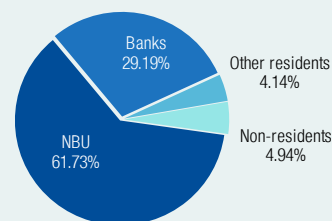
Last week, bondholders' portfolios were under the pressure of the FX market and movements of the official exchange rate. We saw a significant increase in banks' and non-residents' portfolios through last Tuesday and then a decline through Friday. The UAH/USD exchange rate rose to UAH9.9924/USD last Tuesday and declined through last Friday to UAH9.3879. At the same time, the increase in banks' portfolios was cut by the NBU which purchased UAH2.5bn of bonds last week.

**Chart 3. UAH state bondholders' portfolios (last 3 months)**



Notes: other residents' and non-residents' data is plotted against the right-side axis, all other groups of bondholders are plotted against the left-side axis.  
Sources: National Bank of Ukraine, Investment Capital Ukraine LLC.

**Chart 4. Breakdown of government bondholders (03 January, 2014)**



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

**Primary auction announcement**

Today's primary auction has scheduled only three bonds to be offered: a 12-month zero-coupon bond and two coupon-bearing bonds with 5-year and 7-year maturities. All bonds will be denominated in local currency.

While no market demand is expected, as is usual for this year, some banks could participate in the 5-year bond offering and the 7-year bond as well. All bids should be supported by the NBU under domestic QE, the only source for budget financing currently. The MoF is scheduled to repay UAH2.18bn in local currency tomorrow, most of which can be refinanced.

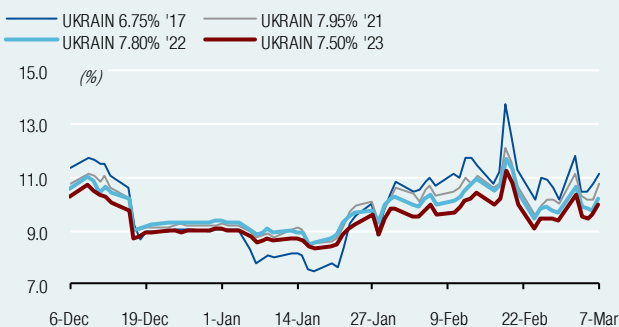
## Eurobond market

### Market under impact of news from Crimea

#### *Yield movements driven by the Crimean conflict*

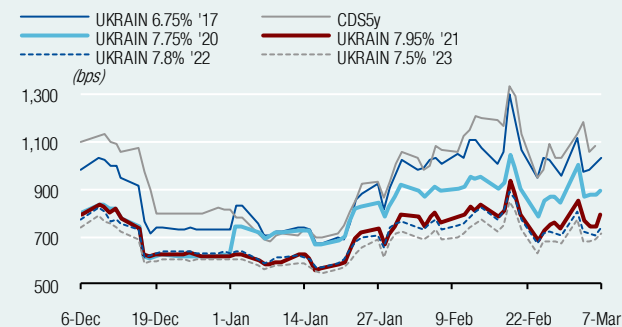
Last week, Crimea had the most influence on market movements. While yields jumped significantly on the possible beginning of a war with Russia in Crimea, the lack of aggressive development quieted market concerns. When the conflict did not escalate but remained at a stalemate, yields began to increase, but they did not penetrate last Monday's levels (see charts below).

**Chart 5. YTM of some Ukrainian Eurobonds**



Source: Bloomberg, Investment Capital Ukraine LLC.

**Chart 6. Ukrainian Eurobonds spreads and 5-year CDS**



Source: Bloomberg, Investment Capital Ukraine LLC.

#### *Market did not react to news about a possible debt restructuring*

At the same time, investors did not react to the newly appointed Minister of Finance's responses to a potential debt restructuring. Only after the MoF officially announced that they are not preparing restructuring plans and that all debt repayments will be fulfilled on time, yields declined.

#### *A significant part of debt repayments is scheduled for the Russian bank VTB and the Russian government...*

According to our assumption, Ukraine has to repay UAH81.80bn in principal repayments, UAH18.14bn of which was repaid in January and February (US\$8.75bn and US\$1.94bn, respectively, at the market exchange rate). The largest repayments are scheduled in May and August on IMF loans amounting to XDR390.63m and XDR265.63m, respectively. The largest is scheduled in June for US\$1.0bn of Eurobonds issued in 2012 to repackage half of the VTB loan. These bonds most likely are in the VTB portfolio (Bloomberg reported information on bondholders that hold less than 7.0% of the total outstanding). While the IMF could take some steps to assist Ukraine with repayments, the VTB might resist restructuring this debt due to the current political view of Russia and some problems with borrowers in Ukraine. According to Ukrainian media, the Ukrainian branch of VTB stopped issuing new loans in Ukraine. At the same time, we have to remember that Naftogaz's Eurobond that matures this September is also guaranteed by the government.

#### *...which amounted to US\$4.0bn and are mostly scheduled for the next December*

Our view is that if Ukraine receives new tranches of financing from the EU, the IMF and the US, the restructuring of only this year's repayments will not resolve the budget problems, particularly since Ukraine has significantly larger repayments scheduled next year. According to our assumption, principal repayments amount to UAH90.93bn, which is approximately UAH9.10bn more than this year's repayments, UAH53.98bn of which will be external debt repayments. A large portion of next year's debt repayments is the recently issued US\$3.0bn Russian Eurobond that matures in December and the two Eurobonds that mature in September and October that amount to US\$500m and EUR600m, respectively.

#### *Russia will be not agree to a restructuring it leaves peaks unsolved*

As a significant portion of debt repayments in 2014-2015 are scheduled to be repaid to Russia, which we doubt will be restructured, as any possible restructuring beyond that will not resolve problems with the peaks in debt repayments. Because of this, we do not anticipate any debt restructuring in the near future, especially if external support occurs. A

restructuring could be discussed only with the IMF for debt repayments on IMF loans issued a few years ago.

## 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 1. Ukrainian local-currency government bonds as of 7 Mar 2014

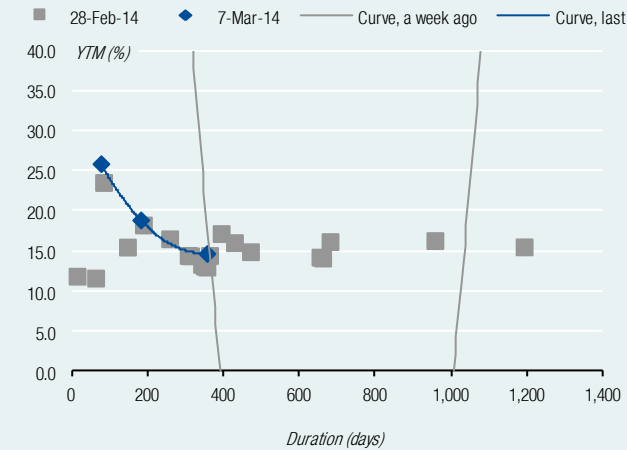
Ticker	Volume (UAHm)	Coupon rate (%)	Maturity	Price (% of par)	YTM (%)	Weekly price chg (bp)	Weekly yield chg (bp)	Duartion (years)	1W daily avg turnover (UAHm)	1W total turnover (UAHm)	Total turnover (UAHm)	Liquidity ratio*
<b>140362</b>	1,577.15	9.2	21-May-14	99.763	25.92	2	234	0.21	11.24	67.45	2,260.57	1.43
<b>158794</b>	1,398.72	7.5	10-Sep-14	98.682	18.91	6	63	0.49	0.00	0.00	1,662.88	1.19
<b>160642</b>	1,864.29	7.75	18-Mar-15	97.622	14.73	5	24	0.97	10.10	60.63	6,142.01	3.29

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

Sources: Bloomberg, PFTS, Investment Capital Ukraine LLC.

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

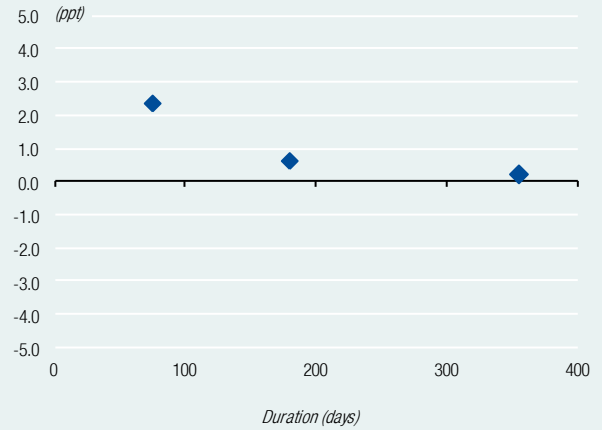
Last one compared to 1 week ago



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

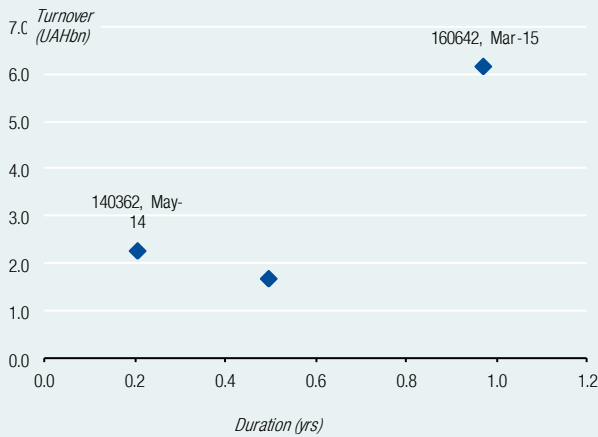
**Chart 8. Movement of the local-currency sovereign yield curve**

Over last week, in percentage points



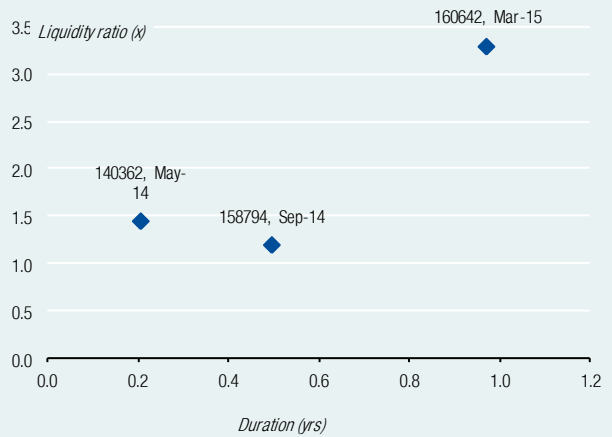
Sources: Ministry of Finance, Bloomberg, PFTS, Investment Capital Ukraine LLC.

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



Note: Total turnover and duration are taken from Table 1, page 7. The bonds with turnover of UAH2bn and more have labels, which consist of PFTS ticker and after a coma month and year of maturity.  
Sources: Ministry of Finance, Bloomberg, PFTS, Investment Capital Ukraine LLC.

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



Note: Total turnover and duration are taken from Table 1, page 7. The bonds with liquidity ratio of 1.1x and more have labels, which consist of PFTS ticker and after a coma month and year of maturity.  
Sources: Ministry of Finance, Bloomberg, PFTS, Investment Capital Ukraine LLC.



## Eurobond market

Table 2. Ukrainian Eurobonds as of 7 Mar 2014

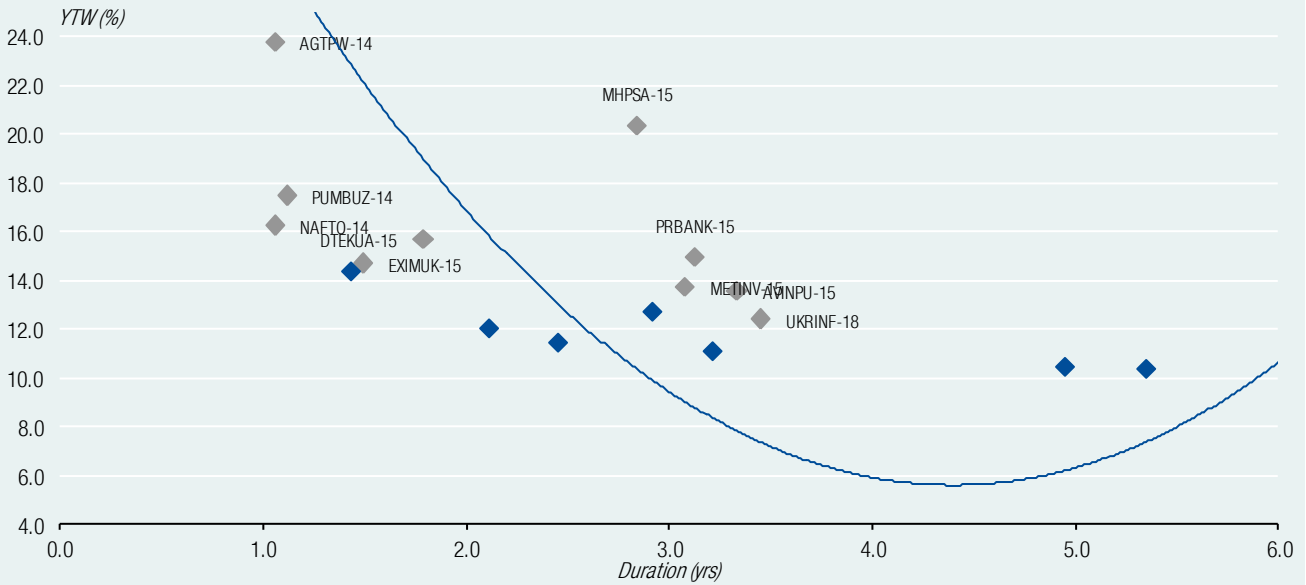
Ticker	Issuer	Ratings	Volume (million)	Currency	Coupon rate (%)	Maturity	Price (% of par)	YTM (%)	Weekly price chg (bp)	Weekly yield chg (bp)	Spread (bp)	Duration (years)
UKRAIN-14	Ministry of Finance	Caa2/CCC/CC C	1,000.0	USD	7.95	4-Jun-14	92.750	41.91	-200	1,175	3,807	0.23
UKRAIN-15	Ministry of Finance	Caa2/CCC/CC C	500.0	USD	6.875	23-Sep-15	90.961	13.61	22	-8	1,248	1.43
UKRAIN-15	Ministry of Finance	Caa2/CCC/CC C	600.0	EUR	4.95	13-Oct-15	86.802	14.81	-220	190	1,202	1.54
UKRAIN-16	Ministry of Finance	Caa2/CCC/CC C	1,250.0	USD	6.25	17-Jun-16	89.484	11.66	-63	39	1,090	2.11
UKRAIN-16	Ministry of Finance	Caa2/CCC/CC C	1,000.0	USD	6.58	21-Nov-16	89.636	11.13	-9	7	1,044	2.45
UKRAIN-17	Ministry of Finance	Caa2/CCC/CC C	2,600.0	USD	9.25	24-Jul-17	91.112	12.56	-203	80	1,165	2.91
UKRAIN-17	Ministry of Finance	Caa2/CCC/CC C	700.0	USD	6.75	14-Nov-17	87.924	10.81	-52	21	979	3.21
UKRAIN-20	Ministry of Finance	Caa2/CCC/CC C	1,500.0	USD	7.75	23-Sep-20	88.003	10.32	-82	20	858	4.94
UKRAIN-21	Ministry of Finance	Caa2/CCC/CC C	1,500.0	USD	7.95	23-Feb-21	89.034	10.19	12	-2	724	5.34
UKRAIN-22	Ministry of Finance	Caa2/CCC/CC C	2,250.0	USD	7.8	28-Nov-22	88.475	9.79	7	-1	687	6.17
UKRAIN-23	Ministry of Finance	Caa2/CCC/CC C	1,250.0	USD	7.5	17-Apr-23	87.362	9.61	-73	14	674	6.35
CITKIE-15	Kyiv	Caa2/CCC/CC C	250.0	USD	8	6-Nov-15	77.438	25.54	-556	501	2,378	1.52
CITKIE-16	Kyiv	Caa2/CCC/CC C	300.0	USD	9.375	11-Jul-16	77.688	22.09	-644	416	2,023	2.08
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
AGTPW-14	Agroton	NR/NR/WD	50.0	USD	12.5	14-Jul-14	39.375	501.17	31	1,742	41,943	0.34
NAFTO-14	Naftogaz of Ukraine	NR/NR/CCC	1,595.0	USD	9.5	30-Sep-14	89.875	30.83	-19	108	2,957	0.53
PUMBZ-14	FUIB	Caa2/NR/NR	252.5	USD	11	31-Dec-14	84.375	34.03	-463	764	3,338	0.76
EXIMUK-15	Ukreximbank	Caa2/NR/CCC	750.0	USD	8.375	27-Apr-15	82.063	27.94	-94	140	2,737	1.06
DTEKUA-15	DTEK	Caa1/NR/CCC	500.0	USD	9.5	28-Apr-15	87.563	22.55	-481	547	2,098	1.05
MHPSA-15	MHP	Caa1/NR/CCC	584.8	USD	10.25	29-Apr-15	94.938	15.26	-381	384	1,395	1.06
METINV-15	Metinvest Holding	Caa1/NR/CCC	500.0	USD	10.25	20-May-15	92.688	17.27	-294	298	1,673	1.11
PRBANK-15	Pryvatbank	Caa1u/NR/CC C	200.0	USD	9.375	23-Sep-15	75.750	30.28	-581	591	2,916	1.37
AVINPU-15	Avangard	NR/NR/CCC	200.0	USD	10	29-Oct-15	95.313	13.27	-194	140	1,154	1.49
EXIMUK-16	Ukreximbank	Caa3/NR/C	125.0	USD	8.4	9-Feb-16	64.125	32.38	-613	590	3,046	1.80
PRBANK-16	Pryvatbank	Caa2u/NR/NR	150.0	USD	8.75	9-Feb-16	64.539	31.98	-798	744	3,020	1.80
OSCHAD-16	Oshchadbank	Caa2/NR/CCC	500.0	USD	8.25	10-Mar-16	78.750	21.96	-231	179	2,087	1.86
OSCHAD-16	Oshchadbank	NR/NR/B	200.0	USD	8.25	10-Mar-16	0.000	0.00	0	0	0	0.00
MRIYA-16	Mriya Agrohholding	NR/CCC+/CCC	250.0	USD	10.95	30-Mar-16	92.250	15.50	-325	199	1,492	1.79
FXPOLN-16	Ferrexpo PLC	Caa1/CCC+/C CC	500.0	USD	7.875	7-Apr-16	92.625	11.99	56	-30	1,144	1.88
NADRA-17	Nadra Bank	WR/NR/WD	59.7	USD	8	22-Jun-17	82.180	23.81	0	0	1,949	1.28
INPIP-17	Interpipe	NR/NR/C	200.0	USD	10.25	2-Aug-17	77.625	19.57	-119	61	1,807	2.84
UKRINF-17	Infrastructure Projects Fin	Caa2/NR/NR	538.0	USD	8.375	3-Nov-17	86.000	13.34	0	2	1,224	3.07
UKRINF-17	Infrastructure Projects Fin	(P)Caa2/NR/N R	550.0	USD	9	7-Dec-17	84.745	14.41	-117	48	1,314	3.12

<b>EXIMUK-18</b> Ukreximbank	Caa2/NR/CCC	500.0	USD	8.75	22-Jan-18	76.938	17.14	-44	21	1,515	3.23
<b>METINV-18</b> Metinvest Holding	Caa1/NR/CCC	750.0	USD	8.75	14-Feb-18	86.563	13.25	-394	141	1,134	3.33
<b>PRBANK-18</b> Pryvatbank	Caa1u/NR/CC C	175.0	USD	10.875	28-Feb-18	73.625	21.00	-488	221	1,893	3.18
<b>OSCHAD-18</b> Oshchadbank	Caa2/NR/CCC	500.0	USD	8.875	20-Mar-18	76.750	17.10	-94	41	1,509	3.20
<b>UKRINF-18</b> Infrastructure Projects Fin	Caa2/NR/NR	690.0	USD	7.4	20-Apr-18	85.125	12.10	0	2	1,023	3.45

Sources: Bloomberg, Investment Capital Ukraine LLC.

**Chart 11. Term structure of yields of Ukrainian Eurobonds as of 7 Mar 2014**

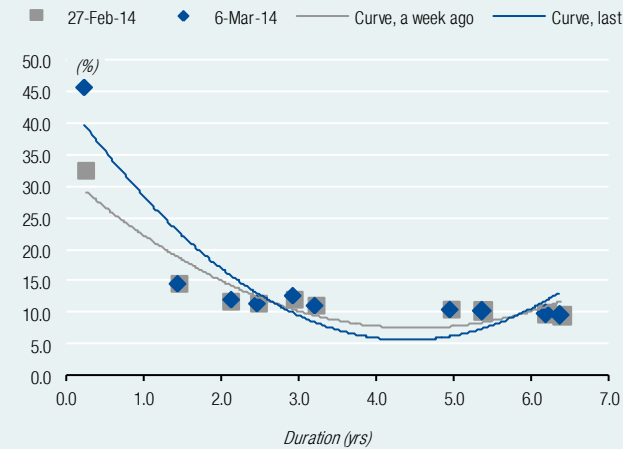
Blue dots are Ukraine sovereign Eurobonds; grey dots are corporate Eurobonds and red ones are municipal Eurobonds



Sources: Bloomberg, Investment Capital Ukraine LLC..

**Chart 12. Shape of the USD sovereign yield curve at Eurobond market**

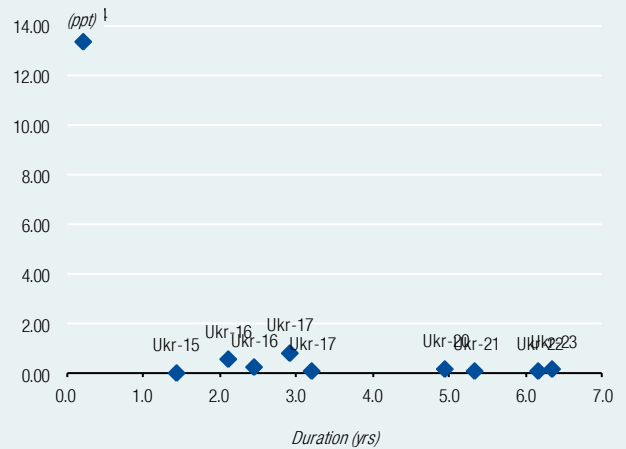
Last one compared to 1 week ago



Sources: Bloomberg, Investment Capital Ukraine LLC.

**Chart 13. 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 3. Primary market for local-currency government bonds: results of recent auctions

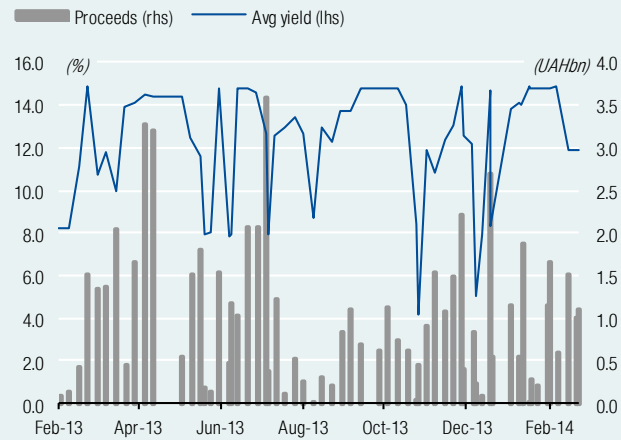
Date	Qty of bonds offered/sold	Proceeds (UAHm)	Volume of bonds sold* (UAHm)	Volume of bids submitted (UAHm)	Qty of bids submitted	Lowest yield asked** (%)	Highest yield asked** (%)	MoF cut-off yield (%)	Qty of bids accepted	Average yield (%)	WA yield (%)	Average duration (years)	WA duration (years)
6-Mar-14	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
24-Sep-13	3 / 2	694.79	677.00	678.61	6	8.25	14.30	9.52	4	14.82	14.84	4.07	4.42
17-Sep-13	3	1,093.44	1,021.00	1,081.01	6	4.80	14.30	11.12	5	13.68	14.66	3.20	3.87
10-Sep-13	4 / 3	840.87	794.63	820.02	10	8.25	14.30	9.20	9	13.73	14.70	3.34	3.52
3-Sep-13	5 / 2	207.13	207.00	282.10	11	0.00	16.00	4.86	3	12.29	10.40	5.37	6.44
27-Aug-13	4	302.20	166.64	319.64	14	7.75	14.30	11.26	12	12.91	13.24	3.09	2.79
20-Aug-13	2	20.07	20.00	20.00	3	8.25	8.75	8.50	3	8.74	8.85	2.23	2.46
13-Aug-13	5	250.03	228.63	249.60	8	7.75	14.30	10.66	8	12.70	13.99	2.68	2.06
6-Aug-13	2	513.53	496.03	530.43	9	8.25	14.30	11.28	4	13.44	14.80	3.08	4.50
30-Jul-13	3	120.84	85.84	149.34	12	7.75	14.25	10.08	7	12.92	10.47	1.82	1.50
23-Jul-13	3	1,214.05	1,209.77	1,214.82	16	7.70	14.25	10.08	16	12.57	14.55	1.99	2.39

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

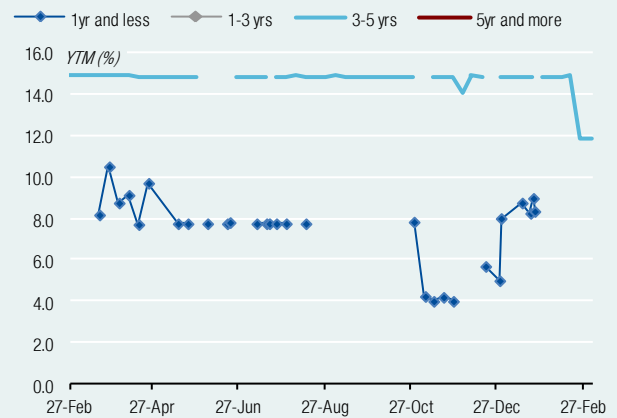
Last 12-month period



Sources: Ministry of Finance, Investment Capital Ukraine LLC.

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

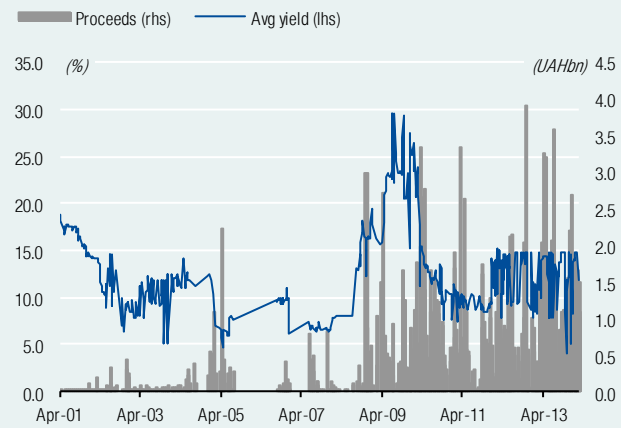
Last 12-month period



Sources: Ministry of Finance, Investment Capital Ukraine LLC.

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

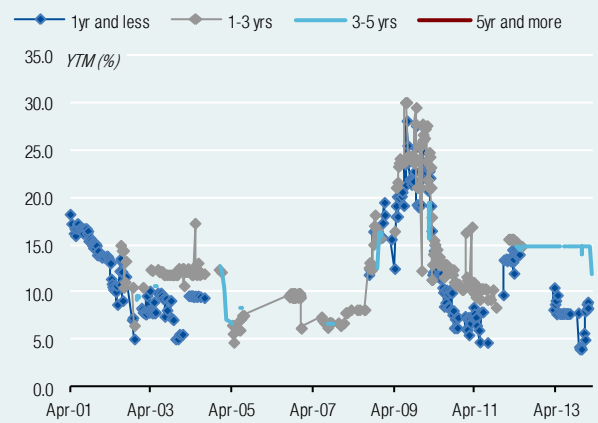
History since April 2001 to present



Sources: Ministry of Finance, Investment Capital Ukraine LLC.

**Chart 17. 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 4. Outstanding of local-currency government bonds

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
<b>Government UAH bonds</b>								
UA4000137277	Coupon bonds	1,750,000,000.00	15.00	Semi-annually	No	No		12-Mar-2014
UA4000160899	Zero-coupon bonds	497,000,000.00		Upon maturity	No	No		19-Mar-2014
UA4000115117	Coupon bonds	1,525,000,000.00	10.75	Semi-annually	No	No		26-Mar-2014
UA4000176085	Zero-coupon bonds	1,002,052,000.00		Upon maturity	No	No		23-Apr-2014
UA4000118871	Coupon bonds	1,437,350,000.00	10.13	Semi-annually	No	No		30-Apr-2014
UA4000051403	Coupon bonds	1,000,000,000.00	15.60	Semi-annually	No	No		14-May-2014
UA4000179048	Zero-coupon bonds	610,000,000.00		Upon maturity	No	No		21-May-2014
UA4000123863	Coupon bonds	752,000,000.00	10.10	Semi-annually	No	No		9-Jul-2014
UA4000178883	Zero-coupon bonds	25,000,000.00		Upon maturity	No	No		15-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	7,875,000.00	12.50	Quarterly	Yes	No		20-Jul-2016
UA4000138853	Coupon bonds	1,928,720,000.00	14.30	Semi-annually	No	No		5-Apr-2017
UA4000142665	Coupon bonds	1,759,740,000.00	14.30	Semi-annually	No	No		24-May-2017
UA4000145973	Coupon bonds	1,810,000,000.00	14.30	Semi-annually	No	No		2-Aug-2017
UA4000148027	Coupon bonds	1,824,455,000.00	14.30	Semi-annually	No	No		11-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
UA4000179691	Coupon bonds	600,000,000.00	14.30	Semi-annually	No	No		13-Feb-2019
UA4000179766	Coupon bonds	1,500,000,000.00	11.50	Semi-annually	No	No		13-Feb-2019
UA4000179741	Coupon bonds	1,500,000,000.00	11.50	Semi-annually	No	No		20-Feb-2019
UA4000179824	Coupon bonds	2,100,000,000.00	11.50	Semi-annually	No	No		27-Feb-2019
UA4000138861	Coupon bonds	2,160,000,000.00	14.00	Semi-annually	No	No		17-Apr-2019
UA4000142137	Coupon bonds	1,900,000,000.00	14.13	Semi-annually	No	No		22-May-2019
UA4000146997	Coupon bonds	1,996,041,000.00	14.30	Semi-annually	No	No		18-Sep-2019
UA4000148589	Coupon bonds	2,000,000,000.00	14.30	Semi-annually	No	No		23-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

Table 4. Outstanding of local-currency government bonds

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
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
<b>Total</b>		<b>79,073,736,000.00</b>						
<b>Government recap'n bonds</b>								
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
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

Table 4. Outstanding of local-currency government bonds

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
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
<b>Total</b>		<b>112,971,577,000.00</b>						
<b>Government VAT bonds 2010</b>								
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
<b>Total</b>		<b>4,930,773,900.00</b>						
<b>Government indexed bonds</b>								
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
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



Table 4. Outstanding of local-currency government bonds

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
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
<b>Total</b>		<b>12,723,100,000.00</b>						

## Government foreign-currency bonds

UA4000177125	Zero-coupon bonds	276,975,000.00		Upon maturity	No	No		23-Apr-2014
UA4000140362	Coupon bonds	1,577,151,045.00	9.20	Semi-annually	No	No		21-May-2014
UA4000157135	Coupon bonds	2,714,355,000.00	7.97	Semi-annually	No	No		23-Jul-2014
UA4000158794	Coupon bonds	1,398,723,750.00	7.50	Semi-annually	No	No		10-Sep-2014
UA4000174247	Coupon bonds	768,716,415.00	4.80	Semi-annually	No	Yes	29-Oct-2014	29-Oct-2014
UA4000149231	Coupon bonds	1,127,177,460.00	8.32	Semi-annually	No	No		19-Nov-2014
UA4000173058	Coupon bonds	923,250,000.00	7.75	Semi-annually	No	No		26-Nov-2014
UA4000177133	Coupon bonds	2,077,312,500.00	7.88	Semi-annually	No	No		10-Dec-2014
UA4000171649	Coupon bonds	916,187,137.50	8.25	Semi-annually	No	No		24-Dec-2014
UA4000151278	Coupon bonds	1,358,026,890.00	8.50	Semi-annually	No	No		7-Jan-2015
UA4000133771	Coupon bonds	177,679,462.50	9.60	Semi-annually	No	No		14-Jan-2015
UA4000155485	Coupon bonds	2,017,301,250.00	8.09	Semi-annually	No	No		11-Feb-2015
UA4000157143	Coupon bonds	461,625,000.00	8.02	Semi-annually	No	No		18-Feb-2015
UA4000157127	Coupon bonds	456,233,220.00	8.02	Semi-annually	No	No		25-Feb-2015
UA4000160642	Coupon bonds	1,864,291,027.50	7.75	Semi-annually	No	No		18-Mar-2015
UA4000142699	Coupon bonds	2,878,416,525.00	9.45	Semi-annually	No	No		22-Apr-2015
UA4000166821	Coupon bonds	2,461,384,500.00	7.75	Semi-annually	No	No		6-May-2015
UA4000142681	Coupon bonds	512,477,610.00	4.80	Semi-annually	No	Yes	6-May-2015	6-May-2015
UA4000141071	Coupon bonds	1,399,203,840.00	9.45	Semi-annually	No	No		27-May-2015
UA4000167837	Coupon bonds	1,603,777,575.00	7.75	Semi-annually	No	No		3-Jun-2015
UA4000142673	Coupon bonds	1,615,687,500.00	4.50	Semi-annually	No	Yes	17-Jun-2015	17-Jun-2015
UA4000144083	Coupon bonds	20,588,475.00	9.45	Semi-annually	No	No		8-Jul-2015
UA4000171409	Coupon bonds	963,669,885.00	8.25	Semi-annually	No	No		15-Jul-2015
UA4000152441	Coupon bonds	2,971,941,750.00	8.25	Semi-annually	No	No		27-Jan-2016
UA4000153282	Coupon bonds	82,261,575.00	8.25	Semi-annually	No	No		3-Feb-2016
UA4000160923	Coupon bonds	2,769,750,000.00	7.50	Semi-annually	No	Yes	16-Mar-2016	16-Mar-2016
UA4000160907	Coupon bonds	264,834,262.50	8.00	Semi-annually	No	No		23-Mar-2016
UA4000166847	Coupon bonds	687,359,625.00	8.00	Semi-annually	No	No		25-May-2016
UA4000172506	Coupon bonds	2,084,578,477.50	8.75	Semi-annually	No	No		10-Aug-2016
UA4000177414	Coupon bonds	2,755,901,250.00	7.75	Semi-annually	No	Yes	26-Oct-2016	26-Oct-2016
UA4000177752	Coupon bonds	460,941,795.00	7.75	Semi-annually	No	Yes	30-Nov-2016	30-Nov-2016
UA4000178305	Coupon bonds	921,698,940.00	7.75	Semi-annually	No	No		14-Dec-2016
UA4000160915	Coupon bonds	2,769,750,000.00	8.25	Semi-annually	No	No		22-Mar-2017
UA4000166854	Coupon bonds	3,000,562,500.00	7.45	Semi-annually	No	Yes	17-May-2017	17-May-2017
UA4000151286	Coupon bonds	4,893,225,000.00	7.50	Semi-annually	No	No		20-Dec-2017
UA4000177554	Coupon bonds	1,845,733,702.50	7.50	Semi-annually	No	Yes	21-Nov-2018	21-Nov-2018

**Table 4. Outstanding of local-currency government bonds**

ISIN	Bond type	Outstanding volume (UAH)	Coupon rate (%)	Payment frequency	Amortisation option	Put option	Next put	Maturity date
<b>Total</b>		<b>55,078,749,945.00</b>						
<b>Grand total</b>		<b>264,777,936,845.00</b>						

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](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 5. 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
<b>January</b>	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
<b>February</b>	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	<b>0.00</b>	0.00	0.00	
<b>March</b>	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	<b>0.00</b>	0.00	0.00	
<b>April</b>	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	<b>0.00</b>	<b>0.00</b>	0.00	<b>0.00</b>
<b>May</b>	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	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	0.00	0.00
<b>June</b>	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	<b>0.00</b>	
<b>July</b>	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
<b>August</b>	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	
<b>September</b>	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	
<b>October</b>	Auction date	1-Oct-13	8-Oct-13	15-Oct-13	22-Oct-13	29-Oct-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
<b>November</b>	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	
<b>December</b>	Auction date	3-Dec-13	10-Dec-13	17-Dec-13	24-Dec-13	31-Dec-13
	Local debt repayment <sup>1</sup>	0.00	0.00	0.00	0.00	0.00
	External debt repayment <sup>2</sup>	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00

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

## 5yr sovereign local debt payback

Table 6. 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	Inter-est	Prin-cipal		Ordin-aries	VATs	Recaps	Ordin-aries	VATs	Recaps	Inter-est	Prin-cipal	
<b>BY QUARTERS</b>																		
1Q14	574.9		629.9	3,772.0			1,697.7	3,772.0		62.4		68.4	409.3			184.2	409.3	
2Q14	2,972.5		3,137.4	4,050.2		1,598.3	7,646.6	7,502.6		322.6		340.5	439.5		173.4	829.8	814.2	
3Q14	2,193.8	135.6	2,551.4	752.8	1,643.6	1,500.0	6,057.0	9,619.5		238.1	14.7	276.9	81.7	178.4	162.8	657.3	1,043.9	
4Q14	2,950.8		3,371.4	25.8		4,696.5	7,798.8	12,360.1		320.2		365.9	2.8		509.7	846.3	1,341.3	
1Q15	2,026.6	90.4	2,169.8	453.7	1,643.6	2,000.0	5,236.2	11,132.4		219.9	9.8	235.5	49.2	178.4	217.0	568.2	1,208.1	
2Q15	2,821.6		2,833.2	250.8			6,833.6	12,191.7		306.2		307.5	27.2			741.6	1,323.0	
3Q15	2,207.2	45.2	2,560.9	0.8	1,643.6	1,000.0	5,558.2	4,953.6		239.5	4.9	277.9	0.1	178.4	108.5	603.2	537.6	
4Q15	2,847.4		2,961.1	0.8		6,000.0	6,425.8	6,909.8		309.0		321.3	0.1		651.1	697.3	749.8	
1Q16	2,077.9		2,201.9	0.8		2,750.0	4,922.4	9,456.6		225.5		239.0	0.1		298.4	534.2	1,026.2	
2Q16	2,847.4		2,642.4	0.8		9,085.0	6,064.8	9,773.1		309.0		286.8	0.1		985.9	658.1	1,060.6	
3Q16	2,077.9		2,071.3	80.8		7,135.0	4,523.0	12,090.4		225.5		224.8	8.8		774.3	490.8	1,312.0	
4Q16	2,831.2		2,245.7				5,624.3	4,615.5		307.2		243.7				610.3	500.9	
1Q17	2,061.7		1,732.4			1,250.0	3,954.6	4,019.8		223.7		188.0			135.6	429.2	436.2	
2Q17	2,831.2		2,245.7	3,688.5		6,357.9	5,441.3	13,047.0		307.2		243.7	400.3		690.0	590.5	1,415.8	
3Q17	2,061.7		1,673.0	1,810.0		6,550.0	3,781.0	8,360.0		223.7		181.6	196.4		710.8	410.3	907.2	
4Q17	2,567.4		1,895.7	5,212.9		7,658.3	4,715.8	17,764.4		278.6		205.7	565.7		831.1	511.8	1,927.8	
1Q18	1,932.3		1,337.9	4,318.9		6,375.0	3,316.5	10,693.9		209.7		145.2	468.7		691.8	359.9	1,160.5	
2Q18	2,194.8		1,435.9	11,845.3		7,157.9	3,699.9	19,003.3		238.2		155.8	1,285.4		776.8	401.5	2,062.2	
3Q18	1,623.5		1,011.1	5,101.3		10,145.1	2,680.8	15,246.5		176.2		109.7	553.6		1,100.9	290.9	1,654.5	
4Q18	1,350.1		1,066.2	5,108.8		4,655.3	2,485.5	11,609.9		146.5		115.7	554.4		505.2	269.7	1,259.9	
<b>BY YEARS</b>																		
2014	8,692.0	135.6	9,690.1	8,600.8	1,643.6	7,794.8	23,200.1	33,254.1		943.2	14.7	1,051.6	933.3	178.4	845.9	2,517.6	3,608.7	
2015	9,902.8	135.6	10,525.1	706.0	3,287.2	9,000.0	24,053.8	35,187.6		1,074.6	14.7	1,142.2	76.6	356.7	976.7	2,610.3	3,818.5	
2016	9,834.4		9,161.4	82.4		18,970.0	21,134.5	35,935.6		1,067.2		994.2	8.9		2,058.6	2,293.5	3,899.7	
2017	9,522.0		7,546.8	10,711.3		21,816.2	17,892.7	43,191.1		1,033.3		819.0	1,162.4		2,367.5	1,941.7	4,687.0	
2018	7,100.7		4,851.1	26,374.4		28,333.4	12,182.7	56,553.5		770.6		526.4	2,862.1		3,074.7	1,322.1	6,137.1	

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 7. 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
<b>BY QUARTERS</b>												
1Q14	707.0	411.9	0.0	2,013.8	1,118.9	2,013.8	75.3	43.9	0.0	214.5	119.2	214.5
2Q14	3,391.0	1,411.0	9,387.9	8,552.3	4,802.0	17,940.2	361.2	150.3	1,000.0	911.0	511.5	1,911.0
3Q14	2,395.7	968.9	0.0	9,409.4	3,364.6	9,409.4	255.2	103.2	0.0	1,002.3	358.4	1,002.3
4Q14	3,017.8	1,305.4	0.0	9,636.3	4,323.2	9,636.3	321.5	139.1	0.0	1,026.5	460.5	1,026.5
1Q15	2,395.7	778.4	0.0	8,455.6	3,174.1	8,455.6	255.2	82.9	0.0	900.7	338.1	900.7
2Q15	3,017.8	989.1	0.0	12,550.6	4,006.9	12,550.6	321.5	105.4	0.0	1,336.9	426.8	1,336.9
3Q15	2,395.7	502.2	4,694.0	1,991.5	2,897.9	6,685.5	255.2	53.5	500.0	212.1	308.7	712.1
4Q15	3,017.8	565.4	34,324.9	990.7	3,583.2	35,315.5	321.5	60.2	3,656.3	105.5	381.7	3,761.8
1Q16	2,234.3	453.4	0.0	6,191.3	2,687.7	6,191.3	238.0	48.3	0.0	659.5	286.3	659.5
2Q16	2,161.2	561.6	11,734.9	698.9	2,722.9	12,433.8	230.2	59.8	1,250.0	74.5	290.0	1,324.5
3Q16	2,234.3	208.9	0.0	2,119.7	2,443.2	2,119.7	238.0	22.3	0.0	225.8	260.3	225.8
4Q16	1,794.5	533.7	9,387.9	4,208.2	2,328.2	13,596.1	191.2	56.8	1,000.0	448.3	248.0	1,448.3
1Q17	2,234.3	116.2	0.0	2,816.4	2,350.5	2,816.4	238.0	12.4	0.0	300.0	250.4	300.0
2Q17	1,485.6	370.6	0.0	3,051.1	1,856.3	3,051.1	158.3	39.5	0.0	325.0	197.7	325.0
3Q17	2,234.3	0.0	24,408.5	0.0	2,234.3	24,408.5	238.0	0.0	2,600.0	0.0	238.0	2,600.0
4Q17	1,485.6	257.0	6,571.5	4,975.6	1,742.6	11,547.1	158.3	27.4	700.0	530.0	185.6	1,230.0
1Q18	1,105.4	0.0	0.0	0.0	1,105.4	0.0	117.8	0.0	0.0	0.0	117.8	0.0
2Q18	1,263.8	70.4	0.0	0.0	1,334.2	0.0	134.6	7.5	0.0	0.0	142.1	0.0
3Q18	1,105.4	0.0	0.0	0.0	1,105.4	0.0	117.8	0.0	0.0	0.0	117.8	0.0
4Q18	1,263.8	70.4	0.0	1,876.8	1,334.2	1,876.8	134.6	7.5	0.0	199.9	142.1	199.9
<b>BY YEARS</b>												
2014	9,511.5	4,097.2	9,387.9	29,611.8	13,608.7	38,999.7	1,013.2	436.4	1,000.0	3,154.3	1,449.6	4,154.3
2015	10,826.9	2,835.1	39,018.8	23,988.4	13,662.0	63,007.2	1,153.3	302.0	4,156.3	2,555.2	1,455.3	6,711.5
2016	8,424.3	1,757.6	21,122.8	13,218.1	10,182.0	34,340.8	897.4	187.2	2,250.0	1,408.0	1,084.6	3,658.0
2017	7,439.9	743.8	30,980.1	10,843.0	8,183.7	41,823.1	792.5	79.2	3,300.0	1,155.0	871.7	4,455.0
2018	4,738.5	140.8	0.0	1,876.8	4,879.3	1,876.8	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

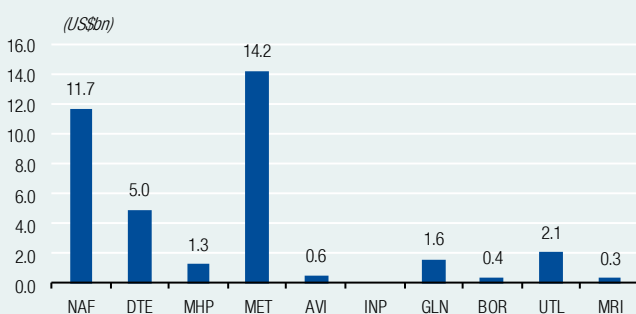
Table 8. Ukrainian corporate bond issuers and their key financial figures and ratios\* (US\$m)

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	<b>NAFTO</b>	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	<b>DTEKUA</b>	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	<b>MHPSA</b>	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	<b>METINV</b>	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	<b>AVINPU</b>	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	<b>INPIP</b>	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	<b>GLNGUZ</b>	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	<b>BORYS</b>	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	<b>UTLMUZ</b>	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	<b>MRIYA</b>	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	<b>FXPOLN</b>	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	<b>AGTPW</b>	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	<b>AGROM</b>	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	<b>KSGPW</b>	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	<b>IMCPW</b>	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.

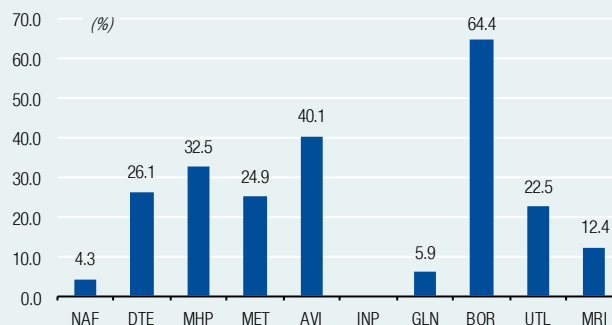
Sources: Company data, Investment Capital Ukraine LLC.

Chart 18. Ukraine's companies by sales (LTM)



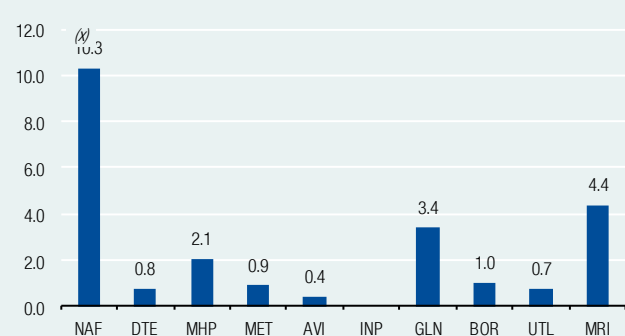
Source: Company data, Investment Capital Ukraine LLC.

Chart 19. Ukraine's companies by EBITDA margin (LTM)



Source: Company data, Investment Capital Ukraine LLC.

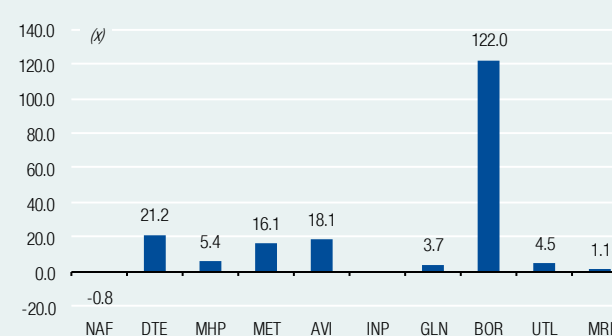
Chart 20. Ukraine's companies by leverage ratio



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

Source: Company data, Investment Capital Ukraine LLC.

Chart 21. 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>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 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<sub>i</sub>* 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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