Medium-Term State Debt Management Strategy for 2018-2020

General introduction

The Medium-term state debt management strategy for 2018-2020 (hereafter referred to as the Strategy) is a tool designed by the Ministry of Finance of Ukraine (hereafter referred to as the MinFin) to assess the current status and dynamics of the Ukrainian state debt and define objectives, targets and tasks over the medium term to optimize state debt structure from a cost/risk perspective while preserving an acceptable level of debt burden for the country.

The Strategy is being implemented in the context of Ukraine's macroeconomic stabilization. Following the restructuring of Ukraine's state debt in 2015, the impact of the structural reform agenda is becoming increasingly visible, and the Ukrainian economy has turned to a sustainable growth phase. The country's economic recovery has been supported by a strong commitment from international organizations, which has materialized amongst other ways through concessional loans.

2017 witnessed Ukraine's successful return to international capital markets with a USD 3bn Eurobond issuance, which was more than three times oversubscribed by investors. This transaction was accomplished alongside Ukraine's first pro-active liability management transaction with a tender offer on 2019 and 2020 Eurobond series for a total of USD 1.6bn.

Ukraine has also conducted the exchange of domestic government bonds held by the National Bank of Ukraine **(**hereafter referred to as the NBU) for a total amount of UAH 219.6bn to increase their maturity (hereafter referred to as the re-profiling).

Over the medium term, Ukraine's state debt management primary objective is to secure the required financing at the lowest possible cost, while containing risks. In this respect, 4 main targets for state debt management have been identified:

1. *Increase the share of state debt denominated in local currency.*
2. *Lengthen average debt maturity, and ensure a smooth state debt repayment profile.*
3. *Attract long-term concessional funding.*
4. *Continue developing strong investor relationships and further improve the state debt management policy framework.*

Debt sustainability analysis highlights a relatively low level of risks within Ukraine's current debt structure. Debt to GDP ratio, standing at 61.5% as of the end of 2017, is expected to reach 49.0% target by the end of 2020. FX risk and refinancing risk have been identified as key threats to state debt sustainability for the upcoming years. One of the tasks of this Strategy stands in the constant monitoring and mitigation of these risks.

An indicative roadmap has been set for the next two years. This roadmap foresees the possibility of a Eurobond issuance in EUR, an issuance of UAH-denominated Eurobonds for international investors as well as Eurobond issuance in USD. Also, pro-active liability management operations (launched first in September 2017) could be further performed subject to favorable market conditions. The purpose of the mentioned liability management exercises is to further smoothen Ukraine's state debt amortization profile and reduce peak pressure on the state budget. Other measures within this Strategy will be implemented in order to strengthen investor relations, attract foreign investors to the domestic capital market, enhance transparent communication with market participants, and improve Ukraine's credit ratings.

1. Ukraine's state debt snapshot

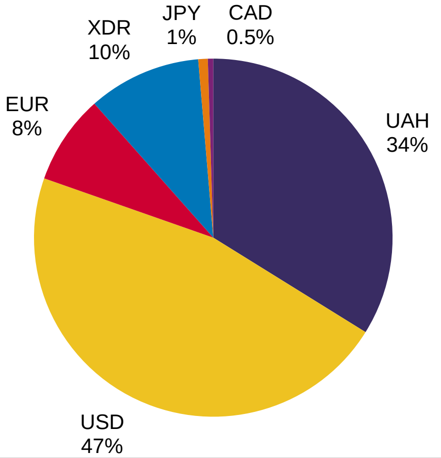
State debt split by holders as of 31/12/2017

	UAHm	% of total
External debt	**1,080,310**	**59%**
International financial institutions	456,553	25%
Bilateral loans	49,296	3%
Commercial banks	2	0%
Eurobonds holders	574,460	31%
Domestic debt	**753,399**	**41%**
NBU	2,381	0.1%
Domestic government bonds holders	427,572	23%
State banks, SOEs and DGF (recapitalization)	320,693	17%
Owners of VAT refund bonds	2,753	0.2%
Total state debt	**1,833,710**	**100%**
% of GDP	***61.5%***	
State-guaranteed debt	**307,965**	**14%**
% of GDP	***10.3%***	
Total public debt	**2,141,674**	**100%**
% of GDP	***71.8%***	

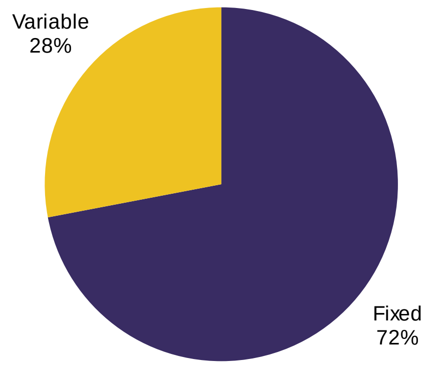
State debt split by instruments as of 31/12/2017

	UAHm	% of total
Marketable securities	**782,468**	**43%**
Domestic government bonds	208,009	11%
Eurobonds	574,460	31%
Loans	**2,382**	**0.1%**
NBU and commercial banks loans	2,382	0.1%
Concessional loans	**505,849**	**28%**
Other, including recap.	**543,010**	**30%**
Total state debt	**1,833,710**	**100%**
% of GDP	***61.5%***	
State-guaranteed debt	**307,965**	**14%**
% of GDP	***10.3%***	
Total public debt	**2,141,674**	**100%**
% of GDP	***71.8%***	

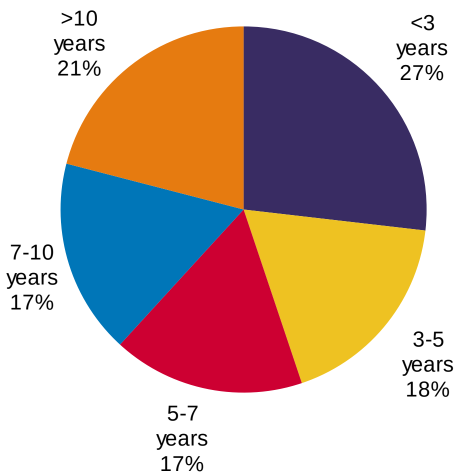
State debt split by currency as of 31/12/2017



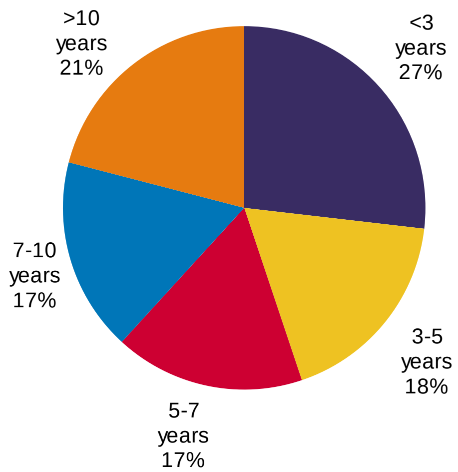
State debt split by interest rate type as of 31/12/2017



State domestic debt split by maturity as of 31/12/2017



State external debt split by maturity as of 31/12/2017



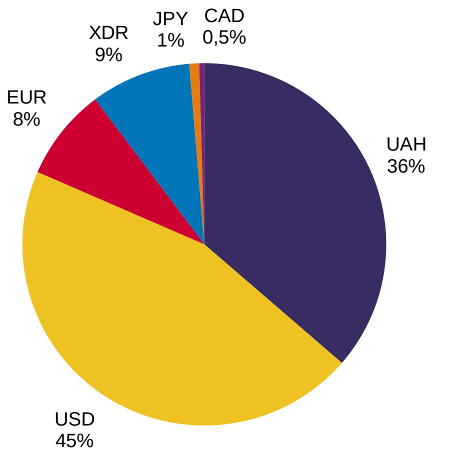
State debt split by holders as of 30/06/2018

	UAHm	% of total
External debt	**982,541**	**57%**
International financial institutions	400,683	23%
Bilateral loans	45,836	3%
Commercial banks	2	0.0%
Eurobonds holders	536,021	31%
Domestic debt	**749,560**	**43%**
NBU	2,347	0.1%
Domestic government bonds holders	430,981	25%
State banks, SOEs and DGF (recapitalization)	314,167	18.1%
Owners of VAT refund bonds	2,065	0.1%
Total state debt	**1,732,101**	**100%**
State-guaranteed debt	**265,926**	**13%**
Total public debt	**1,998,027**	**100%**

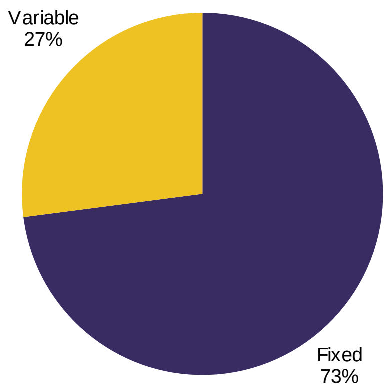
State debt split by instruments as of 30/06/2018

	UAHm	% of total
Marketable securities	**747,438**	**43%**
Domestic government bonds	211,417	12%
Eurobonds	536,021	31%
Loans	**2,349**	**0.1%**
NBU and commercial banks loans	2,349	0.1%
Concessional loans	**446,518**	**26%**
Other, including recap.	**535,796**	**31%**
Total state debt	**1,732,101**	**100%**
State-guaranteed debt	**265,926**	**13%**
Total public debt	**1,998,027**	**100%**

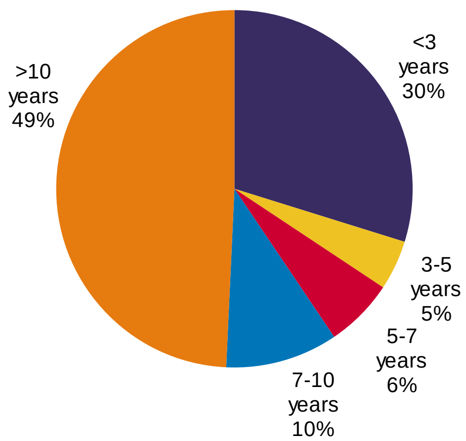
State debt split by currency as of 30/06/2018



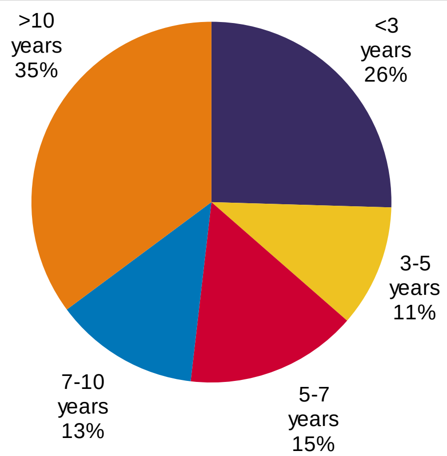
State debt split by interest rate type as of 30/06/2018



State domestic debt split by maturity as of 30/06/2018



State external debt split by maturity as of 30/06/2018



Over the first half of 2018, the share of UAH-denominated state debt has increased by 2 p. p., while the share of fixed-rate debt grew by 1.1 p. p. The weighted average term to maturity as of 30.06.2018 amounted to 8.1 years indicating a slight decrease compared to the end of 2017. The reason for such dynamics was a change in government bond investors' preferences due to general volatility in international capital markets as well as an increase in the NBU key policy rate.

2. Ukraine's state debt benchmarking

As part of the analysis, a set of over 60 countries was selected based on the size of their economies, their macroeconomic performance in recent years, as well as their credit ratings. From this list of relevant peers only 17 countries, which published a comparable Strategy and up-to-date comparable data on their state debt, were finally selected.

This peers sample was divided into three categories based on the following classification:

- regional peers: geographical proximity to Ukraine;
- rating peers: similar credit rating according to international rating agencies;
- peers – regional leaders: large EM countries, acting as economic drivers in their regions.

List of selected peers for Ukraine (S&P / Moody's / Fitch: B-/Caa2/B-) by sample		
Regional peers (7)	**Rating peers (6)**	**Peers – regional leaders (4)**
Albania (B+ / B1 / NR)	**Jamaica** (B / B3 / B)	**Nigeria** (B / B2 / B+)
Bosnia and Herzegovina (B/ B3 / NR)	**Lebanon** (B- / B3 / B-)	**Uruguay** (BBB / Baa2 / BBB-)
Bulgaria (BBB- / Baa2 / BBB)	**Macedonia** (BB- / NR/ BB+)	**Thailand** (BBB+ / Baa1 / BBB+)
Croatia (BB / Ba2 / BB+)	**Montenegro** (B+ / B1 / NR)	**Turkey** (BB / Ba1 / BB+)
Cyprus (BB+ / Ba3 / BB)	**Pakistan** (B / B3 / B)	**-**
Poland (BBB+ / A2 /A-)	**Ghana** (B- / B3 / B)	**-**
Serbia (BB- / Ba3 / BB)	**-**	**-**

Source Rating agencies
Note At the end of 2017

The average indicators for each of the sub-samples were used to benchmark Ukraine's state debt structure within the implemented analysis.

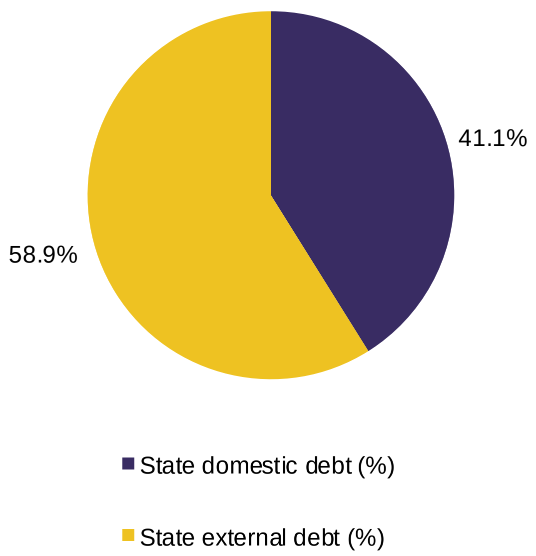
2.1 State debt composition

Domestic vs external debt

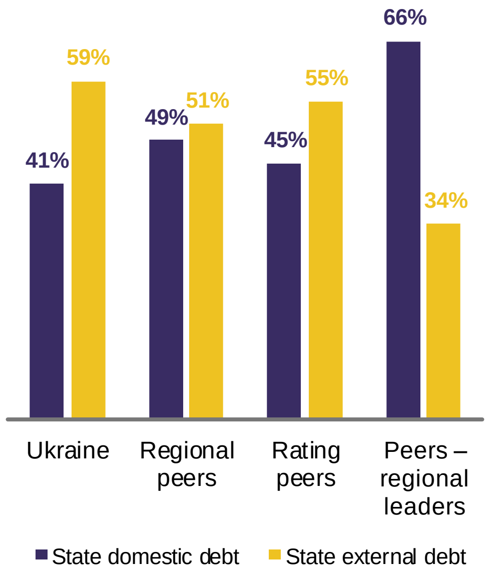
Ukraine's state debt is characterized by a relatively high share of external debt, accounting for 58.9% of total state debt.

Ukraine's share of external debt stands above the average figure for each sample group. External debt represents on average 51% of total debt for regional peers, 55% for rating peers and only 34% for peers – regional leaders. This indicates a relatively higher vulnerability of Ukraine to external shocks. Ukraine's sensitivity to FX shocks is also confirmed by UAH depreciation cases in the past, which resulted in an increase of the share of the foreign currency denominated debt.

Ukraine's state debt as of 31/12/2017



Ukraine compared to selected peers (% of total)



Increasing the share of state debt denominated in local currency will enable Ukraine to reduce its vulnerability to external factors and is, therefore, **one of the main targets of state debt management**. In this regard, further development of the domestic government bond market through the expansion of the range of available debt instruments, enhancing state debt management predictability and attracting foreign investors to the market is required.

State debt composition by instruments

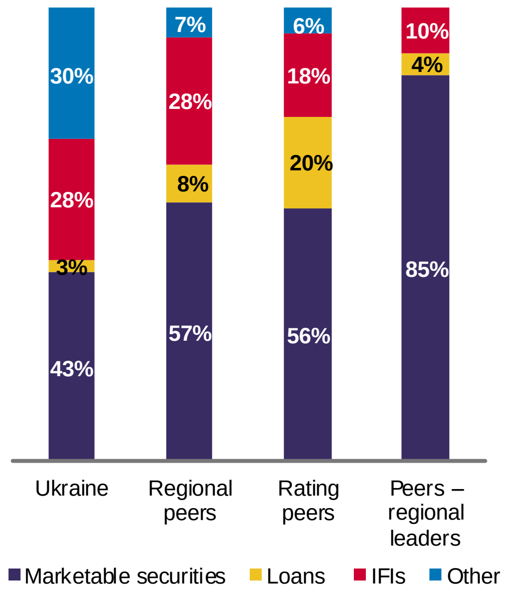
Marketable securities constitute 43% of Ukraine's total state debt, including 31% of Eurobonds and 11% of domestic government bonds. "Other" category reflects non-market state debt and comprises domestic government bonds issued for the recapitalization of state banks and SOEs. The share of such domestic government bonds is substantial compared to peers, representing 30% of Ukraine's total state debt.

The amount due to international financial institutions represents 25% of the total state debt and illustrates their strong support of Ukraine received over the last few years, especially from the IMF, the European Union and the World Bank. This share is considerably lower for rating peers and peers – regional leaders.

Ukraine's state debt structure as of 31/12/2017

	UAHm	% of total
Marketable securities	**782,468**	**43%**
Domestic government bonds	208,009	11%
Eurobonds	574,460	31%
Loans	**2,382**	**0.1%**
NBU and commercial banks loans	2,382	0.1%
Concessional loans	**505,849**	**28%**
Other, including recap.	**543,010**	**30%**
Total state debt	**1,833,710**	**100%**
% of GDP	***61.5%***	

Ukraine compared to selected peers (%)



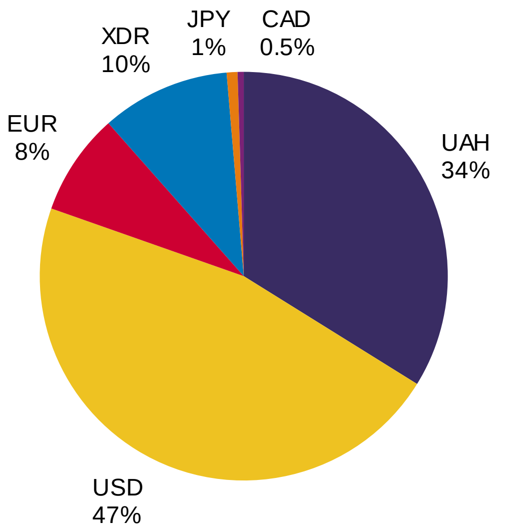
State debt composition by currency

Ukraine's state debt is largely dominated by foreign currency denominated debt with respective share amounting to 66% in 2017. USD-denominated debt represents 47% of the total state debt and is predominantly composed of USD-denominated Eurobond series. The second largest category comprises SDR-denominated debt raised as part of financing within the current IMF program and representing 10% of Ukraine's state debt. The existence of domestic debt denominated in foreign currency increases the share of total foreign currency denominated debt and, hence, its FX risk.

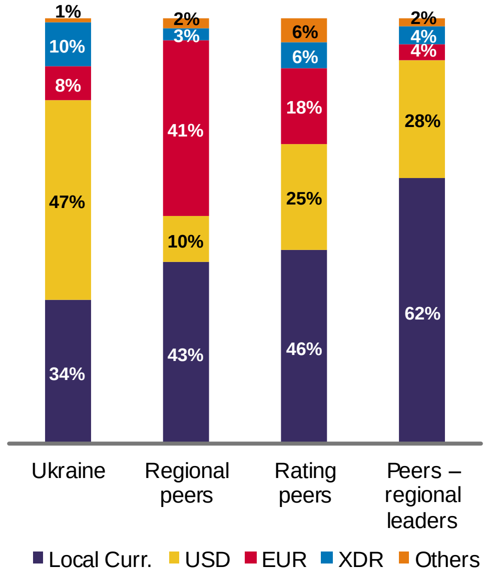
Ukraine's share of local currency denominated debt is lower compared to regional and rating peers (34% vs. 43% and 46%, respectively). The difference is even wider in case of peers – regional leaders which have on average 62% of their state debt denominated in local currency.

These figures underline a priority of Ukrainian government's actions in accordance with the first state debt management target aimed at (i) deepening the local currency bond market, among other things by issuing local currency bonds for investors based outside of Ukraine and (ii) mitigating FX risks, including by reducing the share of USD in Ukraine's state debt portfolio through the issuance of Eurobonds in other currencies, less correlated with UAH.

Ukraine's state debt split by currency as of 31/12/2017



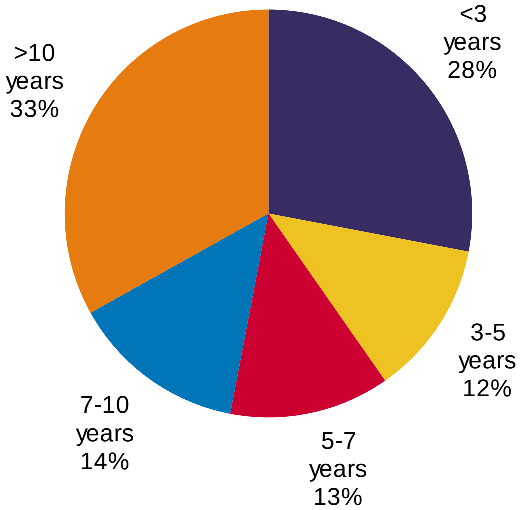
Ukraine compared to selected peers (%)



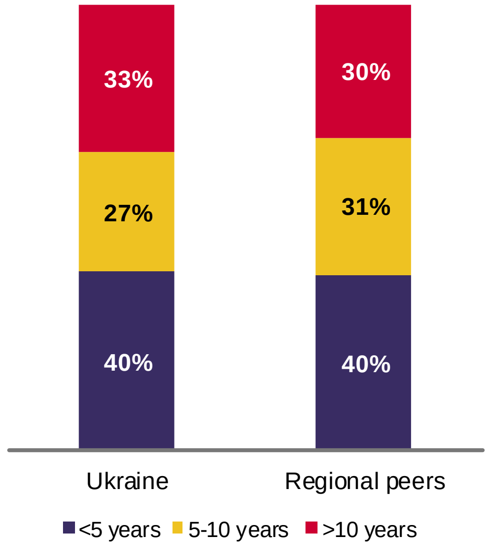
State debt composition by maturity

Ukraine's state debt structure by maturity demonstrates a high portion of short- and medium-term debt in line with the regional peers' level. The largest share is attributed to debt instruments maturing in less than 5 years. The share of long-term debt maturing in more than 10 years is also in line with the regional peers. A relatively low share of long-term external debt instruments indicates an opportunity to increase an average term to maturity, including through the issuance of long-term Eurobonds. As of the end of 2017, the weighted average term to maturity of Ukraine's domestic debt (including domestic government bonds in the NBU portfolio) amounts to 10.8 years, while state external debt matures on average in 6.5 years. As a consequence, the weighted average time to maturity of Ukraine's total state debt stands at 8.4 years.

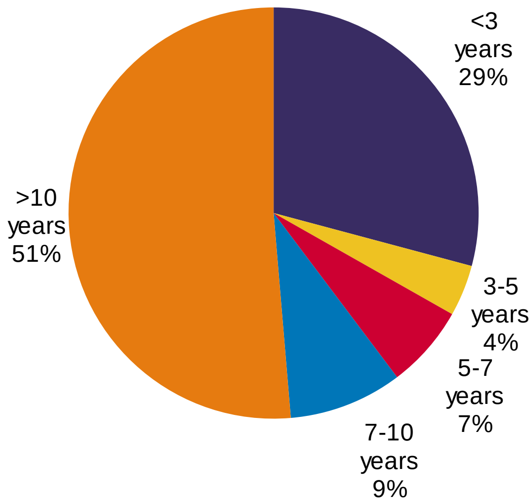
Ukraine's state debt composition by maturity as of 31/12/2017



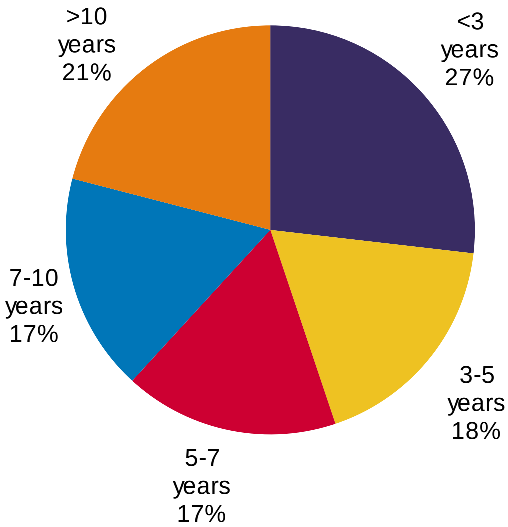
Ukraine compared to regional peers (%)



Ukraine's domestic debt composition by maturity as of 31/12/2017



Ukraine's external debt composition by maturity as of 31/12/2017

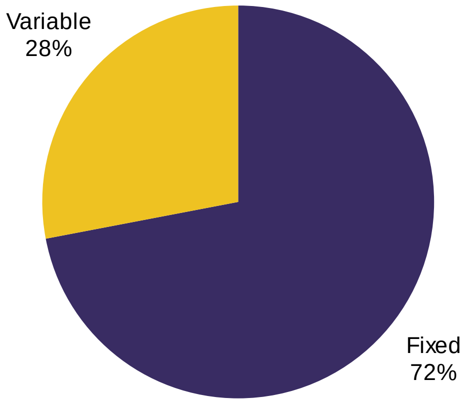


State debt composition by interest rate type

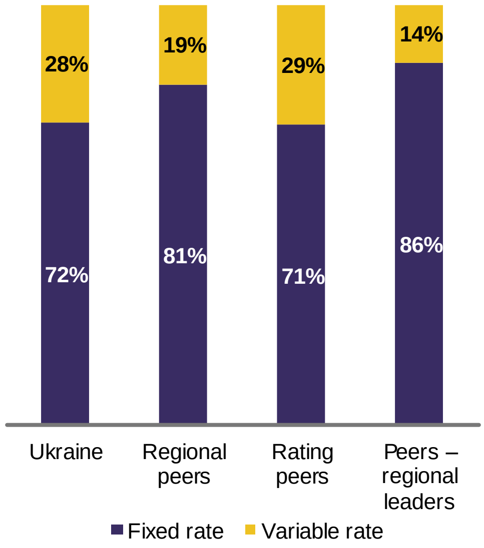
Ukraine's state debt has a high portion of fixed-rate debt instruments (72%), which contains its interest rate risk. The share of Ukraine's fixed-rate state debt is lower compared to its regional peers and peers – regional leaders, and is in line with Ukraine's rating peers, which have on average 71% fixed-rate debt.

Within Ukraine's state debt with variable interest rates, the majority is linked to EURIBOR (the Euro Interbank Offered Rate) **and LIBOR** (the London Interbank Offered Rate): **about 10% out of 28%.** Therefore, state debt service is sensitive to the increase in interest rates in the Eurozone and the USA. Following the re-profiling of domestic government bonds held by the NBU, Ukraine's share of variable-rate debt also includes inflation-linked securities for a total of UAH 145.2bn amortizing from 2036 to 2047.

Ukraine's state debt composition by interest rate as of 31/12/2017



Ukraine compared to selected peers (%)



State debt composition by financing terms

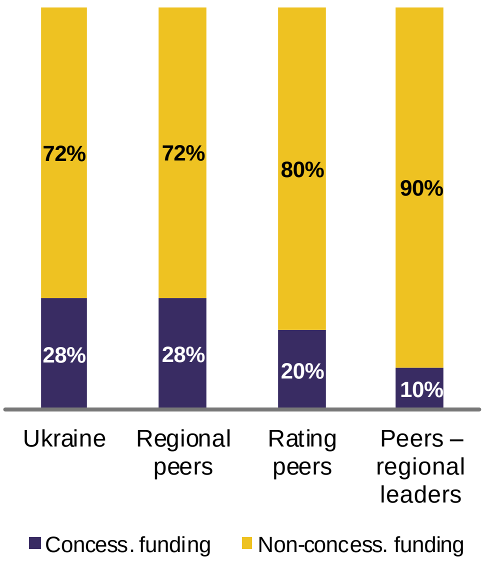
The share of concessional instruments in Ukraine's state debt accounts for 28% and is significantly higher compared to rating peers (20%) and peers – regional leaders (10%).

Ukraine's share of concessional debt corresponds to the regional peers' level which comes as a consequence of significant support for economic development in the region by international partners. Furthermore, one of the targets of this Strategy is to increase the amount of financial support by deepening the cooperation with international financial institutions (IMF, EIB, EBRD, World Bank), as well as through the development of new partnerships with foreign countries.

Ukraine's state debt concessional composition as of 31/12/2017

	UAHm	% of total
Non-concessional funding	**1,327,861**	**72.4%**
Concessional funding	**505,849**	**27.6%**
of which IMF	187,032	10.2%
of which IBRD	138,040	7.5%
of which EU (MFA)	94,122	5.1%
of which EBRD	18,002	1.0%
of which EIB	19,357	1.1%
of which bilateral loans	49,296	2.7%
Others	-	-
Total State debt	**1,833,710**	
% of GDP	***61.5%***	

Ukraine compared to selected peers (%)



2.2 State debt repayment

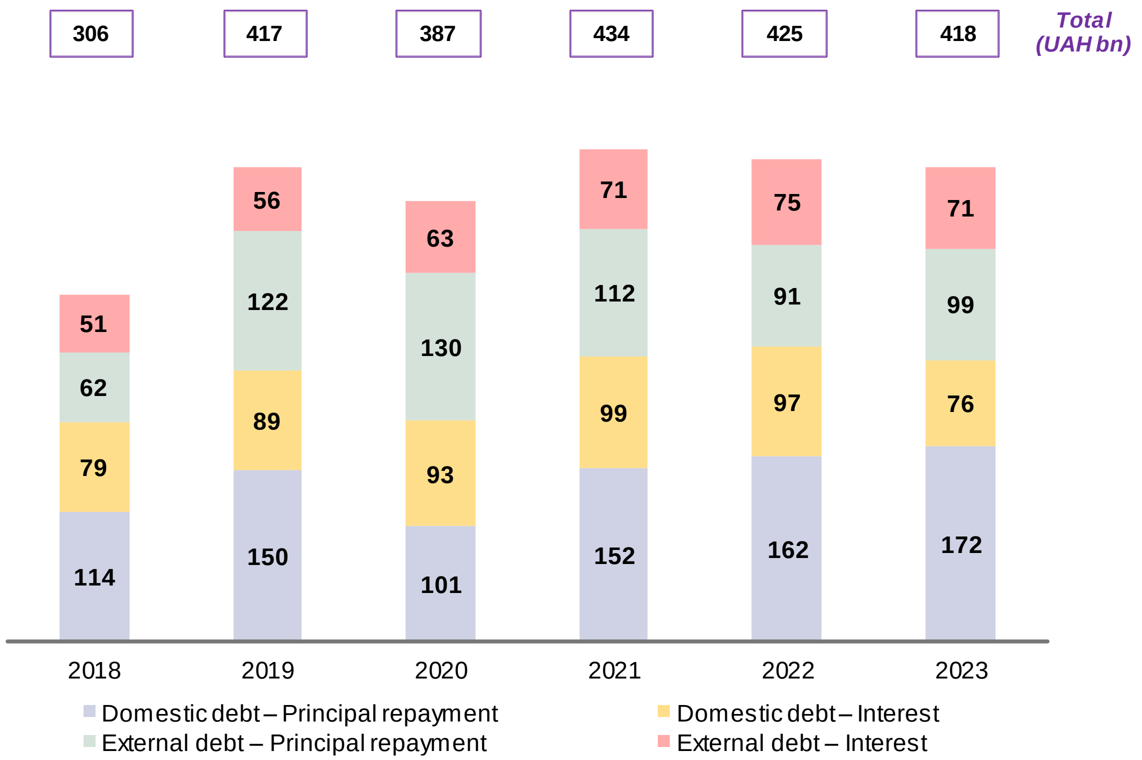
Ukraine's state debt amortization profile

Ukraine's moderately smoothed debt amortization profile with a limited number of refinancing peaks is a result of Ukraine's active state debt management policy following the restructuring of the state and state-guaranteed external commercial debt in 2015. The average of 2018-2023 state debt service and repayment based on outstanding and planned debt obligations amounts to UAH 398.0bn with a standard deviation standing at UAH 47.8bn.

Specifically, in September 2017, the MinFin performed a liability management transaction to buy back 2019 and 2020 Eurobond series. The tender offer reached 44% blended participation rate with 64% participation for the priority 2019 series. The total amount tendered accounted for USD 1,576m reducing by the corresponding amount the refinancing risk for the next few years. This transaction also paved the way for future transactions in order to continue to smooth Ukraine's external debt amortization profile.

In addition, on October 6th, 2017 the MinFin and the NBU completed the re-profiling of domestic government bonds held by the NBU for a total amount of UAH 219.6bn. The bonds subject to re-profiling have been exchanged for the new domestic government bonds: long-term fixed-rate bonds with maturities from 2025 to 2035 totaling UAH 74.4bn and long-term inflation-linked bonds with maturities from 2036 to 2047 for a total of UAH 145.2bn. The repayment of re-profiled domestic government bonds will be conducted until 2047, which will distribute the pressure on the state budget over the long-term period. Moreover, two series of newly issued bonds (fixed-rate and inflation-linked bonds) will help diversify the interest rate risk.

Ukraine's state debt amortization profile (based on outstanding and planned debt obligations as of August 2018)



Source MinFin

Periods of state debt refinancing peaks

Significant debt repayments are expected in 2018–2020.

UAH bn	2018	2019	2020	2021	2022	2023
Total	**305.9**	**417.5**	**387.4**	**434.4**	**425.1**	**417.9**
Average	**398.0**					
Standard deviation	**47.8**					
Debt payments / export	**17.9%**	**23.5%**	**19.2%**	**19.1%**	**-**	**-**
Debt payments / state budget revenues	**33.3%**	**41.4%**	**35.5%**	**37.8%**	**35.4%**	**33.2%**

Sources MinFin, Ministry of Economic Development and Trade of Ukraine

Although the expected state debt repayment in 2018 is significant, it constitutes the lowest figure over 2018–2023 period. The difference between 2018 expected state debt repayment and service amount and 2018–2023 average figure accounts for UAH 92.1bn. Smoothing refinancing peaks will be accomplished by issuing new debt with longer maturities in order to limit repayments in years with extensive state debt repayments and by performing liability management exercises.

2.3 State debt cost

Evolution of Ukraine's state debt service

	2014	2015	2016	2017
Domestic state debt service (in UAHbn equiv.)	**32.3**	**57.7**	**62.6**	**71.7**
USDbn equivalent	2.7	2.7	2.5	2.7
% of GDP	2.0%	2.9%	2.6%	2.4%
% of state budget revenues	9.0%	10.8%	10.2%	9.0%
External state debt service (in UAHbn equiv.)	**15.6**	**26.8**	**33.2**	**38.8**
USDbn equivalent	1.3	1.2	1.3	1.5
% of GDP	1.0%	1.3%	1.4%	1.3%
% of state budget revenues	4.4%	5.0%	5.4%	4.9%
Total state debt service (in UAHbn equiv.)	**48.0**	**84.5**	**95.8**	**110.5**
USDbn equivalent	4.8	3.9	4.0	3.9
% of GDP	3.0%	4.2%	4.0%	3.7%
% of state budget revenues	13.4%	15.8%	15.5%	13.9%

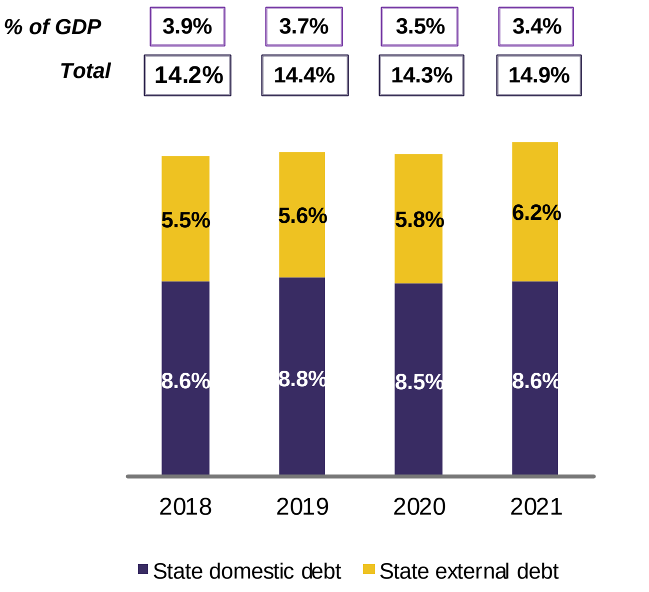
Average state debt cost

Ukraine's weighted average debt cost stands at 6.5% as of the end of 2017, in line with peers – regional leaders' average (5.9%). Such cost of debt arises from an average external debt nominal cost of 4.0% and a relatively higher average nominal cost of state domestic debt (10.2%), which, in turn, results primarily from corresponding inflation levels observed over the last periods. Taking into account inflation, the real cost of state domestic debt amounts to (3.4)%.

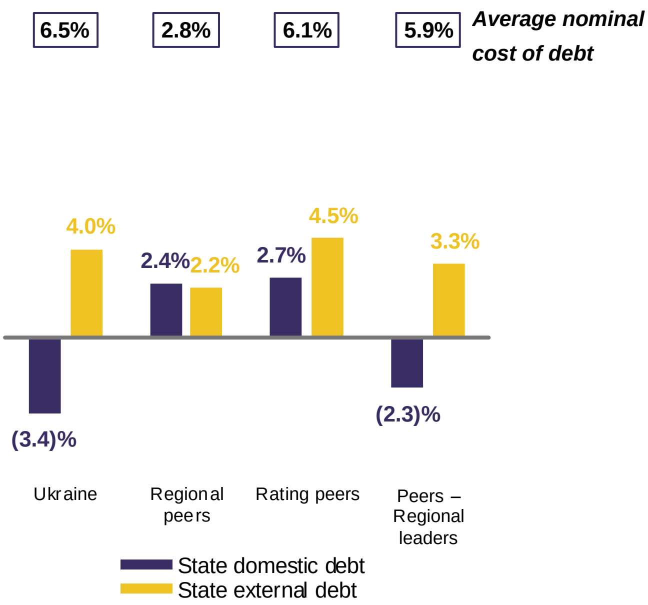
However, Ukraine is benefiting from a lower average interest rate on its external debt (4.0%) as compared to its rating peers' average (4.5%), which underlines considerable support of Ukraine by international investors, and by international financial institutions, in particular.

The objective of this Strategy is to further decrease the average cost of debt by, among others, attracting concessional funding sources.

Interest payments on state debt (as % of state budget revenues)

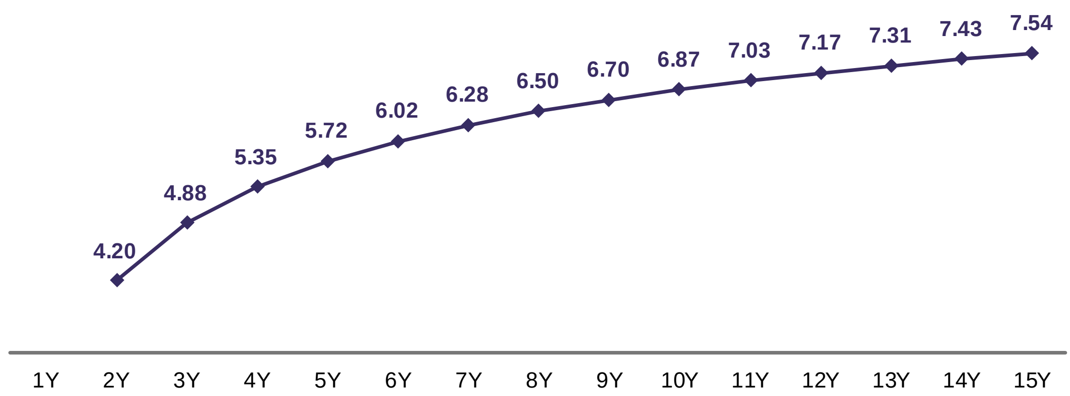


Ukraine's weighted average real cost of debt compared to selected peers (%)



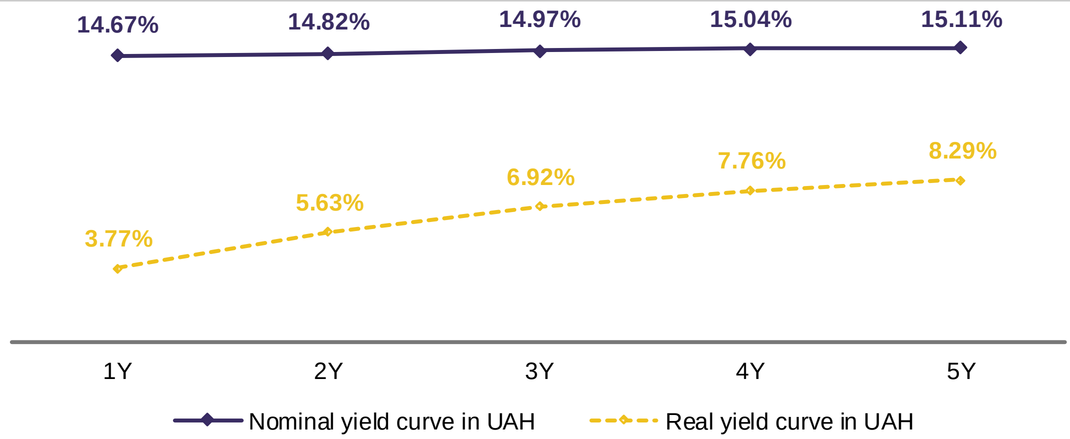
In last months of 2017, Ukraine's Eurobond yield curve decreased by more than 150 basis points (hereafter referred to as bps), steepened and normalized compared to a flat yield curve as of the end of 2016.

Ukraine's Eurobond USD yield curve[1]



Source Factset (31/12/2017)
Note 1 Logarithmic interpolation

Ukraine's UAH-denominated domestic government bonds primary yield curve[2]



Source MinFin
Note 2 UAH nominal yield curve is based on the results of primary auctions in 2017; UAH real yield curve is calculated by using MEDT and NBU CPI forecasts

Ukraine's estimated secondary UAH-denominated domestic government bonds yield curve remains downward slopping, which is in part due to the corresponding inflation expectations.

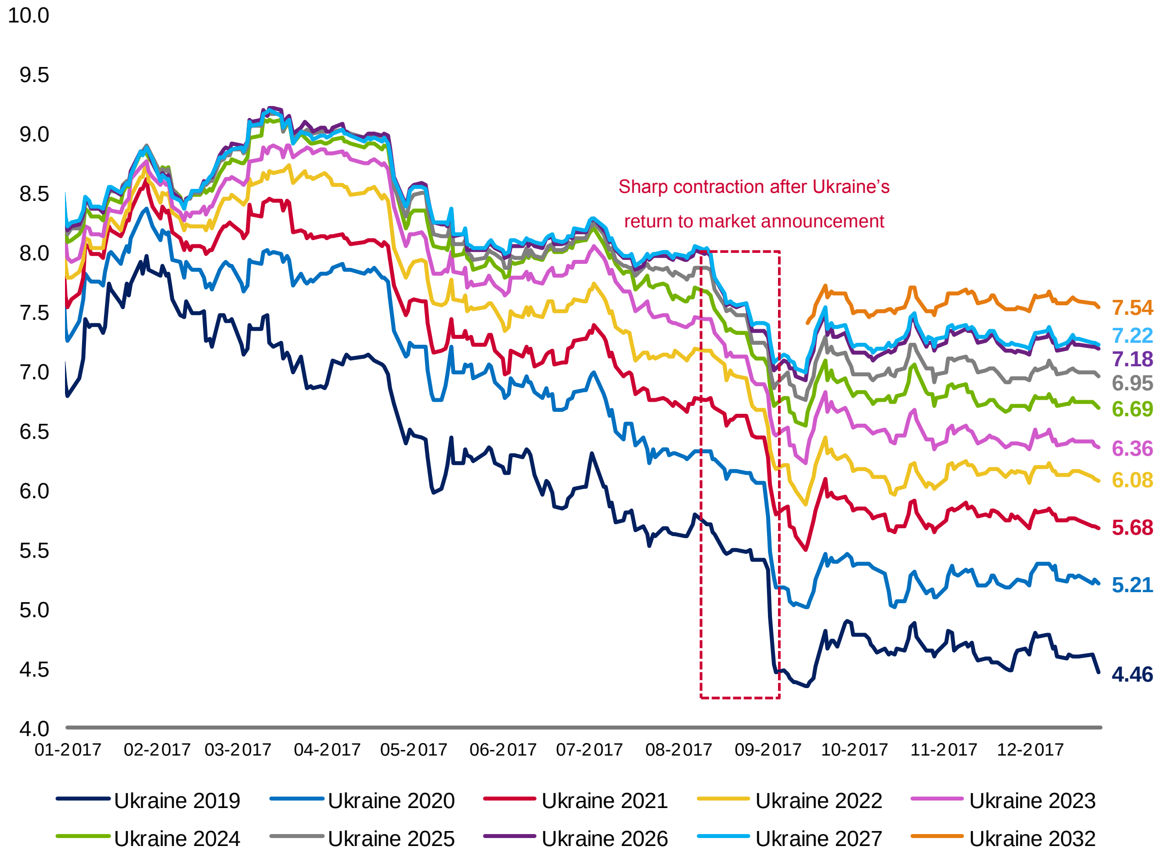
2.4 Positive developments in 2017 and trends in the first half of 2018

Ukraine's Eurobond trading performance in 2017

In 2017 Ukraine's Eurobonds' yields tightened on the back of improved macroeconomic performance and strong reform momentum. The announcement of Ukraine's return to international capital markets has been positively perceived by international investors. This led to the contraction of Ukraine's yield curve by over 200 bps compared to January 2017.

Ukraine's 2032 Eurobond series has experienced relatively stable performance during the last months of 2017 since its issuance in September 2017.

Ukraine's Eurobonds' YTM (%)



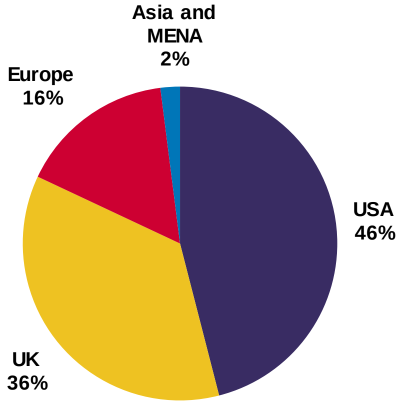
Source Bloomberg (31/12/2017)

Ukraine's Eurobonds' yields and spreads

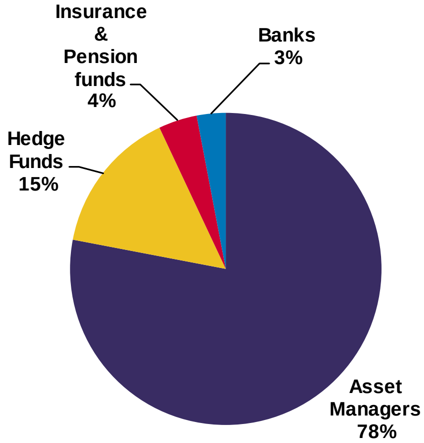
Eurobond	Yield (%)	Δ vs. last month (bps)	Δ vs. last 6 months (bps)	Δ vs. last year (bps)	Z spread (bps)	Δ since issuance (bps)	s.d. 1 month	s.d. 6 months	Spread to mid swaps (bps)
Ukraine 2019	4.46	(2)	(151)	(296)	255	(541)	50.7	91	238
Ukraine 2020	5.21	+1	(156)	(291)	314	(451)	59.6	98	304
Ukraine 2021	5.68	(10)	(152)	(262)	358	(385)	67.7	89	347
Ukraine 2022	6.08	(8)	(148)	(237)	395	(334)	73.6	89	383
Ukraine 2023	6.36	(3)	(151)	(220)	417	(300)	77.6	87	408
Ukraine 2024	6.69	(2)	(135)	(201)	445	(267)	82.5	82	438
Ukraine 2025	6.95	+1	(112)	(178)	468	(232)	86.6	76	461
Ukraine 2026	7.18	+0.4	(94)	(157)	488	(208)	90.5	70	481
Ukraine 2027	7.22	(1)	(93)	(152)	489	(198)	90.7	69	482
Ukraine 2032	7.54	+2	(10)	n.a.	513	(1)	6	n.a.	513
Weighted average									***425***

Source Bloomberg (31/12/2017)

Book for 2032 Eurobond – By region



Book for 2032 Eurobond – By investor



Term sheet – Ukraine 2032 Eurobond

Issuer	Ukraine
Issuer Ratings	B- (S&P) / NR / B- (Fitch)
Format	144A / RegS
Amount issued	$3.0bn
Final Maturity	2032
Amortization	4 equal instalments - March / Sept. 2031/32
Re-offer Price	100%
Re-offer Yield	7.375%
Spread (vs UST)	514.3 bps
Coupon	7.375% p.a., payable semi-annually
Governing Law	English Law
Joint Bookrunners	BNP, Goldman Sachs, J.P. Morgan
Overbook Size	c.$9.5bn
No. Of investors	350

Term sheet – Buyback transaction

	2019	2020	Total
Amount oustanding (before transaction)	$1,822m	$1,780m	**$3,602m**
Amount tendered	$1,161m	$415m	**$1,576m**
Participation rate (%)	63.7%	23.3%	**43.8%**
Amout oustanding (pro forma)	$661m	$1,365m	**$2,026m**
Buyback Price	106.00	106.75	-
Accrued Interest	$6.0m	$2.1m	**$8.1m**
Total Cash consideration	$1,237m	$445m	**$1,682m**
Dealer Managers	BNP, Goldman Sachs, J.P. Morgan		

Evolution of spreads in 2017

The information reflected in the tables below also illustrates the strong rally experienced by Ukraine on international capital markets. The country's spread vs. US Treasury bonds decreased considerably over 2017 and accounted for c.500 bps at the end of 2017. Ukraine's CDS price evolution also highlights the revival of the investors' confidence: a strong and persistent decline of 2Y and 5Y CDS over the past year confirms investors' confidence with regard to Ukrainian government's ability to ensure overall macroeconomic stability and pursue the prudent state debt management policy.

Evolution of Ukraine's 2027 Eurobond vs 10Y UST

Spot	**481.1**
∆ vs. last week	**+2.5**
∆ vs. last month	**+0.9**
∆ vs. last 6 months	**(107.8)**
∆ YTD	**(125.0)**

Source Bloomberg (31/12/2017)

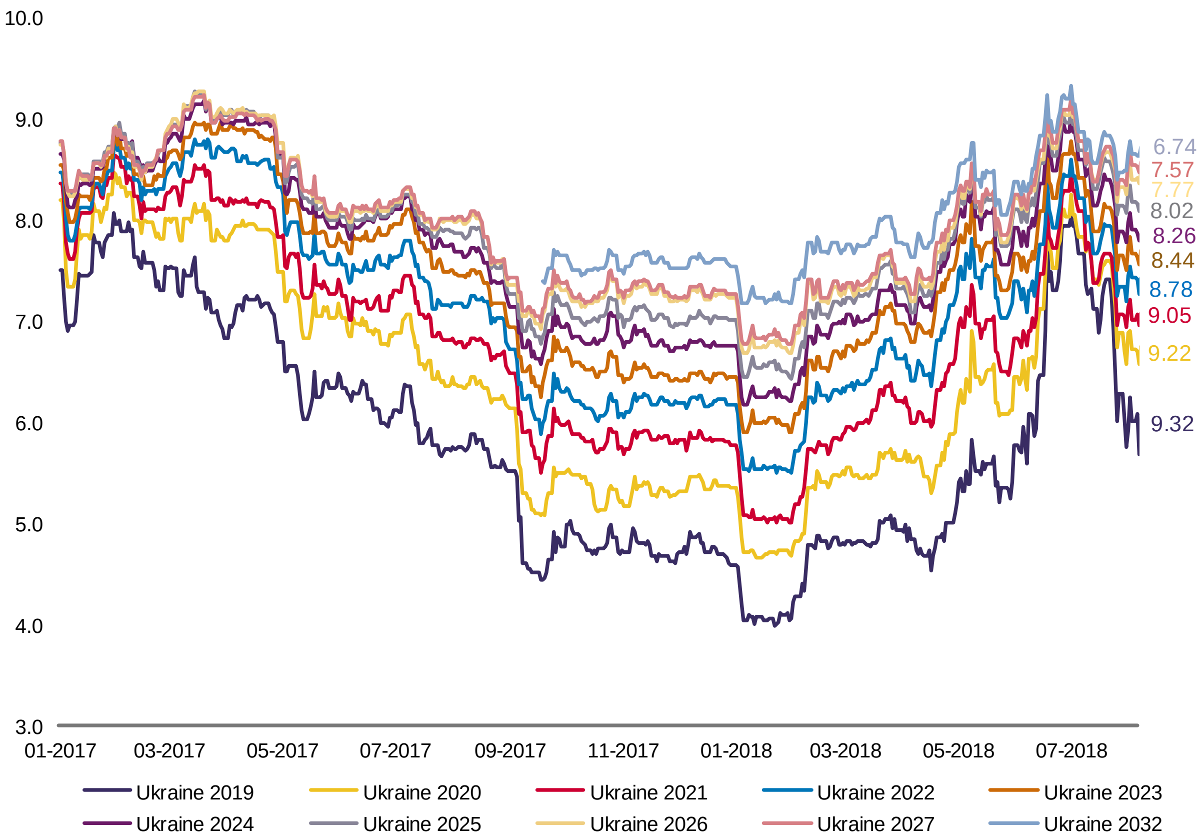
CDS Spread evolution since January 2017

	2Y CDS	5Y CDS
As of 01/01/2017	502.6	725.0
As of 01/07/2017	380.6	585.0
As of 31/12/2017	**288.5**	**432.0**
∆ YTD	**(214.1)**	**(293.1)**

Ukraine's Eurobond trading performance in 2018

In 2018 debt capital markets witness increased volatility and spreads widening for EM debt instruments. Such market conditions have prevented many countries, including Ukraine, from Eurobond issuance over the specified period. The change in market conditions will be carefully monitored during the period of this Strategy in order for Ukraine to capture the most favorable market windows for Eurobond placement.

Ukraine's Eurobonds' YTM (%)



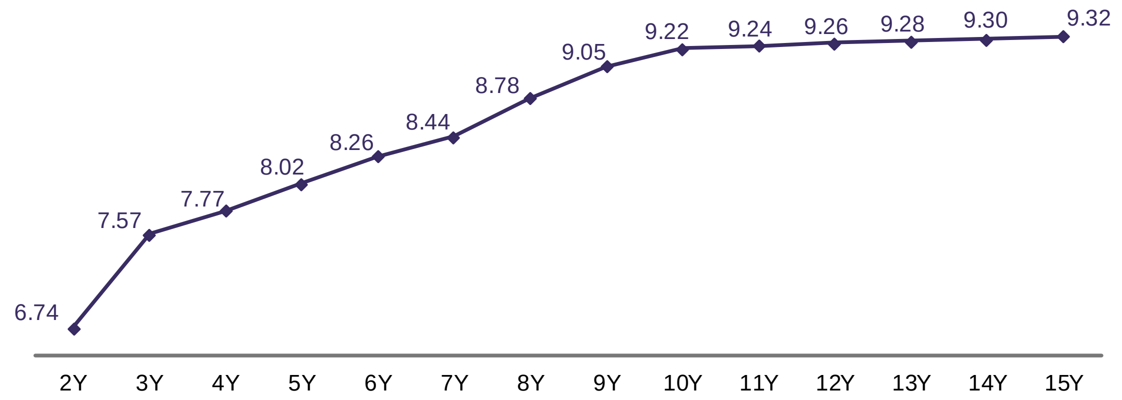
Source Bloomberg (16/08/2018)

Ukraine's Eurobonds' yields and spreads

Eurobond	Yield (%)	Δ vs. last month (bps)	Δ vs. last 6 months (bps)	Δ vs. last year (bps)	Z spread (bps)	Δ since issuance (bps)	s.d. 1 month	s.d. 6 months	Spread to mid swaps (bps)
Ukraine 2019	6.74	(18)	+193	+103	436	(359)	101.8	102	394
Ukraine 2020	7.57	+33	+216	+125	492	(273)	100.8	87	472
Ukraine 2021	7.77	+46	+199	+100	500	(243)	100.9	77	492
Ukraine 2022	8.02	+39	+169	+85	521	(208)	105.6	71	516
Ukraine 2023	8.26	+45	+164	+82	546	(170)	110.1	69	538
Ukraine 2024	8.44	+32	+152	+79	560	(151)	114.5	70	555
Ukraine 2025	8.78	+46	+163	+93	594	(106)	119.3	70	588
Ukraine 2026	9.05	+64	+173	+109	622	(73)	123.1	72	615
Ukraine 2027	9.22	+78	+185	+124	636	(52)	124.8	72	630
Ukraine 2032	9.32	+71	+152	n.a.	649	+98	128	68	635
Weighted average									***560***

Source Bloomberg (16/08/2018)

Ukraine's Eurobonds' USD yield curve[1]



Source Bloomberg (16/08/2018)
Note 1 Logarithmic interpolation

Evolution of spreads and CDS in 2018

Evolution of Ukraine's 2027 Eurobond vs 10Y UST

Spot	**632.9**
∆ vs. last week	**+61.5**
∆ vs. last month	**+74.8**
∆ vs. last 6 months	**+201.7**
∆ YTD	**+57.1**

Source Bloomberg (16/08/2018)

CDS spread evolution in 2018

	2Y CDS	**5Y CDS**
As of 01/01/2018	288.6	432.0
As of 02/07/2018	295.2	479.4
As of 15/08/2018	**257.9**	**418.1**
∆ YTD	**(30.7)**	**(13.9)**

Ukraine's credit ratings

Ukraine's credit ratings have been trending upward since the sovereign debt restructuring in 2015. Ukraine's ratings have been upgraded by 1 to 3 notches by each of the four international credit rating agencies since then.

Ukraine's current credit ratings

	Standard & Poor's	**Moody's**	**Fitch**	**Japan Credit Rating Agency**
Current Rating	**B- / Stable**	**Caa2 / Positive**	**B- / Stable**	**B- / Stable**
Last rating action	Rating B- Stable Affirmed (Apr 2018)	Upgrade from Caa3 to Caa2 Positive (Aug 17)	Rating B- Stable Affirmed (Apr 2018)	Rating B- Stable Affirmed (Jul 2018)

Note As of 16/08/2018

Credit rating agencies based on their analysis of the pace of structural reforms implementation in Ukraine praise economic normalization and positive macroeconomic forecasts:

- "The first driver for the rating upgrade is the impact of structural reforms already undertaken in the natural gas sector, public procurement system, taxation, and banking sector and those still to be implemented, including pension reform, which together are expected to improve government debt dynamics", Moody's, August 2017
- "The affirmation reflects the broadly stabilizing macroeconomic picture within Ukraine in 2016. Positive growth has returned, after a significant contraction in 2015, and inflation has calmed", S&P, December 2016

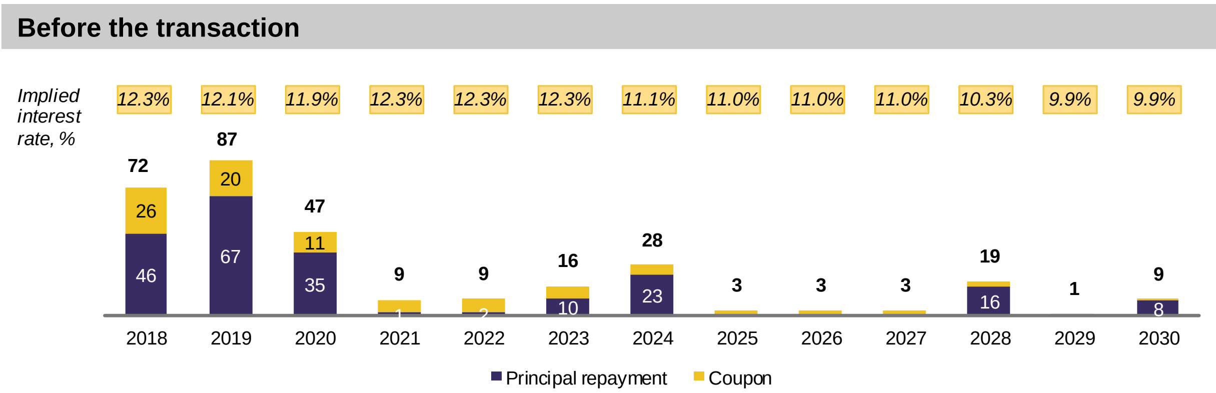
Detailed information on the re-profiling of domestic government bonds

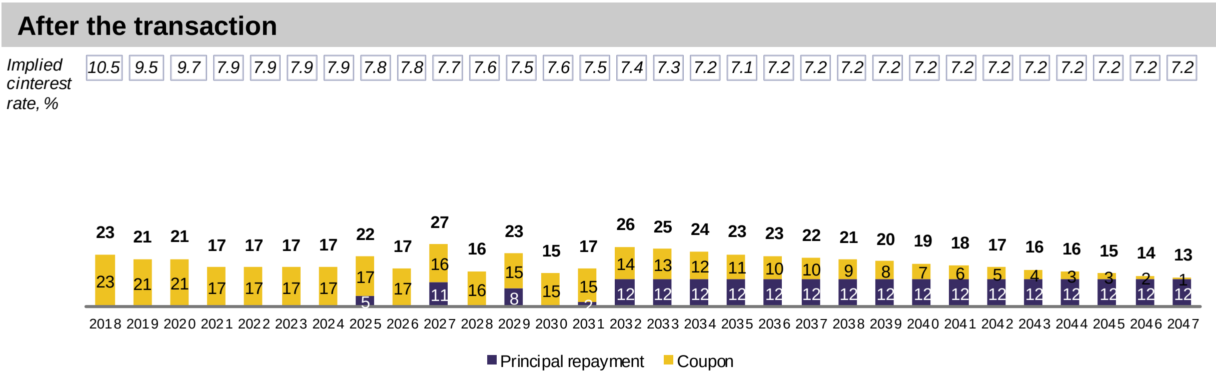
On October 6th, 2017, the re-profiling of state domestic debt held by the NBU totaling UAH 219.6bn (c.USD 8.2bn) was completed by exchanging domestic government bonds held by the NBU for new domestic government bonds: fixed-rate domestic government bonds amounting to UAH 74.4bn and inflation-linked domestic bonds for a total of UAH 145.2bn. The new bonds comprise 40 series with the tenor ranging from 7 to 30 years.

The fixed-rate domestic government bonds will be amortized from 2025 till 2035 with a coupon rate ranging between 8.12% and 11.30% (semi-annual coupons, paid on May, 10th and November, 10th each year).

The amortization of inflation-linked domestic government bonds will take place from 2036 to 2047. The coupon rate for such bonds equals to 12-month CPI change + 2.2% (CPI change to the corresponding month of the previous year) and is determined no more than 2 months before the actual coupon payment (coupon payments are made annually on May, 10th and November, 10th).

Amortization of domestic government bonds subject to re-profiling (UAHbn)





Note Inflation prediction is based on the data of the Forecast of Economic and Social Development of Ukraine for 2019-2021, as well as the target indicators of the NBU

Cooperation with international financial institutions

European Union Macro-Financial Assistance (MFA): On July 9th, 2018, the legislative decision of the European Parliament and the Council of the EU on the provision of the Fourth program of the EU macro-financial aid totaling EUR 1bn to Ukraine became effective. The new MFA program aims at supporting further economic stabilization in Ukraine as well as the reform agenda. The Government of Ukraine together with the European Commission will work on defining specific conditions of the program aimed at strengthening the Ukrainian economy and implementing structural reforms. Overall, in 2014–2017 Ukraine benefited from c.EUR 2.81bn financing received within three MFA programs.

International Bank for Reconstruction and Development (hereafter referred to as the IBRD) **– Development Policy Loans** (DPL): the MinFin is currently negotiating with the IBRD establishment of a new financing program. Since 2014, USD 2,416m have been disbursed by the IBRD as DPL support to the country.

Projects of the European Bank for Reconstruction and Development (hereafter referred to as the EBRD): as of the end of 2017 the amount of EBRD loans in Ukraine's state debt structure accounted for EUR 537m. These loans are disbursed in a form of project financing with a 100 bps margin over the 6-month Euribor rate and have covered the projects of high voltage lines development, road rehabilitation, underground construction, pan-European corridors development, etc.

IMF: Ukraine is currently under a 4-year Extended Fund Facility program (EFF) totaling SDR 12.35bn equivalent (about USD 17.5bn) and corresponding to 900% of country's quota in the IMF, which indicates the large support received by Ukraine after the recent economic crisis. It is the largest by quota program agreed after Greece 2010 SBA program (3,200%). In order to meet its urgent balance of payment needs Ukraine benefited from the front-loaded disbursement, illustrating the tailored approach from the IMF within its financial support.

Ukraine main institutional supports

IFI	Program amount	Selected program terms
IMF	USD 17.5bn (for 2015–2019)	● 4-year Stand-By Arrangement: ○ The agreement signed in 2014 ○ Total disbursed amount: SDR 2.97bn ○ Maturity date: till 2019 ● Extended Fund Facility: ○ The agreement signed in 2015 ○ Total disbursed amount: SDR 6.18bn ○ Maturity date: till 2025
World Bank	USD 4.6bn (for 2014–2016) and USD 655m in 2017	● Development Policy Loans (last signed program): ○ Total disbursed amount: USD 500m ○ Interest rate: Libor 6m + c.38 bps margin ○ Maturity date: 2031 ● Second Roads and Safety Improvement Project: ○ The agreement signed in September 2012 ○ Total committed amount: USD 450m ○ Interest rate: Libor 6m + c.10 bps margin ○ Maturity date: April 2029 ● Power transmission project: ○ The agreement signed in June 2007 ○ Total committed amount: USD 200m ○ Interest rate: Libor 6m + c.58 bps margin ○ Maturity date: September 2027
EU	EUR 12.8bn	● Macro-Financial Assistance program (MFA) I: ○ The agreement signed in April 2013 ○ Total disbursed amount: EUR 610m ○ Interest rate: 1.875% / 1.375% p. a. (two tranches loan) ○ Maturity date: 2030 ● MFA II: ○ The agreement signed in May 2014 ○ Total disbursed amount: EUR 1,000m ○ Interest rate: 1.875% / 1.375% p. a. (two tranches loan) ○ Maturity date: 2029 ● MFA III: ○ The agreement signed in May 2015 ○ Total disbursed amount: EUR 1,200m ○ Interest rate: 0.25% p. a. ○ Maturity date: 2031
USA	USD 3bn (in form of guarantees)	● Three loan guarantees of USD 1bn each granted within cooperation with USAID in May 2014, May 2015 and September 2016 to support economic recovery and reform progress in Ukraine
EBRD	EUR 537m (as of the end of 2017)	● Tenor: 15 years ● Interest rate: EURIBOR 6m + 100 bps margin ● Selected projects: ○ 750kV Zaporizhzhia-Kakhovka High Voltage Line Project ○ Kyiv-Chop Road Rehabilitation ○ Pan-European Transport Corridors
EIB	EUR 578m (as of the end of 2017)	● Tenor: from 20 to 24 years ● Interest rate: from EURIBOR 6m + 55 bps margin to EURIBOR 6m + 131 bps margin ● Selected projects: ○ 750kV Zaporizhzhia-Kakhovka High Voltage Line Project ○ European Roads of Ukraine ○ Hydro Power Plants Rehabilitation Project

Source International financial institutions, MinFin

3. Ukraine’s guidelines for state debt management

3.1 Target 1. Increase the share of state debt denominated in local currency

Reducing FX exposure of state debt

Since 2015, one of the objectives of the state debt management is to reduce FX risk related to a significant share of foreign currency denominated debt in Ukraine’s state debt structure. An increase in the share of local currency denominated debt as well as the diversification of currencies in the state debt FX mix will enable Ukraine to reduce the potential impact of an FX shock on its overall repayment and debt service, thus improving Ukraine's state debt sustainability. The state debt currency structure should take into account the currency mix of Ukraine's balance of payments, as well as the level of correlation between UAH and other currencies.

Reducing the share of FX-denominated debt by gradually limiting non-UAH denominated domestic government bond issuances will have a positive impact on the value of FX reserves in the long run. The build-up of international reserves, in turn, will support the creation of a well-balanced financial and economic environment by effectively supporting Ukraine’s foreign trade expansion.

A substantial FX risk related to exchange rates volatility, and especially of UAH/USD exchange rate, is a consequence of a relatively high degree of dollarization of the country’s economy. The large part of payments for Ukrainian exports is still denominated in USD, with 73.0%[1] of current account receipts in 2017 held in USD. The importance of containing FX risk is also corroborated by the fact that the Ukrainian banking sector is also widely exposed to changes in exchange rates. The share of FX-denominated assets in the Ukrainian banking system amounted to 40.9%[1] as of the end of 2017.

Attraction of international investors into local currency bond market

To increase the share of local currency denominated debt, issuance of local currency bonds for foreign investors is set as one of the tasks of Ukraine’s state debt management. In order to extend participation of international investors on the Ukrainian domestic government bond market, it is necessary both to facilitate the access (including by opening an account of the international depository in the NBU) and to stimulate investors’ interest through the increased access to information and issuance of UAH-denominated Eurobonds. The implementation of such measures will facilitate the arrival of anchor investors enabling larger issuances of domestic government bonds with longer maturities.

The growing appetite of international investors for local currency bonds would empower Ukraine to extend its current investor base. The issuance of local currency bonds for foreign investors would also pave the way for Ukrainian companies with regard to issuance of local currency bonds subscribed by such investors, as well as set a new yield benchmark for such debt instruments for the Ukrainian companies. This would ultimately result in the deepening of the domestic capital market.

3.2 Target 2. Lengthen average debt maturity, and ensure a smooth state debt repayment profile

Containing refinancing risk

In order to ensure that Ukraine meets its existing debt obligations, the country will require sustainable access to the capital markets in the upcoming years and continuous control over its refinancing risk. Therefore, in order to spread out the refinancing risk over future years, Ukraine will favor longer term and soft amortizing instruments, if possible. Thereby, the MinFin plans to increase the average term to maturity of Ukraine’s state debt.

[1] Source NBU

Over a broader time horizon, containing refinancing risk can be achieved by increasing the weighted average time to maturity of Ukraine's state debt portfolio by refinancing bonds before their maturity as well as by reducing the concentration of debt repayments in the coming years to accomplish a smooth debt maturity profile. The increase in time to maturity of the state domestic debt can be also achieved by, among other initiatives, increasing the number of primary dealers, their activity as market makers on the secondary domestic government bond market and improving the liquidity of the Ukrainian banks.

The implementation of such measures should be foreseeable for all market participants.

Liability management operations

Following the successful liability management operation in September 2017, the implementation of other similar transactions is considered, subject to market conditions. The amendments to the Budget Code of Ukraine introduced in September 2017 fully authorize the execution of the following liability management transactions:

- **A Tender Offer**, which is a public offer provided by an issuer to buy back all, or a part, of its outstanding debt obligations from investors for cash;
- **An Exchange Offer**, which is an offer provided by an issuer to exchange all, or a part, of its outstanding debt obligations for new debt obligations with different terms.

Such transactions also help (i) decrease refinancing costs depending on the evolution of spreads, as Ukraine may benefit from improved economic and credit fundamentals, and **(ii) expand maturity of state debt portfolio as a whole** by deferring near-term maturities, thereby reducing the refinancing risk.

Implementation of liability management operations with domestic government bonds in the future will also promote further development of the domestic government bond market, among others, by increasing its liquidity.

3.3 Target 3. Attract long-term concessional funding

Ukraine's ongoing macroeconomic recovery since 2014/15 accompanied by strong reform momentum, contributing to a more stable and secure economic environment, created **more favorable conditions for minimizing state debt service cost.** Reduction of the weighted average cost of the state debt over the medium term enables to improve both fiscal performance and state debt sustainability.

Ukraine benefits from a strong support from international financial institutions and aims **to further expand cooperation with such multilateral institutions and establish bilateral partnerships,** similar to those with Japan, Canada, Germany, and the USA. Much attention will be paid to raising funds from these institutions for the implementation of investment projects aimed at developing key sectors of the Ukrainian economy.

Deepening the cooperation with the IMF, the IBRD, and the EU within structural reforms' implementation in the areas most vulnerable within the Ukrainian economy is important both for attracting concessional funding, including from the IBRD and the EU, as well as for strengthening the confidence of foreign investors and a further decrease in the cost of commercial loans.

3.4 Target 4. Continue developing strong investor relationships and further improve the state debt management policy framework

Ensure strong support from international investors

In order to ensure a sustainable access to international capital markets, **it is necessary to continue developing systematic and long-term investor relationships**. One of Ukraine's tasks within this Strategy is to expand its investor base in terms of geography and type of investors. As such, the Strategy envisages Ukraine providing investors with regular updates with regard to key macroeconomic and fiscal data.

Ukraine's efforts to develop communication with investors are supported **by regular update and**

publication of the investor presentation on the MinFin website, publication of monthly outlooks on the essential developments and events in Ukraine, non-deal road shows, as well as by establishment of an official MinFin page on the Bloomberg terminal.

Reinforcing processes for Strategy implementation

The development and implementation of the Strategy is currently a part of the MinFin's responsibility. However, state debt management through an independent institution (agency, office) can contribute to more efficient implementation of the Strategy and reinforcing state debt management processes in general. Such institution should have the possibility to perform Dutch auctions, syndicate domestic government bond issues with different maturities, collaborate with investors and solidify relations with a network of primary dealers. Insight into possibilities and options to establish such an institution will be extended and carried on through the analysis of flagship experience and best practices of state debt management.

Interactions with credit rating agencies

During 2017, Ukraine's sovereign credit ratings were either raised or affirmed by credit rating agencies (Moody's upgrade from "Caa3" to "Caa2" in conjunction with change of the outlook from stable to positive; Standard & Poor's affirmed "B-" rating with the stable outlook; Fitch Ratings affirmed "B-" rating with the stable outlook). Ukraine will actively interact with rating agencies in the following years to further enhance its sovereign credit ratings with an ultimate goal to improve the investment attractiveness of Ukraine's sovereign debt instruments.

4. Debt sustainability analysis (DSA)

4.1 Key scenarios and macroeconomic targets

Macroeconomic and fiscal assumptions

The macroeconomic framework underpinning the Strategy corresponds to the forecasts of the Ministry of Economic Development and Trade (hereafter referred to as the MEDT) and the IMF as well as the MinFin's assumptions.

Macroeconomic framework

	2017	2018	2019	2020
Main macroeconomic assumptions				
Real GDP growth rate (%)	**2.5%**	**3.0%**	**3.0%**	**3.8%**
Nominal GDP (UAHbn)	**2,982.9**	**3,332.3**	**3,946.9**	**4,450.9**
Nominal GDP (USDbn)	112.1	113.7	140.0	149.9
GDP deflator (% change)	22.0%	11.8%	10.8%	8.6%
Fiscal assumptions				
State budget revenues (UAHbn)	793.4	917.9	1,008.4	1,090.6
State budget expenditures (UAHbn)	839.5	991.7	1,094.4	1,177.8
State budget deficit (% of GDP)	***1.61%***	***2.40%***	***2.28%***	***2.09%***
Prevatization proceeds (UAHbn)	3.4	21.3	17.1	0.5
Exchange rates				
Period average:				
USD/UAH	**26.6**	**29.3**	**28.2**	**29.7**
End of period:				
USD/UAH	**28.1**	**30.1**	**29.4**	**30.2**
XDR/UAH	40.0	45.2	44.1	45.3
EUR/UAH	33.5	36.1	36.8	37.8
CAD/UAH	22.3	24.1	23.5	24.2
JPY/UAH	0.2	0.3	0.3	0.3

Sources MEDT, MinFin, IMF

Based on Ukraine's target to increase the share of domestic debt instruments in the state debt structure, debt sustainability analysis incorporates a "roll-over ratio", used to forecast gross financing needs financed through the domestic market. Such approach illustrates Ukraine's desire to gradually enlarge the share of domestic debt in total state debt composition, thus extending the size of the domestic capital market.

In addition, the refinancing assumptions take into account the constant use of external concessional funding, including that from international financial institutions.

Focus on the IMF methodology for debt sustainability analysis

IMF Debt Sustainability Analysis (DSA) for countries with market access analyses a baseline trajectory of state debt stock and flows, and applies stress-tests to measure state debt sustainability.

According to the IMF, the level of debt can be considered sustainable when primary state budget balance required to stabilize debt under both the baseline and stressed scenarios is economically and politically feasible, such that the level of debt is consistent with an acceptably low refinancing risk and preserving potential growth at a satisfactory level. Conversely, if no realistic adjustment in the primary balance (i.e. one that is both economically and politically feasible) can bring debt below such a level, public debt would be considered unsustainable.

A series of common variables are monitored by the IMF to gauge debt sustainability, in particular, such as debt stock (expressed as % of GDP), debt repayments (as % of state budget revenues) and gross financing needs (as % of GDP), as well as a number of other indicators.

IMF risk indicators – Focus on last IMF assessment (April 2017)

As of end 2016	Low risk	Moderate risk	High risk
Debt profile indicators			
EMBI global spreads (basis points)	Below 200	Between 200 and 600	Above 600
External financing requirements (% GDP)	Below 5	Between 5 and 15	Above 15
Public debt in foreign currency (share of total)	Below 20	Between 20 and 60	Above 60
Change short-term public debt (% total debt)	Below 0.5	Between 0.5 and 1.0	Above 1.0
Public debt held by non-residents (share of total)	Below 15	Between 15 and 45	Above 45
	Indicative benchmarks	Noise-to-signal ratio	Direction to be safe
Debt burden benchmarks			
Debt-to-GDP ratio (% GDP)	Above 60	54	<
GFN-to-GDP ratio (% GDP)	Above 15	92	<

Ukraine vis-à-vis assessment benchmark

Source Staff Guidance Note for Public Debt Sustainability Analysis in Market-Access Countries, IMF Article IV (April 2017)

IMF's last DSA for Ukraine (published in April 2017) concluded that Ukraine's 2016 public debt was sustainable with high probability.

4.2 Current projections and conclusions based on the DSA analysis

Debt stock ratios

Under the baseline scenario, Ukraine's state debt level is considered sustainable. The Debt/GDP ratio is expected to progressively go down from 61.5% in 2017 to 49.0% as of the end of 2020. Such downward trend highlights Ukraine's ability to repay its debt over the long term.

Evolution of Ukraine state debt stock

	2017	2018	2019	2020
State domestic debt				
UAHbn equivalent	753.4	750.8	799.2	899.4
USDbn equivalent	26.8	24.9	27.2	29.8
% of GDP	25.3%	22.5%	20.2%	20.2%
State external debt				
UAHbn equivalent	1,080.3	1,248.5	1,260.9	1,281.5
USDbn equivalent	38.5	41.5	42.9	42.4
% of GDP	36.2%	37.5%	31.9%	28.8%
Total state debt				
UAHbn equivalent	1,833.7	1,999.3	2,060.1	2,180.9
USDbn equivalent	65.3	66.4	70.1	72.2
% of GDP	**61.5%**	**60.0%**	**52.2%**	**49.0%**

Source MinFin

State debt repayment and service indicators

Evolution of Ukraine's state debt repayment and service indicators	2018	2019	2020
State domestic debt repayments and service			
UAHbn equivalent	193.4	239.2	194.0
USDbn equivalent	6.4	8.1	6.4
% of GDP	5.8%	6.1%	4.4%
% of state budget revenues	21.1%	23.7%	17.8%
State external debt repayments and service			
UAHbn equivalent	112.6	178.2	193.4
USDbn equivalent	3.7	6.1	6.4
% of GDP	3.4%	4.5%	4.3%
% of state budget revenues	12.3%	17.7%	17.7%
Total state debt repayments and service			
UAHbn equivalent	**305.9**	**417.5**	**387.4**
USDbn equivalent	10.2	14.2	12.8
% of GDP	9.2%	10.6%	8.7%
% of state budget revenues	33.3%	41.4%	35.5%

Source MinFin

4.3 Impact of stressed scenarios

Overview of considered stressed scenarios

Five alternative stressed scenarios have been considered in order to assess Ukraine's state debt sustainability.
These stressed scenarios impact the debt ratios negatively affecting the amount of gross financing needs and/or the state debt stock and are all implemented starting from 2018.

Considered stressed scenarios

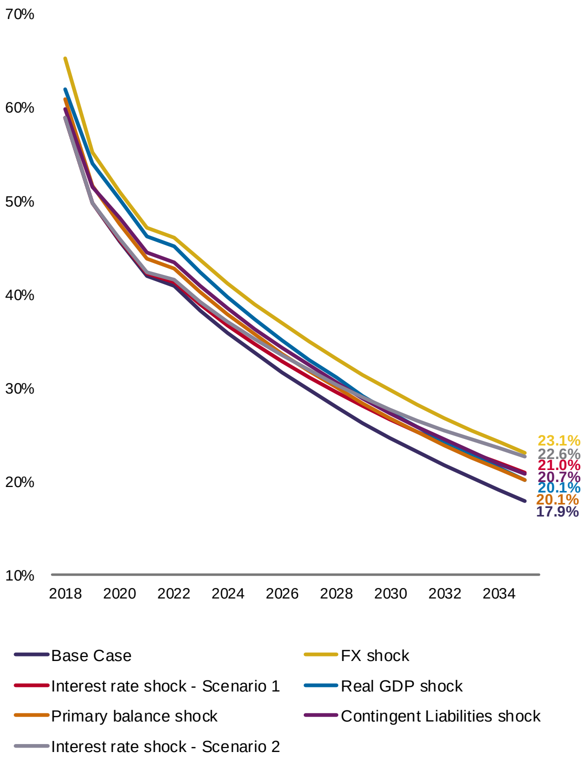
Scenarios	Rationale	Characteristics
FX stressed scenario	An FX stressed scenario affects state debt stock / flows by increasing the share of foreign currency denominated debt and the share of debt flows in foreign currency	• UAH depreciation by 20% in 2018 starting from the assumed UAH/USD FX rate of 30.1
Interest rate stressed scenario	Higher interest rates would increase the average cost of debt for Ukraine, thus increasing state budget expenditures related to state debt service	• Upward shift of the yield curves (both for domestic and external debt), would have an impact on refinancing instruments – Scenario 1: +100 bps for domestic/external debt – Scenario 2:+150 bps for domestic/external debt
Real GDP growth stressed scenario	Lower than expected real GDP growth rates would lower state budget revenues, thus, reducing available resources for state debt repayment and increasing the Debt-to-GDP ratio	• Reduction in real GDP growth rates over 3 consecutive years – 5 p. p. in year 1 (equivalent to the 5-year standard deviation of real GDP growth) – 3 p. p. in year 2 – 1 p. p. in year 3

Scenarios	Rationale	Characteristics
Primary balance stressed scenario	Deterioration in primary balance triggers additional gross financing needs leading to an increase in the debt stock / flows	• Reduction of primary balance by 2.0% of GDP in 2018
Contingent liabilities stressed scenario	Fiscal sustainability may be deteriorated by risks stemming from contingent liabilities. In case of Ukraine, this risk is related to the banking sector vulnerabilities as well as possible SOEs bailouts, etc.	• USD 1.1bn per year over 3 years in 2018-2020 • Shock corresponds to the materialization of 80% of contingent liabilities totaling c.UAH 94bn, which is in line with 2015 banking sector recapitalization

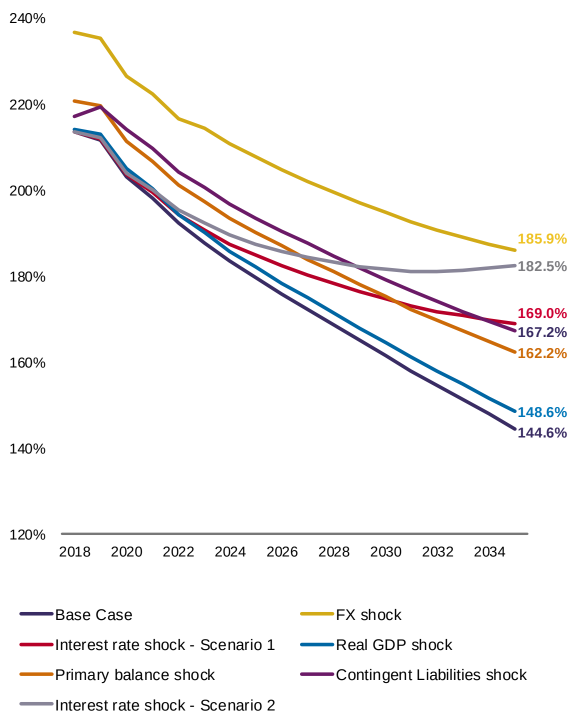
Debt sustainability analysis under the stressed scenarios

This section examines the state debt evolution depending on five alternative stressed scenarios.

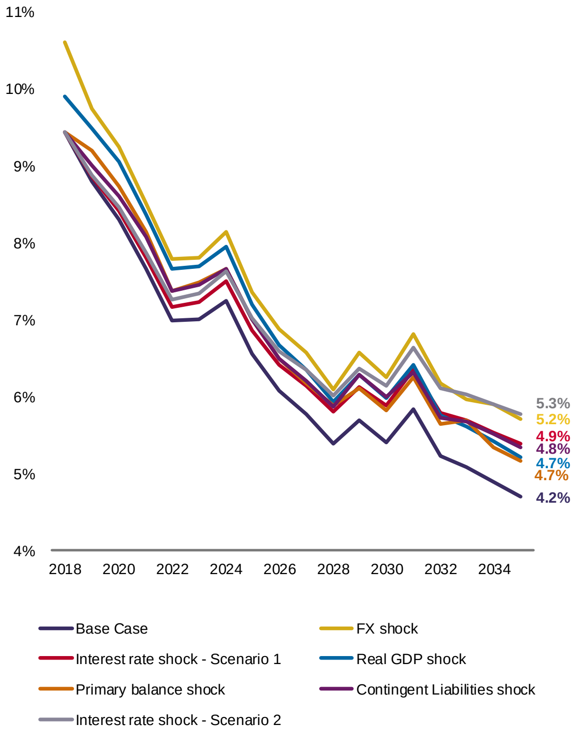
Debt stock (% of GDP) – Base case vs stressed scenarios



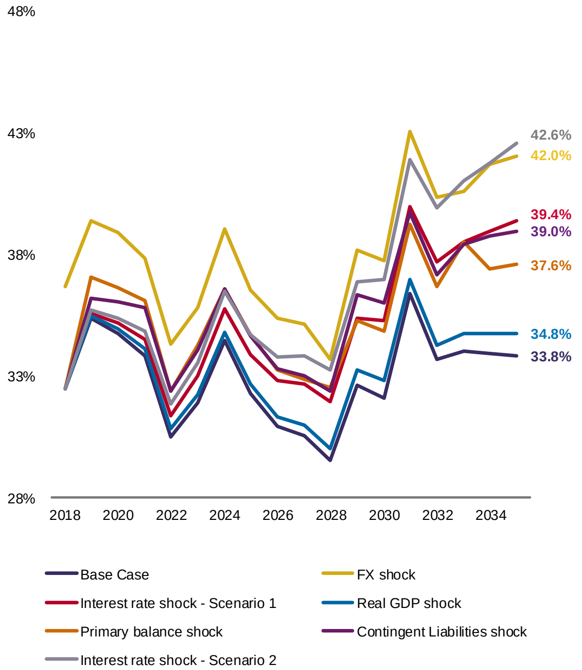
Debt stock (% of state budget revenues GDP) – Base case vs stressed scenarios



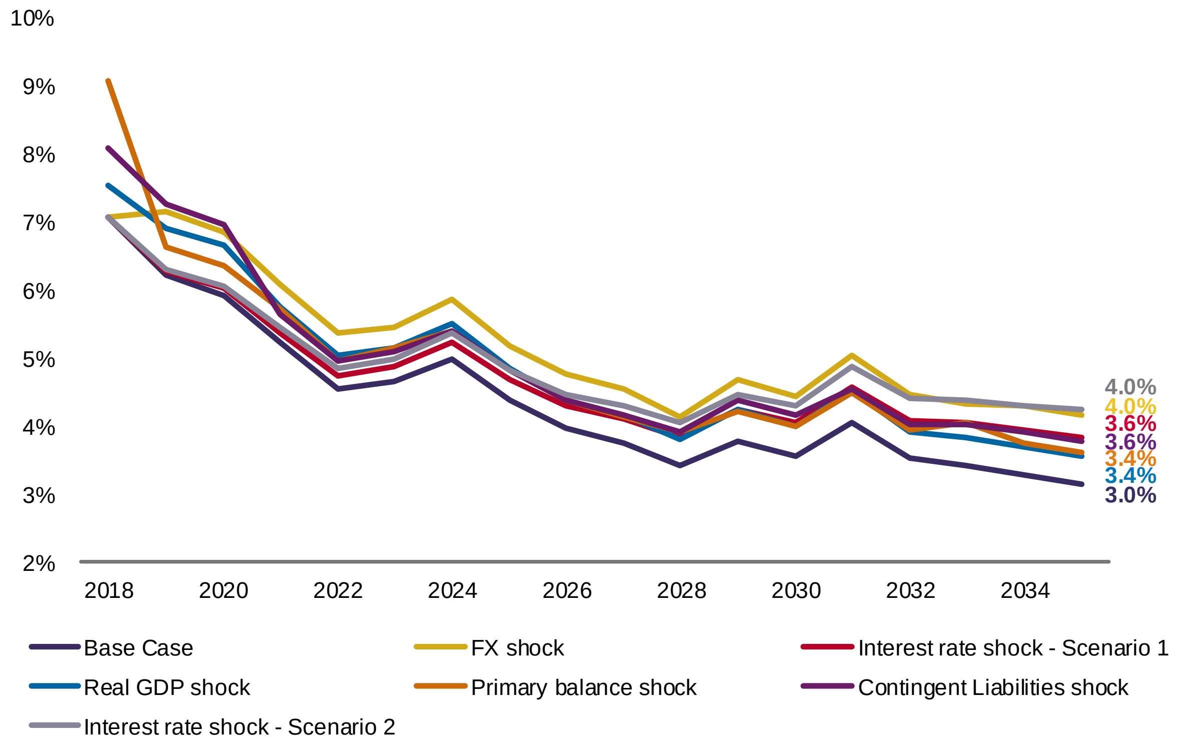
Debt repayment and service (% of GDP) – Base case vs stressed scenarios



Debt repayment and service (% of state budget revenues) – Base case vs stressed scenarios



Gross Financing Needs (% of GDP) – Base case vs stressed scenarios



State debt ratios over the long term received within the stress testing are based on the estimates of gross financing needs as well as state debt repayment and service taking into account specific assumptions.

5. Risk factors of Ukraine's state debt

Risks analysis of Ukraine's state debt is based on the results of the Debt Sustainability Analysis conferred in section 4.

5.1 Refinancing risk

State debt maturing in 2018–2020

When it comes to Ukraine's existing state debt portfolio, significant refinancing peaks are anticipated over the next 3 years. In particular, the highest peak is expected in 2019 (UAH 417bn of state expenditures in relation to repayment and service of state debt). The major part of these payments is composed of domestic debt repayment both in national and foreign currencies.

This risk can be mitigated owing to the development of the domestic government bond market. The institute of primary dealers has been established to ensure sufficient liquidity of the government securities. In 2017, the main primary dealers for Ukrainian domestic government bonds comprised (ranked by total amount purchased): Oschadbank, Ukreximbank, PrivatBank, OTP Bank, Ukrgazbank, Citi, Raiffeisen Bank Aval, Ukrsotbank, First Ukrainian International Bank, Ukrsibbank and Universal Bank.

Since refinancing risk in the upcoming years mostly stems from a significant amount of Eurobonds due over the respective period, the reduction of the risk is also possible due to the implementation of active liability management operations.

Average time to maturity of Ukraine's state debt

Weighted average time to maturity of Ukraine's state debt as of 31/12/2017

	years
State debt	**8.4**
State domestic debt	**10.8**
State external debt	**6.5**

Source MinFin

Ukraine's state debt structure has a balanced average time to maturity. In October 2017, Ukraine has successfully re-profiled its state domestic debt held by the NBU, thus extending the average time to maturity.

On the external side, recent 2032 Eurobond issuance enabled Ukraine to lengthen the average time to maturity of its state external debt. Moreover, the large share of concessional funding, which tends to have longer time to maturity, as well as continuous liability management operations will enable further extension of Ukraine's state external debt maturities in the medium term.

5.2 Liquidity risk

External liquidity indicators	2014	2015	2016	2017
International reserves, USDbn	**7.5**	**13.3**	**15.5**	**18.8**
UAHbn	75.3	288.6	374.5	527.9
State external debt service, USDbn	**1.3**	**1.2**	**1.3**	**1.5**
UAHbn	15.6	26.8	33.2	38.8
Exports, USDbn	**64.9**	**47.9**	**46.0**	**53.8**
UAHbn	771.1	1,045.9	1,176.0	1,430.2
Imports, USDbn	**69.6**	**50.3**	**52.5**	**62.4**
UAHbn	826.8	1,097.9	1,341.1	1,658.8
International reserves to external debt service	**4.8x**	**10.8x**	**11.3x**	**13.6x**
International reserves in months of imports	**1.1x**	**3.2x**	**3.4x**	**3.8x**
Exports to external debt service	**49.3x**	**39.1x**	**35.4x**	**36.8x**

Sources State Statistics Service of Ukraine, NBU

Following an economic downturn in 2014, Ukraine suffered from a sharp decrease in its international reserves. Owing to the financial support received from the international community as well as the NBU's decision to implement a floating exchange rate regime, the country was able to quickly restore its international reserves, from USD 7.5bn as of the end of 2014 to USD 15.5bn as of the end of 2016.

As of end-December 2017, Ukraine's international reserves amounted to USD 18.8bn (according to the NBU), representing 3.6 months of future imports, which indicates a considerable progress in rebuilding international reserves from 1.3 months of imports as of end-2014. IMF future disbursements in the context of the ongoing program and/or establishment of the new cooperation program with the IMF will help further strengthen Ukraine's international reserves position.

5.3 Exchange rate risk

UAH correlation with other currencies

The impact of UAH/USD exchange rate fluctuations on the state budget is accentuated by a high degree of correlation with other major currencies in which Ukraine's debt obligations are denominated, thus increasing exchange rate risk of Ukraine's state debt.

Historical correlation between UAH exchange rate and main currencies of Ukraine's state debt since January 2016

	UAH/USD	UAH/EUR	UAH/XDR	UAH/JPY	UAH/CAD
UAH/USD		*64%*	*92%*	*39%*	*74%*
UAH/EUR	*64%*		*52%*	*35%*	*85%*
UAH/XDR	*92%*	*52%*		*11%*	*23%*
UAH/JPY	*39%*	*35%*	*11%*		*47%*
UAH/CAD	*74%*	*85%*	*23%*	*47%*	

Source Bloomberg (31/12/2017)

Exchange rate dynamics forecast

The Forecast of Economic and Social Development of Ukraine anticipates a slowdown in depreciation of the Ukrainian hryvnia against the US Dollar in the coming years, in the context of monetary policy normalization. Such nominal exchange rate dynamics should expectedly lead the Real Effective Exchange Rate (REER) towards reaching its long-term equilibrium.

5.4 Interest rate risk

The average time to re-fix the interest rate for Ukraine's state debt portfolio accounts for 5.6 years. Such a relatively high figure indicates that a low share of the state debt will be exposed to interest rate risk in the near future. Moreover, the value is consistent between domestic and external debt, illustrating the balanced exposure of total Ukraine's state debt to the respective risk.

Interest rate risk indicators

	Domestic debt	External debt	Total state debt
Average time to refixing (years)	6.2	5.2	5.6
Debt refixing in 1 year (% of total)	31%	22%	26%
Fixed rate debt (% of total)	87%	81%	83%

Source MinFin (30/06/2018)
Note 1 Debt re-fixing in 1 year includes variable-rate debt and fixed-rate debt maturing in 2018

The proportion of Ukraine's state debt with interest rates to be re-fixed in 2018 constitutes 26%. In particular, the interest rates are expected to be re-fixed for 31% of state domestic debt and 22% of state external debt in 2018.

The country aspires to maintain the current interest rate structure, i.e. to keep a limited share of external debt to be re-fixed in the near-term, thus limiting the interest rate risk. With regard to the domestic market, such figure is in line with government's expectations on decreasing interest rates in the medium term as well as with the forecast of decreasing inflation till 2020.

5.5 Other risks

Macroeconomic risks and their implications for state debt management strategies

Following 2014 crisis, three main macroeconomic risks were identified that could create uncertainty for Ukraine's state debt management

- **Real GDP growth risk:** GDP growth rate can be lower than expected. This risk also encompasses the potential decline of real GDP comparable to the dynamics taking place in 2014-2015.
- **Inflation risk:** the NBU prudent monetary policy and shift towards inflation targeting framework, in particular, significantly reduced the pace of inflation in Ukraine. However, the risk of rising inflation should be considered among the potential scenarios.
- **Interest rate risk:** Ukraine's state debt is sensitive to a potential increase in interest rates in the Eurozone and the USA, which may increase the pressure on the state budget through foreign currency denominated debt service.

The abovementioned macroeconomic risks are beyond the control of the MinFin, thus not defining the analysis of Ukraine's state debt management. At the same time, they are considered in order to determine the sensitivity of the state debt to changes in the respective factors.

Contingent liabilities risk

Ukrainian banking sector is characterized by a relatively large proportion of banks with state participation, representing more than 50% of the sector's total assets. Four banks, partially or wholly owned by the state, constitute contingent liabilities that could materialize in case of banks' failure. PrivatBank, the largest commercial bank in Ukraine, was nationalized on December

19th, 2016 following a major capital shortfall, which led to the need of capital injections by issuing domestic government bonds. In addition, contingent liabilities risk also stems from the additional recapitalization of the Deposit Guarantee Fund which may take place in case of commercial banks' bankruptcy.

To contain systemic risks of the banking sector associated with bank failures, bank recapitalization procedure and rules governing the termination of banking activities were simplified with the adoption of the Law On Simplifying Capitalization and Reorganization Procedures for Banks. In particular, the new Ukrainian legislation allows Ukrainian banks to:

- terminate their banking activity without the dissolution of the legal entity if they fail to meet the recapitalization requirements set by the NBU;
- shorten the duration of the bank reorganization procedures from 1.5 years to three-four months;
- merge with other banks to meet the recapitalization requirements set by the NBU, which was not possible under the previous legislation.

Ukraine's state derivatives overview

In accordance with the Ukrainian legislation, state derivatives do not constitute a part of Ukraine's state debt. The IMF and credit rating agencies also do not include state derivatives into state debt, as these instruments do not currently generate any expenses with regards to Ukraine's state debt service.

Ukraine's state derivatives, issued in the context of 2015 debt restructuring, represent securities with contingent payments with a total nominal amount of USD 3.2bn and maturity in 2040. Such securities do not have a specific face value at the repayment date. Payments on these instruments depend on the growth rate of Ukraine's GDP from 2019 to 2038 with payments being possible annually in two calendar years, namely from 2021 to 2040.

Coupon payments are estimated as follows:

- <u>if GDP growth is <3% or Ukraine's real GDP is less than USD 125.4bn</u>: payment is not made;
- <u>if GDP growth ranges between 3% and 4%</u>: 15% of the real GDP growth from 3% to 4%;
- <u>if the GDP growth is > 4%</u>: 40% of the real GDP growth exceeding 4%, in addition to the amount for GDP growth from 3 to 4%;
- from 2021 to 2025 payments are limited at 1% of GDP.

The market value of state derivatives at the end of 2017 amounted to from 50 to 55 percent of the par value. According to the current nominal GDP projections, reaching the threshold for payments under these instruments is unlikely in the medium term.

6. Roadmap for 2018–2020

Based on the analysis of the risk structure and the benchmarking of Ukraine's state debt, the following options of funding sources and state debt management activities within this Strategy are considered as the most expedient.

6.1 Available funding options

Domestic financing sources

	Available instruments (incl. but not limited to)
Marketable securities	• UAH-denominated domestic government bonds • UAH-denominated inflation-linked domestic government bonds • USD/EUR-denominated domestic government bonds
Commercial loans	• Bank loans

External financing sources

	Available instruments (incl. but not limited to)
World Bank	• Development Policy Loans ("DPL") • Project-based loans • Policy Based Guarantees
EIB	• Project loans • Intermediated loans
European Union	• Macro-Financial Assistance (MFA)
Bilateral loans	• Bilateral financing from partner countries
Commercial / semi-concessional loans	• Public Development Banks/agencies loans • Commercial bank loans • Bridge-loans
Eurobonds	• Eurobonds denominated in USD / EUR / UAH (public and private placement)

6.2 Strategy for the medium term

Issuance of UAH-denominated Eurobonds for international investors

In order to optimize the state debt structure in terms of FX risk, **local currency denominated Eurobond placement on international capital markets is considered**. The issuance of such debt instruments can among others contribute to lengthening the average term to maturity of Ukraine's state debt, as well as to reducing the average state debt service cost.

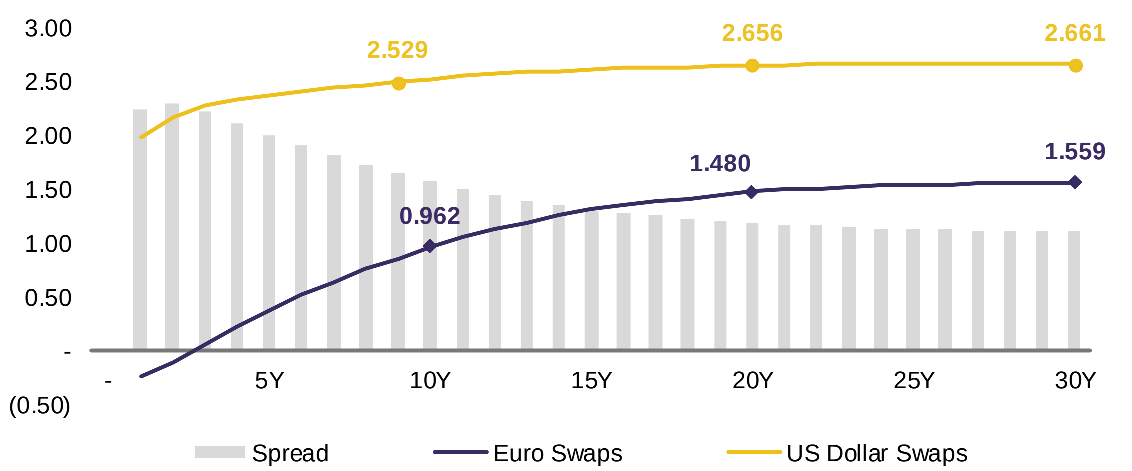
The issuance of new debt instruments denominated in UAH, will ensure an alternative source of financing and contain state debt's FX risk. The rationale for such placement will be determined based on the available demand and international market conditions.

EUR-denominated Eurobond issuance

One of the measures to minimize FX risk is the diversification of foreign currencies in Ukraine's state debt portfolio. Therefore, an opportunity to tap the international market with EUR-denominated Eurobond issuance is considered.

The EUR market conditions are currently more attractive compared to the USD market due to a lower interest rate environment. As shown at the graph below, US Dollar interest rate swap curve lies well above the Euro curve, which illustrates more favorable market conditions for the transactions in EUR. Ukraine aims to take benefit from such conditions to continue tightening its yield curve and, thus decreasing the weighted average cost of debt. The feasibility of such placement will be determined based on the level of FX risk and the conditions on the European market.

Current EUR vs. USD Swap curves



Source Bloomberg (31/12/2017)

In addition, such a transaction would provide an opportunity to widen the investor base for Ukraine's debt instruments and to diversify Ukraine's funding sources which, in turn, would increase the flexibility of state budget financing and state debt management. Bond issuances in the CEE region at the end of 2017 demonstrated investors' strong appetite for EUR-denominated EM bond issuances.

USD-denominated Eurobond issuance

The issuance of USD-denominated Eurobonds is considered and could be done either through: a tap of the existing outstanding Eurobonds or the issuance of a new debt instrument. Both options aim to capitalize on the successful September 2017 Eurobond issuance.

At the same time, the new issue should have a maturity which will enable Ukraine to smoothen its debt amortization profile.

Liability management operations

The possibility of a continuing series of liability management transactions launched in 2017 to smoothen Ukraine's debt maturity profile is under consideration.

The first option envisages the buyback of the specific Eurobond series through the announcement a tender/exchange offer to reduce the external debt refinancing peaks.

The second option implies a partial buyback/exchange of multiple Eurobond series in the form of the tender/exchange offer. For each of these series, the transaction can include a cap amount.

Concessional funding

As part of minimizing state debt service expenditures by attracting and expanding concessional funding, potential partners for Ukraine are:

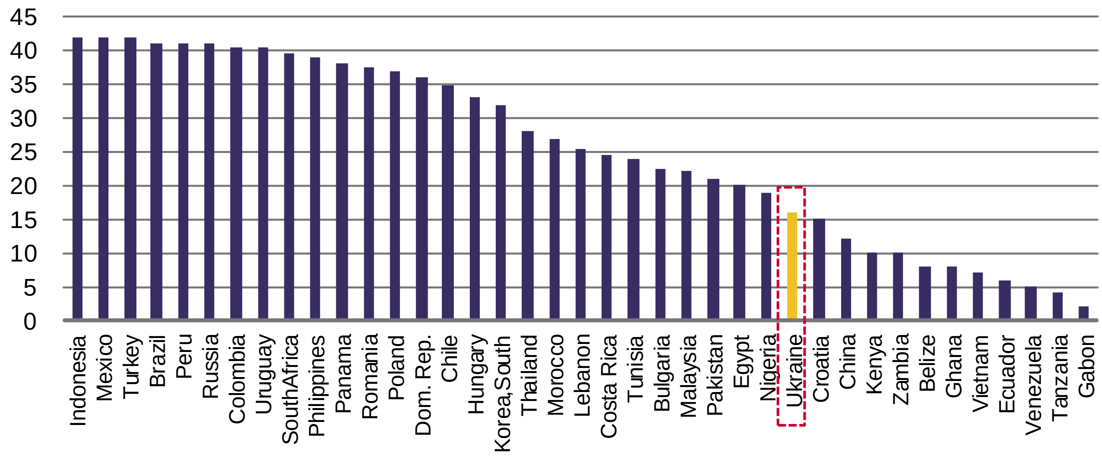
- **International financial institutions**
    - Development Policy Loans ("DPL"), granted by the World Bank to support social and economic reforms;
    - Policy-Based Guarantees ("PBG"), which consist in a partial guarantee issued by the World Bank for commercial loan;
    - Budget and project financing within the agreements signed with international financial institutions (IMF, EBRD, World Bank, EIB, etc.);
- **Bilateral loans from foreign countries**

6.3 Active interactions with investors and international rating agencies

According to the International Institute of Finance (IIF), Ukraine ranks 28th, out of 39 major emerging countries, in its "Investor Relations and Data Transparency" Index[2], which demonstrates potential room for improving Ukraine's ranking in the future.

[2] IIF, Nobember 2017

Investor relations and data transparency ranking



The main tasks for developing investor relations include achieving greater transparency and publicity, including by:

- regular publication of reports on changes in macroeconomic indicators and other important economic developments in Ukraine;
- regular updates of investor presentations incorporating actual detailed information on Ukraine's state and state-guaranteed debt structure.

The MinFin has recently started publishing on its website[3] investor presentations describing the current state of the Ukrainian economy and being updated on a quarterly basis, as well as the publication of the monthly outlooks on the most important developments in Ukraine. In addition, the MinFin launched its official page on the Bloomberg terminal in July 2018. The page contains information on sovereign financial instruments and informs foreign investors among others on the schedule and the results of domestic government bond auctions, domestic and foreign government securities issued by Ukraine, the list of primary dealers, etc.

In addition to communication with investors, one of the main tasks for the following years is active interactions with rating agencies regarding the improvement of Ukraine's sovereign credit ratings, in particular, the rating upgrade by Standard & Poor's to "BBB" level by 2021.

[3] http://www.minfin.gov.ua/en