



EUROPE'S BANKS HISTORY OF DEPENDING ON GERMAN INTEREST RATES

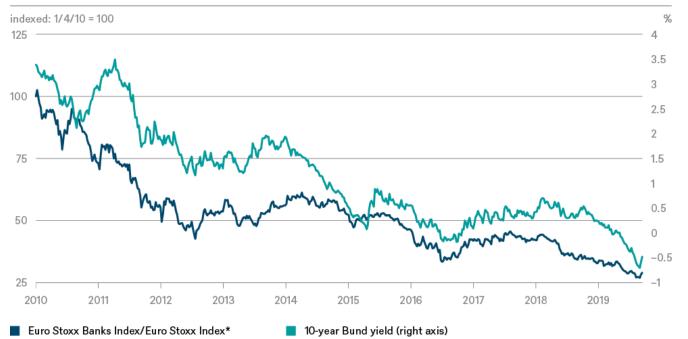
A look at the correlation between Eurozone bank stocks and Bund yields shows historically how much banks have been dependent on long-term interest rates. The reasons for this are revealing.

You may not want to be a bank analyst these days. Large, mostly globally positioned, complex institutions with diverse business areas and models. Besides that, there are always new regulations and young financial-technology companies pressuring already tight margins. This is certainly no fun. But it is even less fun if you don't just have to analyze this sector, but have been invested in it. In mid-August, the sector was valued on Europe's stock exchanges at its lowest level since 1989. ¹

But what to do, if you still want to invest in this sector, perhaps for anti-cyclical reasons? After all, in addition to the long-term price being low, a price-to-book ratio of only 0.6 is tempting – if you take the reported accounting figures at face value. At first glance, one way of escaping the complexity of the sector seems to be a striking correlation. As our "Chart of the Week" shows, the performance of the banking sector relative to the overall market is almost parallel to that of 10-year German government bonds (Bunds).

The correlation coefficient, based on the weekly performance over the past ten years, is an astonishing 0.91.

It is probably the combination of two reasons that can explain this synchronicity: On the one hand, long-term interest rates are seen as an indicator of how investors assess growth prospects. As a highly cyclical sector, banks are thus predestined to benefit from brightening economic sentiment. Secondly, there is the interest margin, on which European banks depend much more than their U.S. counterparts, where corporate loans hardly play a role any more. Since the short end of the yield curve, in particular the European Central Bank's (ECB's) refinancing rate, has been close to or at zero for some time, the margin depends largely on the interest-rate level at the long end of the curve. So investing made easy? Unfortunately only from an ex-post perspective again. Ex-ante you have to have a clear opinion of how 10-year interest rates may develop. Anyone who also believes that interest rates will remain low for some time, will probably have to look elsewhere for returns.



Sources: Refinitiv, DWS Investment GmbH as of 9/17/19

All opinions and claims are based upon data on 9/17/19 and may not come to pass. This information is subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation. Past performance is not indicative of future returns. Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, opinions and hypothetical models that may prove to be incorrect. Source: DWS Investment GmbH

Relative performance of the Euro Stoxx Banks Index over the Euro Stoxx Index

¹ Measured by the Euro Stoxx Banks, which comprises the banks in the Eurozone

APPENDIX: PERFORMANCE OVER THE PAST 5 YEARS (12-MONTH PERIODS)

| | 08/14 - 08/15 | 08/15 - 08/16 | 08/16 - 08/17 | 08/17 - 08/18 | 08/18 - 08/19 |
|---------------------------|---------------|---------------|---------------|---------------|---------------|
| Euro Stoxx Index | 6.5% | -4.3% | 14.3% | 1.9% | -2.2% |
| Euro Stoxx Banks Index | -2.2% | -32.7% | 36.6% | -20.7% | -22.6% |

Past performance is not indicative of future returns. Sources: Bloomberg Finance L.P., DWS Investment GmbH as of 9/19/19

GLOSSARY

Bunds

Bunds is a commonly used term for bonds issued by the German federal government with a maturity of 10 years.

Correlation

Correlation is a measure of how closely two variables move together over time.

Correlation coefficient

The **correlation coefficient** measures the strength and direction of a linear relationship between two variables.

Euro Stoxx

The **Euro Stoxx** is a broad-based equity index comprising 301 constituents from the Eurozone.

Euro Stoxx Banks

The **Euro STOXX Banks** is an index that tracks a supersector of the relevant benchmark index Euro Stoxx. Companies are categorized according to their primary source of revenue.

European Central Bank (ECB)

The European Central Bank (ECB) is the central bank for the Eurozone.

Net interest margin

The **net interest margi**n of a financial institution is the difference between the average interest rate paid and the average interest rate received by the institution.

Price-to-book (P/B) ratio or multiple

Price-to-book (P/B) ratio or multiple compares a stock's market value with its book value.

Yield curve

A **yield curve** shows the annualized yields of fixed-income securities across different contract periods as a curve. When it is inverted, bonds with longer maturities have lower yields than those with shorter maturities.

All opinions and claims are based upon data on 9/17/19 and may not come to pass. This information is subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation. Past performance is not indicative of future returns. Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, opinions and hypothetical models that may prove to be incorrect. Source: DWS Investment GmbH

IMPORTANT INFORMATION: EMEA

The following document is intended as marketing communication.

DWS is the brand name under which DWS Group GmbH & Co. KGaA and its subsidiaries operate their business activities. Clients will be provided DWS products or services by one or more legal entities that will be identified to clients pursuant to the contracts, agreements, offering materials or other documentation relevant to such products or services.

The information contained in this document does not constitute investment advice.

All statements of opinion reflect the current assessment of DWS Investment GmbH and are subject to change without notice.

Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, opinions and hypothetical performance analysis, therefore actual results may vary, perhaps materially, from the results contained here.

Past performance, [actual or simulated], is not a reliable indication of future performance.

The information contained in this document does not constitute a financial analysis but qualifies as marketing communication. This marketing communication is neither subject to all legal provisions ensuring the impartiality of financial analysis nor to any prohibition on trading prior to the publication of financial analyses.

This document and the information contained herein may only be distributed and published in jurisdictions in which such distribution and publication is permissible in accordance with applicable law in those jurisdictions. Direct or indirect distribution of this document is prohibited in the USA as well as to or for the account of US persons and persons residing in the USA.

DWS Investment GmbH 2019

IMPORTANT INFORMATION: UK

Issued in the UK by DWS Investments UK Limited. DWS Investments UK Limited is authorised and regulated by the Financial Conduct Authority (Registration number 429806).

DWS is the brand name of DWS Group GmbH & Co. KGaA. The respective legal entities offering products or services under the DWS brand are specified in the respective contracts, sales materials and other product information documents. DWS, through DWS Group GmbH & Co. KGaA, its affiliated companies and its officers and employees (collectively "DWS") are communicating this document in good faith and on the following basis.

This document is a financial promotion and is for general information purposes only and consequently may not be complete or accurate for your specific purposes. It is not intended to be an offer or solicitation, advice or recommendation, or the basis for any contract to purchase or sell any security, or other instrument, or for DWS to enter into or arrange any type of transaction as a consequence of any information contained herein. It has been prepared without consideration of the investment needs, objectives or financial circumstances of any investor.

This document does not identify all the risks (direct and indirect) or other considerations which might be material to you when entering into a transaction. Before making an investment decision, investors need to consider, with or without the assistance of an investment adviser, whether the investments and strategies described or provided by DWS, are suitability and appropriate, in light of their particular investment needs, objectives and financial circumstances. We assume no responsibility to advise the recipients of this document with regard to changes in our views.

We have gathered the information contained in this document from sources we believe to be reliable; but we do not guarantee the accuracy, completeness or fairness of such information and it should not be relied on as such. DWS has no obligation to update, modify or amend this document or to otherwise notify the recipient in the event that any matter stated herein, or any opinion, projection, forecast or estimate set forth herein, changes or subsequently becomes inaccurate.

DWS does not give taxation or legal advice. Prospective investors should seek advice from their own taxation agents and lawyers regarding the tax consequences on the purchase, ownership, disposal, redemption or transfer of the investments and strategies suggested by DWS. The relevant tax laws or regulations of the tax authorities may change at any time. DWS is not responsible for and has no obligation with respect to any tax implications on the investment suggested.

This document contains forward looking statements. Forward looking statements include, but are not limited to assumptions, estimates, projections, opinions, models and hypothetical performance analysis. The forward looking statements expressed constitute the author's judgment as of the date of this document. Forward looking statements involve significant elements of subjective judgments and analyses and changes thereto and/ or consideration of different or additional factors could have a material impact on the results indicated. Therefore, actual results may vary, perhaps materially, from the results contained herein. No representation or warranty is made by DWS as to the reasonableness or completeness of such forward looking statements or to any other financial information contained in this document.

PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

© DWS 2019

IMPORTANT INFORMATION - APAC

DWS is the brand name of DWS Group GmbH & Co. KGaA. The respective legal entities offering products or services under the DWS brand are specified in the respective contracts, sales materials and other product information documents. DWS Group GmbH & Co. KGaA, its affiliated companies and its officers and employees (collectively "DWS Group") are communicating this document in good faith and on the following basis.

This document has been prepared without consideration of the investment needs, objectives or financial circumstances of any investor. Before making an investment decision, investors need to consider, with or without the assistance of an investment adviser, whether the investments and strategies described or provided by DWS Group, are appropriate, in light of their particular investment needs, objectives and financial circumstances. Furthermore, this document is for information/discussion purposes only and does not constitute an offer, recommendation or solicitation to conclude a transaction and should not be treated as giving investment advice.

DWS Group does not give tax or legal advice. Investors should seek advice from their own tax experts and lawyers, in considering investments and strategies suggested by DWS Group. Investments with DWS Group are not guaranteed, unless specified.

Investments are subject to various risks, including market fluctuations, regulatory change, possible delays in repayment and loss of income and principal invested. The value of investments can fall as well as rise and you might not get back the amount originally invested at any point in time. Furthermore, substantial fluctuations of the value of the investment are possible even over short periods of time. The terms of any investment will be exclusively subject to the detailed provisions, including risk considerations, contained in the offering documents. When making an investment decision, you should rely on the final documentation relating to the transaction and not the summary contained herein. Past performance is no guarantee of current or future performance. Nothing contained herein shall constitute any representation or warranty as to future performance.

Although the information herein has been obtained from sources believed to be reliable, DWS Group does not guarantee its accuracy, completeness or fairness. No liability for any error or omission is accepted by DWS Group. Opinions and estimates may be changed without notice and involve a number of assumptions which may not prove valid. All third party data (such as MSCI, S&P, Dow Jones, FTSE, Bank of America Merrill Lynch, Factset & Bloomberg) are copyrighted by and proprietary to the provider. DWS Group or persons associated with it may (i) maintain a long or short position in securities referred to herein, or in related futures or options, and (ii) purchase or sell, make a market in, or engage in any other transaction involving such securities, and earn brokerage or other compensation.

The document was not produced, reviewed or edited by any research department within DWS Group and is not investment research. Therefore, laws and regulations relating to investment research do not apply to it. Any opinions expressed herein may differ from the opinions expressed by other DWS Group departments including research departments. This document may contain forward looking statements. Forward looking statements include, but are not limited to assumptions, estimates, projections, opinions, models and hypothetical performance analysis. The forward looking statements expressed constitute the author's judgment as of the date of this material. Forward looking statements involve significant elements of subjective judgments and analyses and changes thereto and/or consideration of different or additional factors could have a material impact on the results indicated. Therefore, actual results may vary, perhaps materially, from the results contained herein. No representation or warranty is made by DWS Group as to the reasonableness or completeness of such forward looking statements or to any other financial information contained herein.

This document may not be reproduced or circulated without DWS Group's written authority. The manner of circulation and distribution of this document may be restricted by law or regulation in certain countries, including the United States.

This document is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, including the United States, where such distribution, publication, availability or use would be contrary to law or regulation or which would subject DWS Group to any registration or licensing requirement within such jurisdiction not currently met within such jurisdiction. Persons into whose possession this document may come are required to inform themselves of, and to observe, such restrictions.

Unless notified to the contrary in a particular case, investment instruments are not insured by the Federal Deposit Insurance Corporation ("FDIC") or any other governmental entity, and are not guaranteed by or obligations of DWS Group.

In Hong Kong, this document is issued by DWS Investments Hong Kong Limited and the content of this document has not been reviewed by the Securities and Futures Commission.

© 2019 DWS Investments Hong Kong Limited

In Singapore, this document is issued by DWS Investments Singapore Limited and the content of this document has not been reviewed by the Monetary Authority of Singapore.

© 2019 DWS Investments Singapore Limited

Publisher: DWS Investment GmbH, Mainzer Landstraße 11-17, 60329 Frankfurt am Main, Germany

CRC 070623 (09/2019)