

GUIDO LUCA
Economist

Economic Research Office

T: +44 (0)20 7577 1394
E: guido.luca@uk.mufg.jp

MUFG BANK, LTD.
A member of MUFG, a global financial group

Inflation near a three-year high but still limited signs of any second-round effects

18 September 2026

- The increase in August headline HICP inflation to 3.2% is notable, but was driven primarily by energy inflation, while core inflation declined slightly.
- There is currently little evidence of significant second-round effects. Services inflation is on a downward path, just above 3%, while the rise in core goods inflation is concentrated in selected categories, and the share of items experiencing high inflation remains limited. Labour market tightness is nowhere near its last peak, and wage indicators do not point to a renewed acceleration.
- Risks are tilted to the upside. Energy prices remain under pressure, with refined oil product prices decoupling from crude oil and natural gas markets vulnerable to a cold winter. Food inflation is currently low, but disruption in fertiliser markets and a strong El Niño could alter the outlook by year-end.
- While the ECB delivered a rate hike at its September meeting as expected, policymakers adopted a more hawkish stance than anticipated amid the renewed surge in energy prices. If higher energy prices keep headline inflation significantly above target for an extended period, the ECB may choose to tighten further even before clear evidence of second-round effects emerges. We have regarded a 2.5% deposit facility rate as the likely endpoint of the tightening cycle, but the risk of additional rate hikes has risen materially in recent months.

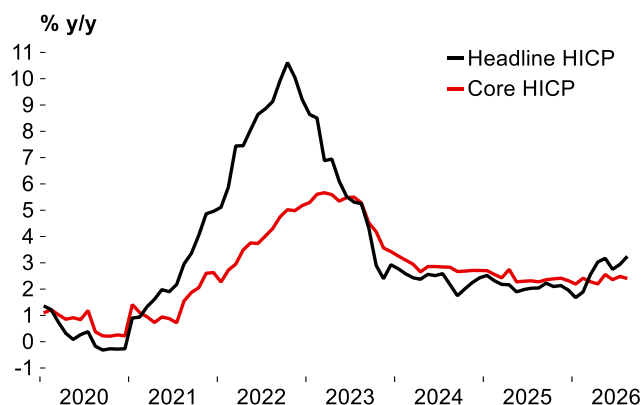
Higher euro area inflation is still mostly driven by energy

Euro area headline HICP inflation rose to 3.2% y/y in August, up from 2.9% in July, the highest reading since September 2023. As expected, the acceleration was driven mainly by energy inflation, which increased by 14%. With energy representing around 9% of the headline HICP, the sharp rise in energy prices is important for the near-term path of the headline index. In principle, however, this alone should not be a cause for concern unless inflationary pressures begin to spread more broadly across the consumption basket.

Core inflation, by contrast, declined marginally to 2.4% from 2.5%. The moderation was mainly due to services inflation, which fell to 3.0% from 3.3%, because of volatility in holiday-related prices. Core goods inflation moved in the opposite direction, rising to 1.2% from 0.9%. The increase deserves closer examination, particularly because the modest rise in core inflation since the start of the year has been concentrated in

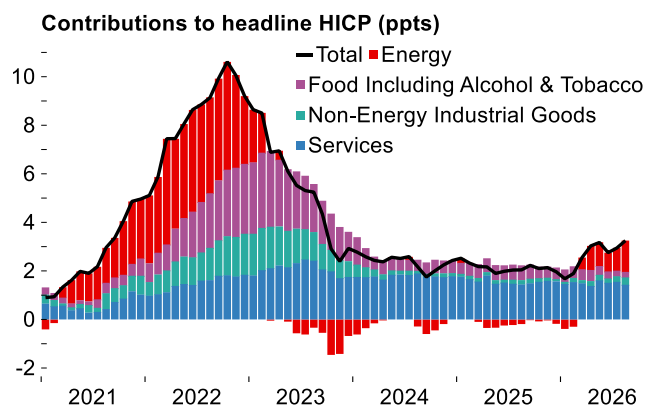
non-energy industrial goods. Even so, the August data does not provide much evidence that higher energy costs are affecting the broader inflation basket.

Headline inflation near three-year high as core moderates...



Source: Eurostat, MUFG Bank Economic Research Office

... the former driven by energy and the latter by services



Source: Eurostat, MUFG Bank Economic Research Office

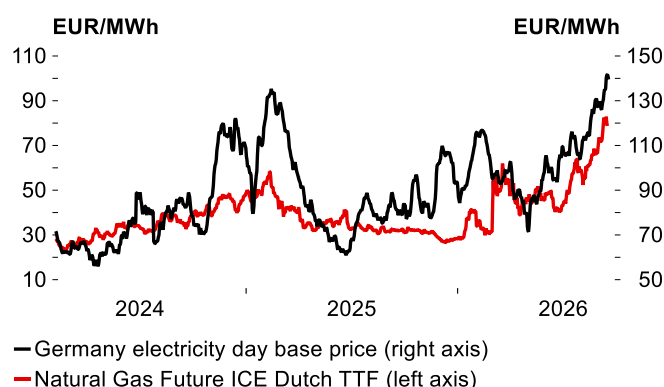
Renewed pressure in energy prices

Energy in the HICP basket comprises two categories. The first, "electricity, gas and other fuels", which falls under housing, accounts for 5.3% of the total index. The second, "fuels and lubricants for personal transport equipment", which belongs to transport, represents 3.8% of the aggregate index. The former is mostly affected by the price of natural gas, while the latter is driven primarily by the price of oil products.

Since the start of the conflict in the Middle East, natural gas prices have remained elevated, with TTF futures having reached their highest level since January 2023. Electricity prices in Germany and across the euro area are tracking these elevated gas prices, although the transmission to household energy bills tends to occur with a lag, as many consumers are shielded in the near term by fixed-price contracts.

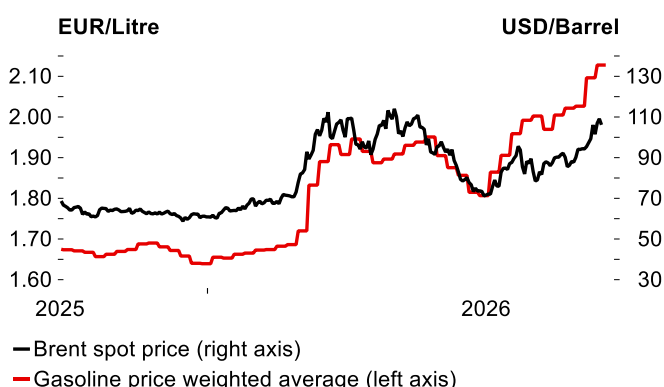
On the other hand, the prices of refined oil products are no longer following movements in Brent crude as closely as before. Diesel and petrol prices have remained well above the levels implied by crude oil prices, which have now surged again past USD 100/barrel on the back of a new escalation in the Middle East. The conflict has damaged refining infrastructure and disrupted exports from key producers, tightening global product markets beyond the impact of crude flow disruptions alone. These pressures have been compounded by Ukrainian drone attacks on Russian refining capacity, which have particularly affected diesel supplies. As a result, much of the previous decline in crude costs had been absorbed by higher crack spreads rather than being passed through to end users, limiting the extent to which lower oil prices translated into cheaper fuel at the pump.

Electricity prices have been tracking the price of natural gas in the past year...



Source: Intercontinental Exchange (ICE), EEX (European Energy Exchange), MUFG Bank Economic Research Office

... while refined product prices have decoupled from crude oil prices and continued to rise amid tight refining capacity



Source: European Commission (DG ENERGY), Macrobond Financial AB, Macrobond, MUFG GMR

No evidence of second-round effects so far

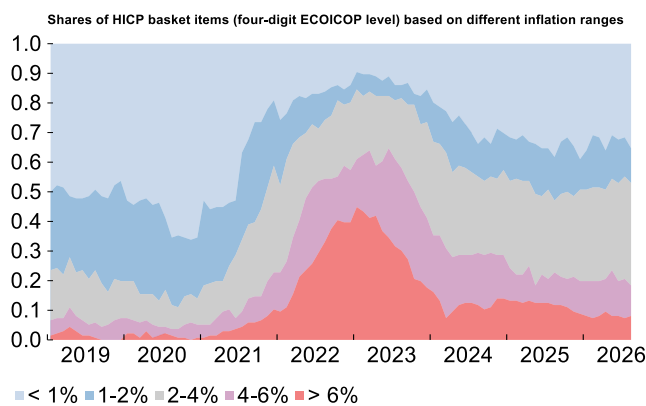
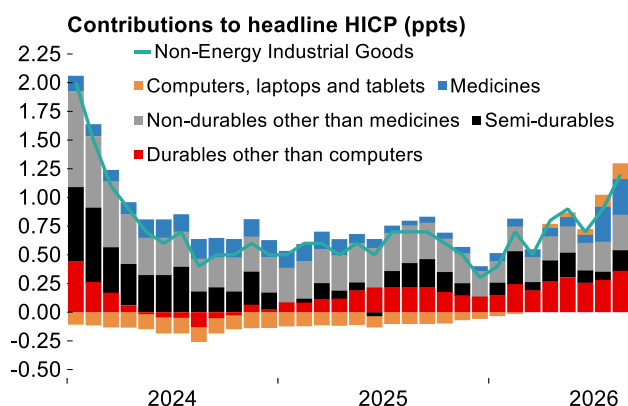
The central question for the inflation outlook is whether these persistent energy price pressures are spreading to other prices. So far, there is no clear evidence that energy inflation is becoming entrenched in the core components of HICP. Service prices have moderated and remain relatively stable, while the rise in core goods inflation appears to be concentrated in specific categories. Measures of inflation breadth also suggest that very high inflation remains confined to a comparatively small part of the consumption basket.

Services inflation has behaved relatively well following the high-inflation episode of 2022. It is now slightly above 3% and contributes around 1.5 percentage points to headline inflation. This is particularly important because services inflation may be more persistent than goods or energy inflation and is more closely connected to domestic cost pressures.

The increase in core inflation from 2.2% to 2.4% since the start of the year has been driven mainly by core goods rather than services. Computers and medicines stand out as important drivers in the durable and non-durable goods categories, respectively. In August, computer prices increased by 10.4% y/y (up from 3.8% y/y in June), while medicine prices rose by 7.2% y/y (from 1.6% y/y in June). Higher computer prices are likely due to the shortage of memory components, a consequence of the build-up of data centres across the world. The spike in medicine prices is entirely due to an adjustment to regulated prices in Germany.

The distribution of inflation rates across the HICP basket provides an additional indication of whether inflationary pressure is becoming broad-based. The share of items in the 2% to 4% inflation range has increased from 31% at the start of the year to 35%, but this can mostly be attributed to the energy shock. There is not yet much evidence of a generalised inflationary expansion. Among the items that were growing at 2% or less in February, beyond energy, computers and medicines, only four now record inflation above 2.5%: vegetables (2.7%), furniture services (2.9%), water (3.1%) and mobile communication services (3.6%). The share of items with inflation above 4% remains limited, and a substantial proportion of the basket continues to record inflation below 2%.

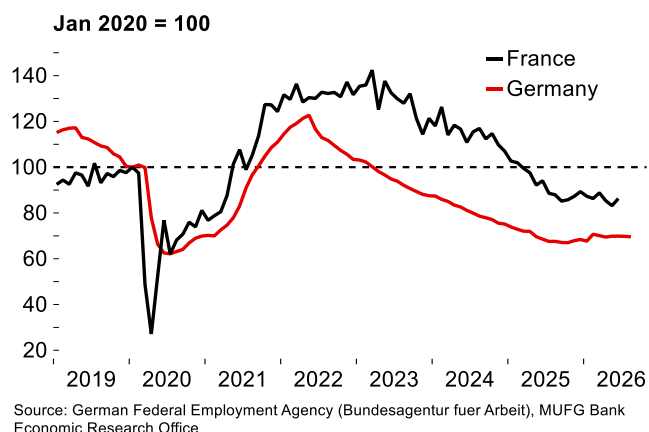
Core goods are putting upward pressure on HICP, driven mostly ... but the share of prices rising by more than 4% remains limited by a couple of items...



Finally, the labour market does not currently appear exceptionally tight, as it did during the 2022 inflation episode. The ratio of vacancies to unemployed has fallen significantly from its previous peak. In France and Germany, the ratio is now below its pre-pandemic level. Both the ECB negotiated wages indicator and the wage growth indicator by Indeed are also low by the standards of the post-2022 period. Taken together, the tightness and wage data do not point to a renewed wage-price dynamic capable of producing generalised price increases.

It is worth noting that the euro area unemployment rate remains close to historically low levels and has been broadly unchanged over the past two years. However, this stability conceals notable cross-country differences, with rising unemployment in Germany and France offset by historically low rates in Italy and Spain. At the same time, the euro area Indeed wage growth indicator increased to 3.3% in August, supported in large part by Italy and Spain. It is still too early to draw firm conclusions, and official data will be needed to assess whether this strength is sustained.

The vacancy to unemployed ratio shows a labour market that has cooled substantially since the last inflation crisis



Most measures of Euro area wage pressures and labour market tightness agree

	Q2 2026	Q1 2026	Q4 2025	Q3 2025	Q2 2025
ECB indicator of negotiated wages	2.44	2.56	2.91	1.95	4.02
Nominal unit labor cost	2.59	3.41	2.88	3.39	3.36
Unemployment rate	6.40	6.40	6.30	6.30	6.30
Vacancy rate	2.10	2.20	2.30	2.30	2.30

Conditional formatting is based on z-scores calculated over the period since 2022. Red indicates tighter labour-market conditions and greater wage-related inflationary pressure, while blue indicates looser conditions and lower pressure.

Outlook and risks

Our baseline outlook of average HICP inflation of 2.8% in 2026, followed by 2.2% in 2027, is consistent with headline inflation remaining slightly above 3% for the rest of the year, and the August inflation release does not materially alter that assessment. The key message from the data is that the increase in headline HICP inflation reflects a renewed energy shock rather than a broad-based reacceleration in underlying inflation.

The most important upside risk to our outlook is further disruption to the European natural gas market. With gas storage levels entering winter at their lowest level in 15 years, a particularly cold winter could lead to renewed upward pressure on gas and electricity prices. This is relevant not only for household energy costs. Natural gas and electricity are fundamental inputs across the manufacturing sector, and also affect agriculture and services, meaning that a prolonged shock could have broader implications for production costs and more easily result in second-round effects. Consequently, this is both the most likely and the most impactful risk to the inflation outlook, and the one to which the ECB is likely to attach the greatest importance.

A second risk arises from the divergence between Brent crude and refined oil product prices. Diesel and petrol prices have remained significantly higher than implied by movements in crude oil markets, creating sustained upward momentum on the transport component of HICP. While this could keep pushing headline inflation higher, the broader inflationary implications are likely to be smaller and less persistent than those of natural gas and electricity. Oil affects production costs primarily through transportation. As a result, increases in fuel prices would generally be expected to generate more limited spillovers to non-energy prices, although transport-intensive sectors could still face a meaningful surge in costs.¹

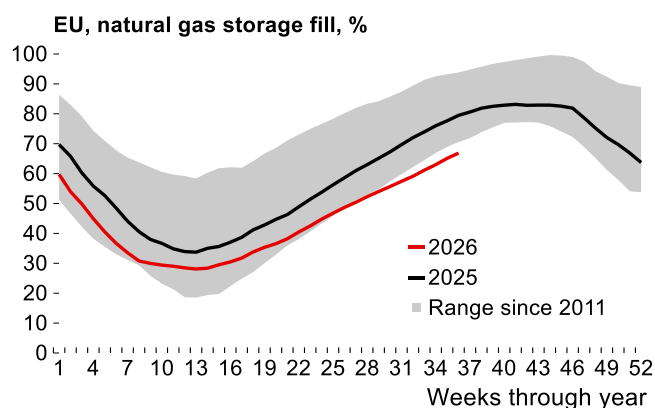
Finally, we are closely monitoring food prices. Although food inflation has remained subdued and has supported euro area disinflation in recent years, persistent disruptions in fertiliser markets linked to the closure of the Strait of Hormuz are putting upward pressure on global food commodity prices. European food prices have so far been largely insulated, but historical experience suggests that increases in global food commodity prices typically feed through to euro area food inflation with a substantial lag, often peaking more than a year later. Risks could be amplified by a stronger-than-usual El Niño weather pattern, though the historical evidence of its impact on food prices is mixed. Some studies find that it tends to boost global food and non-energy commodity prices², while others suggest that effects vary across commodities and periods and may be mitigated by adaptation measures, changing weather patterns and agricultural policies³. At the same time, a stronger El Niño could reduce inflationary risks stemming from natural gas markets if it leads to a milder winter and, consequently, lower heating demand. Nevertheless, given the existing strains in commodity markets, food prices could become a more significant source of euro area inflation pressure, particularly over the next year.

¹ [The different effects of oil and gas supply shocks on euro area inflation, CEPR VoxEU, 13 May 2026](#)

² [Risks to global food commodity prices from El Niño, ECB, 2023](#)

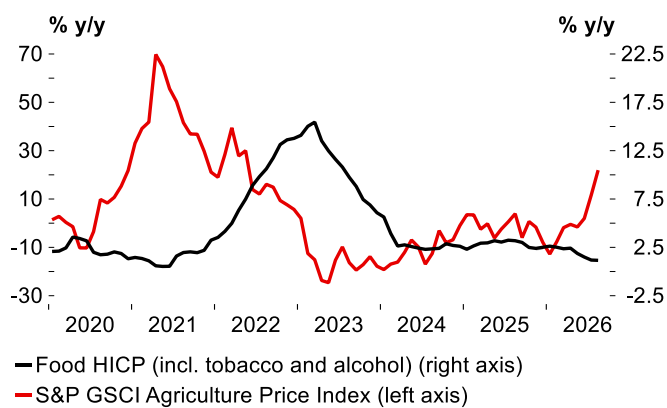
³ [El Nino La Nina impact prices euro area.pdf, Banco de Espana, 2024](#)

Low natural gas storages could result in new inflationary pressures later in the year



Source: GIE, Macrobond, MUFG GMR

Food prices so far have not tracked global agricultural commodity prices



Source: S&P Global, Eurostat, MUFG Bank Economic Research Office

Monetary policy implications

The ECB hiked the deposit facility rate to 2.5% in September, as widely expected. However, the future path of policy is now less clear, as the Governing Council continues to emphasise its meeting-by-meeting approach and data dependence. Markets are currently pricing a significant probability of further tightening at both the October and December meetings. Until recently, our baseline assumption was that a 2.5% deposit facility rate would mark the peak of the cycle. However, the renewed surge in energy prices has materially increased the risk of additional rate hikes, and we are currently reassessing that view.

In principle, additional tightening would be difficult to justify unless there is evidence that supply-driven inflation is feeding into broader domestic price pressures, or that inflation is becoming increasingly demand-driven⁴. However, the ECB may prove willing to tighten further even in the absence of such evidence. If elevated energy prices keep headline inflation well above target for an extended period, policymakers may become increasingly concerned that second-round effects will eventually emerge. In that environment, more rate hikes could be used to help keep inflation expectations and price-setting behaviour anchored.

⁴ [Why the drivers of inflation matter for monetary policy, ECB Blog, 1 September 2026](#)

CERTIFICATION

The author(s) mentioned on the cover of this report hereby certify(ies) (or, where multiple authors are responsible, individually certify with respect to each security that the author covers in this report) that the views expressed in this report accurately reflect their personal views about the subject company(ies) and its (their) securities, and also certify(ies) that they have not been, are not, and will not be receiving direct or indirect compensation in exchange for expressing any specific recommendation(s) or view(s) in this report.

DISCLAIMERS

This report has been prepared by the Global Markets Research, US Rates and Credit Strategy desks within MUFG Bank, Ltd. ("MUBK") and MUFG Securities EMEA plc ("MUS(EMEA)") and may be distributed to you either by MUBK, MUS(EMEA) or by another subsidiary of the Mitsubishi UFJ Financial Group ("MUFG").

Legal entities and branches

The securities related businesses within MUFG (together referred to in this material as "MUFG Securities") are:

(1) MUFG Securities EMEA plc ("MUSE"), a limited liability company, registered in England (No:1698498) with its registered office at Ropemaker Place, 25 Ropemaker Street, London, EC2Y 9AJ. MUSE is authorised in the United Kingdom by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and the PRA (FS Registration Number 124512). In the USA, MUSE is a registered Swap Dealer ("SD") with the Commodity Futures Trading Commission ("CFTC") and a member of the National Futures Association ("NFA"). MUSE is also a registered Security-Based Swap Dealer ("SBSD") with the Securities Exchange Commission ("SEC"). MUSE has a branch office ("MUSE Dubai Branch") that is registered at Level 3, East Wing, The Gate, Dubai International Financial Centre, PO Box 506894, Dubai, UAE. MUSE Dubai Branch is authorised to operate in the Dubai International Financial Centre ("DIFC") as a Non-DIFC Entity (Commercial License Number CL1656) and is regulated by the Dubai Financial Services Authority (Reference Number F002623);

(2) MUFG Securities (Europe) N.V. ("MUS(EU)"), a public limited company, registered in the Netherlands (chamber of commerce number 71213376) with its registered office at World Trade Center, Tower Two, level 5, Strawinskylaan 1887, 1077 XX Amsterdam. MUS(EU) is authorized by the European Central Bank and regulated by De Nederlandsche Bank ("DNB") and also regulated by the Autoriteit Financiële Markten ("AFM"). MUS(EU) has a branch office (MUSE(EU) Paris Branch) registered in France (chamber of commerce number 844285999) with its registered office at 18 rue du Quatre-Septembre, 75002 Paris. MUS(EU) Paris Branch is regulated in France by the Autorité de contrôle prudentiel et de résolution ("ACPR") and the Autorité des marchés financiers ("AMF");

(3) MUFG Securities Americas Inc. ("MUSA") which is registered in the United States with the Securities and Exchange Commission ("SEC") and regulated by the Financial Industry Regulatory Authority ("FINRA") (SEC# 8-43026; CRD# 19685);

(4) MUFG Securities (Canada), Ltd. ("MUS(CAN)") is an investment dealer registered in Canada with the Ontario Securities Commission ("OSC") and in each province and territory of Canada, a member of the Canadian Investment Regulatory Organization ("CIRO") (NRD# 54270), and a member of the Canadian Investor Protection Fund ("CIPF"). Customers' accounts are protected by CIPF within the specified limits;

(5) MUFG Securities Asia Limited ("MUS(ASIA)") which is incorporated in Hong Kong, licensed under the Hong Kong Securities and Futures Ordinance and regulated by the Hong Kong Securities and Futures Commission (Central Entity Number AAA889). MUS(ASIA) is registered as a foreign company under the Corporations Act 2001 of Australia (ARBN 169 329 453); and

(6) MUFG Securities Asia Limited, Singapore Branch ("MUS(ASIA Singapore)") has a capital markets services licence under the Securities and Futures Act in Singapore.

(7) MUFG Securities (India) Private Limited ("MUS(INDIA)") is a registered intermediary under the Securities and Exchange Board of India (Merchant Bankers) Regulations, 1992 having registration number INM000013305.

In respect of the financial services provided to wholesale clients in Australia, MUS(ASIA), MUSE and MUSA are each exempt from the requirement to hold an Australian financial services licence under the Corporations Act 2001 of Australia under the Australian Securities and Investments Commission Class Order Exemption CO 03/1099, CO 03/1103, CO 03/1100, and CO 03/1102, respectively. Each of MUS(ASIA), MUSE, MUSA, are regulated under the laws of Hong Kong, the United Kingdom and the United States respectively, which differ from Australian laws.

The banking related businesses within MUFG (together referred to in this material as "MUFG Bank") are:

(1) MUFG Bank Ltd ("MUBK"), is a limited liability stock company incorporated in Japan and registered in the Tokyo Legal Affairs Bureau (company no. 0100-01-008846). MUBK's head office is at 1-4-5 Marunouchi, Chiyoda-Ku, Tokyo, Japan. MUBK is authorised and regulated by the Japanese Financial Services Agency. MUBK is registered as a foreign company under the Corporations Act 2001 of Australia (ARBN 103 418 882) and is authorised by the Australian Prudential Regulation Authority to carry on banking business in Australia under the Banking Act 1959 of Australia. MUBK is also a registered Swap Dealer with the Commodity Futures Trading Commission and a member of the National Futures Association.

(2) MUBK's London branch is at Ropemaker Place, 25 Ropemaker Street, London EC2Y 9AN, and is registered as a UK establishment in the UK register of companies (registered no. BR002013). MUBK's London branch is authorised by the UK Prudential Regulation Authority ("PRA") and subject to regulation by the UK Financial Conduct Authority ("FCA") and limited regulation by the PRA.

(3) MUFG Bank (Europe) N.V. ("MUFG N.V.") is a company with limited liability (naamloze vennootschap) incorporated under the laws of the Netherlands and registered with the Dutch Chamber of Commerce under number 33132501, with its head office at Strawinskylaan 1887, 1077XX Amsterdam, the Netherlands. MUFG N.V. is authorized and regulated by the Dutch Central Bank (De Nederlandsche Bank) (www.dnb.nl) and the Dutch Authority for the Financial Markets (Autoriteit Financiële Markten) (www.afm.nl) (jointly the "Dutch Authorised Regulators"). MUFG Bank (Europe) N.V. Germany Branch ("MUFG Germany") is the German Branch of MUFG N.V. with its registered office at Breite Strasse 34, 40213 Düsseldorf, Germany, registered with the commercial register (Handelsregister) of the local court (Amtsgericht) of Düsseldorf under no. HRB 82502, and is authorised to provide banking services in Germany under the freedom of establishment in the European Union. Part of its activities are - in addition to the Dutch Authorised Regulators – supervised by the Federal Financial Supervisory Authority for Germany, "BaFin" (Bundesanstalt für Finanzdienstleistungsaufsicht) (www.bafin.de) and Deutsche Bundesbank (www.bundesbank.de).

(4) MUFG Bank's DIFC branch, is regulated by the Dubai Financial Services Authority (DFSA) (License number: F000470) and has its registered address at Level 3, East Wing, the Gate, Dubai International Financial Centre, Dubai, P.O. Box 506614, United Arab Emirates.

(5) MUFG Bank's QFC branch is authorised by the Qatar Financial Centre Regulatory Authority (QFCRA) (Licence number: 00103) and has its registered address at Suite A3, Mezzanine Floor, Tornado Tower, West Bay, Doha, Qatar.

(6) MUFG Bank's Riyadh branch is regulated by the Saudi Central Bank and has its registered address at 13th Floor, East Wing Al Nakhlah Tower, King Fahd Road, As Sahafah Dist, Riyadh 13315, Kingdom of Saudi Arabia.

(7) MUBK's Canada branch (MUFG Bank, Ltd., Canada Branch ("MUBK Canada Branch")) principal office is located at 200 Bay Street, Suite 1800, Toronto, Ontario, M5J 2J1, Canada. MUFG Bank's Canada branch is an authorized foreign bank branch permitted to carry on business in Canada pursuant to the Bank Act (Canada); Deposits with MUFG Bank Canada are not insured by the Canada Deposit Insurance Corporation.

(8) MUBK's Hong Kong branch is a licensed bank by the Hong Kong Monetary Authority and registered with the Securities and Futures Commission of Hong Kong to carry out Type 1 and Type 4 regulated activities in Hong Kong.

(9) MUBK's Singapore branch is licensed as a bank by the Monetary Authority of Singapore under the Banking Act of Singapore, an exempted capital markets service entity and an exempt financial adviser under the Securities and Futures Act and Financial Advisers Act of Singapore respectively.

(10) MUBK's Auckland Branch is authorised by the Reserve Bank of New Zealand to carry on banking business in New Zealand under the Banking (Prudential Supervision) Act 1989 of New Zealand. MUFG Bank Ltd ("MUBK"), is a limited liability stock company incorporated in Japan and registered in the Tokyo Legal Affairs Bureau (company no. 0100-01-008846). MUBK's head office is at 1-4-5 Marunouchi, Chiyoda-Ku, Tokyo, Japan. MUBK's London branch is at Ropemaker Place, 25 Ropemaker Street, London EC2Y 9AN, and is registered as a UK establishment in the UK register of companies (registered no. BR002013). The principal office of MUBK's Canada branch (MUFG Bank, Ltd., Canada Branch) is located at 200 Bay Street, Suite 1800, Toronto, Ontario, M5J 2J1, Canada. MUFG Bank's Canada branch is an authorized foreign bank branch permitted to carry on business in Canada pursuant to the Bank Act (Canada); Deposits with MUFG Bank Canada are not insured by the Canada Deposit Insurance Corporation. MUBK is authorised and regulated by the Japanese Financial Services Agency. MUBK's London branch is authorised by the UK Prudential Regulation Authority ("PRA") and subject to regulation by the UK Financial Conduct Authority ("FCA") and limited regulation by the PRA. MUBK's Hong Kong branch is authorised as a bank by the Hong Kong Monetary Authority under the Banking Ordinance of Hong Kong and is registered with the Securities and Futures Commission of Hong Kong to carry out Type 1 and Type 4 regulated activities under the Securities and Futures Ordinance of Hong Kong. MUBK's Singapore branch is licensed as a bank by the Monetary Authority of Singapore under the Banking Act of Singapore, an exempted capital markets service entity and an exempt financial adviser under the Securities and Futures Act and Financial Advisers Act of Singapore respectively. MUBK is registered as a foreign company under the Corporations Act 2001 of Australia (ARBN 103 418 882) and is authorised by the Australian Prudential Regulation Authority to carry on banking business in Australia under the Banking Act 1959 of Australia. MUBK's Auckland Branch is authorised by the Reserve Bank of New Zealand to carry on banking business in New Zealand under the Banking (Prudential Supervision) Act 1989 of New Zealand.

General disclosures

This report is for information purposes only and should not be construed as investment research as defined by MIFID 2 or a solicitation of any offer to buy or sell any security, commodity, futures contract or related derivative (hereafter "instrument") or to participate in any trading strategy. This report does not constitute a personal recommendation and does not take into account the individual financial circumstances, needs or objectives of the recipients. Recipients should therefore seek their own financial, legal, tax or other advice before deciding to invest in any of the instruments mentioned in this report.

Certain information contained in this report has been obtained or derived from third party sources and such information is believed to be correct and reliable but has not been independently verified. MUBK and MUFG Securities do not make any guarantee, representation, warranty or undertaking, express or implied, as to the fairness, accuracy, reliability, completeness, adequacy or appropriateness of any information or comments contained in this report. Furthermore the information may not be current due to, among other things, changes in the financial markets or economic environment. MUBK and MUFG Securities has no obligation to update any such information contained in this report.

The information contained in this report may contain forward-looking information ("FLI"). FLI is information regarding possible events, conditions, or results of operations that is based on assumptions about future economic conditions and courses of action and may be presented as either a forecast or a projection. This report is not intended to forecast or predict future events. Past performance is not a guarantee or indication of future results. Upon receipt of this report, each recipient acknowledges and agrees that any FLI included herein should not be considered material. Recipients should consult their own legal and financial advisers for additional information. Any prices provided herein (other than those identified as being historical) are indicative only and do not represent firm quotes as to either price or size.

This report is proprietary to MUBK and MUFG Securities and may not be quoted, circulated or otherwise referred to without our prior written consent. Notwithstanding this, MUBK and MUFG Securities shall not be liable in any manner whatsoever for any consequences or loss (including but not limited to any direct, indirect or consequential loss, loss of profits and damages) arising from any reliance on or usage of this report and accepts no legal responsibility to any investor who directly or indirectly receives this material.

MUBK covers banking business and is responsible for the publication of related research reports. MUFG Securities covers the securities business and is responsible for the publication of securities related research reports. References to "MUBK" shall be interpreted as a reference only for all matters related to bank products and references to "MUFG Securities" shall be interpreted as a reference only for all matters related to securities products.

MUBK and/or its directors, officers and employees, from time to time, may have interest and/or underwriting commitment in the relevant securities mentioned herein or related instruments and/or may have a position or holding in such securities or related instruments as a result of engaging in such transactions. Furthermore, MUBK may have, or have had a relationship with or may provide or have provided corporate finance or other services to any company mentioned herein.

Country and region specific disclosures

This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or is located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to any law, regulation or rule. Each entity and branch within MUFG is subject to distinct regulatory requirements and certain products and services discussed in this document may not be available in all jurisdictions or to all client types.

In this regard, please note the following in relation to the jurisdictions in which MUBK and MUFG Securities has a local presence:

Europe Middle East and Africa (EMEA):

United Kingdom (UK) and the European Economic Area (EEA): This report is only intended for a professional client or eligible counterparty and must not be passed onto a retail client, as defined under UK and EEA regulatory rules. It does not constitute investment research as those producing this report are not a research function and therefore this material has not been prepared under conditions designed to promote the independence of investment research including, but not limited to, the prohibition on dealing ahead of the dissemination of investment research. Under the Market Abuse Regulation ("MAR") this report is a marketing communication which may amount to, or include, an investment recommendation and where so there are no plans to update the investment recommendation. Any prices mentioned in the investment recommendation were prices known by us when the recommendation was prepared. Further UK and EEA disclaimers, disclosures policies and notices can be found at <https://www.mufigemea.com/governance/legal-and-regulatory/>, including the Fixed Income and Currency Products Dealing Disclosures, the Conflicts of Interest Summary Policy and MAR investment recommendation disclosures.

United Arab Emirates (UAE): This report is only intended for distribution to a professional client or market counterparty as those terms are defined under the rules of the Dubai Financial Services Authority and only a person meeting the criteria for these terms should act upon this report.

Qatar: This report is only intended for distribution to a Business Customer or Eligible counterparty as those terms are defined under the rules of the Qatar Financial Centre Regulatory Authority and only a person meeting the criteria for these terms should act upon this report.

South Africa: MUSE is permitted to offer and provide financial services to certain categories of sophisticated clients in South Africa under an exemption issued by the South African Financial Sector Conduct Authority, in terms of the Financial Advisory and Intermediary Services Act, 2002.

The Americas (AMER):

United States of America: This report, when distributed by MUSA, is intended for Institutional Investors ("Institutional Accounts" as defined by FINRA Rule 4512(c)). When distributed by a non-US affiliate of MUSA, this report is intended for distribution solely to "major U.S. institutional investors" or "U.S. institutional investors" pursuant to Rule 15a-6 under the U.S. Securities Exchange Act of 1934, as amended. Securities referenced in this report may have been underwritten by MUSA and/or its affiliates. Nothing in this report should be considered an offer or solicitation of an offer to buy or sell securities or any other financial product or a commitment of any kind with respect to any transaction.

IRS Circular 230 Disclosure: MUFG Securities does not provide tax advice. Accordingly, any discussion of U.S. tax matters included herein (including any attachments) is not intended or written to be used, and cannot be used, in connection with the promotion, marketing or recommendation by anyone not affiliated with MUSA of any of the matters addressed herein or for the purpose of avoiding U.S. tax-related penalties.

In relation to activities undertaken by MUSE in their capacity of a SD or SBSB, further disclosures and notices can be found at <https://www.mufgemea.com/governance/legal-and-regulatory/>.

Canada: MUSE operates under an International Dealer Exemption and Foreign Derivatives Dealer Exemption from registration within the provinces of Alberta, British Columbia, Manitoba, Ontario and Québec. MUSA operates under an International Dealer Exemption from registration with the securities regulators in all Canadian Provinces and Territories. When distributed by MUSE or MUSA, this report is only intended for a "permitted client" as that term is defined under the National Instrument 31-103 in Canada and is not intended for re-distribution to any other person. When distributed by MUS(CAN), this report is only intended for an "institutional client" as that term is defined under the CIRO dealer member rules and is not intended for re-distribution to any other person. The information contained herein is not, and under no circumstances is to be construed as, a prospectus, an advertisement, a public offering, an offer to sell securities described herein, or solicitation of an offer to buy securities described herein, in Canada or any province or territory thereof. Under no circumstance is the information contained herein to be construed as investment advice in any province or territory of Canada and is not tailored to the needs of the recipient.

Asia-Pacific (APAC):

Hong Kong: Reports produced by MUFG Securities are only intended for distribution to a "professional investor" as that term is defined in the Securities and Futures Ordinance and should not be passed onto any other person. All enquiries from recipients of this report in Hong Kong must be directed to your usual sales contact in Hong Kong.

Singapore: This report is only intended for distribution to an "institutional investor", "accredited investor" or "expert investor" as those terms are defined under regulation 2 of the Financial Advisers Regulation. It is solely for the use of such investors and shall not be distributed, forwarded, passed on or disseminated to any other person. Investors should note that, as a result of exemptions that apply when this report is distributed to "accredited investors" and "expert investors", MUBK's Singapore branch and MUS(ASIA) Singapore is exempt from complying with certain requirements under the Financial Advisers Act, including section 34 of the Financial Advisers Act (which requires a financial adviser to disclose all material information on certain investment products), section 36 (which requires a financial adviser to have a reasonable basis for making recommendations on investments) and section 45 (which requires a financial adviser to disclose any interests that it holds in securities that it recommends). Please contact your respective financial advisor in Singapore in relation to any matters arising from this report.

India: (i) MUS(INDIA) does not provide any advice/ recommendation to the prospective investors; (ii) the issuer is solely responsible for the completeness and accuracy of all information in the memorandum or otherwise provided to investors in connection with the debentures issued; (iii) MUS(INDIA) does not make any representations or warranties on the creditworthiness of the issuer of the securities, the information provided in the memorandum, or on the adequacy/ sufficiency and legal validity of the legal documentation or structure; (iv) investors must obtain independent advice in connection with the investment; and (v) MUS(INDIA) does not owe any duty of care to investors and expressly disclaims all liability.

Japan: This Note, when distributed by MUFG Securities affiliates located outside of Japan, is intended for distribution in accordance with Article 58-2 of the Financial Instruments Exchange Act 1948 ("FIEA") i) to a "Financial Instruments Business Operator" engaged in "Securities-Related Business" as defined in the FIEA or ii) to the government, the Bank of Japan, a qualified financial institution defined in Article 209 of the Cabinet Office Ordinance Concerning Financial Instruments Business, Etc., or an Investment Manager.

When distributed by Mitsubishi UFJ Morgan Stanley Securities Co., Ltd. ("MUMSS"), this Note is intended for distribution to a "Professional Investor (tokutei-toushika)" as defined in the FIEA.

Australia: This Note is only intended for distribution to persons in Australia who are sophisticated or professional investors for the purposes of section 708 of the Corporations Act 2001, and are wholesale clients for the purposes of section 761G of the Corporations Act 2001. This Note is not intended to be distributed or passed on, directly or indirectly, to any other class of persons in Australia. This Note is for informational purposes only, it does not make any recommendations and should not be relied upon for any investment purposes. For information on how we collect, use, store and secure personal information, please review our Privacy Policy. MUBK and MUFG Securities have established policies and procedures to identify and manage conflicts of interest to uphold the values of integrity, responsibility, accountability and trust, and to treat clients fairly. MUBK and MUFG Securities have put in place the following arrangements to prevent conflicts of interest: information barriers to prevent the unnecessary exchange or misuse of confidential information; segregated deal teams to manage competing interests in a transaction; defined procedures for dealing with conflicts of interest, including procedures on crossing information barriers; reasonable steps by Compliance to ensure that information barrier arrangements remain effective and are effectively monitored.

New Zealand: This Note is only intended for distribution to persons in New Zealand who are wholesale clients as defined in clause 4 of Schedule 5 of the Financial Markets Conduct Act 2013, or are wholesale investors as defined in clauses 3(2) and 3, and clauses 36(b) of Schedule 1 of the Financial Markets Conduct Act 2013. This Note is not intended to be distributed or passed on, directly or indirectly, to any other class of persons in New Zealand. For information on how we collect, use, store and secure personal information, please review our Privacy Policy.

Thailand: In Thailand, MUSE has a derivatives dealer registration with the Securities and Exchange Commission, Thailand

Investment recommendation

MUBK and MUSE(EMEA) prepare and disseminate a range of commentary to their clients ("General Sales and Trading Communications") prepared by sales, trading, capital markets or other non-Research functions, including but not limited to runs, axes, pricing indications, short term views and macro commentary which are for information purposes only and should not be construed as an investment recommendation to buy or sell any financial instrument or to participate in any trading strategy. These are not intended for dissemination to the public. In addition, sales and trading personnel also produce and disseminate strategy pieces, sales notes, trading and market commentary ("Sales and Trading Commentaries") which may be defined as investment recommendations under the Market Abuse Regulation. Investment Recommendations are marketing communications. General Sales and Trading Communications and Sales and Trading Commentaries do not contain a personal recommendation and do not take into account

the individual financial circumstances, needs or objectives of the recipients. Recipients should therefore seek their own financial, legal, tax or other advice before deciding to invest in any of the instruments mentioned in such documents.

This Material and the contents therein are not intended for recipients outside of the United Kingdom ("UK") or the European Union ("EU").

Certain information contained in our General Sales and Trading Communications and Sales and Trading Commentaries has been obtained or derived from third party sources and while such information is believed to be correct and reliable it has not been independently verified. MUBK and MUS(EMEA) do not make any guarantee, representation, warranty or undertaking, express or implied, as to the fairness, accuracy, reliability, completeness, adequacy or appropriateness of any information or comments contained in these documents. Furthermore the information may not be current due to, among other things, changes in the financial markets or economic environment. MUBK and MUS(EMEA) do not, and have no obligation to update any such information contained in its Sales and Trading Commentaries. Any prices or quotations contained herein are indicative only, do not represent firm quotes as to either price or size and should not be used for valuation purposes.

General Sales and Trading Communications and Sales and Trading Commentaries are not intended to forecast or predict future events. Past performance is not a guarantee or indication of future results. Sales and Trading Commentaries are produced by non-Research functions, including sales and trading do not constitute investment research and are not prepared under conditions designed to promote the independence of investment research. It is not subject to any prohibition on dealing ahead of the dissemination of investment research. MUBK and MUS(EMEA) may make markets, provide liquidity, have (or may in the future enter into) principal or proprietary positions (long or short) in and effect transactions in the financial instruments or trading strategies mentioned or described in our General Sales and Trading Communications and Sales and Trading Commentaries and may also perform or seek to perform investment banking, brokerage, or other services for those companies including entering into transactions with them. In general, our Sales and Trading Commentaries are short term views in response to market movements and news.

The sales and trading staff who produce investment recommendations have received compensation based upon various factors, including individual performance competitive factors, firm revenues, sales and trading revenues and overall investment banking revenues.

Our General Sales and Trading Communications and Sales and Trading Commentaries are proprietary to MUBK and MUS(EMEA) and may not be quoted, circulated or otherwise referred to without our prior written consent. Notwithstanding this, MUBK and MUS(EMEA) shall not be liable in any manner whatsoever for any consequences or loss (including but not limited to any direct, indirect or consequential loss, loss of profits and damages) arising from any reliance on or usage of this report and accepts no legal responsibility to any investor who directly or indirectly receives this material.

This material has been prepared in accordance with MUBK's and MUS(EMEA)'s organisational and administrative arrangements for managing conflicts of interest. Such arrangements include policies which set out guidelines relating to (but not limited to) restrictions on access to information, personal dealing and inducements.

Any instruments referred to in this material may not be eligible for sale in all jurisdictions or to all categories of investors. This material is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or is located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to any law, regulation or rule. Certain products which may be mentioned in this material, including derivative products, give rise to substantial risk, including currency and volatility risk, and are not suitable for all investors.

This material, is only intended for distribution to a "professional client" or "eligible counterparty" (as defined in UK FCA and PRA rules) or their equivalent(s) within the EU and should not be passed onto any other person.

This material and all claims arising in connection with it are governed by, and to be construed in accordance with, English law.

Disclosures for the website concerning Investment Recommendations:

MUSE and MUFG Bank may own a net long or short position exceeding the threshold of 0,5 % of the total issued share capital of the issuer.

Entities mentioned in our Sales and Trading Commentaries may have interest in excess of 5% of the total issued share capital of Mitsubishi UFJ Financial Group. Information relating to Major Shareholders is available on [MUFG; Stock Information | Mitsubishi UFJ Financial Group](#)

MUSE and MUFG Bank may be market maker or liquidity provider in the financial instruments of the issuer and may have been lead manager or co-lead manager over the previous 12 months of any publicly disclosed offer of financial instruments of the issuer.

MUSE and MUFG Bank are not party to an agreement with the issuer relating to the production of the recommendation, neither disclose their recommendations to issuers, so they can't make no amendment to the investment recommendation.

A description of the effective internal organisational and administrative arrangements and of any information barrier it has set up for the prevention and avoidance of conflicts of interest with respect to the recommendations is available on [MUFG; Policy for Conflicts of Interest Management | Mitsubishi UFJ Financial Group](#)

MUSE and MUFG Bank are part of the MUFG Group however owing to the organisation of the Group, employees involved in the production of Sales and Trading Commentaries do not know and are not expected to know what is done by other entities of the Group.

Our Credit Strategy recommendations incorporate valuations (relative value) and the author's fundamental view on the security. The fundamental credit view of an issuer may be based on the company's underlying credit trends, overall creditworthiness and our opinion on whether the issuer will be able to service its debt obligations when they become due and payable. We may review, among other things, the company's cash flow capacity and trends and standard credit ratios, such as gross and net leverage, interest coverage and liquidity ratios. We may also review profitability, capitalization and asset quality, among other variables, when assessing financials. We also take into account management strategy, financial policy and the overall competitive landscape in relevant industries insofar as these may impact credit quality. We may also assess market technical aspects such as the likely future supply of bonds or fund flows into the broader asset class. Unless we specify a different recommendation for the company's individual securities, an issuer recommendation applies to all of the bonds at the same level of the issuer's capital structure. The investment recommendations remain valid only at the point of publication, as they are not updated to take account of changes in the financial markets or new news about the issuer or instruments.

Definitions

Positive:

Credit: We expect the credit spread to tighten, on an interest rate hedged basis

Neutral:

Credit: We expect the credit spread to remain stable, on an interest rate hedged basis