



Focus  
**Ukraine**

Scope  
**Economics, bonds, equity &  
FX markets**

Research team  
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# Daily Insight

## Metinvest's 4Q steel production down 18% QoQ

### Contents

<b>Bonds: News &amp; Comments</b>	<b>2</b>
Liquidity down slightly .....	2
Bondholders' portfolio volatility .....	2
Metinvest's steel production drops 18% QoQ in 4Q15 .....	3
Chart page: Local bond market & Eurobond markets .....	4
<b>FX: News &amp; Comments</b>	<b>6</b>
Chart page #1: Foreign-exchange market .....	7
Chart page #2: ICU's UAH trade-weighted indices .....	8

**TUESDAY, 9 FEBRUARY 2016**

### UX Index (3 months to 9 Feb 2016)



Source: UX.

### Key market indicators (as of 8 Feb 2016)

	Last	Daily chg (%)	YTD chg (%)
<b>FX &amp; MONEY RATES</b>			
USD/UAH	25.9700	+0.37	+8.08
USD/UAH (1Y NDF)	30.2200	+0.10	+18.53
EUR/USD	1.1193	+0.31	+3.05
USD/RUB	77.9803	+0.57	+7.53
KievPRIME O/N (%)	18.81	-2bp	-25bp
KievPRIME 1M (%)	22.20	+0bp	-5bp
<b>SOVEREIGN EUROBONDS: yields and spreads</b>			
Ukraine 15, Eurobond (%)	N/A	+0bp	+0bp
Ukraine 17, Eurobond (%)	29.14	+26bp	+0bp
Ukraine 22, Eurobond (%)	12.32	-1bp	+0bp
Ukraine 23, Eurobond (%)	11.85	+0bp	+0bp
Ukraine 5Y CDS	N/A		
<b>EQUITIES</b>			
<b>Stock market indices</b>			
UX (Ukraine)	626.75	-0.04	-8.62
MSCI World	360.81	-1.57	-9.65
MSCI EM	734.13	-0.74	-7.56
RTS (Russia)	704.03	-3.01	-7.00
WIG-20 (Poland)	1,769.71	-1.18	-4.81
S&P 500 (USA)	1,853.44	-1.42	-9.32

Notes: Chg – percentage change, if not otherwise indicated;  
[1] – total traded volume for stocks listed in  
green- or red-shaded box means gain or loss, respectively,  
of the index or security.

Sources: Bloomberg, UX, Investment Capital Ukraine LLC.

# Bonds: News & Comments

## Liquidity down slightly

Banking sector liquidity declined UAH2.30bn to UAH116.59bn yesterday as banks' correspondent accounts with the NBU fell UAH1.80bn to UAH35.43bn while total CDs outstanding decreased UAH0.50bn to UAH81.16bn. A slight increase in FX trading was likely the main reason for the liquidity decline.

**Investment implications:** Despite minor outflows from liquidity, banking sector liquidity remains high. At the same time, the NBU will not absorb funds via 3-month CDs starting this week as it transferred this maturity to the MoF which extended its offering of new 3-month bonds scheduled for today through the following weeks in February. This policy change could increase demand for short-term CDs and possibly have an impact on demand for local currency bonds which, with longer maturities, have higher yields.

## Bondholders' portfolio volatility

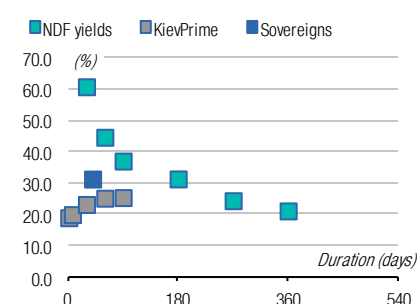
Over the last few weeks, recent large bond offerings by the MoF significantly changed the bondholders' structure of domestic bonds as the NBU's share fell to 72.35% from above 77% at the beginning of the year. Meanwhile, the banks' share increased significantly on three occasions: up UAH11.9bn on 22 January, up UAH14.97bn on 1 February, and up UAH11.32bn last Friday. As the result, the banks' portfolio rose to UAH113.89bn, with its share rising to 21.13% from about 16% at the beginning of the year. The other residents' portfolio decreased their share in government bonds outstanding since the beginning of the year to 2.13%, but with the last week's issue of bonds their share was up to 2.20%.

**Investment implications:** The banks' portfolio rose due to the following: (1) significant bond purchases at primary auctions as the MoF sold US\$0.92bn of FX-denominated bonds this year, and (2) a significant increase of state-owned banks' share capital using government bonds, as approved by a government resolution at the end of January. Also, FX-denominated bonds outstanding slightly rose (the MoF repaid only US\$0.33bn in USD-denominated bond redemptions) and a slight weakening of the hryvnia caused the portfolios to rise.

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## Yield curve of the local bond market

(as of market close on 8 Feb 2016)



Sources: Bloomberg, Investment Capital Ukraine LLC.

## Bond market indicators (as of 8 Feb 2016)

	Last	Daily	Weekly	MoM	YTD
	chg (%)	chg (%)	chg (%)	chg (%)	chg (%)
<b>MONEY MARKET KIEV PRIME RATES (%)</b>					
O/n	18.81	-2bp	-7bp	+1bp	-25bp
1wk	19.96	+0bp	-2bp	-4bp	-4bp
1m	22.20	+0bp	+0bp	-5bp	-5bp
2m	23.15	-10bp	-10bp	-23bp	-35bp
3m	23.35	-10bp	-10bp	-28bp	-40bp
<b>LIQUIDITY WIDE MEASUREMENT (UAHm)</b>					
CB acc's <sup>1</sup>	35,430	-4.82	-17.92	+25.31	-7.88
CDs <sup>2</sup>	81,163	-0.61	+6.96	-9.40	-6.49
Sovgns <sup>3</sup>	7,189	+27.00	+4.02	+57.23	+51.89
<b>Total</b>	<b>123,782</b>	<b>-0.62</b>	<b>-1.73</b>	<b>+1.11</b>	<b>-4.78</b>
<b>HOLDERS OF UAH SOVEREIGN BONDS (UAHm)</b>					
C.bank	389,994	+0.00	+0.00	+0.02	+2.68
Banks	114,232	+0.30	+11.49	+41.01	+40.04
Resid's <sup>4</sup>	11,558	-2.47	+2.96	+4.87	-44.95
Non-res <sup>5</sup>	23,325	+0.07	+1.28	+4.66	+4.57
<b>Total</b>	<b>539,110</b>	<b>+0.01</b>	<b>+2.36</b>	<b>+6.91</b>	<b>+6.82</b>
<b>NDF IMPLIED YIELDS (%)</b>					
3m	N/A	N/A	N/A	N/A	N/A
6m	N/A	N/A	N/A	N/A	N/A
9m	N/A	N/A	N/A	N/A	N/A
1yr	N/A	N/A	N/A	N/A	N/A
<b>LOCAL CURRENCY UAH SOVEREIGN BOND YIELDS (%)</b>					
Mar '13	N/A	N/A	N/A	N/A	N/A
Jan '14	N/A	N/A	N/A	N/A	N/A
Aug '15 <sup>6</sup>	N/A	N/A	N/A	N/A	N/A
<b>EUROBONDS USD SOVEREIGN BOND YIELDS (%)</b>					
CDS 5yr	N/A	N/A	N/A	N/A	N/A
Jun '16	67.67	+114bp	+0bp	+0bp	+0bp
Jul '17	29.14	+26bp	+0bp	+0bp	+0bp
Sep '20	14.02	+4bp	+0bp	+0bp	+0bp
Sep '21	14.22	+0bp	+0bp	+0bp	+0bp
Sep '22	12.32	-1bp	+0bp	+0bp	+0bp
Feb '23	11.85	+0bp	+0bp	+0bp	+0bp

Notes: [1] banks' account balance at NBU; [2] certificates of deposits issued by NBU; [3] UAH sovereign bonds due next 30 days; [4] residents; [5] non-residents; [6] VAT bond.

Sources: Bloomberg, Investment Capital Ukraine LLC.

## Metinvest's steel production drops 18% QoQ in 4Q15

Metinvest announced yesterday that its crude steel production dropped 18% QoQ to 1.7mt in 1Q15 while production of iron ore concentrate stayed flat at 8.2mt. At the same time, the company's output of coking coal concentrate declined 5% QoQ to 0.85mt. The company cited lack of orders for steel products as the key factor behind weak 4Q15 production figures. In YoY terms, Metinvest's 4Q15 production was mostly flat: down 2% in crude steel output, down 3% in iron ore concentrate output and up 2% in coal concentrate output. For the whole 2015, Metinvest's production dropped 17% to 7.7mt of crude steel, iron ore concentrate was down 8% to 32.2mt, and coal concentrate dropped 20% to 3.3mt. This was the result of production shutdowns and constrained supply of energy and raw materials, all caused by the military conflict in Donbass.

**Table 1. Metinvest's Eurobond quotation as of market close, 08 February 2016**

Issuer	Moody's/S&P /Fitch	Ccy	Volume out	Coupon (%)	Maturity	Price (%)	YTW (%)	Spread (bp)
Metinvest	Caa3/--/--	USD	113m	10.25	31-Jan-16	43.375	0	-30
Metinvest	--/--/C	USD	290m	10.50	28-Nov-17	44	146.62	14,612
Metinvest	Caa3/--/C	USD	750m	8.75	14-Feb-18	42.875	62.24	6,159

Source: Bloomberg

**Investment implications:** *The abrupt fall in Metinvest's steel production in 4Q15, was caused by a number of factors, which in our view included, in addition to the lack of demand, technological issues and the company's attempts to prop up steel prices through limited supply. As the situation with exported steel prices started improving in February, we expect the company to overtake the production arrears and recover steel output by 8-12% in 1Q16.*

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## Chart page: Local bond market &amp; Eurobond markets

Chart 1. Kiev Prime rates (%), last 12-month period

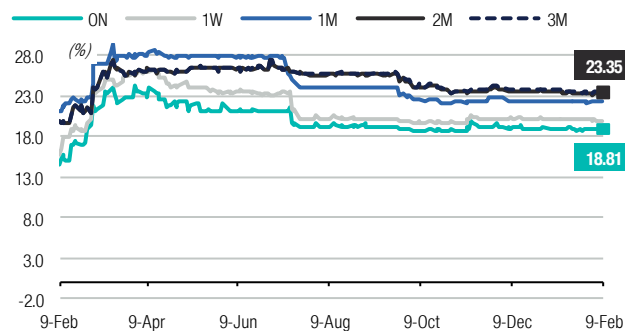


Chart 2. UAH NDF implied yields (%), last 12-month period

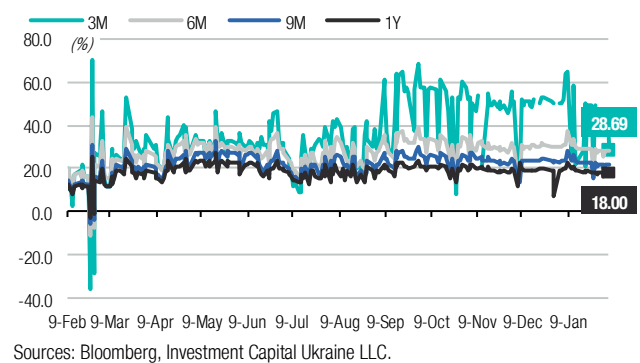


Chart 3. UAH sovereign yield curve (%) as of 8 Feb 2016

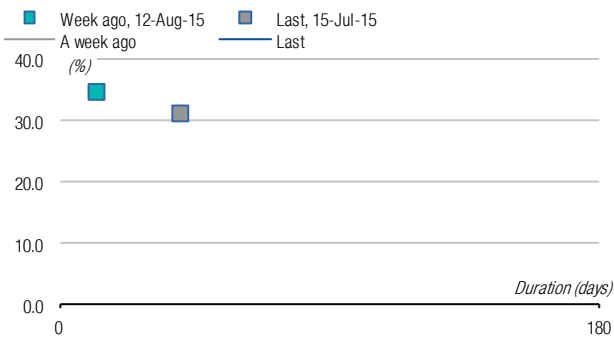


Chart 4. USD sovereign yield curve (%) as of 8 Feb 2016

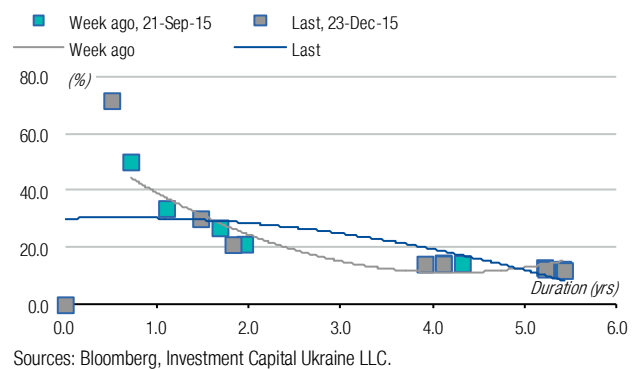


Chart 5. Banking sector liquidity (UAHbn), last 12-month period

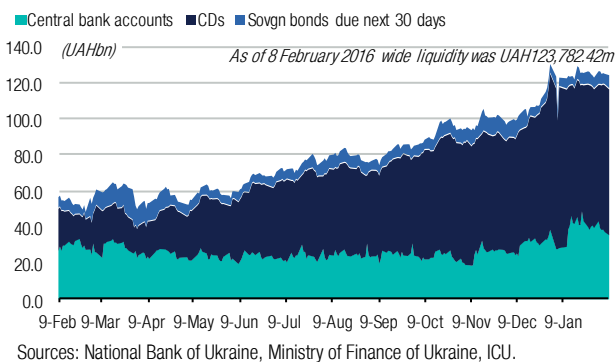


Chart 6. Breakdown of liquidity pool (%) as of 8 Feb 2016

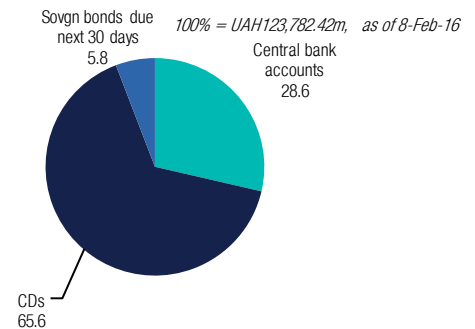


Chart 7. Holders of sovereign bonds (UAHbn), last 12 months

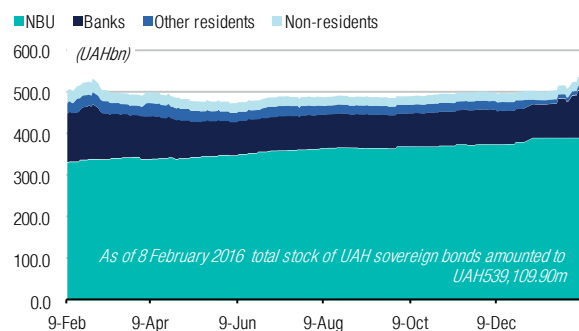


Chart 8. Domestic sovereign debt (%) as of 8 Feb 2016

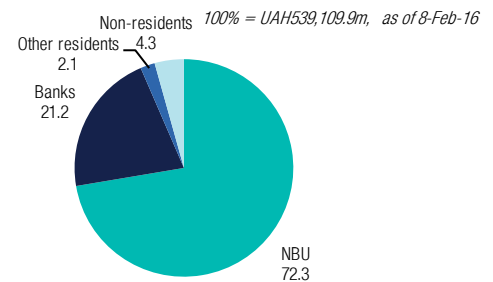


Table 2. Ukrainian stocks (closing prices as of 8-Feb-2016)

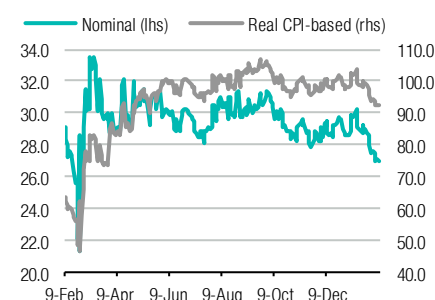
Company	Bloomberg Ticker	Listing	Share price performance (% change)					Valuation (US\$)			Free float (FF) & Liquidity						P/E			EV/EBITDA			EV/Sales			Ratios	
			Last price	Daily	MoM	YTD	YoY	Last price	Market cap (m)	EV (m)	FF (%)	FF mkt cap (US\$m)	Last day turnover (US\$ 000)	3M avg. turnover (US\$ 000)	FF share traded (%)	FF turnover (days)	2014	2015E	2016E	2014	2015E	2016E	2014	2015E	2016E	P/B (x)	Debt/ Assets (%)
ENERGY																											
Cadogan Petrol...	CAD LN	London	10.25 GBp	-2.4	+18.8	+26.2	-1.2	0.15	34.1	-15.0	40.2	13.7	25.8	21.0	0.13	750	Neg.	N/A	N/A	2.2	N/A	N/A	Neg.	N/A	N/A	0.4	15.3
Centrenerg	CEEN UK	Kiev, UX	4.34 UAH	+0.5	-4.2	-4.9	-40.1	0.17	62.3	51.5	21.7	13.5	10.1	8.3	0.05	2,068	22.7	Neg.	4.9	0.2	Neg.	1.6	0.2	0.2	0.1	0.7	4.2
Coal Energy	CLE PW	Warsaw	0.50 PLN	-2.0	-3.8	-5.7	-24.2	0.13	5.6	77.1	25.0	1.4	1.5	0.6	0.04	2,690	Neg.	N/A	N/A	10.6	N/A	N/A	0.7	N/A	N/A	0.2	56.9
Donbasenergo	DOEN UK	Kiev, UX	15.09 UAH	+1.9	-3.6	-4.3	-49.2	0.59	13.9	23.5	14.2	2.0	0.0	1.8	0.03	3,600	3.5	Neg.	N/A	0.0	N/A	N/A	0.1	0.1	N/A	0.3	13.6
JKX Oil & Gas	JKX LN	London	25.00 GBp	-2.0	-5.7	-8.3	-19.4	0.36	61.9	72.6	47.2	29.2	18.2	12.1	0.05	1,887	Neg.	Neg.	Neg.	3.7	2.9	0.5	0.7	1.0	0.2	9.9	
Regal Petroleum	RPT LN	London	2.65 GBp	-0.4	-29.3	-29.3	-37.6	0.04	12.2	-21.2	80.9	9.9	1.3	4.1	0.07	1,433	2.1	N/A	N/A	Neg.	N/A	N/A	Neg.	Neg.	N/A	0.2	0.0
Zakhidenergo	ZAEN UK	Kiev, PFTS	75.00 UAH	+0.0	-10.7	-10.7	-54.3	2.92	37.3	67.6	5.0	1.9	0.0	0.7	0.03	3,617	Neg.	N/A	N/A	0.1	N/A	N/A	0.1	N/A	N/A	0.4	11.6
METALLURGY																											
Alchevsky Meta...	ALMK UK	Kiev, UX	0.01 UAH	+0.0	+25.1	+25.8	+10.9	0.00	14.0	1,611.9	3.9	0.5	0.0	0.2	0.03	2,876	Neg.	Neg.	N/A	0.5	Neg.	N/A	2.8	6.8	N/A	N/A	145.5
Avdiivivsky Cok...	AVDK UK	Kiev, UX	1.08 UAH	-5.2	-0.2	-1.6	-3.9	0.04	8.2	7.3	4.0	0.3	0.0	1.2	0.28	358	Neg.	N/A	N/A	Neg.	N/A	N/A	0.0	N/A	N/A	0.0	0.0
Azovstal	AZST UK	Kiev, UX	0.32 UAH	+1.0	-18.7	-20.8	-57.6	0.01	51.9	-2.2	4.1	2.1	1.2	2.9	0.05	2,146	1.5	1.1	N/A	Neg.	N/A	N/A	Neg.	Neg.	N/A	0.1	0.0
Ferrexpo PLC	FXPO LN	London	20.00 GBp	-4.8	-3.6	-7.0	-63.7	0.29	169.6	826.2	22.4	38.0	75.8	221.4	0.44	228	1.0	1.5	23.3	2.6	3.0	6.3	0.6	0.8	0.9	0.4	61.1
Yasynivsky Cok...	YASK UK	Kiev, UX	0.25 UAH	+0.0	+8.7	+8.7	-10.7	0.01	2.7	3.2	9.0	0.2	0.0	2.4	0.33	306	Neg.	Neg.	N/A	Neg.	N/A	N/A	0.0	0.0	N/A	0.1	0.0
Yenakievo Steel	ENMZ UK	Kiev, UX	13.41 UAH	+0.0	-4.2	-4.2	-21.1	0.52	5.5	-7.9	9.4	0.5	0.0	0.4	0.02	4,366	Neg.	Neg.	N/A	Neg.	Neg.	N/A	Neg.	Neg.	N/A	0.2	0.0
FOOD AND AGRIBUSINESS																											
AgroGeneration	ALAGR FP	EN Paris	0.35 EUR	+0.0	-14.6	-12.5	+6.1	0.39	38.6	94.8	34.0	13.1	1.4	14.1	0.08	1,245	Neg.	Neg.	2.3	4.6	4.6	3.1	1.3	1.4	1.2	0.5	83.5
Agroliga	AGL PW	Warsaw	11.30 PLN	-1.7	-1.7	-0.7	+14.1	2.83	4.4	5.6	16.7	0.7	1.1	1.0	0.14	705	1.4	N/A	N/A	1.5	N/A	N/A	0.3	N/A	N/A	0.4	10.7
Agroton	AGT PW	Warsaw	0.89 PLN	+1.1	-5.3	-11.9	-34.1	0.22	4.8	31.6	26.2	1.3	2.0	4.8	0.35	283	Neg.	N/A	N/A	1.4	N/A	N/A	0.5	N/A	N/A	0.1	33.4
Astarta Holdin...	AST PW	Warsaw	28.10 PLN	-4.7	-19.0	-18.6	+17.7	7.05	176.2	403.8	31.0	54.7	4.8	14.7	0.02	5,941	Neg.	10.3	2.7	3.4	3.1	3.0	1.0	1.1	1.0	0.8	49.6
Avangard	AVGR LI	London Intl	0.80 USD	-11.1	-42.0	-36.0	-63.6	0.80	51.1	341.8	21.7	11.1	16.8	2.0	0.02	5,009	Neg.	Neg.	Neg.	2.6	9.0	N/A	0.8	1.2	1.0	0.2	33.1
IMC	IMC PW	Warsaw	5.95 PLN	+0.5	+0.8	-0.3	+2.6	1.49	46.7	152.2	23.9	11.2	8.7	3.5	0.02	6,257	Neg.	3.5	2.3	2.7	2.9	3.8	1.1	1.0	1.0	1.7	69.8
Kernel Holding...	KER PW	Warsaw	44.54 PLN	+0.5	-3.8	-7.4	+51.0	11.17	890.3	1,272.2	58.8	523.3	369.4	2,156.8	0.31	318	8.3	4.4	4.0	3.2	3.7	3.6	0.5	0.5	0.5	1.0	32.0
KSG Agro	KSG PW	Warsaw	0.80 PLN	+0.0	-11.1	-14.0	-31.6	0.20	3.0	66.3	34.4	1.0	0.4	2.1	0.13	794	Neg.	N/A	N/A	6.6	N/A	N/A	2.1	N/A	N/A	N/A	67.4
MHP	MHPC LI	London Intl	7.35 USD	+0.0	-13.5	-21.0	-21.9	7.35	776.7	1,949.3	22.3	173.3	0.0	372.8	0.21	479	Neg.	3.8	3.2	3.5	4.0	4.4	1.4	1.6	1.5	1.1	53.0
Milkiland	MLK PW	Warsaw	1.17 PLN	+1.7	-18.8	-17.6	-46.1	0.29	9.2	127.4	20.0	1.8	2.9	10.3	0.30	330	Neg.	Neg.	Neg.	9.3	24.8	10.3	0.4	0.6	0.5	0.1	42.5
Ovostar Union	OVO PW	Warsaw	91.50 PLN	+0.2	+5.2	+1.1	+30.5	22.95	137.7	147.4	25.0	34.4	3.8	26.5	0.02	6,474	5.4	6.0	6.4	5.0	5.8	5.3	1.9	1.9	1.4	1.7	9.4
CONSTRUCTION																											
TMM	TR61 GF	Frankfurt	0.07 EUR	+0.0	+125.8	+0.0	-2.8	0.08	4.1	96.9	13.1	0.5	0.0	1.6	0.04	2,535	Neg.	N/A	N/A	Neg.	N/A	N/A	3.7	N/A	N/A	0.1	41.9
FINANCIAL SERVICES																											
Raiffeisen Ban...	BAVL UK	Kiev, UX	0.07 UAH	+1.3	-1.3	-5.2	-24.0	0.00	83.3	N/A	3.8	3.2	0.2	5.0	0.05	1,863	N/A	Neg.	3.4	N/A	N/A	N/A	N/A	N/A	0.6	N/A	
Ukrsotsbank	USCB UK	Kiev, UX	0.11 UAH	+0.6	+11.0	+11.0	-7.0	0.00	105.3	N/A	4.5	4.7	0.1	1.7	0.02	4,721	Neg.	Neg.	N/A	N/A	N/A	N/A	N/A	N/A	0.4	38.2	

Notes: mln - millions; FF - free float; n/a - not available; neg. - negative; a company name (the left column of the table) is shortened to fit the column and hence in some cases is not displayed in full; \*\*\* - P/E is above 10,000x. Sources: Bloomberg, ICU.

# FX: News & Comments

## ICU's UAH trade-weighted indices

(Last 12-month history to 9 Feb 2016)



Source: Investment Capital Ukraine LLC.

## FX market indicators (as of 8 Feb 2016)

	Last	Daily	Weekly	MoM	YTD
	chg (%)	chg (%)	chg (%)	chg (%)	chg (%)
<b>USD/UAH MARKET</b> (HRYVNIA per US DOLLAR)					
Spot mkt	25.9700	+0.37	+1.64	+11.22	+8.08
NBU avg	25.8774	-0.14	+1.69	+10.10	+8.77
Ttl vlm <sup>1</sup>	N/A	N/A	N/A	N/A	N/A
\$ volume <sup>2</sup>	N/A	N/A	N/A	N/A	N/A
NDF 3M	27.7200	+0.11	-2.91	+2.27	+0.00
NDF 6M	29.2000	-0.82	+0.52	+5.77	+6.07
NDF 1Y	30.2200	+0.10	+1.41	+6.57	+18.53
<b>TRADE-WEIGHTED INDICES</b> (TWIs, points)					
UAH nom'l	26.949	-0.25	-2.33	-9.45	-5.76
UAH real CPI	92.198	-0.25	-2.33	-9.45	-5.76
UAH real PPI	121.224	-0.25	-2.33	-9.45	-5.76
USD nom'l	96.570	-0.48	-2.46	-2.00	-2.09
<b>FX RATES OF KEY CURRENCIES</b> THAT SHAPE UAH's TWIs					
USD/RUB	77.9803	+0.57	+0.84	+4.32	+7.53
EUR/USD	1.1193	+0.31	+2.80	+2.48	+3.05
USD/CNY	N/A	N/A	N/A	N/A	N/A
USD/PLN	3.9743	+0.54	-1.61	-0.57	+1.31
USD/TRY	2.9470	+1.01	+0.04	-2.42	+1.02
USD/BYR	21,630.00	+0.09	+2.27	+15.42	+16.12
USD/KZT	359.3400	-1.48	-0.24	+2.04	+5.50
<b>OTHER MAJOR CURRENCIES</b>					
USD/JPY	115.8500	-0.87	-4.25	-1.20	-3.64
GBP/USD	1.4433	-0.48	+0.00	-0.58	-2.06
USD/CHF	0.9870	-0.40	-3.22	-0.78	-1.51
AUD/USD	0.7087	+0.28	-0.38	+1.93	-2.73
USD/CAD	1.3927	+0.07	-0.15	-1.73	+0.64
USD/BRL	N/A	N/A	N/A	N/A	N/A
USD/KRW	1,204.18	+0.55	+0.31	+0.53	+2.48
<b>COMMODITIES</b>					
Gold(\$/oz)	1,189.25	+1.31	+5.39	+7.72	+12.04
WTI crude <sup>3</sup>	29.69	-3.88	-6.10	-10.46	-19.84
Brent crd <sup>3</sup>	32.80	-2.64	-2.03	+2.34	-8.25
Urals crd <sup>3</sup>	N/A	+0.00	+0.00	+0.00	+0.00
TR/J CRB <sup>4</sup>	160.58	-0.84	-1.78	-4.74	-8.84

Readers may follow the ICU trade-weighted indices of the local-currency, the hryvnia (UAH), on the ICU [website](#) and Bloomberg (type: ALLX UTWI <GO>).

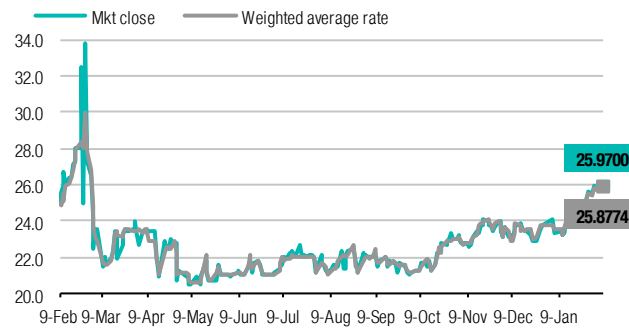
Section on FX market is continued on next page.

Notes: [1] trading volume in all foreign currencies (US\$m);  
 [2] trading volume in the pair USD/UAH (US\$m);  
 [3] crude oil price (USD per barrel); [4] the Thomson Reuters/Jefferies CRB Index. A green/-red-shaded box means gain or loss, respectively, of the investment into the asset.  
 Currencies are gaining when their exchange rates strengthen versus USD.

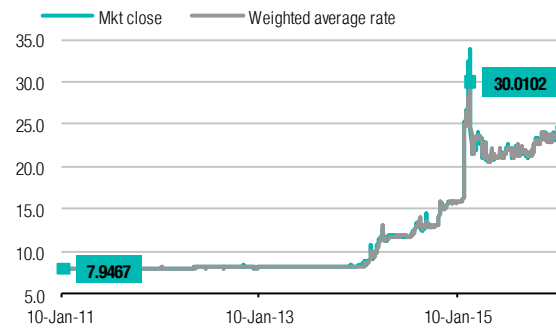
Sources: Bloomberg, Investment Capital Ukraine LLC.

## Chart page #1: Foreign-exchange market

Chart 9. Spot market rates USD/UAH: last 12-month and 5-year periods (UAH per USD, left and right respectively)

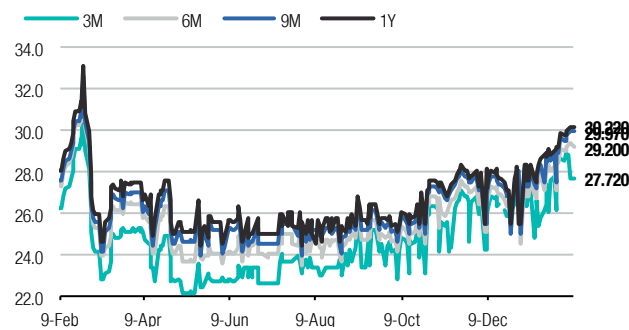


Sources: National Bank of Ukraine, Bloomberg, Investment Capital Ukraine LLC.

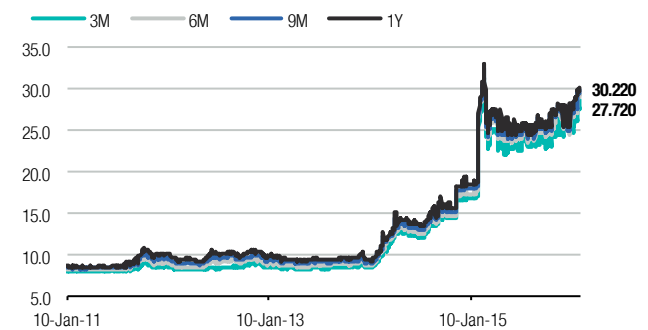


Sources: National Bank of Ukraine, Investment Capital Ukraine LLC.

Chart 10. NDF market rates USD/UAH: last 12-month and 5-year periods (UAH per USD, left and right respectively)

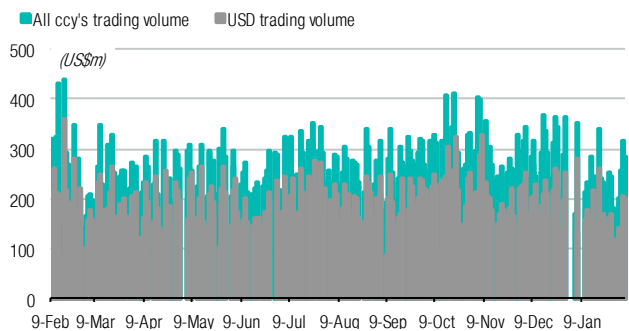


Sources: National Bank of Ukraine, Investment Capital Ukraine LLC.

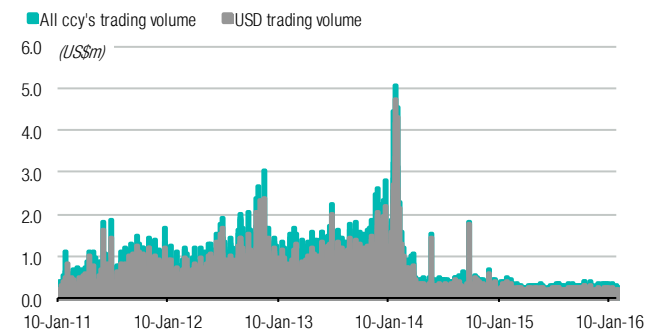


Sources: National Bank of Ukraine, Investment Capital Ukraine LLC.

Chart 11. Trading volume: last 12-month and 5-year periods (US\$m, left and right respectively)

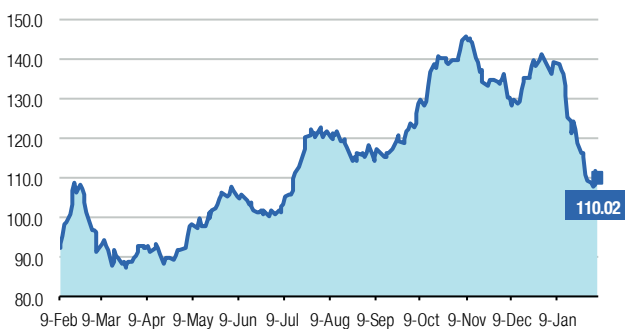


Sources: National Bank of Ukraine, Bloomberg, Investment Capital Ukraine LLC.



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

Chart 12. 30D MA\* ratio of FX market turnover to merchandise trade: last 12m and 5yr periods (% , left and right respectively)

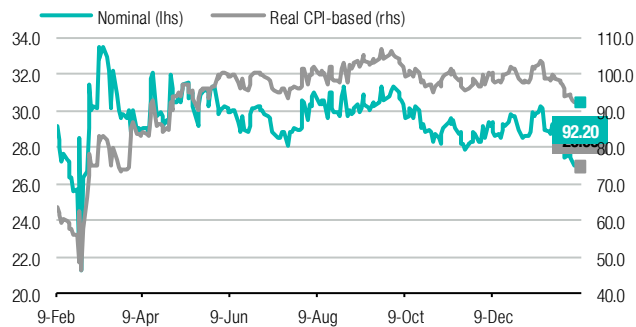


Note: \* 30-day moving average; The boxes of the right chart show high and low values. Sources: NBU, State Statistics Service of Ukraine, Bloomberg, Investment Capital Ukraine LLC.

## Chart page #2: ICU's UAH trade-weighted indices

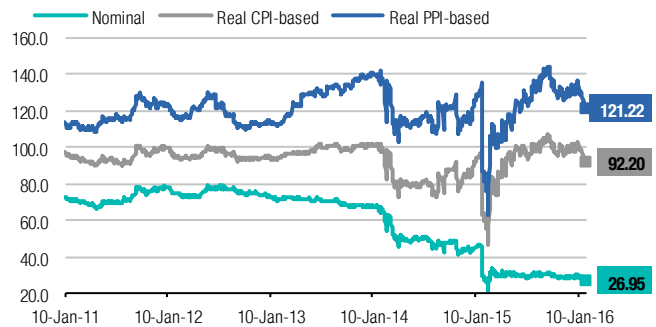
The following charts depict ICU's Ukrainian hryvnia trade-weighted indices which were calculated in accordance with methodology (for more details visit <http://www.icu.ua/en/research/currency-indices>).

**Chart 13. Nominal and CPI-based real TWIs of UAH, history of last 12-month period**



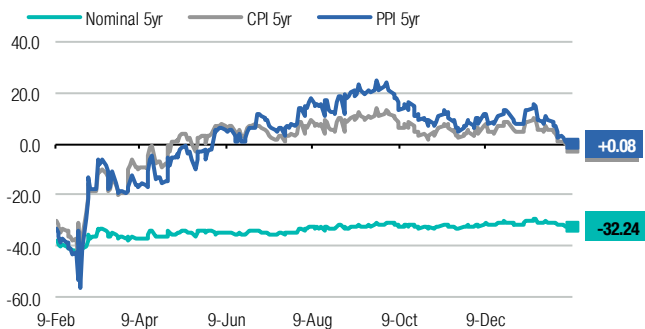
Note: The boxes indicate the last values of the depicted indicators.  
Source: Investment Capital Ukraine LLC.

**Chart 14. Nominal, CPI- and PPI-based TWIs of UAH, history of last 5-year period**

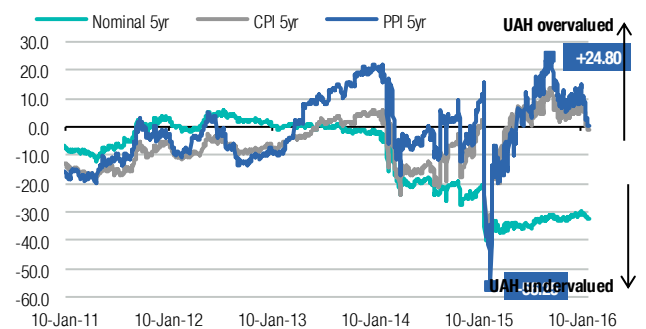


Note: The boxes indicate the last values of the depicted indicators.  
Source: Investment Capital Ukraine LLC.

**Chart 15. Deviation of UAH trade-weighted indices from their 5-year moving averages: last 12-month and 5-year periods (% , left and right respectively)**

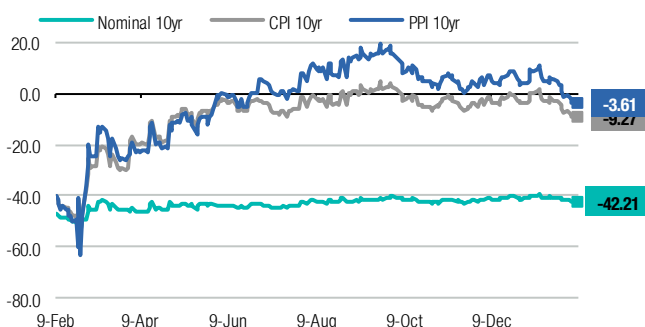


Note: The boxes indicate the last values of the depicted indicators.  
Source: Investment Capital Ukraine LLC.

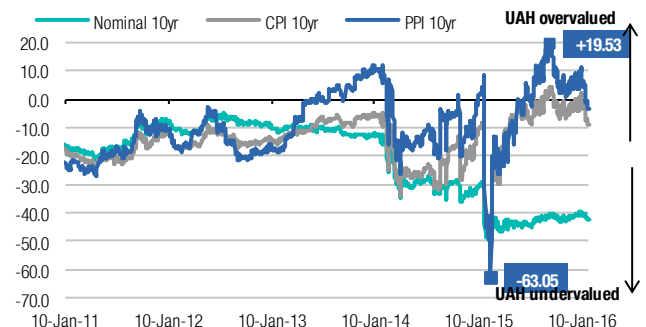


Note: the boxes indicate the high and low values of CPI-based TWI.  
Source: Investment Capital Ukraine LLC.

**Chart 16. Deviation of UAH trade-weighted indices from their 10-year moving averages: last 12-month and 5-year periods (% , left and right respectively)**



Note: The boxes indicate the last values of the depicted indicators.  
Source: Investment Capital Ukraine LLC.



Note: the boxes indicate the high and low values of CPI-based TWI.  
Source: Investment Capital Ukraine LLC.



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# Disclosures

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**Buy:** Forecasted 12-month total return greater than 20%

**Hold:** Forecasted 12-month total return 0% to 20%

**Sell:** Forecasted 12-month total return less than 0%

Note: total return is share price appreciation to a target price in relative terms plus forecasted dividend yield.

## DEBT RATING DEFINITIONS

**Buy:** Forecasted 12-month total return significantly greater than that of relevant benchmark

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