Ministry
of Finance

Republic
of Poland

THE PUBLIC FINANCE SECTOR DEBT MANAGEMENT STRATEGY in the years 2020-2023

Ministry of Finance

Warsaw, December 2019 r.

12 Świętokrzyska St.
00-916 Warsaw
tel.: +48 22 694 50 00
fax :+48 22 694 50 08
www.gov.pl/finance

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I. INTRODUCTION

Pursuant to Article 75 of the Public Finance Act of 27 August 2009, the Minister of Finance is obliged to develop annually a 4-year strategy on managing the State Treasury (ST) debt and influencing the public finance sector debt. This document is presented by the Minister of Finance to the Council of Ministers for approval, and then it is submitted by the Council of Ministers to the Sejm, together with the justification to the draft Budget Act.

Public debt management is conducted at two levels:

- in a broader sense, debt management is a part of the fiscal policy and covers decisions on what portion of State expenditures is to be financed through debt, accordingly, what should be the level of public debt (this aspect is discussed in documents updated on an annual basis, dedicated to the government economic programme, especially in the justification to the draft Budget Act and the Convergence Programme Update);
- in a narrower sense, debt management means the way of financing the State borrowing requirements and designing the debt structure, in particular by selecting markets, instruments and dates of issuance.

The macroeconomic and fiscal assumptions adopted in the *Strategy* are compliant with the assumptions of the draft Budget Act for 2020.

Table 1. Public debt and debt servicing costs – summary of the Strategy forecasts

Item	2018 (execution)	2019	2020	2021	2022	2023
1. Public debt						
GDP %	46.5%	44.4%	43.8%	41.6%	40.3%	39.7%
2. The amount specified in the article 38a (3) of the Public Finance Act*						
GDP %	44.6%	43.5%	42.6%	40.3%	39.1%	38.6%
3. General government debt						
GDP %	48.9%	47.0%	46.5%	44.4%	43.2%	42.8%
4. State Treasury debt servicing costs**						
a) PLN bn	29.5	29.2	27.6	27.8 - 28.3	25.7 - 26.1	23.3 - 23.7
b) GDP %	1.39%	1.31%	1.16%	1.11% - 1.12%	0.97% - 0.98%	0.83% - 0.84%

**) The amount of public debt recalculated using the yearly average of foreign currency exchange rates for the year concerned and reduced by the value of State budget liquid funds raised to finance the borrowing requirements for the following budget year.*
***)Forecasts of the debt servicing costs for the years 2021-2023 account for the exchange rate risk provisions.*

Under the adopted assumptions, at the end of 2019 the public debt-to-GDP ratio will decrease to 44.4%, to fall subsequently to 43.8% at the end of 2020. In the timeframe of the *Strategy*, the downward trend will continue and the public debt-to-GDP ratio will reach the level of 39.7% by the end of 2023. The ratio of the amount specified in Article 38a(3) of the Public Finance Act to GDP will reach the level of 43.5% in 2019 and 42.6% in 2020, i.e. below the threshold of 43% included in the stabilising expenditure rule, to decrease to 38.6% in 2023.

The general government debt-to-GDP ratio (according to the EU definition) will decrease to 47.0% in 2019 and 46.5% in 2020, to reach the level of 42.8% in the timeframe of the *Strategy*.

In nominal terms, the limit of ST debt servicing costs assumed in the draft Budget Act for 2020 will be lower than the limit in 2019 (PLN 29.2bn in 2019 compared to PLN 27.6bn in 2020). In relation to GDP, debt servicing costs will decrease from 1.31% in 2019 to 1.16% in 2020. It was assumed that in the timeframe of the *Strategy*, the debt servicing cost-to-GDP ratio will decrease to the level of 0.83% - 0.84%.

This *Strategy* is a continuation of the strategy developed last year. The objective of minimisation of the long-term debt servicing costs subject to the adopted risk constraints remained unchanged. The

tasks aimed at implementation of the Strategy objective, associated with the development of the financial market, i.e. ensuring liquidity, efficiency and transparency of the Treasury Securities (TS) market, as well as the task related to effective management of the State Budget liquidity have been maintained.

The following has been assumed for the accomplishment of the *Strategy's* objective in the years 2020-2023:

- the flexible approach towards shaping the financing structure in terms of selecting the market, currency and instruments shall be maintained, to the extent that cost minimization is achieved, subject to the assumed risk level limitations and avoiding distortions of monetary policy;
- the domestic market shall remain the main source of financing the State budget borrowing requirements;
- the share of debt denominated in foreign currency in the ST debt will be reduced to the level below 25%;
- building large and liquid fixed rate issues, both in the domestic, as well as the euro market, shall be a priority of the issuance policy;
- the average maturity of domestic ST debt shall be maintained at a level of around 4.5 years;
- the average maturity of ST debt shall be maintained at a level close to 5 years.

The *Strategy* comprises four annexes, including the glossary of terms.

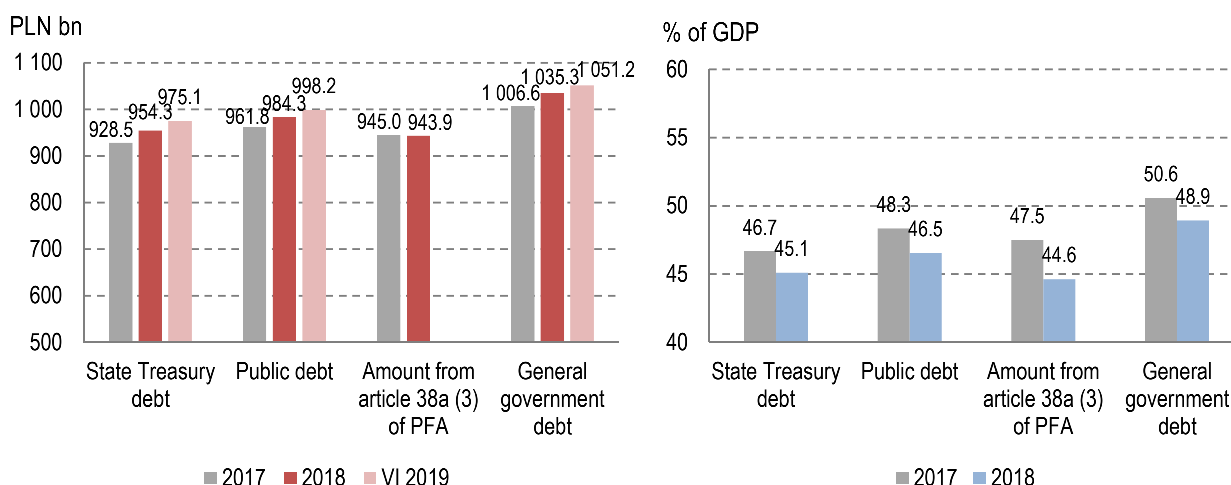
II. VOLUME OF PUBLIC DEBT AND COSTS OF ITS SERVICING

In 2018 the public debt (i.e. public debt according to the domestic definition) amounted to PLN 984.3bn, which meant an increase by PLN 22.5bn, following a decrease by PLN 3.4bn in 2017. The general government debt (EDP debt, i.e. public debt according to the EU definition) amounted to PLN 1,035.3bn and was higher by PLN 28.6bn as compared to the end of 2017.

In 2018 the public debt-to-GDP ratio decreased:

- the public debt-to-GDP ratio stood at 46.5% compared to 48.3% at the end of 2017 (a decline by 1.8 pp);
- the general government debt-to-GDP ratio amounted to 48.9% compared to 50.6% at the end of 2017 (a decline by 1.7 pp) and was much lower than the ratio for the European Union (80.4% of GDP) and the euro area (85.9% of GDP)[1];
- the ratio of the amount specified in Article 38a(3) of the Public Finance Act (public debt recalculated using average exchange rates, reduced by the value of funds for financing of borrowing requirements for the following budget year) at the end of 2018 reached a level of 44.6% of GDP, i.e. below the threshold of 48% defined in the stabilising expenditure rule, as compared to 47.5% of GDP at the end of 2017.

Chart 1. Volume of public debt

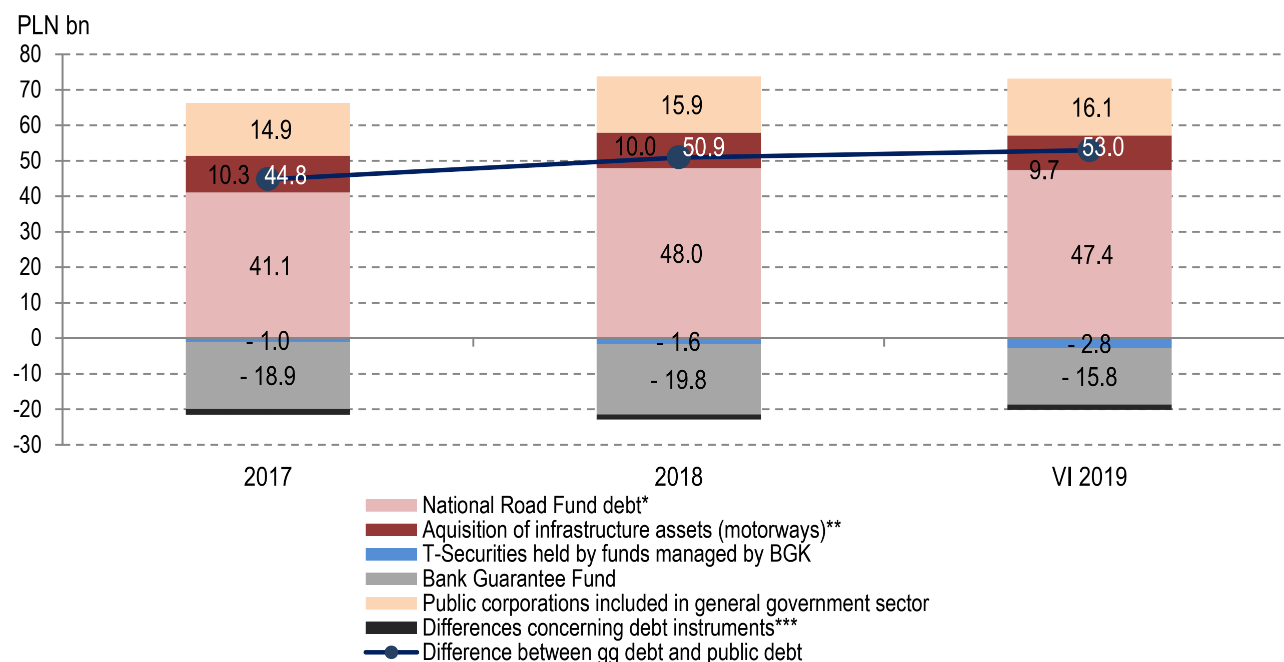


The differences between public debt and the general government debt arise from the following factors:

- different scope of public finance sector, i.a. recognising the National Road Fund – KFD in the general government sector (whose debt increases the debt of the sector) and the Bank Guarantee Fund - BFG (whose holdings of TS reduces the debt of the sector);
- differences related to liabilities (mainly matured payables) treated as public debt according to the national definition and not included therein in the EU definition

[1]) Deficit and the general government debt for EU Member States are presented in Annex 4.

Chart 2. Differences between general government debt (gg) and public debt



**) Debt consolidated within gg sector, i.e.: decreased by the nominal value of T-bonds held by Demographic Reserve Fund (FRD).*
***) In compliance with Eurostat guidelines on sector classification, general government debt figures include capital expenditures of certain infrastructure projects.*
****) Matured payables, debt assumption – activation of guarantee, CIRS transactions, restructured/refinanced trade credits, sale-lease-back operations.*

The detailed description of differences between the public debt according to the domestic and the EU definition is included in Annex 3.

Changes in the volume of public debt in 2018 and in the first half of 2019 resulted mainly from changes in the ST debt, constituting approx. 92% of the public debt and approx. 86% of the general government debt.

Increase in the State Treasury debt in 2018 (by PLN 25.8bn) resulted predominantly from factors other than borrowing requirements, mainly from exchange rate differences (an increase of debt by PLN 12.0bn due to depreciation of the Polish zloty) and an increase in the budget account balance to finance future borrowing requirements (an increase by PLN 8.2bn).

In 2018, the net borrowing requirements of the state budget amounted to only PLN 1.3bn. They consisted mainly of the state budget deficit (PLN 10.4bn) and the deficit of European funds budget (PLN 3.5bn) but also of items reducing borrowing requirements, including the balance of deposits of public finance sector entities and court deposits (PLN -12.7bn).

In the first half of 2019 the increase in debt (by PLN 20.8bn) was due to:

- negative borrowing requirements (PLN -13.4bn), which is mainly a result of the budget deficit in the amount of PLN 5.0bn and, items reducing the borrowing requirements: an increase in the balance of deposits from public finance sector entities (PFS) and court deposits as well as the negative balance of European funds management (PLN -17.6bn in total),
- an increase in the budget accounts balance accumulated for financing borrowing requirements (PLN +30.4 bn PLN).

As at the end of November 2019, the level of financing gross borrowing requirements for 2019 assumed in the 2019 Budget Act amounted to 88.8%, while taking into account the expected execution resulting from the draft Budget Act for 2020, the borrowing requirements have been fully financed.

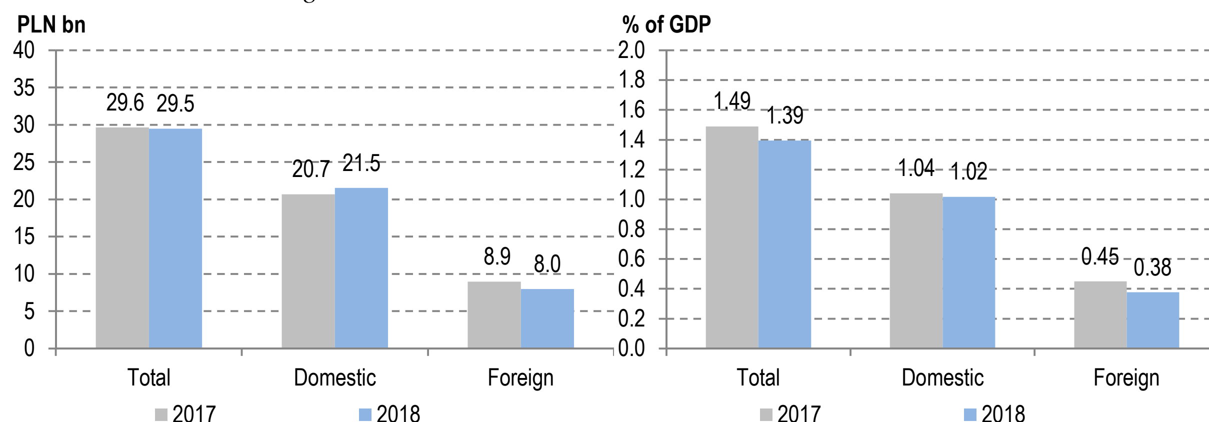
Table 2. Factors affecting change in ST debt in 2018 and the first half of 2019 (PLN bn)

Item	2018	I-VI 2019
Change in ST debt	**25.8**	**20.8**
1. State budget borrowing requirements:	**1.3**	**-13.4**
1.1. State budget deficit	10.4	5.0
1.2. EU funds budget deficit	3.5	0.0
1.3. Pension reform costs [1]	3.3	-
1.4. Balance of deposits from public finance sector entities and court deposits	-12.7	-9.8
1.5. European funds management	-2.4	-7.8
1.6. Granted loans balance	0.2	0.0
1.7. Other borrowing requirements [2]	-1.0	-0.7
2. Changes not resulting from State budget borrowing requirements:	**20.4**	**30.9**
2.1. FX rates movements	12.0	-2.6
2.2. Changes in budget accounts balance	8.2	30.4
2.3. Other factors [3]	0.2	3.2
- transfer of T-bonds to public universities and international research institutes [4]	0.0	3.0
3. Change in other State Treasury debt:	**4.1**	**3.3**
3.1. Deposits from public finance sector entities [5]	3.2	2.6
3.2. Other deposits [6]	1.6	0.7
3.3. Other ST debt	-0.7	0.0

1) Funds transferred to the Social Security Fund (FUS) as compensation for decreased contributions transferred to open pension funds (OFE); as of 2019, these funds have been recognised in the state budget expenditure.
2) Pre-financing balance of tasks co-financed with EU funds, shares in international financial institutions (IFIs) and other domestic and foreign settlements.
3) TS discount, TS indexation, sell-buy-back transactions, transfer of T-bonds under acts other than the Budget Act.
4) Pursuant to Article 310 of the Act of 3 July 2018 - Legislation implementing the Act - Law on Higher Education and Science.
5) Deposits accepted from PFS entities with legal personality and court deposits from PFS entities with legal personality - their value does not affect the level of public debt.
6) Deposits from general government sector entities outside the PFS, court deposits from entities outside the PFS and collateral deposits connected with CSA agreements.

In 2018, ST debt servicing costs in nominal terms decreased from PLN 29.6bn in 2017 to PLN 29.5bn. The debt servicing cost-to-GDP ratio also decreased - from 1.49% in 2017 to 1.39% in 2018. Debt servicing costs for foreign debt were lower than for domestic debt, which resulted mainly from a smaller share of foreign debt in ST debt.

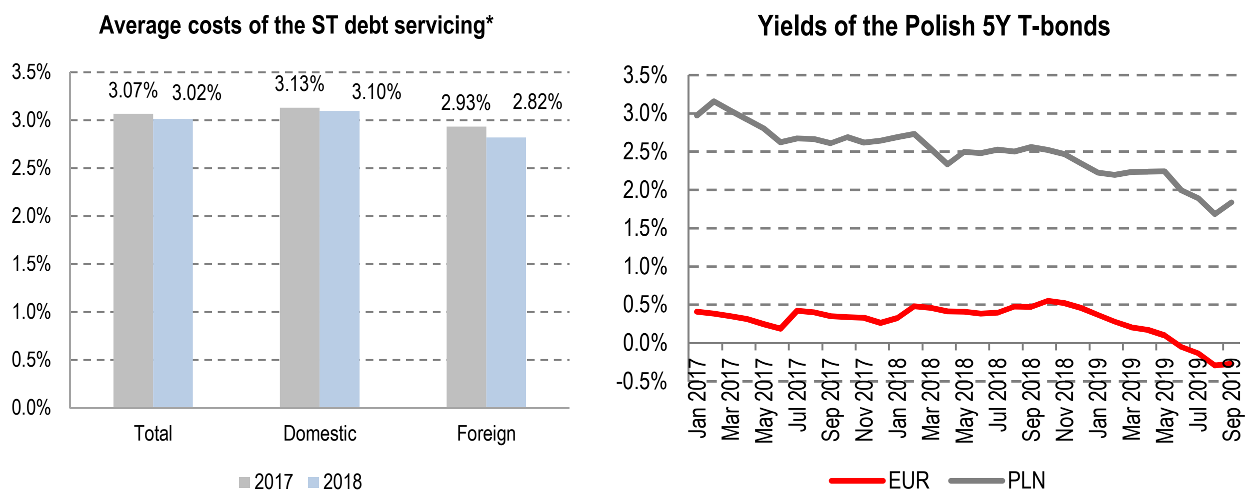
Chart 3. ST debt servicing costs



The average debt servicing costs in 2018 decreased to 3.02% from 3.07% in 2017, mainly as a result of reduction in both domestic and foreign debt servicing costs. The level is still higher than

the current cost of market financing, which results from servicing of debt incurred in the past at higher yields.

Chart 4. Market interest rates and average ST debt servicing costs

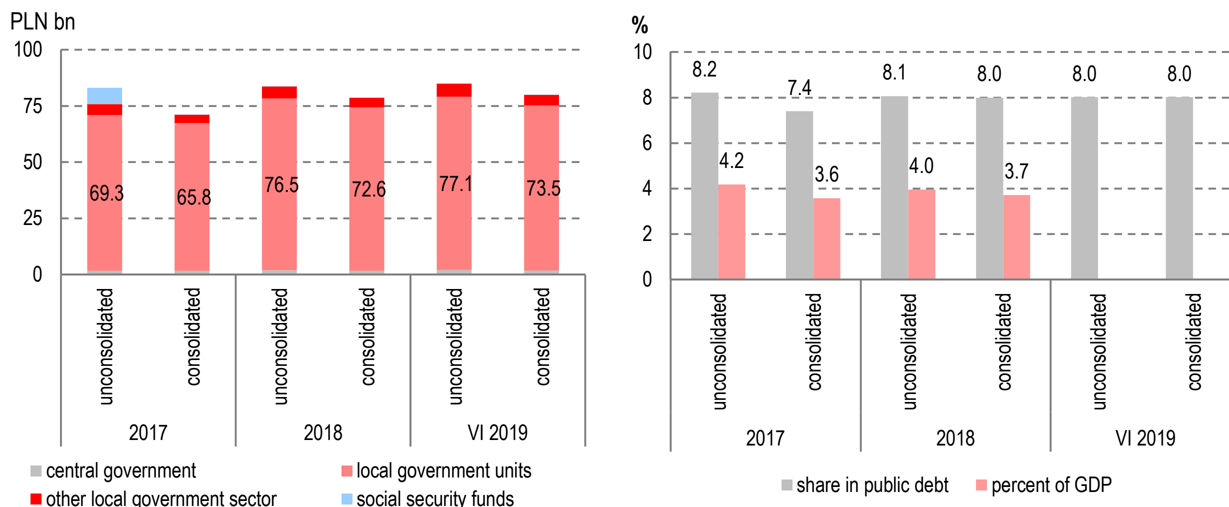


**) Average ST debt servicing costs were calculated as a ratio of the difference between debt servicing costs and revenues in a particular year to the average debt volume in this year.*

At the end of 2018, debt of entities other than ST accounted for 8.1% of public finance sector debt prior to consolidation (8.0% after consolidation), compared to 8.2% prior to consolidation (7.4% after the consolidation) at the end of 2017. At the end of the second quarter of 2019, both these values reached the level close to 8.0%.

The local government sector debt, in particular that of local government units (LGUs) and their associations, had the highest share in this part of the debt.

Chart 5. Volume and structure of debt of public finance sector entities other than the ST



After three years of decline in debt before consolidation and two years of decline in debt after consolidation, in 2018, an increase in the LGUs debt was recorded. Prior to the consolidation, the debt of this group of entities amounted to PLN 76.5bn, i.e. it increased by PLN 7.2bn compared to 2017 (after the consolidation, respectively, PLN 72.6bn and PLN 6.9bn). At the end of the first half of 2019, the debt of LGUs amounted to PLN 77.1bn before consolidation and PLN 73.5bn after consolidation.

III. EVALUATION OF IMPLEMENTATION OF THE STRATEGY OBJECTIVE IN 2018 AND IN THE FIRST HALF OF 2019

In 2018 and in the first half of 2019, debt management was conducted in accordance with *The Public Finance Sector Debt Management Strategy in the years 2018-2021*, adopted by the Council of Ministers in September 2017 and *The Public Finance Sector Debt Management Strategy in the years 2019-2022*, adopted by the Council of Ministers in September 2018.

Both documents defined the same debt management objective, i.e. long-term minimization of debt servicing costs, with the adopted constraints related to the levels of risk. Minimization of debt servicing costs was understood in terms of two aspects: selection of instruments and ensuring the effectiveness of the TS market.

III.1. Minimization of debt servicing costs - selection of instruments

In accordance with the assumptions of the *Strategy*, the domestic market remained the basic source of financing borrowing requirements. In 2018, TS with the face value of PLN 124.5bn were issued on the domestic market and they included only Treasury bonds. On the other hand, funds with the face value of PLN 9.1bn were raised on foreign markets, including PLN 4.9bn of loans from international financial institutions (IFIs) and PLN 4.2bn from the issue of bonds. In the first half of 2019, bonds with the face value of PLN 74.2bn were issued on the domestic market and PLN 9.3bn - on foreign markets (mainly from the issue of foreign bonds).

Table 3. Sale of TS on domestic and foreign markets and loans from IFIs by face value

Instruments	2017		2018		January - June 2019	
	PLN bn	%	PLN bn	%	PLN bn	%
Domestic TS	128.6	94.3	124.5	93.2	74.2	88.9
Foreign TS	7.7	5.7	4.2	3.1	8.6	10.3
IFIs loans	0.1	0.05	4.9	3.7	0.7	0.8

Among instruments issued on the domestic market, securities offered at auctions were predominant, although the share of saving bonds significantly increased (from 5.3% in 2017 to 10.2% in 2018 and 9.5% in the first half of 2019).

In the sale structure of TS offered on the primary market in 2018 and in the first half of 2019, medium- and long-term securities prevailed (with the maturity over 4 years). The share of these securities in sale increased from 81.6% in 2017 to 90.0% in the first half of 2019.

Table 4. Sale of marketable TS on the domestic market by maturity

Instruments	2017	2018	January - June 2019
T-bills	4.9%	0.0%	0.0%
T-bonds with maturity up to 4 years (incl.)	13.5%	15.3%	10.0%
T-bonds with maturity over 4 years up to 6 years (incl.)	43.4%	50.9%	53.2%
T-bonds with maturity over 6 years	38.2%	33.8%	36.8%

The dominant share in the sale structure of domestic TS at auctions accounted for securities with a fixed interest rate, with a noticeably increasing share of instruments with a floating interest rate (growth from 33.2% in 2017 to 34.4% in the first half of 2019) and a decreasing share of zero-coupon bonds (from 13.5% in 2017 to 10.0% in 2017, in the mid-2019).

Table 5. Sale of TS on the domestic market by the type of interest rate

Instruments	2017	2018	January - June 2019
Fixed rate bonds	48.4%	57.2%	55.6%
Zero-coupon bonds	13.5%	10.0%	10.0%
Floating rate bonds	33.2%	32.8%	34.4%
Inflation-linked bonds	0.0%	0.0%	0.0%
T-bills	4.9%	0.0%	0.0%

In the evaluated period, on foreign markets, three issues of euro denominated *Green Bonds* were conducted with the total value of EUR 3.0bn. In February 2018, for the second time in history, Poland issued euro denominated *Green Bonds,* with the maturity of 8.5 years, and in March 2019 - bonds of this type with longer maturities (10 and 30 years). Strong demand allowed to achieve high issuance values, especially for 10-year securities. Proceeds from the issuance of these bonds have been allocated for financing of environmental projects.

Table 6. Issuance of bonds on foreign markets in 2018 and in the first half of 2019

Period	Maturity (years)	Currency	Face value (in millions)	Yield
2018	8	EUR	1 000	1.153%
January - June 2019	10	EUR	1 500	1.057%
	30	EUR	500	2.071%

In total, in 2018 and in the first half of 2019, loans from IFIs with the value of EUR 1.33bn were drawn, including EUR 1.28bn from the EIB.

Main factors which affected the process and financing structure of borrowing requirements in 2018 and in the first half of 2019 included:

1) external factors, in particular:

- the monetary policy carried out by the main central banks in the world, including:
  - **USA**: continuation of the process of monetary policy normalization in 2018 - four increases of interest rates, each by 25 bp, as a result the interest rate of federal funds ranged between 2.25 and 2.50%, accompanied by systematic reduction of the Fed's total balance sheet; withdrawal from interest rate increases in 2019 (at the January meeting) in connection with the US economy outlook deterioration of; followed by a reduction of interest rates in the second half of the year (3 decreases by 25 bp each till November), as a result, the federal funds' rate ranged between 1.50% and 1.75%;
  - **euro area**: maintaining interest rates at a low level (key interest rate at a level of 0.00%, deposit rate at a level of -0.40%), continuation of the asset purchase programme in monthly amount of EUR 30bn, reducing its to EUR 15bn from October and its termination in December 2018; easing of the ECB's stance in 2019: declaring the extension of stable interest rate period until the end of 2019 and subsequently until mid-2020; reducing the deposit interest rate by 10 bp to -0,50% in September 2019 and announcing the third tranche of long-term loans to banks (TLTRO - targeted longer-term refinancing operations) from September 2019 (until the end of March 2021); and the announcement of re-launch of the net asset purchase program from November 2019;
  - **China**: increasing the key interest rate by 5 bp to 2.55% (in March 2018), two decreases in the minimum reserves by 100 bp each in 2018 (in April and October), another reduction of the reserve rate in 2019 (by 100 bp in January and by 50 bp in September); two decreases in the annual loan rate by a total of 10 bp to 4.15% (on September and November 2019), reduction of the 5-year loan rate by 5 bp to 4.80% (in November 2019) and reverse repo rate by 5 bp to 2.50% (in November 2019, for the first time since 2015);
  - **Japan**: continuation of an accommodative monetary policy: the asset purchase programme at a level of JPY 80bn per annum, the key rate at a level of -0.1%, the yield curve control programme (a possibility to buy back government bonds in order to maintain the yield of the 10-year tenor at a level close to 0.0%);
- worldwide geopolitical situation affecting the level of risk appetite in global financial markets, including, among others:

- growth in protectionism in the US trade policy and response of other countries to this policy, the escalation of related activities led to deterioration in market sentiment and raised concerns of the impact of trade wars on the global economy; this factor periodically influenced appreciation of the euro against the dollar and resulted in an increase of risk aversion and depreciation of Central and Eastern Europe currencies, including Polish zloty;
- uncertainty due to the Brexit conditions and concerns about no agreement scenario, the deadline for Brexit was set at 31 October 2019 and then delayed until January 31, 2020;
- dispute between the EU and Italy concerning Italy's budget deficit for 2019;

2) local factors, in particular:

- monetary policy of Monetary Policy Council (RPP), the developments in the financial market and in the domestic economy, including:
  - the policy of stable interest rates (including repo rates at a level of 1.5%), pursuing the *wait-and-see* policy and statements of the President of the NBP concerning probable maintaining of unchanged interest rates by the end of 2019 or even until RPP's end of the mandate (2022);
  - high GDP growth rate in 2018 and in the first and second quarter of 2019, with slowing down in the third quarter and with inflation remaining within the target (2.5%+/-1 percentage point); according to the latest forecasts, the RPP expects a gradual deceleration of the economy and inflation remaining close to the target in a medium term;
  - upgrading of the rating outlook to positive from stable by S&P agency (in April 2018) followed by upgrading of the rating from "BBB+" to "A-" with a stable outlook (in October 2018), with the ratings of the other agencies unchanged;
  - outflow of foreign capital from the domestic TS market (by PLN 11.3bn in 2018 and PLN 32.3bn in the first 10 months of 2019), which is to a large extent a result of the normalization of the monetary policy by the Fed and changes in the investment policy of some large holders of domestic TS;
  - depreciation of the Polish zloty against the euro and the dollar with an increase in the volatility of both currencies in 2018 (the volatility in the EUR/PLN exchange rate amounted to 4.7% compared to 4.6% in 2017, the market exchange rate at the end of 2018 increased to 4.2886 from 4.1755 at the end of 2017; in the case of USD/PLN exchange rate, the volatility reached 9.8% against 9.0% in 2017, whereas the exchange rate at the end of 2018 amounted to 3.7397 compared to 3.4809 at the end of 2017), followed by insignificant depreciation of the zloty against the euro and noticeable depreciation against the dollar during the first 11 months of 2019, with a lower volatility (EUR/PLN exchange rate: volatility of 3.2%, the exchange rate at the end of November amounted to 4.31; USD/PLN exchange rate: volatility of 6.2%, the exchange rate at the end of November amounted to 3.91);
  - high volatility on the domestic Treasury bond market in 2018 and during the first 11 months of 2019, with a lower level of interest rates (average yields of 2-, 5- and 10-year bonds in 2018 amounted to 1.6% (1.9% in 2017), 2.5% (2.8%) and 3.2% (3.4%), respectively, and in the first 11 months of 2019 they reached, respectively: 1.6%, 2.0% and 2.4%.
- much better execution of the state budget in 2018 than assumed, resulting in a significant reduction of the budget deficit (to PLN 10.4bn compared to PLN 41.4bn assumed in the Budget Act) and the borrowing requirements as well as the reduction of the debt issuance.

III.2. Minimization of debt servicing costs – ensuring the effectiveness of the TS market

The most important measures aimed at minimization of debt servicing costs in terms of ensuring the effectiveness of the Treasury securities market include:

- issuance policy assuming building of liquid benchmark T-bonds. In mid-2019, the value of 15 issues exceeded PLN 25bn whereas at the end of 2018 there were 13 such issues (11 issues at the end of 2017). Issues exceeding PLN 25bn constituted 69.5% of the face value of medium- and long-term bonds with fixed interest rate, against 71.5% at the end of 2018 (60.9% at the end of 2017). High value of issue significantly supports the level of liquidity in the secondary market;
- issues of bonds with the value that ensures liquidity of a given series on the euro market (two *Green bonds* issues with a value of at least EUR 1bn);
- adjusting the level of the TS supply to the current market situation and conducting a transparent information policy;
- expansion of the savings bond offer with premium bonds: a pilot issue of 10-month premium bonds in June 2018 and again in June 2019. These are fixed-rate bonds with a premium that can be won by drawing lots. Premium bonds were issued as a part of measures encouraging savings growth and building saving culture, in accordance with the Strategy for Responsible Development;

- the *sell-buy-back* (SBB) type transactions between TS primary dealers (PD) and PD candidates and BGK under special terms (the mechanism was introduced in February 2014 in order to support the clearing under the circumstances of temporary and significantly limited availability of bonds of a given series in the secondary market). In 2018 and in the first half of 2019, transactions with the face value of PLN 18.2bn were concluded, which constituted 0.2% of all SBB transactions in the TS market;
- replacement of complementary auctions for TS with additional sales (from January 2019 for T-bonds and from June 2019 for T-bills). In the new distribution method, the participants who purchased TS at the auction have a possibility to purchase additional TS on the same day at the price determined at the auction. They can purchase any TS from the auction offer, and the maximum purchase value is determined by the product of the face value of the bonds purchased in the auction and the percentage multiplier corresponding to the position of a given TS dealer in the current PD ranking. The purpose of introducing additional sales was to:
  - increase TS sale,
  - enable additional TS purchase to investors,
  - increase operational flexibility - extended time for making a decision on the purchase of TS compared to the supplementary auction,
  - creating a mechanism enabling linking of the position in the PD ranking with the volume of additional sales, which should have a positive impact on the level of competition among PDs;
- introduction, from January 2019, of a global single price model in switching auctions (all sold securities of a given maturity are purchased by investors at the same price, regardless of the bond to be bought back).

III.3. Constraints on the level of risk

Table 7. Assessment of implementation of the Strategy objective constraints related to the level of risk

<table>
<tr><th colspan="7">Constraints of the Strategy objective</th></tr>
<tr><th rowspan="2">Constraint</th><th rowspan="2">Level of implementation*</th><th rowspan="2">Implementation method</th><th rowspan="2">Measure</th><th colspan="3">Value</th></tr>
<tr><th>2017</th><th>2018</th><th>June 2019</th></tr>
<tr><td rowspan="2">Refinancing risk</td><td rowspan="2">High</td><td rowspan="2">• High share in sales of medium and long-term bonds in 2018 and in the first half of 2019 (respectively, 84.7% and 90.0% of all TS sold at outright and switching auctions);
• Significant role of switching auctions:
- 41.9% of the initial debt in bonds maturing in the period from January 2018 to June 2019 was bought back;
- in 2018 and in the first half of 2019, bonds with the total face value of PLN 88.2bn were bought back;
• Maintaining the average maturity of domestic debt at the level assumed in the Strategy, i.e. close to 4.5 years;
• Maintaining the average maturity of ST debt at a level assumed in the Strategy, i.e. close to 5 years;
• Lack of Treasury bill issues.</td><td>ATM
(in years)

- domestic
- foreign
- total</td><td>

4.49
6.46
5.12</td><td>

4.49
6.08
4.98</td><td>

4.52
6.14
5.00</td></tr>
<tr><td>Share in domestic TS:

- TS up to 1Y
- T-bills</td><td>

10.7%
0.0%</td><td>

9.6%
0.0%</td><td>

9.4%
0.0%</td></tr>
<tr><td rowspan="2">Foreign exchange risk</td><td rowspan="2">High</td><td rowspan="2">• Decreasing the share of foreign debt, in accordance with the Strategy assumptions, i.e. below 30%;
• Maintaining the effective share of euro denominated debt in foreign debt (including derivative transactions) above the minimum level assumed in the Strategy (70%).</td><td>Share of foreign debt in ST debt</td><td>30.6%</td><td>29.3%</td><td>28.1%</td></tr>
<tr><td>Share of euro denominated debt in foreign debt</td><td>78.3%</td><td>78.5%</td><td>79.4%</td></tr>
<tr><td rowspan="2">Interest rate risk</td><td rowspan="2">High</td><td rowspan="2">• Maintaining ATR of domestic debt in the range of 2.8-3.8 year, set in the Strategy;
• Maintaining interest rate risk for foreign debt at a safe level, not posing a constraint to cost minimization.</td><td>ATR (in years)

- domestic
- foreign
- total</td><td>

3.33
4.92
3.84</td><td>

3.27
4.65
3.69</td><td>

3.25
4.74
3.69</td></tr>
<tr><td>Duration (in years)
- domestic
- foreign
- total</td><td>
3.04
4.49
3.54</td><td>
3.03
4.32
3.45</td><td>
3.14
4.54
3.58</td></tr>
</table>

Constraints of the *Strategy* objective		
Constraint	Level of implementation*	Implementation method
Liquidity risk	High	The main instruments used in liquidity risk management included: • interest-bearing PLN-denominated deposits at the NBP- deposits of the total value of PLN 108.9bn were made in 2018, while those made in the first half of 2019 amounted to PLN 52.3bn; • PLN denominated deposits through BGK (as an intermediary) - in 2018 transactions with the total value of PLN 2,149.9bn were concluded, whereas those concluded in the first half of 2019 amounted to PLN 976.1bn; • PLN denominated *buy-sell-back* (BSB) deposits hedged by Treasury securities - in 2018 transactions with the total value of PLN 5.4bn were concluded, whereas those concluded in the first half of 2019 amounted to PLN 33.1bn; • FX deposits – in 2018 deposits for the amount of EUR 6.6bn were placed and in the first half of 2019 - for the amount of EUR 3.6bn; • sale of FX assets in the NBP and on the market; in 2018, foreign currencies equivalent of EUR 7.7bn were sold in the NBP and an equivalent of EUR 1.1bn - on the market; in the first half of 2019, EUR 5.0bn were exchanged in the NBP and sale on the market was not carried out; • deposits of liquid funds of public finance sector entities on the account of the Minister of Finance in BGK as part of liquidity management consolidation - at the end of 2018, the accumulated funds amounted to PLN 54.9bn and at the end of June 2019 - to PLN 64.7bn. The level of State budget liquid assets in 2018 and in the first half of 2019 provided for smooth execution of budgetary flows.
Credit risk	High	• PLN denominated BSB deposits hedged by Treasury securities did not generate credit risk; • For unsecured deposits in BGK, a system of credit limits is in place; • Credit risk connected with derivatives is limited by selection of counterparties with high credit rating; • A system of collateralization derivative transactions through blocking TS or mutual collateral in the form of cash deposit is in place. Collateralized transactions do not generate credit risk; • The credit risk from uncollateralized transactions is diversified through limits imposed on the total value of transactions made with individual partners. Creditworthiness of potential partners is monitored on an on-going basis.
Operational risk	Satisfactory	• Adequate technical infrastructure for concluding market transactions, security of data and information for debt management and the integrated database of the ST debt support maintaining the operational risk at a safe level; • Situation on the labor market is a source of risk for acquiring and maintaining qualified staff.
Distribution of debt servicing costs over time	High	• Coupons of new issues were set at a level slightly below their forecasted yields. Yields of both domestic and foreign bonds at levels allowing for the issue of debt with coupons lower than those for maturing instruments had a positive impact on the level of debt servicing costs. The level of debt servicing costs was affected by swap transactions concluded in 2018 and in the first half of 2019 aiming at distribution of those expenditures over time by using current savings. As a result of transactions concluded in 2018, debt servicing costs increased by PLN 3.9bn in 2018 whereas in 2019 costs decreased by PLN 4.0bn. As a result of transactions concluded in the first half of 2019, costs increased by PLN 0.90bn in 2019 and will be lower by PLN 0.92in 2020. Moreover, in 2018 were also concluded transactions aimed at spreading debt servicing costs over the year.

**) In accordance with the scale: high, satisfactory, moderate and low.*

IV. ASSUMPTIONS OF THE STRATEGY

The following subchapters present the main macroeconomic assumptions of the *Strategy* and the market conditions that affect debt management. The issues discussed include the role of both domestic and foreign investors in the domestic TS market as well as the potential developments in the major international markets.

IV.1. Macroeconomic assumptions of the *Strategy*

The assessment of the macroeconomic situation and directions of the fiscal policy was presented in the justification to the draft Budget Act for 2020. Table 8 contains the key macroeconomic assumptions of the Strategy, compliant with the assumption of the draft Budget Act.

Table 8. Macroeconomic assumptions adopted in the Strategy

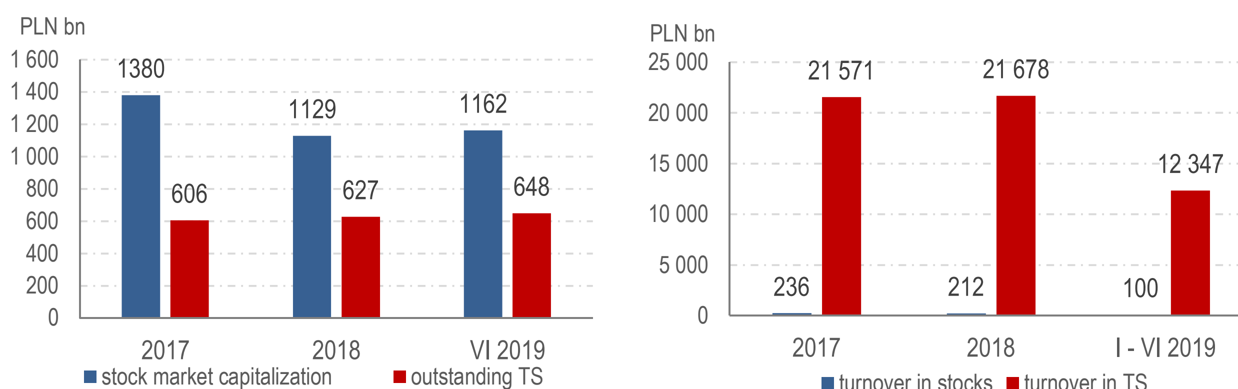
Item	2018	2019	2020	2021	2022	2023
Real GDP growth (%)	5.1	4.0	3.7	3.4	3.3	3.1
GDP at current prices (PLN bn)	2,115.7	2,236.5	2,373.3	2,514.8	2,662.0	2,809.6
Average CPI (%)	1.6	1.8	2.5	2.5	2.5	2.5
USD/PLN - end of period	3.7597	3.80	3.80	3.80	3.80	3.80
EUR/PLN - end of period	4.3000	4.2955	4.2955	4.2955	4.2955	4.2955

IV.2. Domestic TS market

The level of development of the domestic financial market, including the domestic investor base, as well as the involvement of foreign investors in this market are significant determinants of debt management. Under the conditions of free capital flow, a well-developed and deep domestic market allows for absorption of external shocks and outflows of foreign capital.

In terms of value of traded securities, the value of the domestic TS market at the end of June 2019 corresponded to 56% of stock market capitalization. However, this market demonstrates a definitely higher liquidity - turnover in T-bonds exceeded trade in the stock market by over hundred-fold.

Chart 6. Comparison between Treasury bonds and stock market



Investors in the domestic TS market can be divided into three main groups: domestic banking sector, domestic non-banking sector and foreign investors. From the end of 2017 to the first half of 2019, the following changes in the holders' structure of domestic TS debt were observed:

- an increase in domestic banks' holdings (by PLN 60.6bn in total) and maintaining their prevailing share in the debt holders' structure (45.4% at the end of June 2019);
- an increase in the holdings of domestic non-bank investors by PLN 17.7bn in total;
- reduction of foreign investors' holdings in domestic TS by the total of PLN 29.0bn. Their share declined by 6.7 pp to 25.9%.

Chart 7. Structure of domestic TS portfolios held by main groups of investors

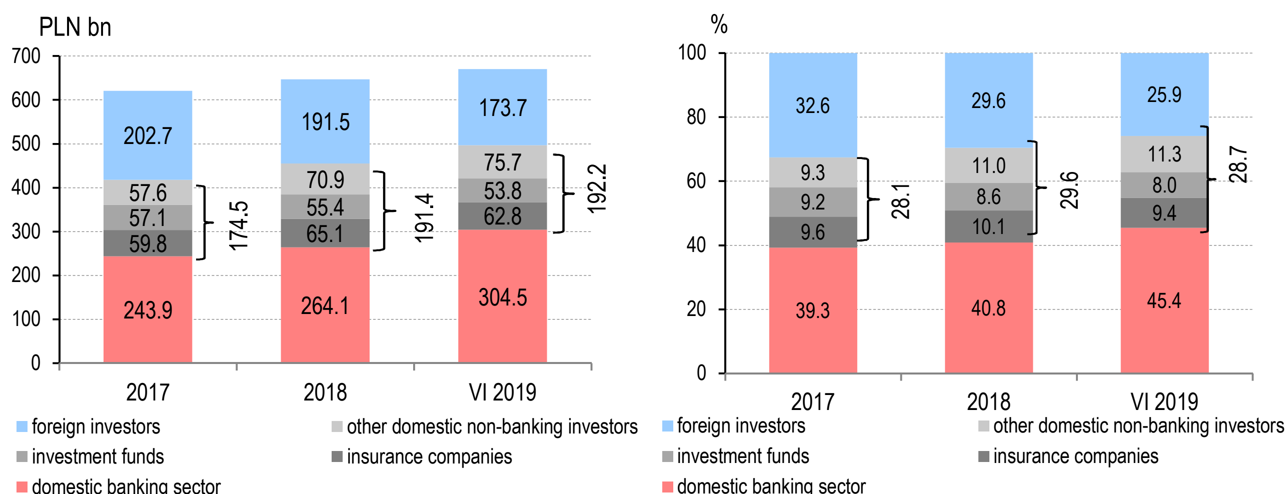
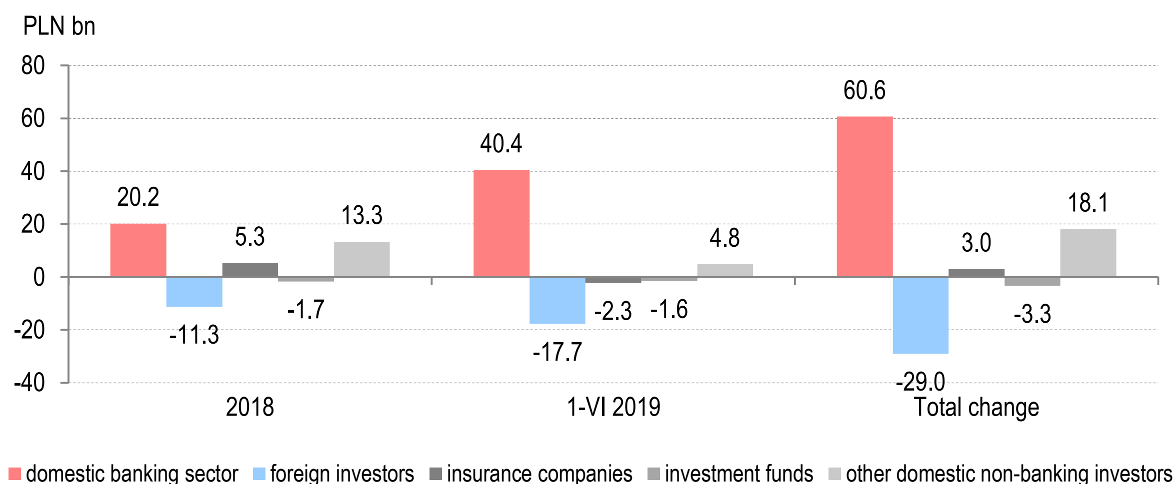


*Chart 8. Changes in domestic TS portfolios held by main groups of investors**



**) At face value*

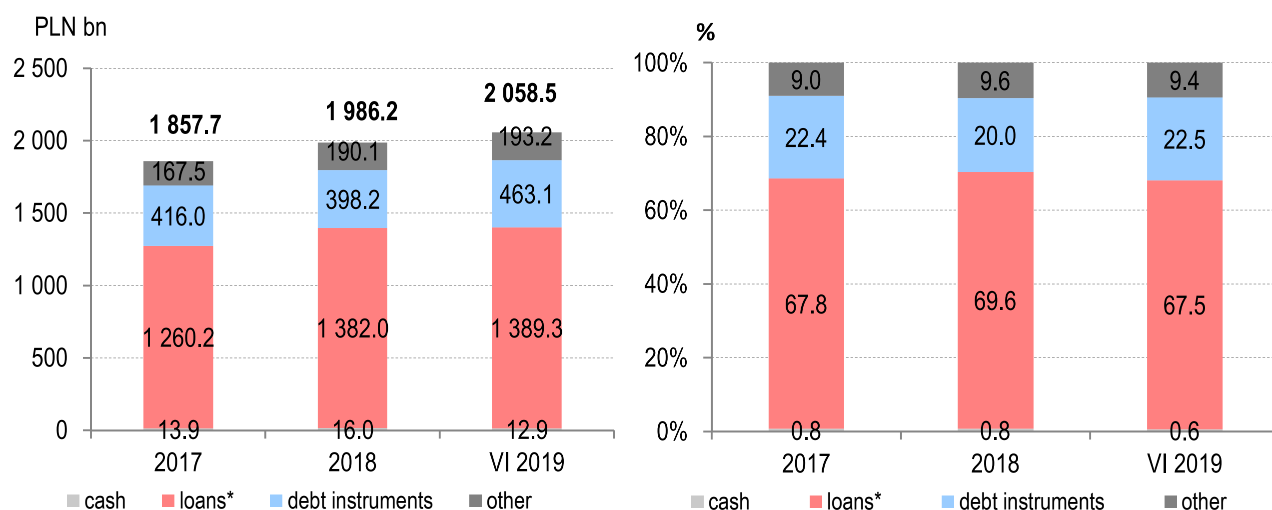
At the end of June 2019 domestic investors held 74.1% of domestic TS debt, which means an increase by 6.7 pp compared to the end of 2017. Institutional investors prevail among domestic investors, however, over the recent years, the value of TS portfolio held by households showed high dynamics. Since the end of 2017, their holdings have increased by 40.9% to the level of PLN 22.5bn, which resulted mainly from growing interest in the offer of saving bonds.

IV.2.1. Domestic banks

At the end of June 2019, assets of domestic banks reached almost PLN 2.1tn (an increase by 10.8% compared to the end of 2017), with the dominant share of credits and other receivables from domestic entities (ca. 67.5%). Debt instruments were the second largest component of the assets; their share amounted to 22.5% at the end of June 2019. Treasury securities (75.2%) and NBP money bills (19.5%) had the prevailing share in the structure of debt instruments. The banking tax, effective since 1 February 2016, comprising mostly banks and insurance companies, was a factor contributing to significant increase in banks' demand for TS[2].

[2] The tax base is bank's assets decreased by, inter alia, own funds and Polish TS.

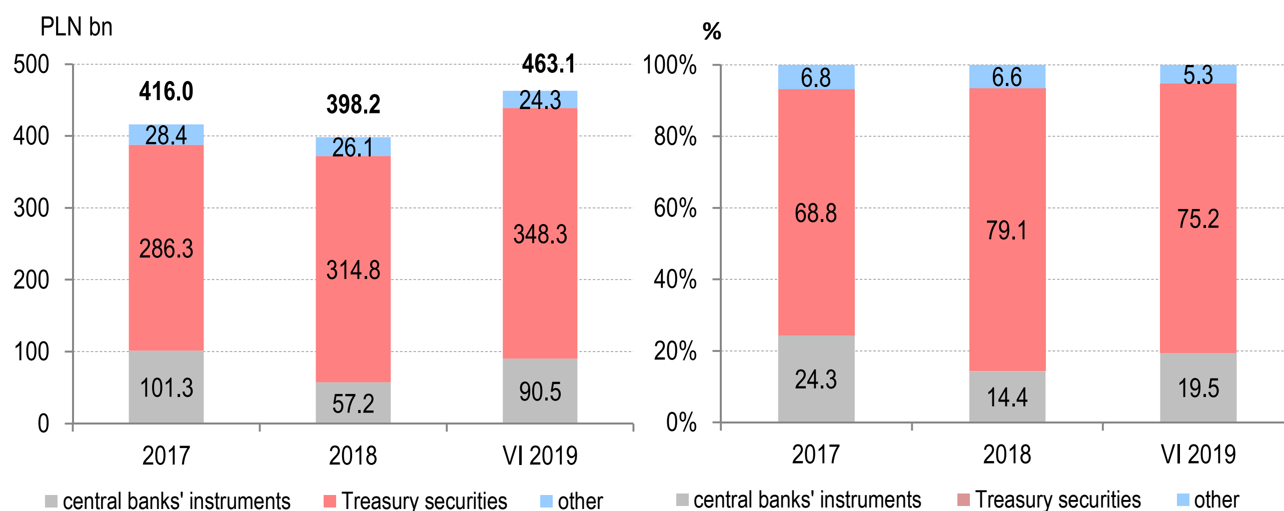
Chart 9. Structure of domestic banks' assets



** loans and other receivables from domestic entities*

Source: Data of National Bank of Poland, according to binding pricing methods.

Chart 10. Debt instruments in domestic banks' assets



Source: Data of National Bank of Poland, according to binding pricing methods

The most significant factors determining banks' demand for domestic TS in the timeframe of the *Strategy* include:

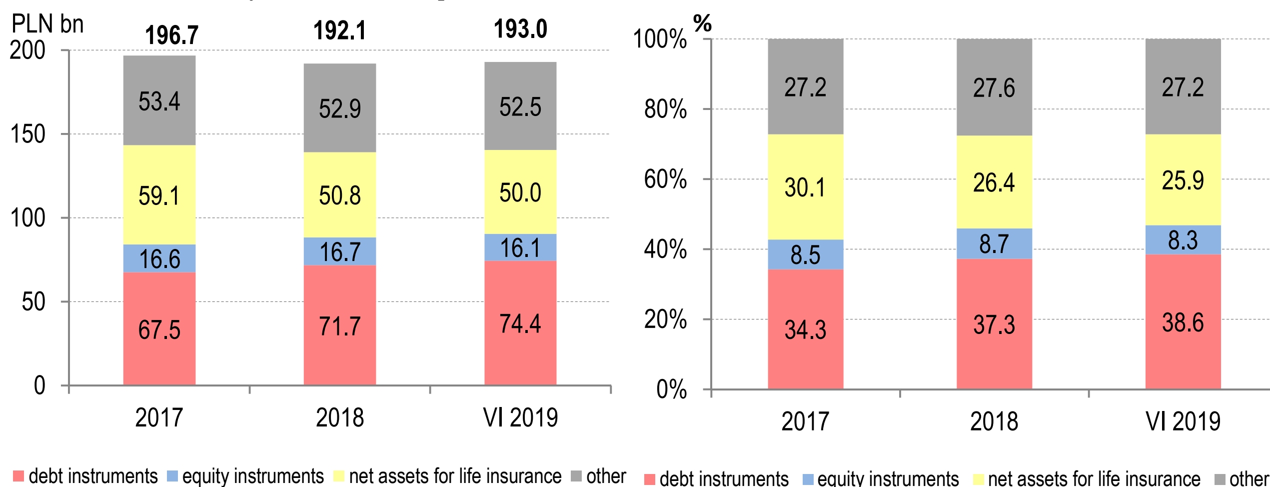
- development of economic situation affecting the size and structure of banks' assets;
- the level of over liquidity of the banking sector;
- low interest rates;
- banking tax.

IV.2.1. Domestic non-banking investors

Insurance companies and investment funds represent two the largest groups of domestic non-banking sector investors. At the end of June 2019 these entities held respectively 9.4% and 8.0% of domestic TS (a decrease in the share by 0.5 pp and 1.3 pp compared to the end of 2017). The main factors affecting the value of TS portfolio held by investment funds and insurance companies include value of their assets and the investment policy of these entities.

Insurance companies' assets reached PLN 193.0bn at the end of June 2019, which means a decrease by PLN 3.7bn, i.e. by 1.9% compared to the end of 2017.

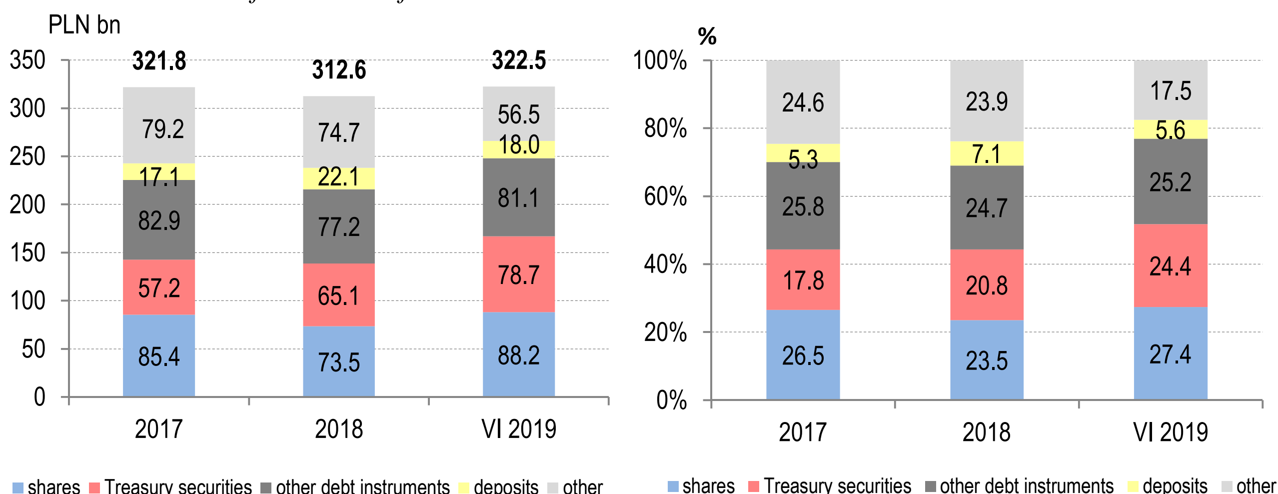
Chart 11. Structure of insurance companies' assets



Source: Data of Polish Financial Supervision Authority, according to binding pricing methods

At the end of June 2019 assets of investment funds increased to PLN 322.5bn, i.e. by PLN 0.7bn (by 0.2%) compared to the end of 2017. In the same period the value of T-bonds (issued on the domestic and foreign markets) held by investment funds increased by PLN 21.4bn whereas their share in assets rose by 6.6 pp.

Chart 12. Structure of investment funds' net assets



Source: Data of National Bank of Poland, according to binding pricing methods

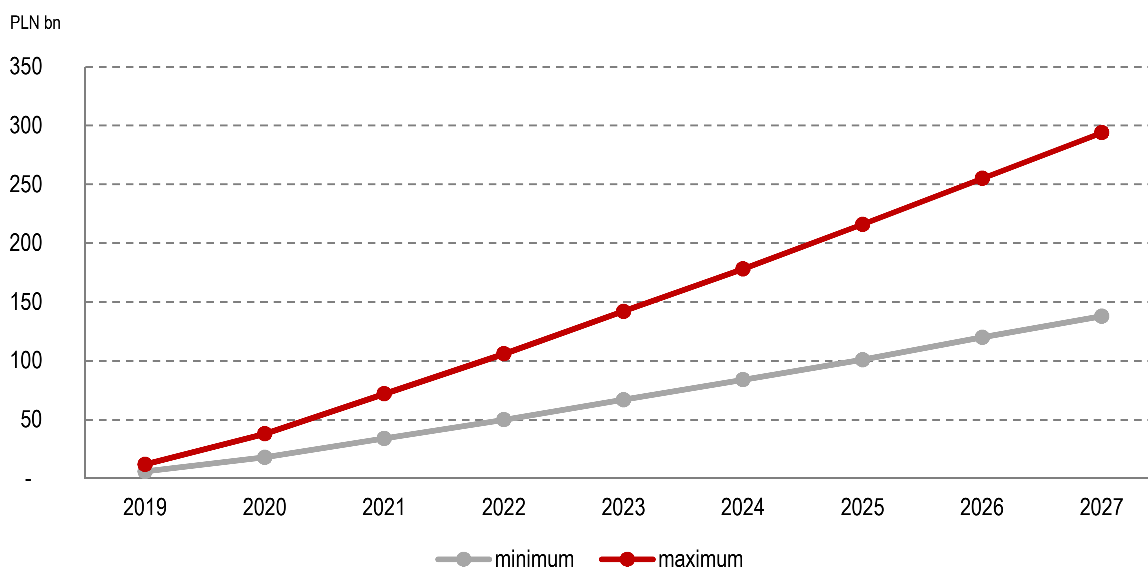
The main factors to determine the value of TS portfolio in assets managed by non-banking financial institutions in the forthcoming years include:

- further development of the insurance and investment funds markets;
- economic situation in the stock market, which is one of the factors determining savings allocation by households;
- low interest rates, encouraging households to search for capital investment opportunities, alternative to bank deposits;
- changes in the pension system aimed at increasing households' long-term savings intended for disbursement after retirement. Changes in the pension system include the establishment of Employee Capital Plans (PPK) and the transformation of open pension funds (OFE) into investment funds operating individual pension accounts (IKE).

The Act on **Employee Capital Planes** requires all employers to introduce pension schemes for all employees from whom social security contributions are collected. As of 1 July 2019 the obligation applies to enterprises with more than 250 employees. The obligation will be gradually extended to smaller employers and in 2021 public sector entities will join the PPK. Participation of employees in the PPK is optional. Each employee will be automatically enrolled with a possibility of withdrawal. Contributions to the PPK will be made by both the employer (minimum contribution is 1.5% and maximum 4.0% of gross remuneration) and the employee (from 2.0% to 4.0% of gross remuneration). An additional incentive to participate in the PPK is the state support, the Act provides for a one-off welcome bonus (PLN 250) and an annual bonus (PLN 240). Bonuses will be financed from the Labor Fund. The standard form of disbursement of funds from the PPK provides the payment of 25% of the accumulated assets after the employee has reached the age of 60, and then the remaining funds will be paid over the next 10 years.

The establishment of the PPK will increase the assets of financial institutions entitled to manage the PPK. Both the increase in assets and the investment policy specified in the Act will be important factors affecting an increase in the demand of domestic non-banking investors for domestic TS. Consequently, this should also have a positive impact on the level of debt servicing costs. According to the estimates adopted in the regulation impact assessment, assuming 75% participation of employees in the PPK, in 2027, the total assets in the PPK will amount from approximately PLN 140bn to approximately PLN 300bn, depending on the level of contributions paid by participants (from 3.5% to 8.0%).

Chart 13. Projection of the level of assets accumulated in investment funds on account of PPK



Source: Regulation impact assessment of the Act on Employee Capital Plans of 27 August 2018

An additional element of changes in the pension system is the **transformation of open pension funds into investment funds operating IKE**. In accordance with the draft act approved by the Council of Ministers each person insured in the OFE will have possibility to choose whether the accumulated funds should be transferred to IKE (third pension pillar, the funds will gain a status private funds and will be managed by specialised investment funds) or to ZUS (Social Insurance Institution) (first pillar, the funds will be recorded on an individual account in ZUS and the assets will be transferred to the Demographic Reserve Fund (FRD)). The withdrawal of funds from the IKE after the retirement age will be free of tax. Therefore, in order to maintain comparability with the pension from ZUS, funds transferred from the OFE to the IKE will be subject to a one-off transformation fee of 15% of the assets value.

The transformation of the OFEs into investment funds will be of significant importance for the domestic TS market. Currently, the OFEs are banned from investing in TS and equity instruments constitute a significant part of their assets (approximately 77%). In accordance with the draft Act, investment funds operating IKE will have the possibility to invest in TS and their investment policy will be adjusted to the age and risk profile of the insured. The draft Act also assumes that the assets accumulated in the FRD will be managed by an investment fund belonging to the Polish Development Fund joint-stock company (Polski Fundusz Rozwoju S.A.). The range of available by the law financial instruments for the FRD will be expanded, which in turn may affect the FRD investments in TS.

Besides the aforementioned factors, the development of the share of domestic investors in the holder's structure of domestic TS debt in the forthcoming years will largely depend on the level of borrowing requirements, determining the TS supply offered to investors.

IV.2.1. Role of foreign investors

Foreign investors play a significant role in the domestic TS market. Their share in domestic TS debt at the end of June 2019 amounted to 25.9% and decreased by 6.7 pp compared to the end of 2017. In 2018 and in the first half of 2019, foreign investors reduced their share in domestic TS by the total of PLN 29.0bn. The decline in the share of non-residents was driven, on the one hand, by local factors (among others, a lower TS supply in 2018 and in the first half of 2019 resulting from good budgetary situation, as well as the sustaining high demand from domestic investors) and, on the other hand, by international factors, mainly the monetary policy of major central banks.

The foreign investors' demand depends, to a large extent, on international situation and, as a consequence, is highly volatile. However, the risk of sudden outflow of foreign capital from Poland is limited due to high diversification, both institutional and geographical, of the non-residents structure. The outflow of some foreign investors from the domestic TS market which took place at the beginning of 2019, was absorbed by domestic banks accompanied by decreasing TS yields. The structure of debt held by non-residents is dominated by stable institutional investors[3]: investment funds (23.2% share in June 2019), central banks and public institutions (15.9%), pension funds (10.2%) and insurance companies (8.8%). The geographical structure of domestic TS holders also demonstrates high diversification - as at the end of June 2019 TS were held in the portfolios of investors from 61 countries.

The most significant factors to affect non-residents' demand for Polish TS in the timeframe of the *Strategy* include:

- actions undertaken by central banks,
- Poland's economic foundations and credit risk assessment,
- functioning of a large and liquid financial market in Poland (in particular, the TS market) and its adequate infrastructure (the development of a comprehensive Capital Market Development Strategy is to support the development of the Polish capital market).

Due to free flow of foreign capital, non-residents' investment in domestic TS, as well as raising funds in international markets, may be the source of exchange rate risk for ST debt. Therefore, this factor determines a flexible approach to shaping the financing structure in terms of selection of the market and the currency.

[3] The structure does not include omnibus accounts holding 1/3 of the domestic TS debt to non-residents

IV.3. International conditions

The most important international conditions from the perspective of ST debt management include:

- the situation on the interest rate markets for the currencies in which liabilities will be incurred, predominantly in the euro market and actions undertaken by major central banks affecting the level of yields on the domestic debt market:
  - announcement of maintaining of a more accommodative ECB's monetary policy stance for a longer period of time - at its meeting on 12 September this year, the Bank lowered the deposit rate by 10 bp to -0.50% (key interest rate at a level of 0.00%) and announced that it would keep the rates at the current or lower level until the inflation outlook converge to a level sufficiently close to, but below 2% in its projection horizon. The ECB has also announced the re-launch of the asset purchase programme (APP) as of November 2019 on a monthly amount of EUR 20bn and further rounds of long-term loans for banks (TLTRO);
  - change in the monetary policy stance by the Fed towards a more accommodative approach - in the June interest rate projection, Fed members forecasted maintaining the current target range for federal funds rate unchanged in 2019, one interest rate cut in 2020 and one hike in 2021. However, concerns about the impact of the external environment on US economic growth and limited inflationary pressure (inflation below 2%) encouraged the Fed to decrease interest rates by 25 bp in July this year and conclude the programme of the bank's balance sheet total reduction already in August, two months ahead of the deadline. At the same time, the Fed president stressed that a rate cut was not a beginning of a longer cycle of interest rate cuts, which does not mean, however, that it will be the only move of that kind. By the end of November 2019 the Fed cut interest rates twice due to risks to growth prospects in US, and President Powell has expressed his readiness to further reductions if the economy continues to weaken;
  - continuation of the asset purchase programme by the Bank of Japan and maintaining of the reference interest rate at a negative level as long as the inflation target is achieved;
  - maintaining an expansionary monetary policy with a negative deposit rate by the Swiss National Bank and introducing a new reference rate to replace the previously used fluctuation band for the three-month LIBOR rate as well as maintaining the readiness to intervene in the foreign exchange market if necessary to counteract excessive CHF appreciation;
  - relaxing the monetary policy by the People's Bank of China;
- the perception of Poland's credit risk and liquidity preferences of buyers of Polish bonds operating in global markets, which affect the level of the premium in relation to core markets;
- economic and political conditions affecting the level of risk aversion and volatility of asset prices in global financial markets, including, among others:
  - concerns related to the global economic growth and the negative impact of the current trade war between the United States and China on the growth outlook;
  - concerns about the deadlock in negotiations between the EU and the UK regarding the conditions for the country to leave the European Union.

V. OBJECTIVE OF THE STRATEGY

The objective of the *Strategy* will remain **the minimization of debt servicing costs in the long-term horizon subject to the constraints at the level of:**

1) refinancing risk,
2) exchange rate risk,
3) interest rate risk,
4) State budget liquidity risk,
5) other risks, in particular credit risk and operational risk,
6) distribution of debt servicing costs over time.

This objective, determining the debt management, is understood in terms of two aspects, as:

- **selection of instruments**, aimed at cost minimization within the timeframe defined by maturity of the longest maturity instruments and a significant share in debt, through the adequate selection of markets, debt management instruments, structure of financing borrowing requirements and issuance dates;
- **ensuring the efficiency of the TS market**, contributing to the lowering of TS yields. It means striving to eliminate or limit potential unfavourable factors in market organization and infrastructure.

The approach to accomplishment of the objective of minimization of debt servicing costs has not changed in relation to the previous year's *Strategy*. This means the possibility of a flexible financing structure in terms of selection of the market, currency and type of instruments, including with the use of derivative instruments. The choice of this structure should result from an assessment of market conditions (level of demand, interest rates and the shape of the yield curve in individual markets) and the financing cost in the long term, taking into consideration constraints resulting from the acceptable risk levels.

Experience in debt management indicates a significant role of flexibility and diversification of sources of financing borrowing requirements, subject to market situation. It contributes both to ensuring the security of financing the State budget borrowing requirements as well as to the reduction of its cost.

The domestic market shall remain the main source of financing the State budget borrowing requirements. The supply of instruments in this market will be developed in a flexible manner, adapted to the current market situation, i.e. the reported level of demand, so that the TS supply impact on the yields can be minimized. Financing in international markets will supplement domestic financing and its level should:

- take into account the borrowing requirements of the budget in foreign currencies as well as inflow of EU funds;
- ensure diversification of funding sources through the access of Poland to the investor base in major financial markets;
- maintain the position of Poland in the euro market;
- stabilize the domestic market by adjusting the structure of financing the State budget borrowing requirements to market conditions;
- utilize an attractive financing in international financial institutions;

- take into account the possibility of selling currencies in the NBP or on the financial market as an instrument of financing borrowing requirements and foreign currency management, while taking into account monetary, economic and budgetary policy.

Minimization of long-term debt servicing costs will be subject to constraints related to the debt structure. Therefore, the following assumptions have been made in the scope of:

1) refinancing risk

- maintaining of the dominant role of medium and long-term instruments in the State budget borrowing requirements financing in the domestic market subject to market situation;
- maintaining the average maturity (ATM) of domestic debt at the level close to 4.5 years;
- maintaining the average maturity of ST debt at a level close to 5 years;
- aiming at an even distribution of redemptions in the following years;

2) exchange rate risk

- decrease in the share of foreign currency debt in the ST debt below 25%;
- possibility to use derivative instruments in order to shape a desired structure of the debt;
- within the timeframe of the *Strategy*, maintaining the effective (i.e. taking into account derivative transactions) share of euro in the foreign currency debt at a level of at least 70%;

3) interest rate risk

- maintaining the average time to re-fixing (ATR) of the domestic debt in the range of 2.8-3.8 years;
- separating the management of the interest rate risk from the management of the refinancing risk by using floating-rate bonds and inflation-linked bonds, and a possibility to use derivatives;
- the current level of foreign debt interest rate risk does not pose a limitation to the cost minimization objective due to declining share of foreign debt, which is primarily fixed rate;

4) State budget liquidity risk

- maintaining the safe level of State budget liquidity while managing liquid assets and effective management of liquid assets through FX transactions (including sales of FX funds and derivatives). The level of liquidity will be determined by ongoing budgetary and market situation, including budget seasonality and smoothing of TS supply over the year. The adequate level of liquid assets result in State budget's resilience to market volatility and improves TS valuation on the primary market;

5) other risks, in particular credit risk and operational risk

- concluding derivative transactions with entities of high creditworthiness;
- mitigation of credit risk (through collateral agreements) and its diversification while concluding derivative transactions. In the timeframe of the *Strategy*, subsequent collateral agreements are planned that are in line with the current best practices in the market and enable concluding transactions on more favourable terms without bearing credit risk;
- diversification of credit risk generated by uncollateralized transactions;
- process approach to management of the unit responsible for debt management;

6) distribution of debt servicing costs over time

- aiming at an even distribution of debt servicing costs in subsequent years, including the use of derivative instruments;
- setting bond coupons at a level slightly below their forecasted yield in the issuance period.

VI. TASKS OF THE STRATEGY

The following tasks have been recognized as essential for implementing the objective of the *Strategy*:

1) ensuring liquidity of the TS market,
2) ensuring efficiency of the TS market,
3) ensuring transparency of the TS market,
4) effective State budget liquidity management.

The tasks assumed in the *Strategy* related to TS market development are long-term and cover measures implemented on a continuous basis. These tasks are to a large extent interdependent, i.e. individual measures may contribute to the implementation of more than one task at a time. Accordingly, the measures undertaken should be mainly aimed at maintaining the proper functioning of the market or its further improvement, in order to contribute to the better implementation of the *Strategy* objective.

The measures aimed at effective management of the State budget liquidity have been distinguished as an independent task.

VI.1. Ensuring liquidity of the TS market

This task relates to liquidity of both the entire TS market and particular issues, and it is associated with striving to eliminate the premium for insufficient liquidity as well as increasing the demand from investors interested only in liquid issues. Both of these factors contribute to the decrease in TS yields and, accordingly, to the minimization of ST debt servicing costs. In the timeframe of the *Strategy*, continuation of the former policy is planned, i.e.:

- building large issues of bonds (benchmarks) in the domestic market - in case of medium- and long-term bonds with fixed interest rate their value should amount to at least PLN 25bn, taking into account the aim for an even distribution of redemption over time;
- large liquid bond issues in the euro market and, subject to market conditions, also in the US dollar market;
- adapting the issuance policy, including sale, switching and buy-back auctions to market conditions.

VI.2. Ensuring efficiency of the TS market

This task is aimed at minimizing debt servicing costs under the second out of two aspects of implementation of this objective, discussed in Chapter V and covers measures both in the primary and in the secondary market:

- adjusting the issuance timing in the domestic and foreign market to the market and budgetary conditions;
- increasing and strengthening the role of the PD system in development of the TS market and debt management operations - in the areas where participants of the PD system are at least as competitive as other financial market participants, conclusion of transactions and selection of partners will be carried out taking into account preferences resulting from their participation in the system;
- sustaining relations with domestic and foreign investors, including through:
  - regular meetings with banks participating in the PD system (within the TS Market Participants' Board),
  - meetings with non-banking sector entities;
  - meetings with foreign investors and banks;

- ongoing communication with investors;
- broadening of the investor base, including regular meetings with foreign investors on key foreign markets in order to promote TS issued on both domestic and foreign markets;
- active participation in conferences and seminars with investors.

VI.3. Ensuring transparency of the TS market

This task is aimed at limiting the uncertainty connected with TS market functioning and enables its participants to receive reliable information on current market prices and to formulate expectations concerning the developments in the TS market. Both predictability of the issuance policy and transparent functioning of the secondary market contribute to the transparency of the market as a whole. In this regard, the following activities will continue:

- maintaining transparent issuance policy, including TS issuance calendars covering current year, quarter and month;
- promoting the electronic market through:
  - the adequate regulations in PD system that ensure competitiveness and transparency, in particular with regard to PD duties related to TS quotations, sustaining adequate spread levels and the share in TS fixing;
  - adjusting rules of the PD system to current needs stemming from the regulations.

VI.4. Effective State budget liquidity management

This task includes, on the one hand, acquiring and maintaining funds at a level ensuring timely execution of the State's tasks as well as budget resilience to the changing market situation and, on the other hand, investing these funds, so that the net cost of their maintaining is as low as possible. These measures are performed taking into consideration the budgetary and market conditions, and constraints related to risk, including credit and operational risk.

Maintaining an adequate level of liquidity causes direct cost resulting from higher yields of TS sold on the auctions in relation to the income earned on short-term deposits. However, maintaining the adequate level of liquid funds allows for indirect savings arising from the fact that the issuer has a possibility to adjust the TS sale to the market situation without increasing liquidity risk and debt servicing costs.

The following instruments will support the implementation of the task:

- depositing PLN and FX funds in NBP or in the financial market via BGK (the State development bank);
- concluding *buy-sell-back* transactions directly in the financial market, as an instrument of depositing budgetary funds without bearing a credit risk;
- sales of FX funds in NBP or on the FX market;
- utilizing liquid funds of public finance sector units and other *general government* sector units, and court deposits placed on the account of the Minister of Finance in BGK;;
- FX swap transactions to shape the currency structure of liquid funds;
- short-term loans in the interbank market.

VII. IMPACT ON THE PUBLIC FINANCE SECTOR DEBT

Pursuant to Article 74 of the Public Finance Act of August 27, 2009, the Minister of Finance maintains control over the public finance sector as regards the rule that the public debt must not exceed 60% of the annual GDP.

In the case of public finance sector debt, including the debt of units other than the State Treasury, which are autonomous in incurring liabilities, the influence on their debt level is indirect and is derived from the provisions of the Public Finance Act. It contains, first of all, restrictions imposed on the way of incurring liabilities by the LGUs as well as prudential and remedial procedures applicable to public finance sector entities when the relation to GDP of both the public debt and the amount referred to in Article 38a(3) of the Act exceeds 55%.

Moreover, the stabilizing expenditure rule included in the Public Finance Act sets the thresholds for the ratio of the amount specified in article 38a(3) of the Public Finance Act to GDP at 43% and 48%. Exceeding the thresholds and fulfilment of additional conditions defined in the Act triggers an automatic correction mechanism, limiting the growth rate of expenditure for a particular budgetary year.

Annex 3 presents constraints related to incurring public debt, provided in the Public Finance Act (arising from prudential and remedial procedures and rules of incurring liabilities by the LGUs), as well as the correction mechanism of the expenditure rule.

VII.1. Changes in the regulations relating to local government units

In the *Strategy* horizon, changes in fiscal rules applicable to local government units will gradually come into force. The Act of 14 December 2018 amending the Public Finance Act and certain other acts modified an individual debt ratio of local government units and the rules of incurring and debt restructuring.

The amendments aim at rationalizing of debt incurring by LGUs, making their financial management more flexible and strengthening legal mechanisms to increase their financial security. The most important changes include:

- taking into account, when calculating the individual debt repayment ratio, such liabilities which have economic effects similar to a loan (i.e. non-standard financial instruments), to be incurred from the date of entry into force of the Act;
- covering all current expenditure for debt servicing under the debt repayment limit,
- replacing the total revenue with current revenue less subsidies and funds for current purposes, including EU funds, in the denominator of the ratio defined in Article 243;
- excluding the amounts of current revenue and expenditure related to the execution of an EU project while calculating the limit of debt repayment.

Other changes in the scope of individual debt ratio will apply from 2026, including, inter alia:

- extending a period of which the limit of debt repayment is calculated to 7 years;
- eliminating revenue from the sale of assets while calculating the debt ratio, as an element improving a possibility to repay the debt;
- exclusion of debt servicing expenditure from current expenditure.

Moreover, as of 2022, liquid funds within the meaning of Article 217(2)(6) of the Public Finance Act will be excluded from the rule concerning balancing of current expenditure of LGU budget. This change will limit a possibility of circumventing the statutory rule by the LGUs.

VII.2. Medium-term budgetary framework

In the timeframe of the *Strategy*, introduction of a medium-term budgetary framework and further integration of multiannual and annual planning processes is envisaged.

The first changes related to optimisation of solutions in the scope of multiannual planning, including closer linking with the annual budget planning, were introduced under the Regulation of the Minister of Development and Finance of 13 June 2017 concerning the detailed method, procedure and deadlines for elaboration of documents for the draft budget act (so-called budget note). Subsequent amendments to the budget note, aimed at further integration of multiannual and annual planning, were introduced pursuant to the Regulation of the Minister of Finance of 28 January 2019. The next step foresees the introduction of a medium-term budgetary framework.

The budgetary classification as well as public finance data collection systems should be subject to restructuring. For this purpose a formal project was established at the Ministry of Finance. Within the project will continue measures on linking and, ultimately, integrating of multiannual and annual planning processes and introducing changes in the classification system, enabling obtaining high quality data on revenues and expenditure from public funds.

These amendments may generate significant benefits arising from extending of the planning timeframe and enhancing the reliability of budget forecasts, thus contributing positively to the State budget liquidity management, ST debt management and possibilities to influence public debt.

VIII. EXPECTED EFFECTS OF IMPLEMENTING THE STRATEGY

The expected effects of the *Strategy* implementation include forecasts of:

- the volume of public debt and the costs of its servicing,
- changes in the scope of risk related to public debt,
- the level of debt of public finance sector entities other than ST.

These are the expected results of the implementation of the *Strategy* objectives under the adopted macroeconomic and budgetary assumptions. Moreover, the most important threats to the implementation of the *Strategy* objectives are specified in subchapter VIII.4.

VIII.1. Debt volume and its servicing costs

Under the adopted assumptions, at the end of 2019 the public debt-to-GDP ratio will decrease to 44.4%, to fall subsequently to 43.8% at the end of 2020. In the timeframe of the *Strategy*, the downward trend will continue and the public debt-to-GDP ratio will reach the level of 39.7% by the end of 2023. The ratio of the amount specified in Article 38a(3) of the Public Finance Act to GDP will reach the level of 43.5% in 2019 and 42.6% in 2020, i.e. below the threshold of 43% included in the stabilising expenditure rule, to decrease to 38.6% in 2023.

The general government debt-to-GDP ratio (according to the EU definition) will decrease to 47.0% in 2019 and 46.5% in 2020, to reach the level of 42.8% in the timeframe of the *Strategy*.

In nominal terms, the limit of ST debt servicing costs assumed in the draft Budget Act for 2020 will be lower than the limit in 2019 (PLN 29.2bn in 2019 compared to PLN 27.6bn in 2020). In relation to GDP, debt servicing costs will decrease from 1.31% in 2019 to 1.16% in 2020. It was assumed that in the timeframe of the *Strategy*, the debt servicing cost-to-GDP ratio will decrease to the level of 0.83% - 0.84%.

Table 9. Forecasts of the level of debt and debt servicing costs

Item	2018	2019	2020	2021	2022	2023
1. State Treasury debt*						
a) PLN bn	954.3	972.7	1,025.3	1,028.5	1,063.8	1,118.6
- domestic	674.4	714.1	782.7	801.0	840.5	890.4
- foreign	279.8	258.6	242.6	227.5	223.3	228.2
b) GDP%	45.1%	43.5%	43.2%	40.9%	40.0%	39.8%
2. Public debt						
a) PLN bn	984.3	993.7	1,039.8	1,046.0	1,072.0	1,115.5
b) GDP%	46.5%	44.4%	43.8%	41.6%	40.3%	39.7%
3. The amount specified in the article 38a (3) of the Public Finance Act**						
a) PLN bn	943.9	972.5	1,010.1	1,014.5	1,040.0	1,083.4
b) GDP%	44.6%	43.5%	42.6%	40.3	39.1%	38.6%
4. General government debt						
a) PLN bn	1,035.3	1,050.8	1,103.2	1,115.7	1,149.4	1,201.8
b) GDP%	48.9%	47.0%	46.5%	44.4%	43.2%	42.8%
5. State Treasury debt servicing costs (cash basis)***						
a) PLN bn	29.5	29.2	27.6	27.8 - 28.3	25.7 - 26.1	23.3 - 23.7
- domestic	21.5	20.8	20.3	21.8	20.9	19.2
- foreign	8.0	8.4	7.3	6.0 - 6.4	4.9 - 5.2	4.2 - 4.5
b) GDP%	1.39%	1.31%	1.16%	1.11% - 1.12%	0.97% - 0.98%	0.83% - 0.84%

**) The amount of the State Treasury debt includes, in accordance with the financial plan of the Solidarity Fund, the liabilities of the Fund which do not affect the public debt due to the elimination of mutual liabilities of entities belonging to the sector.*
***) The amount of public debt recalculated using the yearly average of foreign currency exchange rates for the year concerned and reduced by the value of State budget liquid funds raised to finance the borrowing requirements for the following budget year.*
****)Forecasts of the debt servicing costs for the years 2021-2023 account for the exchange rate risk provisions.*

Chart 14. Debt-to-GDP ratio

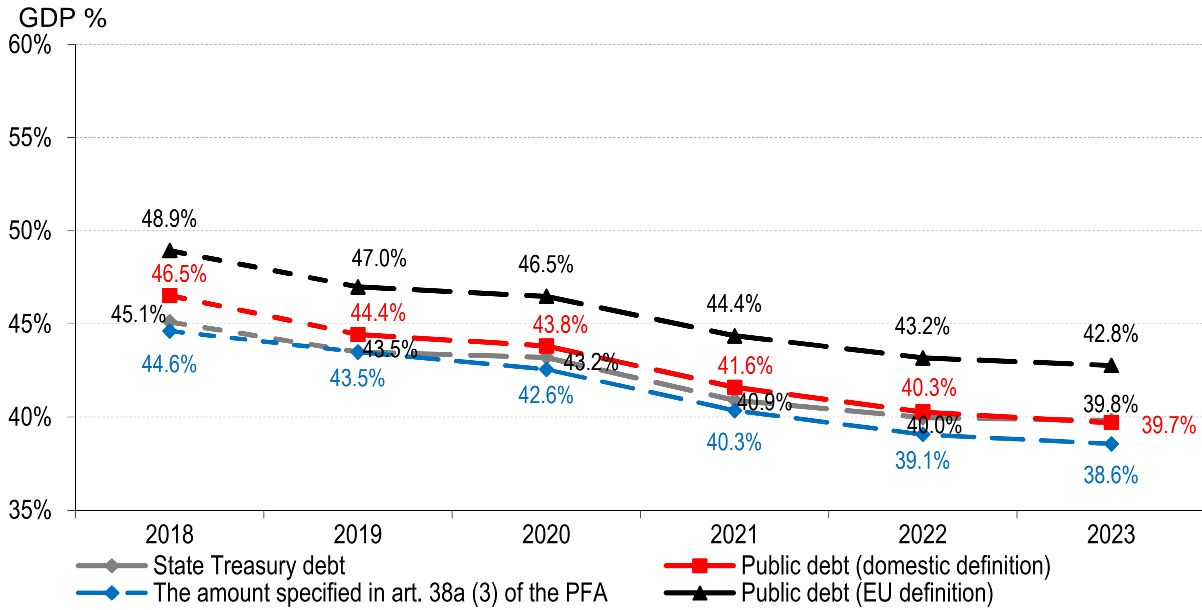


Chart 15. ST debt servicing costs-to-GDP ratio

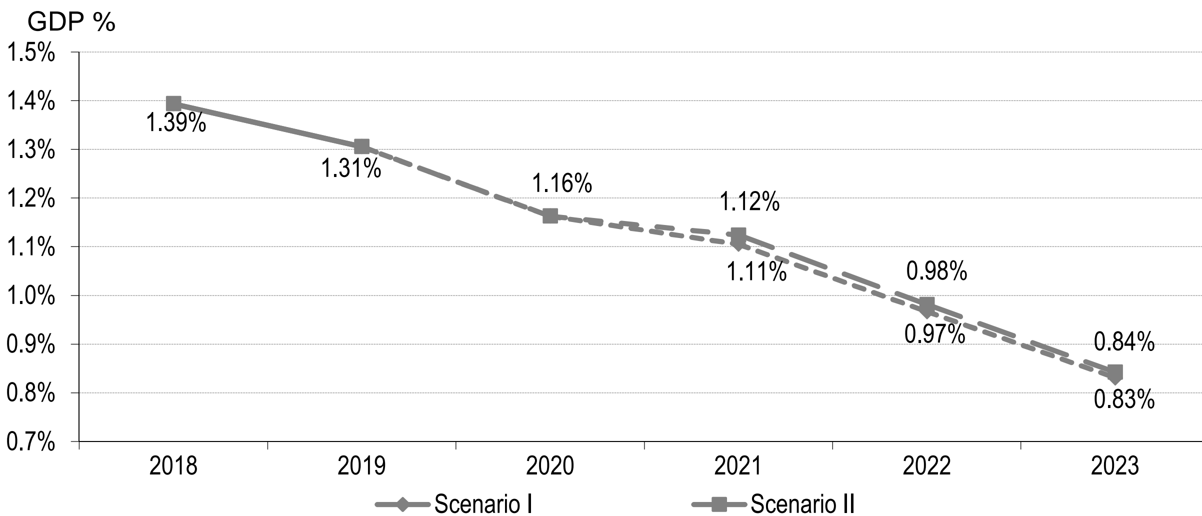
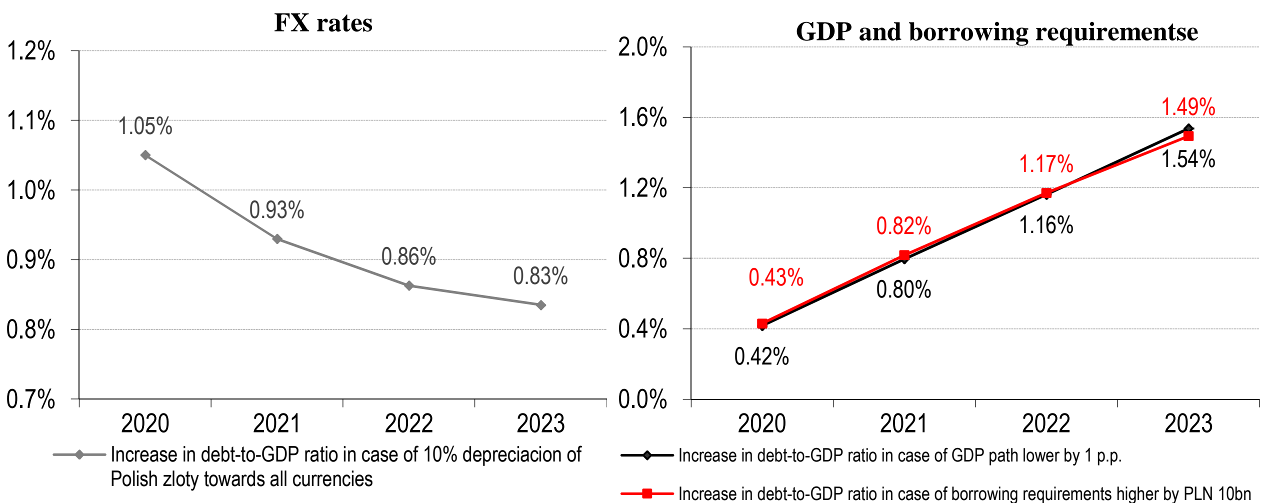
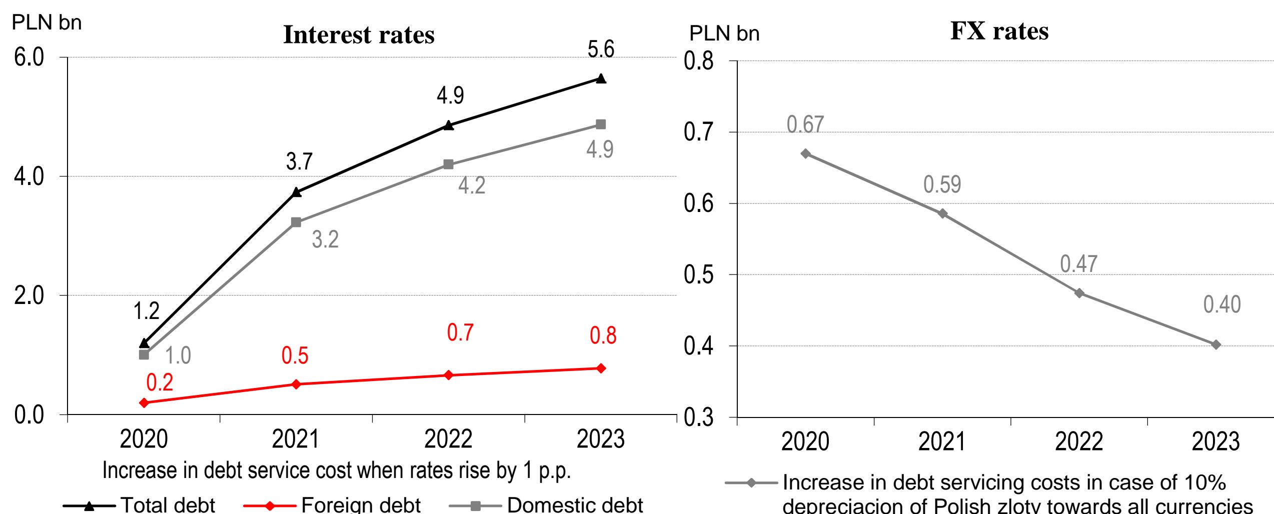


*Chart 16. Sensitivity of public debt-to-GDP ratio to changes in assumptions**



**) Assuming the change of paths since 2020, partial sensitivities without changes in other assumptions.*

Chart 17. Sensitivity of ST debt servicing costs-to-GDP ratio to changes in assumptions



VIII.2. Structure of the State Treasury debt

It is expected that in the timeframe of the *Strategy*:

- regarding the refinancing risk – the direction of changes in the ATM of the ST domestic marketable debt, will depend on market conditions, so that the average maturity in 2023 may reach the value in the range from 4.3 to 4.9 years and for the total ST debt - 4.7-5.2 years compared to, respectively, ca. 4.5 and ca. 4.9 years at the end of 2019;
- the interest rate risk will remain within the range set in the *Strategy*, depending on the adopted financing structure, the ATR of the domestic marketable debt will remain within the range of ca. 2.8-3.3 years compared to ca. 3.2 at the end of 2019, while the ATR of the total debt will stay in the range of ca. 3.2-3.6 years compared to ca. 3.6 at the end of 2019, whereas the *duration* of the domestic marketable debt will stay in the range of ca. 2.8-3.2 years compared to ca. 3.1 years at the end of 2019, while that of the total debt will range from ca. 3.0-3.4 years as compared to ca. 3.4 at the end of 2019;
- the share of foreign currency debt will be reduced and in the timeframe of the *Strategy*, it will fall to ca. 20% in 2023.

Chart 18. ATM of the ST debt

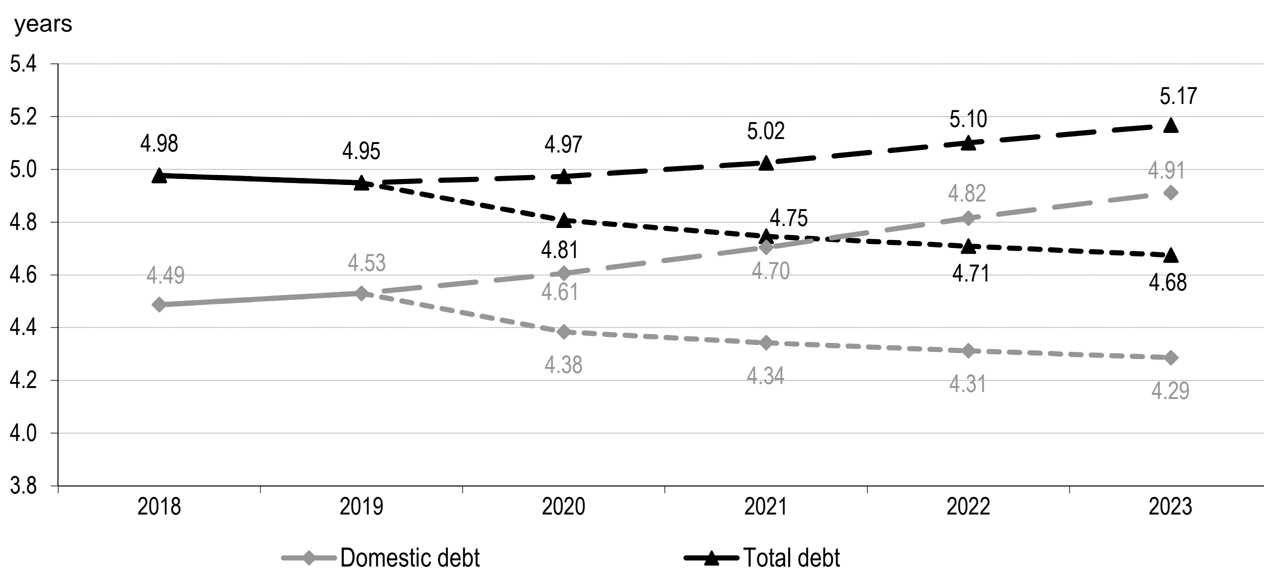


Chart 19. ATR of the ST debt

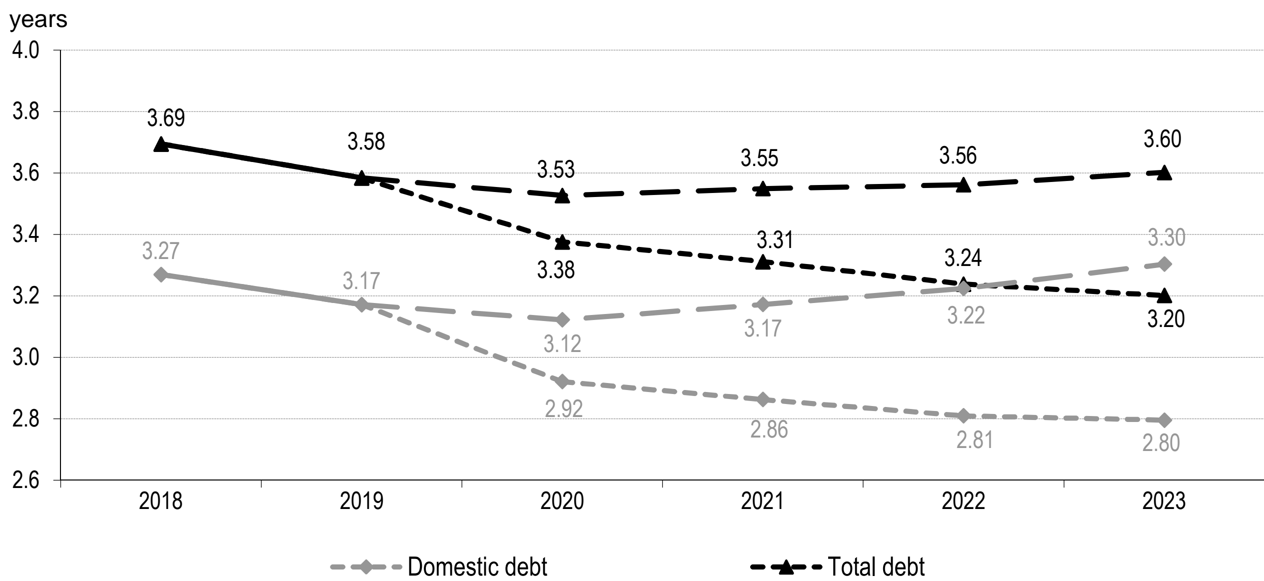


Chart 20. Duration of the ST debt

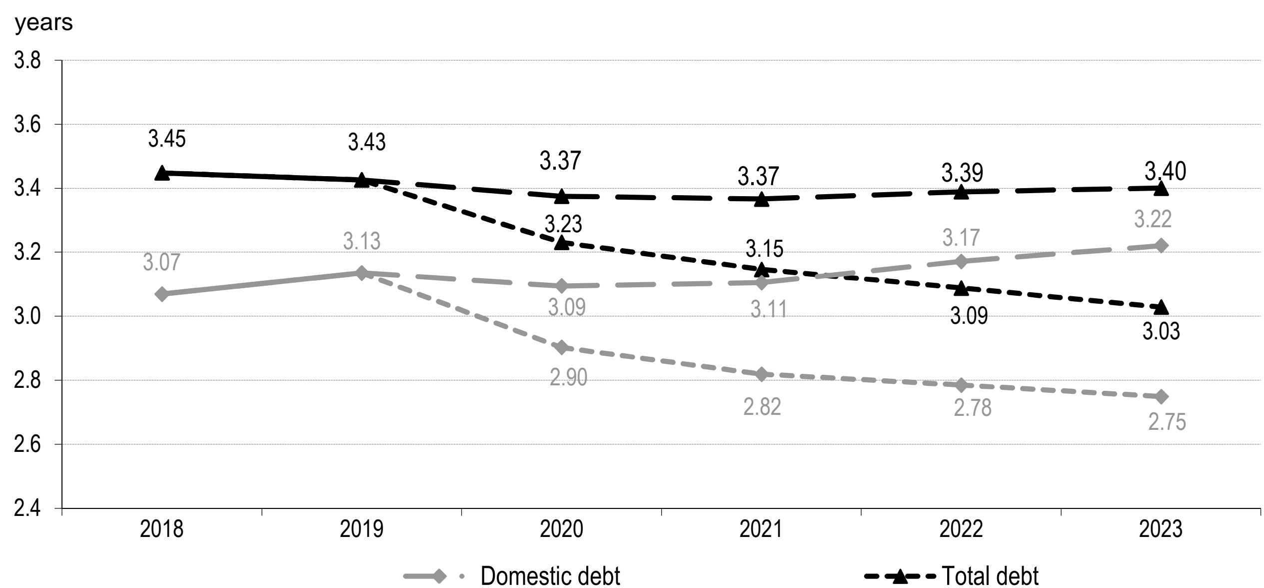
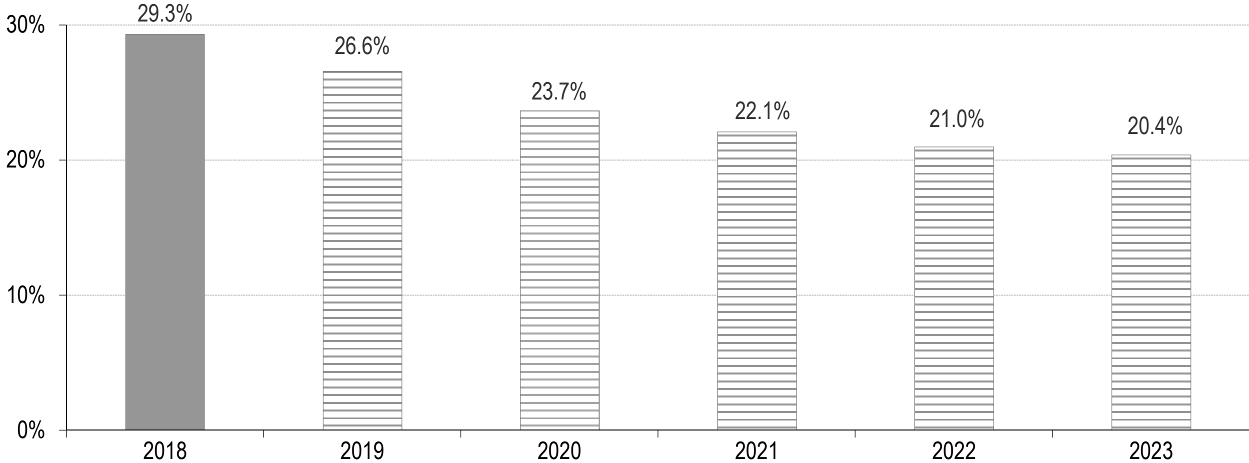


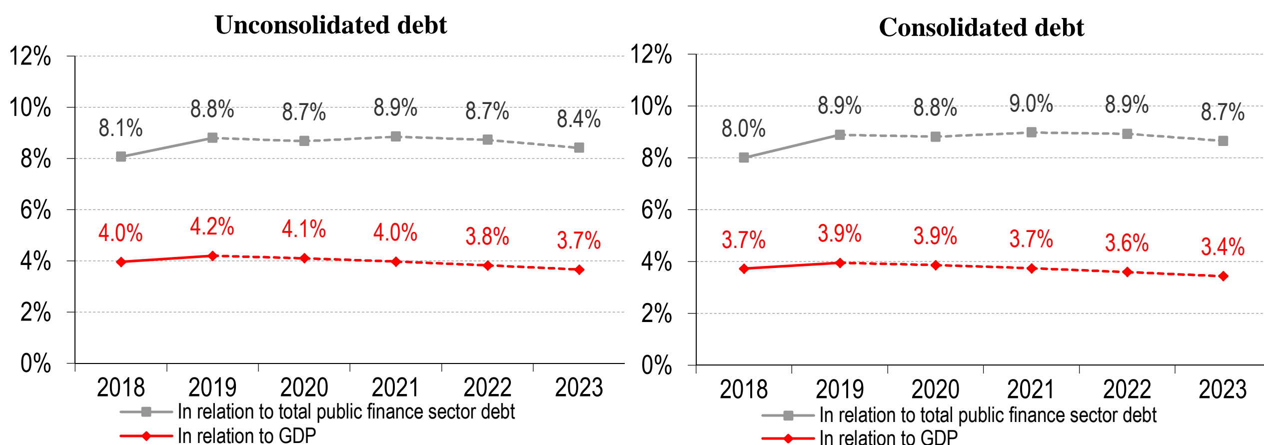
Chart 21. Share of foreign currency debt in the total ST debt



VIII.3. Debt of public finance sector entities other than the State Treasury

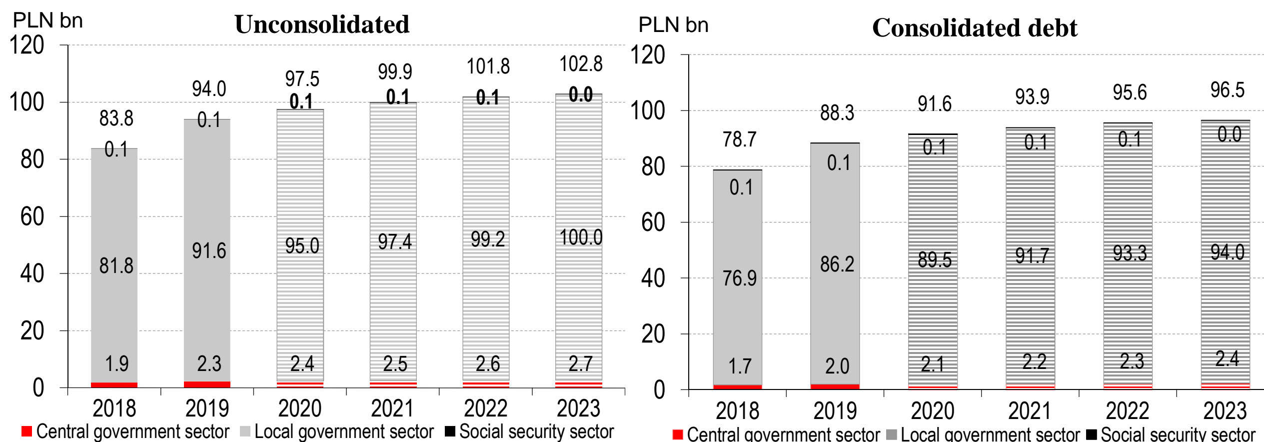
Under the adopted assumptions, in the timeframe of the *Strategy*, the unconsolidated-debt-to-GDP ratio of the remaining sector units will decrease from 4.2% to 3.7%, whereas the consolidated debt - from 3.9% to 3.4%. The share of this group of entities in both the unconsolidated and consolidated public finance sector debt will be close to 9%.

Chart 22. Unconsolidated and consolidated debt of public finance sector entities other than the State Treasury – in relation to GDP and as a share of total public finance sector debt



In the timeframe of the *Strategy*, the unconsolidated debt of public finance sector entities other than ST will increase from PLN 94.0bn to PLN 102.8bn, mainly as a result of growth in debt of the local government sector. In the years 2019-2023, the debt of LGUs and their associations will increase in connection with the projected budget deficits of this group of entities, however, with their weakening dynamics. The level of debt of the LGUs will be also affected by the rules regarding incurring liabilities by those entities, including the individual debt ratio.

Chart 23. Debt of public finance sector entities other than the State Treasury before and after consolidation by sector



VIII.4. Threats to the Strategy implementation

The main threats to the implementation of the presented *Strategy* are primarily associated with:

- a macroeconomic situation in Poland varying from the assumed scenario, in particular, a slower GDP growth, higher interest rates, as well as volatility in foreign exchange rates;
- international market conditions, including:
  - a slower than expected growth rate in the global economy, in particular, in Europe;
  - monetary policy of major central banks, including the ECB and Fed;
  - trade policy pursued by major economies, including the USA, China;
  - consequences of United Kingdom's exit from the EU without agreement;
  - capital outflow towards core markets or other markets as a result of, inter alia, geopolitical situation;
- the risk of excessive growth of public debt-to-the-GDP ratio compared to assumptions, in connection with:
  - higher State budget borrowing requirements depending, among others, on the trends in the Polish economy;
  - depreciation of the Polish zloty as compared to the assumptions of the *Strategy*;
  - issues of TS and their transfer as a result of implementation of acts other than the Budget Act;
  - considerable increase in debt of public finance sector entities other than ST;
  - the necessity to execute sureties or guarantees granted by public finance sector entities.

IX. GUARANTEES AND SURETIES GRANTED BY PUBLIC FINANCE SECTOR ENTITIES

IX.1. Assumptions of the strategy of granting guarantees and sureties

In order to limit the risk associated with granting ST guarantees and sureties while preserving the advantages of using them as an instrument of the State economic policy, the following principles should be maintained:

- granting sureties and guarantees mainly to support development-oriented projects, in particular, in the scope of infrastructure, environmental protection, creating new jobs and regional development, financed inter alia with the EU funds, as well as to support other investment tasks arising from potential new support programs stipulating granting sureties and guarantees;
- a possibility of using sureties and guarantees in order to support possible measures undertaken in case of potential deterioration in the conditions of the Polish financial system.

The value of new sureties and guarantees granted in a given year is limited through the Budget Act. Pursuant to Article 31 of the Act of May 8, 1997 on sureties and guarantees granted by the State Treasury and certain other legal persons, each year the Budget Act stipulates the total amount to which guarantees and securities can be granted by the ST. The limit for 2020 in the draft Budget Act was determined at a level of PLN 200bn. The extent of use of the ST sureties and guarantees will mainly depend on the continuation of infrastructural investments. Moreover, a substantial part of the limit has been planned in connection with potential measures that may be undertaken in case of deterioration of the Polish financial system conditions. An increase in the amount of sureties and guarantees granted by the ST will depend on sureties and guarantees granted to the following entities:

- BGK for bonds issuance and repayment of loans incurred for the KFD in order to co-finance the construction of a road infrastructure;
- PKP Polskie Linie Kolejowe S.A. for the repayment of loans incurred in order to co-finance the modernisation of the railway infrastructure and fleet.

IX.2. Analysis and forecasts of the level of guarantees and sureties

Contingent (undue) liabilities arising from guarantees and sureties granted by public sector entities at the end of the first half of 2019 amounted to PLN 113.0bn, compared to PLN 112.4bn (5.3% of GDP) in 2018 and PLN 120.4bn (6.1% of GDP) in 2017.

A dominant share in the contingent liabilities had guarantees and sureties granted by the ST. At the end of the first half of 2019 they amounted to PLN 109.4bn, and at the end of 2018 - to PLN 108.8bn (5.1% of GDP) compared to PLN 116.9bn (5.9% of GDP) in 2017. The decrease in contingent liabilities in 2018 resulted mainly from self-repayments by debtors (borrowers) and lower than expected pace of granting new guarantees. The hitherto ST operations related to sureties and guarantees do not pose significant risks to public finance. At the end of 2018, c.a. 98% of contingent liabilities due to sureties and guarantees granted by the ST belonged to the low-risk group.

The biggest amounts of potential ST contingent liabilities (as at 30 June 2019) resulted from:

- guarantees granted to BGK PLN 83.1bn
  including, for the support of KFD PLN 82.1bn
- guarantees granted to PKP Polskie Linie Kolejowe S.A. PLN 11.3bn
- guarantees of payments from the KFD for Gdańsk Transport Company S.A. PLN 7.3bn
- guarantees of payments from the KFD for Autostrada Wielkopolska II S.A. PLN 5.9bn
- guarantees granted to PKP Intercity S.A. PLN 1.7bn

It is expected that the ratio of potential ST liabilities due to granted sureties and guarantees to GDP may amount above 5% at the end of 2019, and then grow, however, in the consecutive periods of the forecast it will remain at a level below 7%.

Table 10. Contingent liabilities under guaranties and sureties granted by the ST and the public finance sector units

	2017	2018	2019	2020	2021	2022	2023
Contingent liabilities under guaranties and sureties granted by:							
a) Public finance sector							
- PLN bn	120.4	112.4	116.7	150.7	162.0	171.3	182.4
- in relation to GDP	6.1%	5.3%	5.2%	6.4%	6.4%	6.4%	6.5%
b) State Treasury							
- PLN bn	116.9	108.8	113.2	147.2	158.5	167.8	178.9
- in relation to GDP	5.9%	5.1%	5.1%	6.2%	6.3%	6.3%	6.4%

Annex 1. Abbreviations and glossary

A. Abbreviations used in the Strategy

ATM – average time to maturity
ATR – average time to refixing
BFG – the Bank Guarantee Fund
CIRS – currency interest rate swap
EBC – European Central Bank
Fed – the Federal Reserve System in the USA
FRD – Demographic Reserve Fund
FUS – Social Security Fund
IFIs – international financial institutions
IKE – individual pension accounts
JSFP - public finance sector entities
KFD – National Road Fund
OFE – open pension funds
LGUs – local government units
NBP – National Bank of Poland
PD – Primary Dealers
PDP – public debt
PFS – Public Finance Sector
PPK - the Employee Equity Schemes
SPZOZ – independent public health care units
ST – State Treasury
TS – Treasury securities

B. Glossary

Average maturity (also *ATM – average time to maturity)* – the measure of public debt refinancing risk. Average maturity is the average period, expressed in years, after which the issued debt would be redeemed. The further the maturity dates, the lower the refinancing risk and the higher the average maturity. Average maturity of domestic marketable TS is calculated according to the following formula:

$$ATM = \frac{\sum_{t \in T} t N_t I_0}{\sum_{t \in T} N_t I_0}$$

where:
t – maturity date,
T – set of all maturity dates,
N_t – face value paid at time t,
I_0 – current indexation coefficient of inflation-linked instruments' face value (for non-indexed TS $I_0 = 1$).

ATR (*average time to refixing*) – the measure of interest rate risk related to the public debt. *ATR* is interpreted as the average period, expressed in years, for which the debt servicing costs are set. The larger the share of short-term and floating rate instruments, the higher the interest rate risk and the lower ATR. The *ATR* of domestic marketable TS is calculated according to the following formula:

$$ATR = \frac{\sum_{r \in R} r NZ_r + \sum_{t \in T} t NS_t + \sum_{j \in J} \frac{1}{12} NI_j I_0}{\sum_{r \in R} NZ_r + \sum_{t \in T} NS_t + \sum_{j \in J} NI_j I_0}$$

where:
r – payment date of the nearest fixed coupon for floating rate instruments.
t – maturity date for fixed rate instruments.
j – maturity date for inflation-linked instruments.
R – set of all payment dates of the nearest fixed coupons for floating rate instruments.
T – set of all maturity dates for fixed rate instruments.
J – set of all maturity dates for inflation-linked instruments.
NZ_r – face value of floating rate instruments.
NS_t – face value of fixed rate instruments.
NI_j – (non-indexed) face value of inflation-linked instruments.
I_0 – current indexation coefficient of inflation-linked instruments' face value.

Benchmark

1. (*issue*) the large amount of TS issue with a liquid secondary market. Yield of benchmark bond is the reference point for yields in a given maturity segment. Benchmark issues subject to trading on the electronic market Treasury BondSpot Poland are TS issues defined by the Minister of Development and Finance, in particular fixed rate bonds, with maturity of at least one year and total face value of at least PLN 10bn or on-the-run issues with total face value of at least PLN 2bn. When setting benchmarks on the Polish yield curve in Reuters and Bloomberg the criterion of time to maturity is applied.

2. *(portfolio)* target characteristics of the public debt portfolio, which constitutes a reference portfolio for the existing portfolio and determines the direction of public debt management. The characteristics of the reference portfolio may include the share of particular currencies, interest rates and types of instruments, as well as the values of synthetic indicators which most often constitute the risk measures, e.g. the average maturity or duration.

Buy-sell-back – transaction which consists of two agreements: spot purchase and forward sale of securities at a price set upfront at the day of the transaction.

Credit risk – associated with the risk that the other party of the transaction will fail to meet its obligations in whole or in part. The risk occurs as a result of transactions with receivables. For the debt management unit such a situation occurs with financial transactions on derivatives. Credit risk also occurs in management of liquid assets, e.g. through making deposits with banks and purchase of securities. Credit risk is managed mainly by choosing partners with high creditworthiness (measured by their ratings) and by setting limits for total transaction size for partners, dependent on their credit credibility and type of transaction.

Duration – the measure of vulnerability of debt servicing costs to changes of interest rates and thus the measure of interest rate risk related to public debt. Duration is interpreted as the average period (expressed in years) of debt servicing costs adjustment to the change of interest rate levels. The higher the level of interest rates and the larger the share of short-term and floating rate instruments, the higher the interest rate risk and the lower duration.

$$Duration = \frac{\sum_{r \in R}\left[r \sum_{s \in S_r} \frac{CFZ_s}{(1+i_s)^s} \right] + \sum_{s \in S} \frac{sCFS_s}{(1+i_s)^s}}{\sum_{s \in S} \frac{CFZ_s}{(1+i_s)^s} + \sum_{s \in S} \frac{CFS_s}{(1+i_s)^s}}$$

where:
s – payment date (of interest or face value),
S – set of all payment dates (of interest or face value),
r – payment date of the nearest fixed coupon for floating rate instruments,

R – set of all payment dates of the nearest fixed coupons for floating rate instruments,
S_r- set of all payment dates for these floating rate securities which the nearest fixed maturity is r,
CFZ_s - payment (of interest or face value) for floating rate instruments,
CFS_s – payment (of interest or face value) for fixed rate instruments,
i_s – zero-coupon interest rate for term s.

Duration of total debt of ST is a weighted average of appropriate duration coefficients for every currency, where weights are market value of debt in particular currency.

Exchange rate risk – arises from the vulnerability of the foreign currency denominated debt level and its servicing costs to exchange rate fluctuations. The Polish zloty appreciation or depreciation against a given foreign currency results in a proportional increase or decrease (in the Polish zloty terms) of debt volume and debt servicing costs denominated in this currency.

Interest rate risk – risk that payments related to the debt servicing costs will change as a consequence of a change in interest rates. It stems from the necessity to finance the debt maturing in the future at unknown rates and from volatility of coupon payments of the floating rate debt.

Operational risk – risk associated with the threat that the costs related to the debt management or to the level of other types of risk will increase due to infrastructure, organization and supervision of the debt management, that is inadequate to the scope of tasks. Operational risk the most difficult risk to be measured. Limiting the operational risk can be achieved by integration of public debt management procedures in one organizational entity, having its structure, infrastructure and procedures adjusted to efficient operations in the environments of government administration and financial markets.

Place of issue criterion – the criterion of the division of public debt into domestic and foreign debt, according to which the domestic debt is the debt issued on the domestic market.

Potential debt – liabilities that are not public debt, but which can become public debt once after a specific event takes place. Guaranties and sureties granted by the public finance sector units are a classical example of potential debt. In case of execution of a guaranty or surety, the liabilities become due and increase expenditures of an entity that granted them, thus increasing its borrowing requirements and public debt.

Primary Dealers – a group of institutions (banks) selected through a competition that have specific rights and obligations related to the participation in the primary and secondary TS market. The dealers act as intermediaries between the issuer and other entities in TS trading and have the exclusive access to the primary market.

Private placement – an issuance addressed to a selected investor or group of investors.

Refinancing risk – associated with debt issuance in order to finance the State borrowing needs resulting from the redemption of the existing debt. The risk applies to both the ability to redeem maturing debt and conditions on which it is refinanced (including in particular servicing costs generated by newly issued debt). The larger the payment related to the redemption of maturing debt and the closer the date of redemption, the larger the risk related to refinancing of this debt. Refinancing risk is influenced by the level of outstanding debt and its maturity profile. An extension of the debt maturity and an even distribution of debt redemption over time contribute to the reduction of refinancing risk.

Residency criterion - the criterion of the division of public debt into domestic and foreign debt, according to which the domestic debt is the debt owned by domestic investors (i.e. investors with the place of residence or registered seat in Poland).

Spread – the difference between yields of two debt securities. In narrower sense credit spread (also credit margin) – the difference between yields of two securities with all the characteristics (especially maturity date) except for issuer identical (or almost identical). Spread is often

understood as a difference between yields of credit risk-burdened and credit risk free (or characterized by the lowest risk in the class) security.

State budget liquidity risk – risk associated with the loss of the state budget's ability to meet the current obligations and to timely execute budget expenditures. In order to reduce this risk the State budget should have an access to the adequate amount of liquid financial assets, enabling the independence from temporary disruptions which prevent or make difficult financing borrowing needs on the financial market at rational cost.

State budget liquidity risk is managed, on one hand, by keeping safe reserve of funds at the lowest possible level (by improving the process of state budget liquidity planning and monitoring) and on the other hand, by the management of liquid assets in a way that they generate budget revenues which in the highest possible extent compensate for costs of keeping a given level of liquidity.

Swap – a derivative contract through which two parties exchange cash flows based on a notional principal amount with rules of calculating their value specified in advance. Swap may be a separate financial instrument or it may accompany other instruments.

Annex 2. Cyclical publications of the Ministry of Finance regarding public debt and TS market

- Annual reports
- State Treasury debt, monthly bulletin
- Public debt, quarterly bulletin
- Monthly information on TS supply and its background
- Monthly information on investors structure on domestic TS market
- Monthly information on transaction on secondary TS market

Publications available on the Ministry of Finance website: https://www.gov.pl/web/finance/public-debt

Annex 3. Legal regulations applied to public debt in Poland and the EU

Table 1. Public debt – basic legal regulations

Polish regulations	EU regulations
1. Constitution of the Republic of Poland • ban on incurring loans and granting guaranties and sureties resulting in the public debt exceeding 3/5 of GDP (Article 216(5));	1. Treaty on the functioning of the European Union • level of general government debt and restrictions applied to general government deficit constitute the criterion on the basis of which the Commission examines the compliance with budgetary discipline in Member States (Article 126) – specifies the Excessive Deficit Procedure (EDP);
2. Public Finance Act • regulations on public debt: definitions, basic principles of issuing public debt and debt management, prudential and remedial procedures applied to public debt levels; • definition of the scope of the public finance sector.	2. Protocol on the excessive deficit procedure annexed to the Treaty establishing the European Community and the Treaty on the functioning of the European Union • definition of general government debt and reference value of debt to GDP ratio at 60%;
	3. Council Regulation (EC) No 479/2009 of 25 May 2009 on the application of the Protocol on the Excessive Deficit Procedure annexed to the Treaty establishing the European Community • definition of general government debt with specification of categories of liabilities which constitute it;
	4. Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union (ESA 2010) • definition of categories of financial liabilities; • definition of general government sector.

Table 2. Limits on the public debt to GDP ratio in Public Finance Act

Public Finance Act
I. Legal procedures regarding limits on public debt to GDP ratio
1) the ratio in year *x* is greater than 55% and lower than 60%:
a) it is assumed the lack of deficit or the difference between state budget revenues and expenditures in draft budget act adopted by the Council of Ministers for the year x+2 must ensure the decrease in State Treasury debt to GDP ratio as compared to the ratio announced for the year x;
b) budget deficit of local government unit diminished by cumulated budgetary surplus from previous years and liquid funds in budget resolution for the year x+2 can only derive from expenditures for current tasks co-financed from EU funds or non-returnable financial aid provided by EFTA member countries;
c) in draft budget act adopted by the Council of Ministers for the year x+2: • no increase in salaries of public sector employees is assumed, • revaluation of pensions must not exceed the CPI level in the budgetary year x+1, • ban on granting new loans and credits from the State budget is introduced, • the increase in expenditures of the Sejm (lower house of Polish Parliament), the Senate (upper house of Polish Parliament), Presidential Chamber of the Republic of Poland, Constitutional Tribunal, Supreme Audit Office (NIK), Supreme Court, Primary Administration Court, The National Council Of The Judiciary, common courts of law and provincial administration courts, Spokesman of Citizen Rights, Spokesman of Child Rights, National Board of Radio and Television, President of the Personal Data Protection Office, The Institute of National Remembrance – Commission for the Prosecution of Crimes against the Polish Nation, National Electoral Office, National Labour Inspection must not be higher than expenditures in the government administration;
d) the Council of Ministers make a review of: • State budget expenditures financed by foreign credits, • long-term programs;
e) the Council of Ministers presents a remedial program ensuring the fall in public debt to GDP ratio;
f) the Council of the Ministers make a review of regulations in force to propose possible legal solutions which influence state budget revenues, including VAT rates,
g) State Fund for the Rehabilitation of Disabled Persons receives earmarked subsidies from the state budget for co-financing of disabled workers salaries at the level of 30% of planned funds for that year,

Public Finance Act

h) new liabilities can be incurred by government administration if the investments are co-financed from EU funds or non-returnable financial aid provided by EFTA member countries at the maximum level, set in the rules or procedures for particular type of investment, not lower than 50% of the total costs, however these restrictions do not apply to state road rebuilding or repairs required for road traffic hazard removal, anti-flood infrastructure investments, electronic toll service and compensations for properties taken over for public roads investments;

2) the ratio in year x is equal to or greater than 60%:

a) procedures provided in point 1, letters a, c, d, f, g and h in case of the ratio greater than 55%, and lower than 60% are in force;

b) budgets of local government units for the year x+2 must at least be balanced;

c) a ban on granting new sureties and guarantees by public finance sector entities is introduced;

d) the Council of Ministers presents to the Parliament a remedial programme with the main objective to prepare and implement actions aimed at reducing the public debt-to-GDP ratio below 60%;

Procedures provided in point 1 are not applicable if amount of public debt recalculated using the yearly average of foreign currency exchange rates for the year concerned and reduced by the value of State budget liquid funds raised to finance the borrowing requirements for the following budget year does not exceed the threshold of 55%.

II. Principles and limits on incurring liabilities by local government units

a) planned and executed current expenditures must not exceed planned and executed current revenues increased by the revenue arising from:
- repayment of loans granted in previous years;
- the LGUs' budget surplus from previous years, less the funds indicated below;
- unused cash in the current account of the budget, resulting from the settlement of revenue and expenditure financed by linked to specific budget execution rules laid down in separate acts and resulting from the settlement of funds from the EU budget and non-returnable funds from aid granted by the EFTA member States and grants for the implementation of a programme, project or task financed with these funds;

b) executed current expenditures can be higher than executed current revenues increased by budgetary surpluses from previous years only by amounts linked to the current tasks co-financed from EU funds or non-returnable financial aid provided by EFTA member countries if these funds were not forwarded in specified year;

c) Local government units can incur loans and issue securities for:
- repayment of previously incurred liabilities resulting from securities and loans;
- covering transitional budget deficit of local government within the fiscal year;
- financing of planned budget deficits;
- financing in advance of the tasks co-financed from EU funds;

d) Loans incurred and securities issued for covering temporary budget deficit of local government have to be paid off or redeemed in the same year as they were incurred or issued;

e) Local government can only incur liabilities of which servicing costs are borne at least once a year, while:
- discount of securities issued by local government cannot exceed 5% of their face value,
- capitalization of interest is forbidden;

f) For a local government unit, the total ratio of:
- instalments of loans and interest payable in a given fiscal year;
- redemption of securities and interest (including discount) payable on them;
- repayment of instalments of liabilities that have economic effects similar to those of a loan and interest payable in a given year;
- potential payments resulting from sureties and guarantees granted

to planned current revenues cannot exceed in the budgetary year and any other year following the budgetary year the arithmetical average for last seven years of current revenues minus current expenditures to total revenues ratio;

The above rule will apply in its entirety from 2026. Changes to the current rule and transitional provisions are described in Chapter VII.1.

g) Limitations on debt repayments of local government do not apply to:
- instalments and interest payable on loans drawn in connection with a programme, project or task co-financed with the EU funds;
- redemption and interest (including discount) payable on securities issued in connection with a programme, project or task co-financed with the EU funds;
- guarantees and sureties granted to self-government legal persons performing tasks of self-government units within the framework of programmes financed with the participation of funds coming from the EU budget and not subject to reimbursement from the aid granted by the EFTA States.
  - but no later than 90 days after the end of the programme, project or task and receiving a refund; this cut-off date does not apply to liabilities incurred for national contribution;
- instalments of loans and redemption of securities, and interest (including discount) payable on them, incurred or issued to

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finance national contribution of a programme, project or task with the EU co-financing level exceeding 60%.

h) the restrictions on the repayment of the debt of territorial self-government units shall not apply either to early repayment of liabilities occurring after the financial year for which the budget was adopted and occurring exclusively in the financial year for which the budget was adopted:
- resources from a new commitment if this reduces the total cost of servicing the debt over the entire repayment period,
- resulting from the possession of free funds as surplus cash on the current account of the local government budget, resulting from the settlement of issued securities, loans and borrowings from previous years, and funds on this account,
- funds from other than those mentioned above, in particular from revenues from privatisation of territorial self-government units' assets and repayment of loans granted in previous years, if the entity does not incur liabilities to finance the planned budget deficit.

Table 3. Correction mechanism of the stabilising expenditure rule.

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The correction amounts of the stabilizing expenditure rule pursuant to Article 112aa(4):
1) – 2 percentage points: • the general government deficit in year x-2 exceeds GDP 3% (including costs of pension system reform) or • the amount specified in article 38a point 3 of the Public Finance Act (the amount of public debt recalculated using the yearly average of foreign currency exchange rates for the year concerned and reduced by the value of State budget liquid funds raised to finance the borrowing requirements for the following budget year) exceeds in year x-2 GDP 48%.
2) – 1.5 percentage points: • the general government deficit in year x-2 does not exceed GDP 3% (including costs of pension system reform) and the amount specified in article 38a point 3 of the Public Finance Act exceeds in year x-2 GDP 43% but is not higher than GDP 48% and • the forecasted dynamics of the real GDP for year x (assumed in the draft budget act for the year x) is not lower than the medium term average by over 2 percentage points;
• the general government deficit in year x-2 does not exceed GDP 3% (including costs of pension system reform) and • the amount specified in article 38a point 3 of the Public Finance Act in year x-2 is lower or equal to GDP 43% and • the sum of the differences between the general government nominal balance and the medium-term budgetary objective (MTO) exceeds in year x-2 GDP 6% and • the forecasted dynamics of the real GDP for year x (assumed in the draft budget act for the year x) is not lower than the medium term average by over 2 percentage points;
3) + 1.5 percentage points: • the general government deficit in year x-2 does not exceed GDP 3% (including costs of pension system reform) and • the amount specified in article 38a point 3 of the Public Finance Act in year x-2 is not higher than GDP 43% and • the sum of the differences between the general government nominal balance and the MTO exceeds in year x-2 GDP 6% and • the forecasted dynamics of the real GDP for year x (assumed in the draft budget act for the year x) is not higher than the medium term average by over 2 percentage points
4) in other cases there is no correction element

Table 4. Differences between public debt (Polish definition)and general government debt (EU definition).

Polish regulations	**EU regulations**
public debt	**general government debt**
1) scope of the public finance sector	
• Public Finance Act defines limited catalogue of units included in the public finance sector, i.e.: – bodies of public authority, including bodies of government administration, bodies of state control and legal protection, courts and tribunals; – local government units and their associations; – metropolitan associations; – budgetary units; – local government budgetary entities; – executive agencies; – institutions of budgetary management; – state special-purpose funds; – Social Security Institution and funds under its management; – Agricultural Social Insurance Fund (KRUS) and funds under management of the President of KRUS; – National Health Fund; – independent public health care units; – public universities; – Polish Academy of Sciences and organizational units founded by it; – state and local government cultural institutions; – other state or local government legal persons founded under separated acts in order to execute public tasks, excluding enterprises. research institutes, banks and commercial companies.	• scope of *general government*[1)] sector is defined in ESA2010[2)]; no limited catalogue of units is defined;
differences in the scope of sector depending on regulations	
a) funds formed within Bank Gospodarstwa Krajowego (BGK), f. ex. : the National Road Fund (KFD), the Railway Fund (FK)	
• are excluded from the public finance sector;	• are included in the general government sector [3)];
b) public corporations that are deemed non-marketable (f. ex. PKP PLK S.A., Port Lotniczy Łódź, health care institutions)	
• are excluded from the public finance sector;	• are included in the general government sector;
c) Bank Guarantee Fund public (including funds for protection of the guaranteed assets)	
• is excluded from the public finance sector;	• is included in the general government sector;
2) liabilities which constitute public debt	
• securities (excluding shares); • loans (including securities whose disposal is limited); • deposits; • matured payables (i.e. liabilities due but not settled, which have not been lagged nor cancelled);	• securities; • loans; • cash and deposits;
differences in liabilities depending on regulations	
• matured payables;	• [4)] • restructured or refinanced trade credits (including those with original maturity of one year or less) are included in loan category[5)]
3) valuation of liabilities denominated in foreign currencies	
• liabilities denominated in a foreign currency shall be converted into the national currency on the basis of the middle exchange rate applicable on the last working day of each period.	• liabilities denominated in a foreign currency, or exchanged from one foreign currency through contractual agreements to one or more other foreign currencies shall be converted into the other foreign currencies at the rate agreed on in those contracts and shall be converted into the national currency on the basis of the representative market exchange rate prevailing on the last working day of each year.

Polish regulations	EU regulations
public debt	**general government debt**
4) contingent liabilities	
differences in treatment of contingent liabilities in debt-to-GDP ratio	
• is not included;	• EU limitations do not take directly into account contingent liabilities generated by issued sureties and guarantees; • when specific criteria are met contingent liabilities should be treated as debt assumed by the entity which issued surety or guarantee;

1) Polish Central Statistical Office (GUS) is responsible for the scope of general government sector (in line with EU regulations). The list of general government sector entities is available on the internet website of GUS: https://stat.gov.pl/download/gfx/portalinformacyjny/pl/defaultaktualnosci/5483/6/8/1/lista_jednostek_sektora_instytucji_rzadowych_i_samorzadowych_s.13.xlsx
2) ESA2010 (Regulation (EU) No 549/2013 of the European Parliament and of the Council of May 21, 2013 on the European system of national and regional accounts in the European Union) states that an entity is classified to the general government sector if it is not a separate institutional unit from government or is a separate institutional unit controlled by general government and it is non-market. The ability to undertake market activity is checked notably through the usual quantitative criterion, i.e. if the ratio of sales revenues to production costs is above 50% , the unit is in principle deemed market. However, in order to decide whether a producer that operates under the control of government is a market unit some qualitative criteria must also be taken into account.
3) In compliance with Eurostat guidelines on sector classification of some infrastructure projects, general government debt figures may, under specified conditions, include capital expenditures of the projects in question (imputed loan)
4) Matured payables are expenditure on accrual basis and thus are included in net borrowing/net lending calculated (balance of general government) in accordance with EU methodology.
5) Pursuant to decision of Eurostat of 31 July 2012 on *The statistical recording of some operations related to trade credits incurred by government units* .

Annex 4. Selected statistical data concerning public finance and credit rating in Poland and EU

Table 5. General government deficit, debt[1)] and yields on 10-year bonds[2)] in the EU countries in 2017-2018

	2017			2018		
	GG balance	GG debt	10Y interest rate	GG balance	GG debt	10Y interest rate
	% GDP	% GDP	%	% GDP	% GDP	%
Greece	0.7	176.2	5.98	1.0	181.2	4.19
Italy	-2.4	134.1	2.11	-2.2	134.8	2.61
Portugal	-3.0	126.0	3.05	-0.4	122.2	1.84
Cyprus	1.7	93.9	2.62	-4.4	100.6	2.18
Belgium	-0.7	101.8	0.72	-0.7	100.0	0.79
France	-2.8	98.4	0.81	-2.5	98.4	0.78
Spain	-3.0	98.6	1.56	-2.5	97.6	1.42
United Kingdom	-2.4	86.2	1.18	-2.3	85.9	1.41
Euro area	**-0.9**	**87.8**	**1.09**	**-0.5**	**85.9**	**1.13**
European Union	**-1.0**	**82.1**	**1.31**	**-0.7**	**80.4**	**1.38**
Croatia	0.8	78.0	2.77	0.3	74.8	2.17
Austria	-0.7	78.3	0.58	0.2	74.0	0.69
Slovenia	0.0	74.1	0.96	0.8	70.4	0.93
Hungary	-2.4	72.9	2.96	-2.3	70.2	3.06
Ireland	-0.3	67.8	0.80	0.1	63.6	0.95
Germany	1.2	65.3	0.32	1.9	61.9	0.40
Finland	-0.7	60.9	0.55	-0.8	59.0	0.66
Netherlands	1.3	56.9	0.52	1.5	52.4	0.58
Slovakia	-1.0	51.3	0.92	-1.1	49.4	0.89
Poland	**-1.5**	**50.6**	**3.42**	**-0.2**	**48.9**	**3.20**
Malta	3.4	50.3	1.28	1.9	45.8	1.39
Sweden	1.4	40.7	0.65	0.8	38.8	0.65
Latvia	-0.5	38.6	0.83	-0.7	36.4	0.90
Romania	-2.6	35.1	3.96	-3.0	35.0	4.69
Denmark	1.7	35.5	0.48	0.8	34.2	0.45
Lithuania	0.5	39.3	0.31	0.6	34.1	0.31
Czechia	1.6	34.7	0.98	1.1	32.6	1.98
Bulgaria	1.1	25.3	1.60	1.8	22.3	0.89
Luxembourg	1.4	22.3	0.54	2.7	21.0	0.56
Estonia	-0.8	9.3	:	-0.6	8.4	:

[1)] Data on general government balance and debt – Eurostat.

[2)] 10-year interest rate – average of average monthly 10-year T-bond yields from last twelve months. from January to December; Eurostat.

Table 6. Long-term government debt rating in foreign currency of EU Member States as of December 11. 2019

	Standard&Poor's	**Fitch**	**Moody's**
Austria	AA+	AA+	Aa1
Belgium	AA	AA-	Aa3
Bulgaria	BBB	BBB	Baa2
Croatia	BBB-	BBB-	Ba2
Cyprus	BBB-	BBB-	Ba2
Czech Republic	AA-	AA-	AA3
Denmark	AAA	AAA	Aaa
Estonia	AA-	AA-	A1
Finland	AA+	AA+	Aa1
France	AA	AA	Aa2
Greece	B+	BB-	B1
Spain	A	A-	Baa1
Netherlands	AAA	AAA	Aaa
Ireland	AA-	A+	A2
Lithuania	A	A-	A3
Luxembourg	AAA	AAA	Aaa
Latvia	A	A-	A3
Malta	A-	A+	A2
Germany	AAA	AAA	Aaa
Poland	**A-**	**A-**	**A2**
Portugal	BBB	BBB	Baa3
Romania	BBB-	BBB-	Baa3
Slovakia	A+	A+	A2
Slovenia	AA-	A	Baa1
Sweden	AAA	AAA	Aaa
Hungary	BBB	BBB	Baa3
United Kingdom	AA	AA	Aa2
Italy	BBB	BBB	Baa3

Source: Reuters

Table 7. Public debt in Poland in 2008 – VI 2019

Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	VI 2019
1. State Treasury debt												
a) PLN bn	569.9	631.5	701.9	771.1	793.9	838.0	779.9	834.6	928.7	928.5	954.3	975.1
domestic *	420.2	462.7	507.0	524.7	543.0	584.3	503.1	543.3	609.2	644.5	674.4	701.3
foreign *	149.7	168.8	194.8	246.4	250.9	253.8	276.9	291.3	319.5	283.9	279.8	273.8
b) GDP %	44.3%	46.0%	48.6%	49.2%	48.7%	50.6%	45.3%	46.4%	49.9%	46.7%	45.1%	-
2. Public debt (domestic definition)												
a) PLN bn	597.8	669.9	747.9	815.3	840.5	882.3	826.8	877.3	965.2	961.8	984.3	998.2
b) GDP %	46.5%	48.8%	51.7%	52.0%	51.6%	53.2%	48.1%	48.7%	51.9%	48.3%	46.5%	-
3. General government debt (EU definition)												
a) PLN bn	595.4	678.3	767.8	847.7	875.3	922.8	867.3	923.4	1.009.4	1.006.6	1.035.3	1.051.2
b) GDP %	46.3%	49.4%	53.1%	54.1%	53.7%	55.7%	50.4%	51.3%	54.2%	50.6%	48.9%	-

**) place of issue criterion*

Table 8. GDP and exchange rates in 2008 – VI 2019

Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	VI 2019
1. Gross Domestic Product												
PLN bn	1.286.1	1.372.2	1.445.3	1.566.8	1.629.4	1.656.9	1.720.4	1.800.2	1.861.1	1.989.4	2.115.2	-
2. Exchange rate (end of period)												
a) EUR	4.17	4.11	3.96	4.42	4.09	4.15	4.26	4.26	4.42	4.17	4.30	4.25
b) USD	2.96	2.85	2.96	3.42	3.10	3.01	3.51	3.90	4.18	3.48	3.76	3.73

Source: GUS. NBP