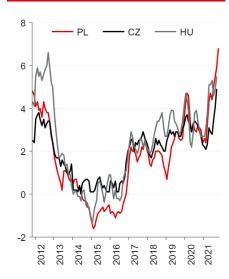
05 November 2021

# **MACROscope** Lite

# Chasing inflation

- Rising inflation has become the topic number one around the world, as it turns out that price increases are accelerating faster and may prove more persistent than many central banks have anticipated. This is largely due to the fact that despite all the problems with the supply chains disruptions, energy price spikes, and the pandemic the global economic recovery remains robust and resilient.
- The outlook for Poland also remains rock-solid and we keep our GDP growth forecast at 5.0% for both 2021 and 2022, as the diversified economy is likely to continue benefitting from the international trade expansion (only temporarily disrupted by the supply bottlenecks), and from further revival of private consumption and investments, as the tendency to normalise social and economic lives will not go away, while balance sheets of firms and consumers remain strong. That being said, we think that market expectations for 3Q21 GDP growth (flash release due on November 12th) are a bit overdone, as the high-frequency data suggested that real activity in manufacturing and construction has stalled, even though retail trade kept expanding. Also, the trade balance has deteriorated sharply in 3Q and so the net exports' impact on GDP is going to be significantly negative, in our view. Our estimate for 3Q GDP growth is 3.8% y/y, which corresponds to 1.2% q/q s.a. still a decent result, albeit weaker than in the previous two quarters. Market consensus is c.1pp higher.
- Polish CPI inflation continues surprising to the upside it has reached 6.8% y/y in October and according to our forecast is very likely to climb above 8% y/y in February. The size and broadness of price spikes tells us that it is not only due to "external shocks", as the importance of underlying internal factors is clearly rising. Core inflation excluding food and energy most likely rose to 4.6% y/y in October, and is on its way to hit 6% in mid-2022, according to our forecast. Healthy domestic demand, tight labour market and reviving credit growth created favourable environment for the proper inflationary pressure to build.
- In such an environment the decisive central bank policy response was the right thing to do. The Monetary Policy Council decided to hike interest rates by 75bp in November (the main reference rate to 1.25%), delivering the second strong move in a row, after 40bp hike in October. The decision seemed to be triggered by the CPI data surprises and by the results of the new NBP projection, showing big upward revision of inflation forecast, amid still solid GDP outlook. Apparently, the central bank's assessment of inflationary risks has changed considerably, and so did its reaction function. We think that further policy adjustment is down the road and the next decisions will be data-driven. As the CPI will go higher in the coming months, rate hikes will likely follow. NBP president said the central bank expects inflation to peak in January 2022 at "7-percent-and-something". Meanwhile, we think CPI will breach 7% already in November and by February it will exceed 8% y/y. So, the next hike in December cannot be ruled out (the size of the move will depend on the size of the CPI surprise). The NBP reference rate may peak at 3% in this cycle, according to current market pricing, which we think is a viable scenario, unless the economic outlook deteriorates significantly due to some unexpected shock.
- The yield curves bear flattened just after the last MPC decision, anticipating NBP rate stabilisation near 3% in the medium horizon. We think that further rise in yields and swap rates cannot be ruled out, as higher inflation prints will spur speculation about more hikes, but after the CPI peaks in 1Q22 and the tightening cycle ends (possibly before the end of 2Q22) some retracement could take place and the curve may invert.
- The surprisingly quick and strong pivot in the NBP monetary policy had surprisingly small effect on the Polish currency. EURPLN declined only for a while and now is back above 4.60, after the Fed's policy tightening and Mr.Glapiński's most recent comment about no need for more rate hikes. We think the EURPLN may remain range-bound near current levels in the nearest weeks, as investors will be uncertain about the possibility of NBP's interventions around the year-end and the lengthening government's conflict with the EU. But we see the scope for PLN appreciation in 2022 after next rate hikes materialise and EU funds get unfrozen.

#### CPI inflation rates in CEE, % y/y



Source: Refinitiv Datastream, Santander

#### Recently released Economic Comments:

- Whatever it takes
- CPI above expectations again
- Construction and sales below expectations
- High output after summer break, PPI beats 10%

#### **Economic Analysis Department:**

al. Jana Pawła II 17, 00-854 Warszawa email: ekonomia@santander.pl website: <u>santander.pl/en/economic-analysis</u> <u>Maciej Reluga</u> – Chief Economist

+48 22 534 1888 Piotr Bielski +48 691 393 119 Marcin Luziński +48 510 027 662 Wojciech Mazurkiewicz +48 604 443 750 Grzegorz Ogonek +48 609 224 857



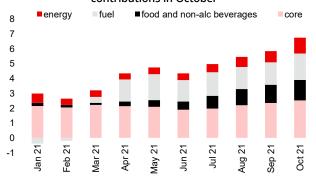
## Economy in charts

# Inflation kept rising, chased by too conservative market forecasts...



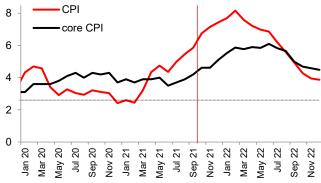
Source: GUS, Parkiet, Santander

# All main CPI components significantly increased their contributions in October



Source: GUS, Santander

#### According to our forecasts we are still far below the CPI peak



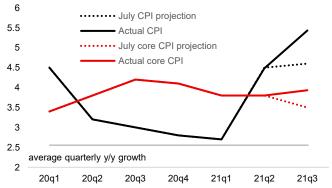
Source: GUS, Santander

# Industry returned quicker to pre-Covid trend and now seems more resilient to input shortages than construction, there is still much potential in retail sales normalisation



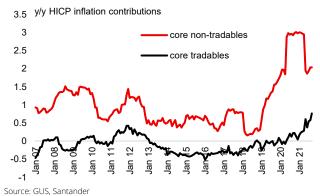
Source: GUS, Santander

#### ...and leaving July NBP projection far behind.



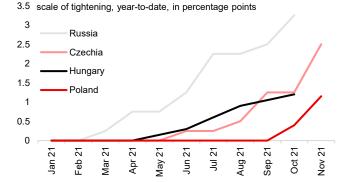
Source: GUS, NBP, Santander

# ...both tradable and non-tradable part of core CPI are historically high



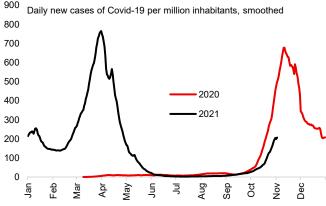
2007 CC. CO37 Santanaci

## MPC responded by quickly catching up with CEE central banks



Source: GUS, Santander

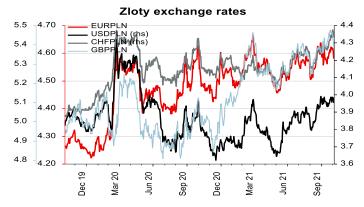
#### Covid is not giving up amid 53% full vaccination in Poland

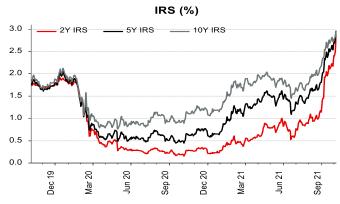


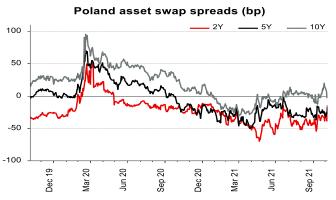
Source: ourworldindata, Santander



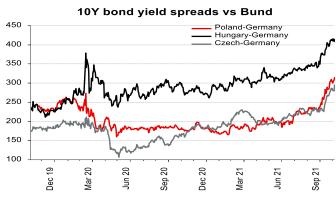
#### Markets in charts



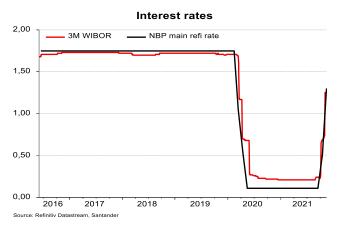




Source: Refinitiv Datas



Source: Refinitiv Datastream, Santand



PLN-denominated bond redemptions and interest payments, PLNm

Principal and interest payments

Dec 21 21

Feb Mar



May 22 Jul 22 ■ Principal ■ Coupon

Source: Ministry of Finance, Santander

30,000

25,000

20,000

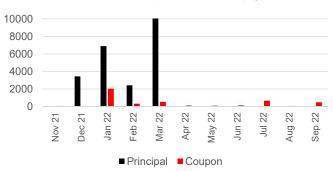
15,000

10,000

5,000

0

#### FX denominated bond redemptions and interest payments, PLNm



Source: Ministry of Finance, Santander



# Economic Calendar

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1 November DE: Retail sales (Sep) CZ: PMI manufacturing (Oct)	PL: PMI manufacturing (Oct) EZ: PMI manufacturing (Oct) DE: PMI manufacturing (Oct) HU: PMI manufacturing (Oct) HU: PPI (Sep)	3 PL: NBP rate decision (1.25%) HU: MNB minutes EZ: Unemployment rate (Sep) US: ADP employment change US: PMI services (Oct) US: ISM services (Oct) US: FOMC	4 EZ: PMI services (Oct, final) EZ: PPI (Sep) DE: Factory orders (Sep) DE: PMI services (Oct) CZ: CNB rate decision	5 EZ: Retail sales (Sep) DE: Industrial production (Sep) HU: Retail sales (Sep) HU: Industrial production (Sep) CZ: Retail sales (Sep) US: Non-farm payrolls (Oct) US: Unemployment rate
8 CZ: Industrial output (Sep)	9 EZ: ZEW (Nov) DE: ZEW (Nov) HU: CPI (Oct) US: PPI (Oct)	10 DE: CPI (Oct) DE: HICP (Oct) CZ: CPI (Oct) US: Core CPI (Oct) US: Wholesale inventories (Sep)	11	12 EZ: Industrial production (Sep) PL: GDP 3Q21 (preliminary) US: Michigan sentiment (Nov)
15 PL: CPI (Oct, final) PL: Current account (Sep)	16 EZ: GDP (3Q21, preliminary) PL: Core CPI (Oct) HU: MNB rate decision HU: GDP (3Q21, preliminary) CZ: PPI (Oct) US: Retail sales (Oct)	17 EZ: CPI (Oct, final) EZ: Core CPI (Oct, final) US: Housing starts (Oct)	18	19 DE: PPI (Oct) PL: Wages (Oct) PL: Employment (Oct)
PL: PPI (Oct) PL: Industrial output (Oct) US: Existing home sales (Oct)	EZ: PMI manufacturing (Nov) EZ: PMI services (Nov) DE: GDP (3Q21, final) DE: PMI manufacturing (Nov) PL: Retail sales (Oct) US: PMI services (Nov)	24 DE: IFO (Nov) PL: M3 (Oct) US: GDP (3Q21, second) US: PCE (Oct) US: Personal income (Oct) US: FOMC minutes	25 DE: Consumer confidence (Dec) PL: Unemployment (Oct)	26 EZ: M3 (Oct)
29 DE: CPI (Nov) DE: HICP (Nov) EZ: ESI US: Pending home sales (Oct)	30 EZ: HICP (Nov) DE: Unemployment (Nov) PL: CPI (Nov, preliminary) PL: GDP (3Q21, final) CZ: GDP (3Q21, preliminary) US: Consumer confidence (Nov)	1 December EZ: PMI manufacturing (Nov) DE: PMI manufacturing (NoV) PL: PMI manufacturing (Nov) HU: PMI manufacturing (Nov) CZ: PMI manufacturing (Nov) HU: GDP (3Q21, final) HU: PPI (Oct) HU: MNB minutes US: ISM manufacturing (Nov)	2 EZ: PPI (Oct)	

Source: GUS, NBP, Ministry of Finance, Bloomberg

## Calendar of MPC meetings and data releases for 2021

	1	II	III	IV	٧	VI	VII	VIII	IX	Χ	ΧI	XII
ECB decision	21		11	22		10	22		9	28		16
Fed decision	27		17	28		16	28		22		3	15
MPC decision		3	3	7	5	9	8		8	6	3	8
MPC minutes	15	5	5	9	7	11	9	26		8	5	10
Flash GDP*		12			14			13			12	
GDP*		26			31			31			30	
CPI	15	15	15	15	14	15	15	13	15	15	15	15
Core inflation			16	16	17	16	16	16	16	18	16	16
PPI	22	18	18	22	21	21	20	19	20	20	22	20
Industrial output	25	18	18	22	21	21	20	19	20	20	22	20
Retail sales	22	19	19	22	24	22	21	20	21	21	23	21
Gross wages, employment	21	17	17	21	20	18	19	18	17	19	19	17
Foreign trade					about 50	days afte	er report	ed period				
Balance of payments*			31			30			30			
Balance of payments	13	15	16	13	14	14	14	13	13	14	15	
Money supply	26	22	22	23	25	24	22	23	22	22	24	

Source: GUS, NBP, Ministry of Finance, \* quarterly data



# Economic data and forecasts for Poland

## Monthly economic indicators

		Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21	Apr 21	May 21	Jun 21	Jul 21	Aug 21	Sep 21	Oct 21	Nov 21
PMI	pts	50.8	50.8	51.7	51.9	53.4	54.3	53.7	57.2	59.4	57.6	56.0	53.4	53.8	54.0
Industrial production	% y/y	1.0	5.4	11.1	0.7	2.5	18.6	44.2	29.7	18.1	9.5	13.0	8.8	5.0	9.3
Construction production	% y/y	-5.8	-4.9	3.4	-10.1	-16.9	-10.8	-4.2	4.7	4.5	3.2	10.2	4.3	3.3	6.8
Retail sales (current prices)	% y/y	-2.1	-5.3	-0.8	-6.0	-2.7	17.1	25.7	19.1	13.0	8.9	10.7	11.1	12.7	14.2
Unemployment rate	%	6.1	6.1	6.2	6.5	6.5	6.4	6.3	6.1	5.9	5.8	5.8	5.6	5.5	5.5
Gross wages in corporate sector	% y/y	4.7	4.9	6.6	4.8	4.5	8.0	9.9	10.1	9.8	8.7	9.5	8.7	8.7	9.5
Employment in corporate sector	% y/y	-1.0	-1.2	-1.0	-2.0	-1.7	-1.3	0.9	2.7	2.8	1.8	0.9	0.6	0.5	0.7
Exports (€)	% y/y	5.8	12.4	17.0	1.0	5.6	27.7	68.6	40.5	22.7	13.1	19.4	14.8	9.4	12.4
Imports (€)	% y/y	-2.4	6.2	14.6	-3.7	6.0	23.6	58.3	52.4	34.7	21.5	32.9	25.3	12.0	16.4
Trade balance	EUR mn	1,993	2,212	587	1,286	736	694	1,362	121	714	-761	-1,413	-321	1,623	1,631
Current account balance	EUR mn	1,550	1,298	751	2,034	652	71	1,269	-531	-378	-1,551	-1,686	-731	1,280	1,328
Current account balance	% GDP	2.8	2.8	2.9	2.8	2.7	2.7	2.8	2.5	1.7	1.4	0.9	0.5	0.4	0.4
Budget balance (cumulative)	PLN bn	-12.1	-13.2	-85.0	6.6	0.9	-3.4	9.2	9.4	28.0	35.3	43.4	47.6	49.7	44.9
Budget balance (cumulative)	% of FY plan	11.0	12.1	77.7	-8.1	-1.1	4.2	-11.1	-11.4	-34.0	-42.8	-52.7	-57.8	-60.4	-54.5
CPI	% y/y	3.1	3.0	2.4	2.6	2.4	3.2	4.3	4.7	4.4	5.0	5.5	5.9	6.8	7.1
CPI excluding food and energy	% y/y	4.2	4.3	3.7	3.9	3.7	3.9	3.9	4.0	3.5	3.7	3.9	4.2	4.6	4.6
PPI	% y/y	-0.4	-0.2	0.1	1.0	2.2	4.2	5.5	6.6	7.2	8.4	9.6	10.2	11.2	11.6
Broad money (M3)	% y/y	17.0	16.1	16.4	16.8	16.3	14.4	11.2	9.0	7.4	8.8	9.1	8.6	7.9	7.1
Deposits	% y/y	13.9	12.8	12.3	12.2	12.0	11.8	9.1	7.0	5.7	7.1	7.4	7.0	7.1	7.7
Loans	% y/y	0.8	-0.1	0.2	-0.8	-0.8	-2.1	-1.6	-0.3	0.2	1.9	2.3	2.7	2.7	4.0
EUR/PLN	PLN	4.52	4.49	4.48	4.54	4.50	4.60	4.56	4.52	4.50	4.56	4.57	4.57	4.59	4.61
USD/PLN	PLN	3.84	3.78	3.68	3.73	3.72	3.86	3.81	3.73	3.74	3.86	3.88	3.88	3.96	3.98
CHF/PLN	PLN	4.21	4.16	4.14	4.20	4.14	4.16	4.14	4.12	4.12	4.21	4.24	4.21	4.29	4.35
Reference rate *	%	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.50	1.25
3M WIBOR	%	0.22	0.22	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.23	0.61	1.25
Yield on 2-year T-bonds	%	0.01	0.03	0.08	0.05	0.10	0.07	0.09	0.17	0.35	0.36	0.40	0.54	1.63	2.65
Yield on 5-year T-bonds	%	0.51	0.41	0.47	0.42	0.67	0.86	0.85	1.17	1.30	1.15	0.11	1.40	2.16	2.80
Yield on 10-year T-bonds	%	1.27	1.21	1.29	1.21	1.32	1.54	1.56	1.82	1.79	1.63	1.76	2.02	2.64	2.90

Note: \* at the end of the period. Source: GUS, NBP, Finance Ministry, Santander Bank Polska estimates.



#### Quarterly and annual economic indicators

Quarterly and annual ec		2019	2020	2021	2022	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22
	DINII							-					
GDP	PLN bn	2,293.2	2,326.7	2,570.3	2,819.2	587.4	617.0	623.5	738.4	650.7	683.5	675.5	790.1
GDP	% y/y	4.7	-2.5	5.0	5.0	-0.8	11.2	3.8	6.2	5.1	6.0	4.9	4.3
Domestic demand	% y/y	3.6	-3.4	6.8	5.5	0.3	12.4	6.9	8.0	5.5	6.4	5.4	4.8
Private consumption	% y/y	4.0	-3.0	6.0	6.1	0.1	13.1	4.0	8.0	8.0	6.5	5.0	5.2
Fixed investments	% y/y	6.1	-9.0	9.3	6.8	1.7	5.6	10.0	15.0	1.0	14.0	6.5	5.6
Industrial production	% y/y	4.2	-1.1	13.2	10.0	7.8	30.2	10.5	8.0	8.0	9.3	11.5	11.2
Construction production	% y/y	3.6	-3.5	1.0	3.2	-12.5	1.8	5.8	4.3	4.7	-2.7	4.3	6.1
Retail sales (constant prices)	% y/y	5.1	-3.0	6.8	1.1	1.2	14.4	6.1	6.5	5.2	1.8	-2.5	0.6
Unemployment rate *	%	5.2	6.2	5.7	5.5	6.4	5.9	5.6	5.7	6.2	5.7	5.4	5.5
Gross wages in the national economy	% y/y	7.2	5.3	8.4	7.1	6.6	9.6	8.7	8.6	8.1	7.0	6.4	6.8
Employment in the national economy	% y/y	2.2	-1.0	0.2	2.2	-1.4	1.1	0.7	0.4	2.1	2.2	2.2	2.4
Exports (€)	% y/y	7.3	1.3	18.8	13.6	11.3	41.6	15.6	11.5	10.1	12.3	16.1	15.6
Imports (€)	% y/y	3.6	-3.4	23.0	17.5	8.7	47.7	26.3	15.4	13.3	15.9	20.7	19.4
Trade balance	EUR mn	1,527	12,472	5,358	-4,587	2,713	2,202	-2,495	2,938	898	38	-6,158	635
Current account balance	EUR mn	2,523	15,287	1,155	-5,109	2,746	372	-3,968	2,004	1,509	-1,077	-6,275	734
Current account balance	% GDP	0.5	2.9	0.2	-0.8	2.7	1.7	0.5	0.2	0.0	-0.3	-0.6	-0.8
General government balance	% GDP	-0.7	-7.1	-2.8	-2.6	-	-	-	-	-	-	-	-
СРІ	% y/y	2.3	3.4	4.9	6.1	2.8	4.5	5.4	7.1	7.8	7.0	5.6	4.0
CPI *	% y/y	3.4	2.4	7.4	3.9	3.2	4.4	5.9	7.4	7.6	6.9	4.9	3.9
CPI excluding food and energy	% y/y	2.0	3.9	4.1	5.4	3.8	3.8	3.9	4.8	5.7	5.9	5.5	4.6
PPI	% y/y	1.2	-0.6	7.4	5.0	2.5	6.4	9.4	11.4	9.2	5.8	3.3	1.8
Broad money (M3) *	% y/y	8.3	16.4	6.4	7.9	14.4	7.4	8.6	6.4	6.7	7.8	8.7	8.5
Deposits *	% y/y	8.5	12.3	6.9	5.6	11.8	5.7	7.0	6.9	4.9	4.7	4.3	5.6
Loans *	% y/y	5.2	0.2	4.4	9.5	-2.1	0.2	2.7	4.4	7.0	8.5	9.9	9.5
EUR/PLN	PLN	4.30	4.44	4.56	4.51	4.54	4.53	4.57	4.60	4.56	4.51	4.49	4.47
USD/PLN	PLN	3.84	3.89	3.84	3.73	3.77	3.76	3.87	3.96	3.88	3.75	3.66	3.60
CHF/PLN	PLN	3.86	4.15	4.20	4.01	4.17	4.13	4.22	4.30	4.13	4.04	3.97	3.92
Reference rate *	%	1.50	0.10	1.75	3.00	0.10	0.10	0.10	1.75	2.75	3.00	3.00	3.00
3M WIBOR	%	1.72	0.67	0.49	3.01	0.21	0.21	0.22	1.31	2.62	3.12	3.23	3.09
Yield on 2-year T-bonds	%	1.56	0.50	0.76	3.03	0.08	0.20	0.43	2.32	2.85	3.05	3.10	3.10
Yield on 5-year T-bonds	%	1.99	0.96	1.32	3.09	0.65	1.10	0.89	2.64	3.05	3.10	3.10	3.10
Yield on 10-year T-bonds	%	2.41	1.52	1.94	3.14	1.35	1.73	1.80	2.86	3.10	3.10	3.15	3.20

Note:  $\,^*$ at the end of period. Source: GUS, NBP, Finance Ministry, Santander Bank Polska estimates.



This analysis is based on information available until 5.11.2021 has been prepared by:

#### **ECONOMIC ANALYSIS DEPARTMENT**

al. Jana Pawła II 17, 00-854 Warszawa (+48) 22 586 8340

Email: ekonomia@santander.pl Web site: <a href="https://www.santander.pl/en/economic-analysis">https://www.santander.pl/en/economic-analysis</a>

# Maciej Reluga\* – Chief Economist

tel. (+48) 22 534 1888. Email: maciej.reluga@santander.pl

 Piotr Bielski\*
 - Director
 +48 691 393 119

 Marcin Luziński\*
 - Economist
 +48 510 027 662

 Wojciech Mazurkiewicz\*
 - Economist
 +48 604 443 750

 Grzegorz Ogonek\*
 - Economist
 +48 609 224 857











# TREASURY SERVICES DEPARTMENT

# Poznań

pl. Gen. W. Andersa 5 61-894 Poznań tel. (+48) 61 856 58 14/30 fax (+48) 61 856 4456

## Warszawa

al. Jana Pawła II 17 00-854 Warszawa tel. (+48) 22 586 83 20/38 fax (+48) 22 586 8340

# Wrocław

ul. Robotnicza 11 53-607 Wrocław tel. (+48) 71 369 9400 fax (+48) 71 370 2622



# IMPORTANT DISCLOSURES

This report has been prepared by Santander Bank Polska S.A. and is provided for information purposes only. Santander Bank Polska S.A. is registered in Poland and is authorised and regulated by The Polish Financial Supervision Authority.

This report is issued in Poland by Santander Bank Polska S.A., in Spain by Banco Santander, S.A., under the supervision of the CNMV and in the United Kingdom by Banco Santander, S.A., London Branch ("Santander London"). Santander London is registered in the UK (with FRN 136261) and subject to limited regulation by the FCA and PRA. Santander Bank Polska S.A., Banco Santander, S.A. and Santander London are members of Grupo Santander. A list of authorised legal entities within Grupo Santander is available upon request.

This material constitutes "investment research" for the purposes of the Markets in Financial Instruments Directive and as such contains an objective or independent explanation of the matters contained in the material. Any recommendations contained in this document must not be relied upon as investment advice based on the recipient's personal circumstances. The information and opinions contained in this report have been obtained from, or are based on, public sources believed to be reliable, but no representation or warranty, express or implied, is made that such information is accurate, complete or up to date and it should not be relied upon as such. Furthermore, this report does not constitute a prospectus or other offering document or an offer or solicitation to buy or sell any securities or other investment. Information and opinions contained in the report are published for the assistance of recipients, but are not to be relied upon as authoritative or taken in substitution for the exercise of judgement by any recipient, are subject to change without notice and not intended to provide the sole basis of any evaluation of the instruments discussed herein.

Any reference to past performance should not be taken as an indication of future performance. This report is for the use of intended recipients only and may not be reproduced (in whole or in part) or delivered or transmitted to any other person without the prior written consent of Santander Bank Polska S.A.

Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this report and should understand that statements regarding future prospects may not be realised. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this report.

The material in this research report is general information intended for recipients who understand the risks associated with investment. It does not take into account whether an investment, course of action, or associated risks are suitable for the recipient. Furthermore, this document is intended to be used by market professionals (eligible counterparties and professional clients but not retail clients). Retail clients must not rely on this document.

To the fullest extent permitted by law, no Santander Group company accepts any liability whatsoever (including in negligence) for any direct or consequential loss arising from any use of or reliance on material contained in this report. All estimates and opinions included in this report are made as of the date of this report. Unless otherwise indicated in this report there is no intention to update this report.

Santander Bank Polska S.A. and its legal affiliates may make a market in, or may, as principal or agent, buy or sell securities of the issuers mentioned in this report or derivatives thereon. Santander Bank Polska S.A. and its legal affiliates may have a financial interest in the issuers mentioned in this report, including a long or short position in their securities and/or options, futures or other derivative instruments based thereon, or vice versa.

Santander Bank Polska S.A. and its legal affiliates may receive or intend to seek compensation for investment banking services in the next three months from or in relation to an issuer mentioned in this report. Any issuer mentioned in this report may have been provided with sections of this report prior to its publication in order to verify its factual accuracy.

Santander Bank Polska S.A. and/or a company in the Santander Group is a market maker or a liquidity provider for EUR/PLN.

Santander Bank Polska S.A. and/or a company of the Santander Group has been lead or co-lead manager over the previous 12 months in a publicly disclosed offer of or on financial instruments issued by the Polish Ministry of Finance or Ministry of Treasury.

Santander Bank Polska S.A. and/or a company in the Santander Group expects to receive or intends to seek compensation for investment banking services from the Polish Ministry of Finance or Ministry of Treasury in the next three months.

#### ADDITIONAL INFORMATION

Santander Bank Polska S.A. or any of its affiliates, salespeople, traders and other professionals may provide oral or written market commentary or trading strategies to its clients that reflect opinions that are contrary to the opinions expressed herein. Furthermore, Santander Bank Polska S.A. or any of its affiliates' trading and investment businesses may make investment decisions that are inconsistent with the recommendations expressed herein.

No part of this report may be copied, conveyed, distributed or furnished to any person or entity in any country (or persons or entities in the same) in which its distribution is prohibited by law. Failure to comply with these restrictions may breach the laws of the relevant jurisdiction.

Investment research issued by Santander Bank Polska S.A. is prepared in accordance with the Santander Group policies for managing conflicts of interest. In relation to the production of investment research, Santander Bank Polska S.A. and its affiliates have internal rules of conduct that contain, among other things, procedures to prevent conflicts of interest including Chinese Walls and, where appropriate, establishing specific restrictions on research activity. Information concerning the management of conflicts of interest and the internal rules of conduct are available on request from Santander Bank Polska S.A..

#### COUNTRY & REGION SPECIFIC DISCLOSURES

Poland (PL): This publication has been prepared by Santander Bank Polska S.A. for information purposes only and it is not an offer or solicitation for the purchase or sale of any financial instrument. All reasonable care has been taken to ensure that the information contained herein is not untrue or misleading. But no representation is made as to its accuracy or completeness. No reliance should be placed on it and no liability is accepted for any loss arising from reliance on it. Information presented in the publication is not an investment advice. Resulting from the purchase or sale of financial instrument, additional costs, including taxes, that are not payable to or through Santander Bank Polska S.A., can arise to the purchasing or selling party. Rates used for calculation can differ from market levels or can be inconsistent with financial calculation of any market participant. Conditions presented in the publication are subject to change. Examples presented in the publication is for information purposes only and shall be treated only as a base for further discussion.

**U.K.** and European Economic Area (EEA): Unless specified to the contrary, issued and approved for distribution in the U.K. and the EEA by Banco Santander, S.A. Investment research issued by Banco Santander, S.A. has been prepared in accordance with Grupo Santander's policies for managing conflicts of interest arising as a result of publication and distribution of investment research. Many European regulators require that a firm establish, implement and maintain such a policy. This report has been issued in the U.K. only to persons of a kind described in Article 19 (5), 38, 47 and 49 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (all such persons being referred to as "relevant persons"). This document must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is only regarded as being provided to professional investors (or equivalent) in their home jurisdiction.

© Santander Bank Polska S.A. 2020. All Rights Reserved.