Methodology EMU Government Bonds Research

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The bonds of 11 issuers are covered as part of the analysis work of DZ BANK's Rates Markets Research for EMU Government Bonds. These issuers are Belgium, Germany, Finland, France, Greece, Ireland, Italy, the Netherlands, Austria, Portugal and Spain.

We issue one recommendation for the senior unsecured bonds of each of the issuers mentioned above (referred to in the following as "bonds" or "EMU sovereign bonds").

The analysis of these bonds from EMU states consists firstly of quantitative factors (total-return expectations, risk premium, fundamental and macroeconomic data) and secondly, of qualitative factors (specific features of a country, social developments, general policies and especially economic policies). Both factors are brought together using the analysts' expert knowledge. This knowledge is based on the analysts' experience of handling quantitative and qualitative factors, of relevant markets, of the peer group and individual issuers covered by DZ BANK's EMU Government Bonds Research. The recommendation is the result of the combination of these two factors.

The remaining euro states, Slovakia, Slovenia, Estonia, Malta, Cyprus, Latvia and Lithuania are only analysed in the context of their impact on the 11 issuers we do cover. We do not issue an investment recommendation for these states.

Our analyses do not include a credit rating as defined in Regulation (EC) 1060/2009 of 16 September 2009 on the rating agencies.
THEORETICAL BASIS

Our investment recommendations for EMU government bonds are based on our assessment of the future development of the total return on the entirety of the bonds of the respective issuer in relation to the market. Another specific element in the analysis is the risk premium or credit spread.

Total return
The total return of an EMU government bond consists of the change in the market price of the bonds and the interest earned (accrued interest). The change in the market price is determined by the change in the yield and risk premium (credit spread) and the roll-down effect.

Risk premium or credit spread
For the purpose of a relative comparison of the issuers from the point of view of risks, we look at their spread in relation to the yield of less risky Bunds. Since Bunds currently have an AAA rating, they are regarded as largely risk-free by the capital market. The spread therefore expresses a risk premium in relation to a risk-free investment. In a wider sense, the risks premiums can be compared in terms of concept with the credit spreads in DZ BANK’s credit research; the difference in this instance is that it is the Bund yields which are the risk-free value and not the swap rates. Essentially, however, the risk premiums in the case of EMU sovereign bonds also reflect a different default risk in relation to an issuer without default risk and they can therefore be described virtually as credit spreads. These credit spreads change over time on the back of market-led changes in the evaluation of the issuers. In the total-return analysis, the risk premium is reflected in the spread effect, but also in the roll-down.

SUPERORDINATE FACTORS

In any analysis of individual bonds in EMU sovereign bond research, analysts have to factor in not only the issuer-specific aspects which we describe later on, but also wider aspects. These are factors of a general nature which can have an influence on an issuer’s standing as a debtor and the investment recommendation to be derived. The analyst in charge of a specific issuer has to take these factors into consideration in the analysis of the respective issuer in order for DZ BANK Research’s assessments and recommendations to be based on identical criteria and be consistent per se.

DZ BANK Research’s economic forecasts are key parameters. Growth rates for GDP and its components, inflation rates, data on the global economy and similar figures can be important in assessing the issuer in question. DZ BANK Research’s interest rate forecast is another superordinate reference point for the analysis of individual securities and the recommendations derived from it. Political aspects of a global nature are a further aspect. Global political uncertainties, wars and conflicts can even have an influence on the assessment of third-party issuers which are not directly involved or on the recommendation derived from it.

In addition, new, wider regulatory requirements, monetary policy and sundry factors can also be relevant for the investment recommendation.
Likewise, it is important to bear in mind the market's general risk assessment. In the event of a general rise in risk-taking in the market, the credit spreads of bonds of all issuers tend to fall, and consequently, in such conditions the bonds of issuers with a poorer rating whose credit spreads are trading at a relatively higher level tend to offer the biggest gain from carry and any spread tightening. Conversely, a deterioration in general sentiment in the market and a rise in risk aversion tend to lead to a widening in the credit spreads of all bond issuers and, in such conditions, the bonds of better rated issuers, whose credit spreads are trading at relatively tight levels, offer the biggest carry gain and gain from a widening of credit spreads.

DZ BANK Research's fundamental and interest rate forecasts have to be taken into account by analysts in their analysis of the bonds of individual issuers. As part of this process, it is the responsibility of the respective analysts to assess the potential impact of central requirements on the object of their analysis.

RELEVANT FACTORS IN THE ANALYSIS OF EMU STATES

The bonds of 11 issuers are covered as part of the analysis work of DZ BANK’s Rates Markets Research for EMU Government bonds. These issuers are Belgium, Germany, France, Greece, Ireland, Italy, the Netherlands, Austria, Portugal and Spain ("EMU states"). We issue a recommendation for the entirety of the bonds of each respective issuer. We only look at the remaining euro states, namely Slovakia, Slovenia, Estonia, Malta, Cyprus, Latvia and Lithuania, but only in so far as they have any impact on the 11 issuers covered. We do not issue a recommendation for the bonds of these other EMU states.

Our analysis of the bonds of EMU states consists firstly of quantitative factors and secondly of qualitative factors. Both are combined through the expert knowledge of the respective analysts. This knowledge is based on the analysts’ experience of the relevant markets, of the peer group covered by BANK EMU Government Bonds Research and of individual issuers. The result of this combination forms the investment recommendation. The respective depth of analysis depends to a large extent on what information the respective countries provide via corresponding authorities or what information can be obtained from third-party sources such as institutions or organisations.

Quantitative factors
DZ BANK’s EMU Sovereign Credit Research initially forms a quantitative starting point for estimating an issuer's expected total return in the next six months. In addition, current market yield levels are combined with DZ BANK’s interest rate forecast and enhanced with a spread component. This spread component is based on the regression of Bund yields and the relevant spreads of an EMU state.

Other quantitative factors are data of the kind which describes the credit-risk profile of an EMU state and the fundamental economic situation. Especially relevant in this instance are various debt ratios, together with a country's political plans and macroeconomic figures such as growth expectations.
Qualitative factors

Each EMU state is subject to specific factors arising from social developments, general policies and especially economic policies, and which are perceived in a variety of ways by the market as regards the way in which they treat this information. This information which is in the public domain, comments and news are not quantifiable, but must nevertheless be reflected in the analysis based on the professional and methodical experience of the respective analyst (expert knowledge) for a full overall picture.

The analysts form their opinion of the future performance of the EMU state in question based on their own expertise in methodology and modelling of financial and economic theory, and above all on their experience of the way in which facts, information, rumours and expectations (their own, those of the consensus) impact in specific market conditions.

At the same time, the result of the analysis of the quantitative factors can be outweighed by qualitative factors as the primary starting point in view of the current market situation/state of the market, e.g. if uncertainty about a major political event is so great that fundamental data based on figures is ignored. Conversely, analysts can prefer quantitative factors if they arrive at this conclusion based on an assessment founded on their experience. Accordingly, how the analysts proceed will vary on a case-by-case basis and cannot be applied universally to each market situation. The analysts' professional experience and methodological knowledge about the workings of quantitative and qualitative information/factors in EMU states in various market situations are a crucial factor in the process of forming an opinion.

During the opinion-forming process of the analysis of EMU sovereign bonds, the analysts' individual opinion is compared with DZ BANK Research's current overall assessment and adjusted if necessary in an overall context. At the end, there should be a plausible forecast picture which fits in with the overall DZ BANK Research assessment and is generated using the entire wealth of experience of those involved in the process.

RELEVANT FACTORS IN ASSIGNING INVESTMENT RECOMMENDATIONS

In Fixed Income Research, recommendations on individual issuers are split between "outperformer", "underperformer" and "market performer". A key factor for the investment recommendation on a particular issuer is whether, in the opinion of the analyst, its bonds are likely to perform better than, worse than or in line with the bonds of similar issuers in the next six months. "Outperformer" means that the issuer's bonds are expected to do better than those of the peer group. "Underperformer" means that the bonds of an issuer are expected to perform worse than those of the peer group. "Market performer" means that the issuer's bonds should not differ significantly from the performance of bonds of the peer group according to the assessment of analysts.

The recommendation categories "outperformer", "underperformer" and "market performer" are based on the analysts' assessment of how the bonds of the issuer in question will perform in relation to those of the peer group. The peer group does not have to be defined exactly in this respect; it generally includes the issuers in the relevant market segment covered by DZ BANK Research.
Various total-return components are the yardstick used by analysts to judge the expected performance of bonds. The focus in this respect is on the performance of the credit spreads of the entirety of the bonds of the respective issuer. This credit spread can prove to be constant during the period under consideration; it can also rise or fall. Falling spreads would be positive for investors. If the premium charged for incurring the credit risk falls, then, all else being equal, the bonds of the issuer perform better than Bunds. Taking into account the performance of the entire peer-group investment universe, the analysts must then decide whether based on their assessment, the bonds of the issuer in question will perform better, the same or worse.

The decision in this respect is based on the analysts’ assessment of the credit worthiness of the issuer in question, assuming it is relevant in the respective market phase. In general, whether an improvement or deterioration in the credit quality is forecast depends on whether the capital markets also expect it, or whether the realisation of their expectations would be a surprise for the majority of market participants. Further factors have an impact. It is important to bear in mind how the general economic trend, central bank policy, geopolitical risks and the behaviour of the capital markets will have an effect on the spreads of the issuer under consideration in the forthcoming months (see above).

The investment recommendation is therefore assigned on the basis of a combination of fundamental analysis and relative-value analysis. Investment recommendations are based not only on a total-return analysis but also on the credit-worthiness/fundamental analysis described above, which allows an approximate assessment of an issuer’s default risk. However, DZ BANK Research does not work out a “fair” absolute credit spread level derived from fundamental data which is then used to issue a recommendation. Instead, the evaluation is done through a comparison of the risks identified by DZ BANK for the entirety of the bonds of the respective issuer with the risks of comparable bonds issued by other issuers, taking into account the respective credit spreads. The recommendation is therefore a relative assessment, in other words, the analysts must not only focus on the specific issuers they are concerned with, but also on the peer group.

SOURCES: DATA, STUDIES, INFORMATION

As regards the sources of information which DZ BANK Research uses to form an opinion, a distinction is made between concrete and non-concrete origin. Information is taken from our technical sources.

» Concrete sources of information

As part of the ongoing analysis of all relevant issuers and instruments, there may be crucial changes in the relevant environment which can lead to an adjustment (which must comply with technical and methodological requirements) of expectations regarding the evolution of issuer profiles or of the market performance of relevant financial instruments in the coverage. In such an eventuality, there will be concrete information in the form of information available in the public domain from the media, freely accessible academic analyses, publicly known/discussed legislation plans, state budget plans, regulation measures, public communication from central banks or a rating agency and/or concrete calculations carried out by the analyst which has led to a crucial change in the expectation. This is also true of tactically/strategically-driven recommendations.
Non-concrete sources of information
As part of the analysis coverage of EMU sovereign credits, analysts are constantly processing relevant information which determines the current direction of the market and factoring it into the way they form their opinion. As part of this process, the analysts have to take into account as yet unverified information just as much as the ongoing public discussion (political also) regarding the market trend and balance this with their own views of the market. In addition, they have to process the general information put forward by the media or statements from the political front and/or other bodies such as institutions or central banks or general, public reporting on geopolitics. In their permanent processing, analysts have to evaluate this information, discard it or take it on board in order to adjust their opinion or stick to it.

Technical sources of information
From a technical point of view, the information systems from which our analysts draw their information are Bloomberg, Reuters, Datastream and other market information service providers, along with publicly accessible websites of country-specific offices, authorities, institutions and overarching organisations. In addition, various print media and TV reporting services are used.
I. IMPRINT
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These isolated statements alone are not sufficient to form the basis of an investment decision. Reference is made to the explanation of the used evaluation methods.
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Issuers of shares and bonds are analysed on the basis of predefined sustainability factors and classified in isolation as 'sustainable' or 'non sustainable'. For sovereigns, a classification as 'transformation state' can be made that lies between these two classifications.
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For defined share indices, share price forecasts are made at regular intervals. From the comparison between the current prices and the prepared forecasts on the development of such equity indices, investment recommendations that are not generally definable and that cannot be defined in advance may be developed.
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The assessment of an investment in a currency area is geared to the aggregate return expected from an investment in that currency area. As a rule, this aggregate return is primarily derived from the forecast change in the exchange rates. Aspects such as the general interest rate level and changes in the yield level of bonds on the relevant bond market that are possibly to be taken into consideration are also included in the assessment.
"Attractive" refers to the expectation that an investment in a currency area can deliver an above-average and positive return over a horizon of six to twelve months.
"Unattractive " refers to the expectation that an investment in a currency area can deliver only very low returns or even losses over a horizon of six to twelve months.
"Neutral" refers to the expectation that an investment in a currency area can deliver low or average returns over a horizon of six to twelve months.
The aforementioned returns are gross returns. The gross return as success parameter relates to bond yields before deduction of taxes, remunerations, fees and other purchase costs. This compares with the net return of a specific investment, which is not calculated and can deliver significantly lower returns and which measures the success of an investment in consideration of / after deducting these values and charges.
4.5 The prevailing factor for the allocation of market segments and country weightings for covered bonds is the comparison between a sub-segment and all the sub-segments on the relevant market as a whole:
"Overweight " refers to the expectation that a sub-segment can deliver a significantly better performance than all the sub-segments as a whole.
"Underweight" refers to the expectation that a sub-segment can deliver a significantly poorer performance than all the sub-segments as a whole.
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For derivatives (Bund futures, Bobl futures, treasury futures, Buxl futures) the arrows (↑/↓/↑↓) merely indicate the trend direction and do not contain any investment recommendation. The trend direction is derived solely from the use of generally recognised technical analysis indicators without reflecting an analyst's own assessment.
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"Upward arrow (↑)" means that the absolute price increase expected in the next twelve months is greater than 10%.
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4.8 Credit Trend Issuers

Based on the assessment of the rating development of the agencies and the DZ BANK CRESTA-SCORE forecast model, the following classifications apply:

"Positive" is given if the agencies S&P, Moody’s and Fitch are expected to make a rating upgrade in the next twelve months,

"Negative" is given if the agencies S&P, Moody’s and Fitch are expected to make a rating downgrade in the next twelve months,

"Stable" is given if the agencies S&P, Moody’s and Fitch are expected to leave their ratings unchanged in the next twelve months.

If none of the agencies S&P, Moody’s and Fitch have given a rating, no assessment is made of the credit trend for the issuer concerned.

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If no update is made, investment recommendations end / lapse on expiry of the validity periods named below. These periods begin on the day the Other Investment Information was published.

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Sustainability analyses: twelve months
Analyses according to the value approach: one month
Asset allocation analyses (DZ BANK Sample Portfolio): one month
Euro Stoxx Sector Strategy (DZ BANK Sector Favourites): one month
Dividends (DZ BANK Dividend Aristocrats): three months
Credit trend issuers: twelve months
Share indices (fundamental): three months
Share indices (technical / chart analysis): one week
Share indices (technical daily): publication day
Currency areas: six to twelve months
Allocation of market segments: one month
Country weightings for covered bonds: six months
Derivatives (Bund futures, Bobl futures, treasury futures, Buxl futures): one month
Commodities: one month

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