Scope's sovereign risk assessment: further refinements and how we are different

Scope Ratings

Scope's sovereign methodology is based on five categories: 'Domestic economic risk' (DER), 'Public finances risk' (PFR), 'External economic risk' (EER), 'Financial stability risk' (FSR) and 'Institutional & political risk' (IPR). In May 2018, Scope refined its methodology, but kept the respective weights of these key quantitative criteria and the qualitative assessment that accompanies Scope's approach unaltered. This publication provides further clarity on Scope's quantitative assessment of sovereign risk. Overall, the methodological refinements had no impact on the 33 sovereigns rated by Scope.

Figure 1: Scope's sovereign risk assessment

Core variable scorecard (Quantitative)			Qualitative scorecard
Sovereign risk category	Variable		
Domestic economic risk (35%)	Real GDP growth, % Nominal GDP, log Real GDP volatility, st. dev. GDP per capita, USD Inflation rate, % Unemployment rate, % Old-age-dependency ratio, %	+	1. Growth potential 2. Economic policy framework 3. Macro-economic stability & sustainability
Public finance risk (30%)	Primary balance, % GDP Interest payments, % revenue Gross debt, % GDP Gross financing needs, % GDP	+	1. Fiscal policy framework 2. Debt sustainability 3. Market access & funding sources
External economic risk (15%)	Net IIP, % GDP Current account balance % GDP Importance of currency* External debt, % GDP	+	1. Current account vulnerability 2. External debt sustainability 3. Vulnerability to short-term external shocks
Financial stability risk (10%)	Non-performing loans, % total Tier 1 capital ratio, % Credit-to-GDP gap**	+	1. Financial sector performance 2. Financial sector oversight & governance 3. Financial imbalances & fragility
Institutional and political risk (10%)	WB Governance Indicators***	+	1. Perceived willingness to pay 2. Recent events and policy decisions 3. Geopolitical risk

Source: Scope Ratings GmbH. *Log of BIS trade volume, **83% Credit-to-GDP gap bubble; 17% Credit-to-GDP gap imbalance, ***Average of six World Bank Worldwide Governance Indicators.

The key refinements to the methodology are:

- The log of 'Nominal GDP', the 'old-age dependency ratio' and the 'tier 1 capital ratio' are introduced as new variables while 'population growth', 'GG public balance', 'trade-weighted effective exchange rate' and 'liquid assets' are removed. The quantitative assessment of 'Institutional and political risk' is expanded to include all six governance indicators provided by the World Bank.
- The risks from high inflation as well as the dangers of deflation are accounted for based on inflation deviations from a set band rather than set against central-bank targets. The assessment of a sovereign's external stability via a strong currency is refined to account for FX reserves (which was previously conducted qualitatively) while the measure of the credit-to-GDP gap now assesses both the risk of a credit bubble (only accounting for upside deviations on trend credit growth) and the overall deviation (imbalance) of credit from trend. For general government debt, Scope replaced the net ratio with the gross ratio, and added Cyprus, Luxembourg and Malta to its sample, extending the quantitative coverage to 63 sovereigns.
- Scope refined the definition of 'Macro-economic stability' in the Qualitative Scorecard (QS) to include sustainability and social considerations. These refinements led to changes in the quantitative score, which is the first step in Scope's rating assessment, improving (worsening) indicative rating scores for 29 (31) countries. No final ratings were impacted.

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Scope's Core Variable Scorecard

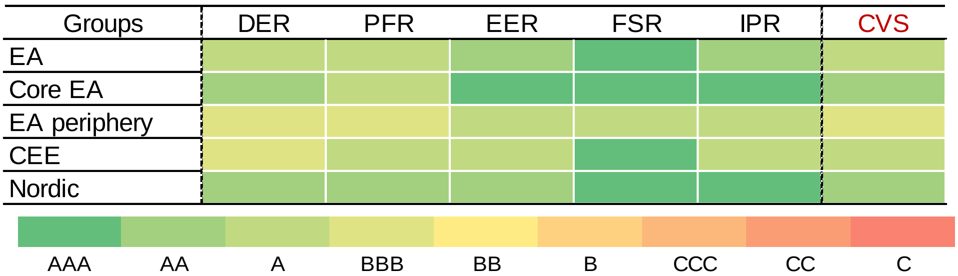
First step to determine indicative rating range

To structure the rating process and ensure comparability across peer groups, Scope divides its sovereign analysis into five broad-based risk categories, each of which contains a set of quantitative and qualitative considerations: 'Domestic economic risk' (DER), 'Public finances risk' (PFR), 'External economic risk' (EER), 'Financial stability risk' (FSR) and 'Institutional & political risk' (IPR).

Scope implements a core variable scorecard (CVS) as the first step in determining an indicative sovereign rating range. The CVS aggregates the main components of the five rating categories and determines an overall score, which is mapped to the long-term rating scale[1]. Scope complements the quantitative CVS score with the qualitative scorecard (QS) to account for analytical elements that cannot be captured within the CVS either due to insufficient data availability or the use of additional models that allow for the application of country-specific parameters, such as Scope's debt sustainability scenarios.

Figure 2 summarises the aggregated, quantitative results for the five risk categories for select aggregate peer groups of Scope's rated sovereigns (**Annex II** shows the composition of the groups).

Figure 2: Groups vs risk categories (core variable scorecard)



Source: Scope Ratings GmbH May 2018

NB. DER=Domestic economic risk, PFR=Public finance risk, EER=External economic risk, FSR=Financial stability risk, IPR=Institutional & political risk. To calculate the rating score within the core variable scorecard (CVS), Scope uses a minimum-maximum algorithm to determine a rating score, which ranges from 0 to 100. Sovereigns with the strongest (weakest) results for each rating indicator receive the highest (lowest) rating score. CVS scores for the groups are simple averages of the sovereign scores of that group.

Quantitative assessment based on 63-country sample

The quantitative scores are derived from a 63-country sample. European sovereigns score relatively high in the categories 'Financial stability risk' and 'Institutional & political risk' as well as 'External economic risk'. These risk categories are mostly assessed weaker for emerging economies. Conversely, European sovereigns score more moderately on 'Domestic economic risk' and 'Public finances risk' compared to the remaining countries in the sample.

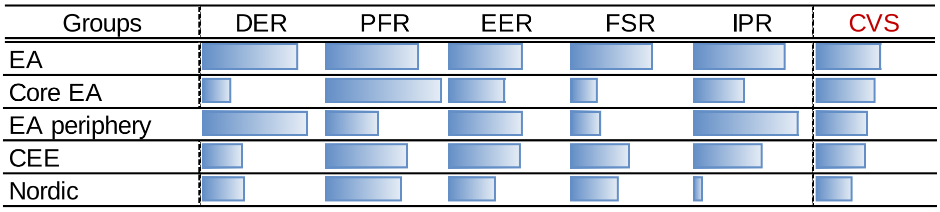
Large heterogeneity for some groups and analytical categories

However, as **Figure 3** highlights, within each of the shown peer groups, there is a significant level of dispersion. This is particularly the case in the assessments of economic and institutional risks for the euro area periphery (Portugal, Greece, Italy, Ireland and Spain) and the public finance risk of core euro area sovereigns (Germany, Austria, France, Netherlands, Belgium). There is also substantial heterogeneity among the performance of euro area member states (Germany, France, Italy, Netherlands, Belgium, Spain, Portugal, Ireland, Austria, Finland, Greece, Slovakia, Slovenia, Estonia, Latvia, Lithuania) across all five categories. Not surprisingly, the lowest distribution is observed in assessing the institutional risks of the Nordic countries (Denmark, Finland, Sweden, Norway). Looking at general risk categories, financial stability risk scores show,

[1] Please refer to Scope Ratings 'Rating Methodology Public Finance Sovereign Ratings' 04 May 2018 for the mapping of CVS scores and indicative rating ranges.

on average, the tightest distribution, as opposed to public finance risk assessments with the broadest distribution.

Figure 3: Heterogeneity among groups (Standard Deviation in CVS scores)



Source: Scope Ratings GmbH. *May 2018. SD ranges from 1.4 (IPR for Nordics) to 15.9 (PFR for Core).

See **Annex I** for the key quantitatively derived rating drivers and constraints for the selected regions.

How Scope's sovereign rating approach is different

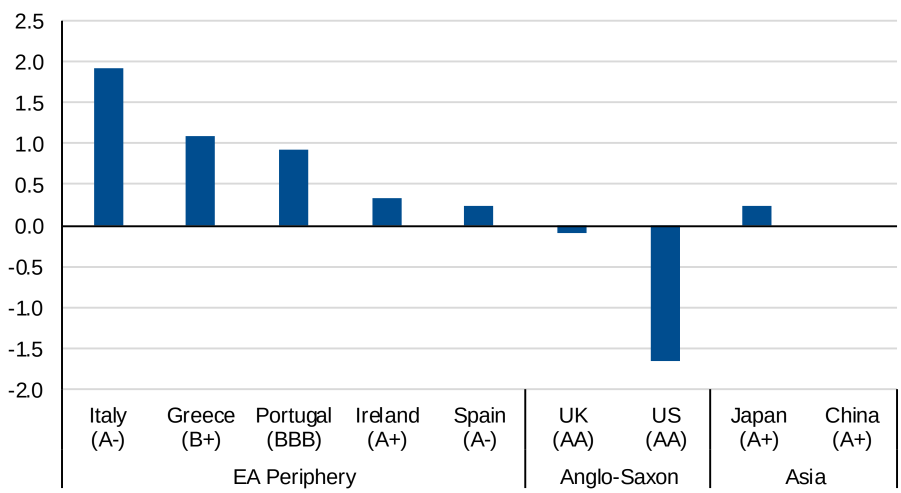
Scope's approach differentiates itself on starting-point, communication and output

Scope's approach distinguishes itself from the US rating agencies in i) the fundamental starting-point of the analysis, ii) the communication of that analysis, and iii) the output; that is, the rating levels, the volatility of change in those levels as well as the main rating drivers. Scope's sovereign rating methodology attributes greater importance to longer-term structural developments in the economy as opposed to short-term cyclical trends or market movements and evaluates the capacity and quality of the European and national policy responses to shocks.

Scope's qualitative assessment includes the government's policy options and reaction function

This is reflected, for instance, in the incorporation of five-year forecasts for most variables in the quantitative analytical categories, which are further supported by the systematic qualitative assessments relative to the peer group of the sovereign. Scope also assesses the policy options available to governments in stressed scenarios, including improved resilience to shocks owing to regional monetary and financial governance frameworks that provide the function of a (conditional) lender-of-last-resort.

Figure 4: Scope ratings vs US agencies*, as of 2 July 2018 (rating notches)



Source: Scope Ratings GmbH

NB. Calculated based on alpha-numeric conversion on a 21-point scale from AAA (21) to D (1). Positive/negative outlooks are treated with a +/-0.25 adjustment. Credit Watch positive/negative with a +/-0.50 adjustment. *S&P, Moody's, Fitch.

In this context, Scope has recognised substantive institutional enhancements made to the euro area's architecture since the great financial crisis, which have enhanced the resilience of relevant sovereigns. Scope reflects this in a more constructive rating view on euro area sovereigns (on average) compared to its competitors (**Figure 4**). On the other end, Scope, informed by its dual quantitative and qualitative approach, has also elaborated on the reasons why the United States is no longer an AAA credit, challenging the assumption about the US Treasuries as the global risk-free asset.

Finally, in contrast with most agencies, Scope fully discloses its indicative, quantitatively derived rating (prior to analyst adjustments) and publishes the areas where the analysts apply qualitative judgements within the five analytical categories to conclude on the final ratings, including all sources of data used as well as the related literature.

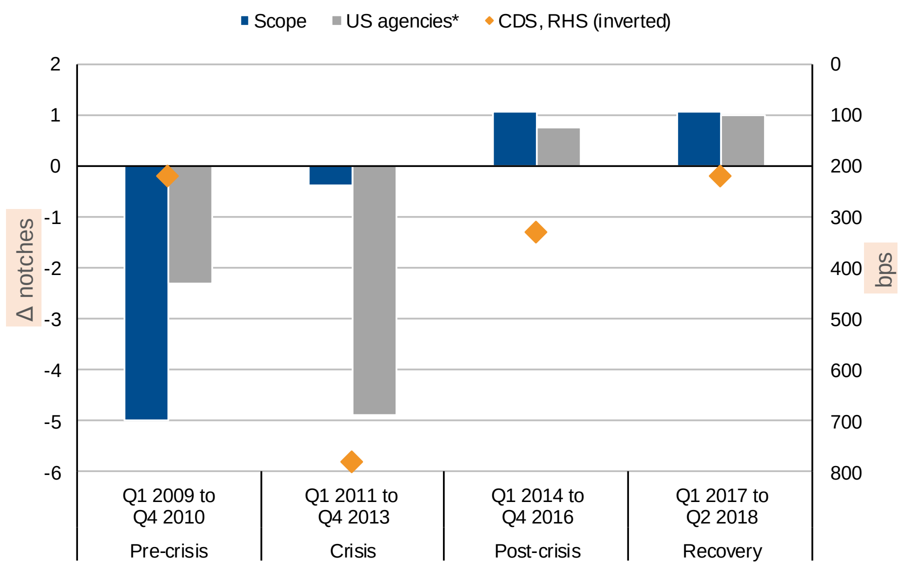
Sovereign spreads versus Scope's CVS scores

To illustrate the performance of Scope's assessment vis-à-vis its US competitors as well as the market's pricing of the evolving creditworthiness of the euro area periphery during the pre-crisis, crisis and post-crisis periods, Scope plotted the average changes in the credit ratings of Portugal, Greece, Italy, Ireland and Spain by Scope and the US agencies in comparison to the average CDS spreads.

"Through-the-cycle" long-term ratings

As **Figure 5** shows, Scope downgraded the euro area periphery ahead of its competitors, mostly during Q1 2009 to Q4 2010 while during the height of the crisis – from 2011-2013 – Scope's ratings remained largely stable, with the exception of Greece. Finally, after the crisis, Scope's ratings reflected improving fundamentals again earlier compared to its US competitors. This rating-cycle highlights Scope's fundamentals-driven approach, which aims to balance accuracy and stability by focusing on a sovereign's long-term structural issues as opposed to short-term market patterns, thus providing ratings which are "through the cycle".

Figure 5: Average changes in EA periphery ratings vs CDS spreads



Source: Scope Ratings GmbH. * S&P, Moody's, Fitch.

Annex I: Rating drivers and constraints

The following paragraphs highlight the key quantitatively derived rating drivers and constraints for the selected regions. Scope stresses that this quantitative assessment is indicative only as it does not capture the qualitative scorecard and the final judgement of the rating committee which informs the final rating decision on any sovereign.

Euro area[2]:

- The **'Domestic Economic Risk'** score balances comparatively high GDP per capita, moderate growth levels and well-anchored inflation expectations as per the ECB's monetary policy with still, on average, elevated unemployment rates and negative demographic trends as captured by the high and increasing "old-age dependency ratio".
- The **'Public Finance Risk'** score balances high debt levels with mostly positive primary balances and moderate, albeit varied, levels of interest payments to revenues.
- The **'External Economic Risk'** score is supported by the safe haven status of the euro and, on average, moderate current account surpluses. However, large external liabilities, as reflected in mostly negative net international investment positions (NIIP), reduce the score.
- The **'Financial Stability Risk'** score balances well-capitalised banking sectors with (selectively) high non-performing loans and, for some countries, significant negative deviations of credit from its respective long-term trend reflecting the ongoing deleveraging cycle.
- The **'Institutional & Political Risk'** score reflects high governance standards and political stability as measured by the World Bank's Worldwide Governance Indicators. Scope notes that this indicator, in particular, benefits from a qualitative assessment of governments' ability to formulate and implement adequate policies.

Core EA[3]

- The **'Domestic Economic Risk'** score reflects wealthy and diversified economies with low growth volatilities and high resilience to shocks, underpinned by the ECB's policy framework. Ageing populations and moderate GDP growth rates negatively impact the score.
- The **'Public Finance Risk'** score balances moderate interest expenditures, sustained budget performances, with high debt levels and heterogeneously large gross financing needs.
- The **'External Economic Risk'** score is supported by the euro's reserve currency status, the net external creditor status of most of the countries in the group, sound current account balances reflecting high saving rates and international competitiveness. Still, elevated external debt levels constrain the score.
- The **'Financial Stability Risk'** score reflects adequate capitalisation levels and high asset quality in the banking sectors as measured by the overall low NPL ratios. Scope notes moderate differences in the relative positioning of the credit cycles.
- The **'Institutional & Political Risk'** score reflects high governance standards and political stability as measured by the World Bank's Worldwide Governance Indicators.

Euro area periphery[4]

- The **'Domestic Economic Risk'** score balances subdued potential growth rates, constrained by weak productivity gains, unfavourable demographics and high structural unemployment with sustained economic expansion underscored by the ECB's monetary policy.
- The **'Public Finance Risk'** score balances improving fiscal metrics with debt to GDP ratios still well above the Maastricht criterion (60%) and large gross financing needs reflecting new borrowing requirements as well as maturing debt.
- The **'External Economic Risk'** score is supported by euro's status in the international monetary system and mainly moderate current account surpluses within a large common market. The score is however weakened by large negative

[2] Germany, France, Italy, Netherlands, Belgium, Spain, Portugal, Ireland, Austria, Finland, Greece, Slovakia, Slovenia, Estonia, Latvia, Lithuania
[3] Germany, Austria, France, Netherlands, Belgium
[4] Portugal, Greece, Italy, Ireland, Spain

net international investment positions, for the most part far below the European Commission threshold of negative 35% of GDP designed to identify external vulnerabilities.

- The **'Financial Stability Risk'** score reflects very high, albeit declining, NPLs, a legacy of the crisis; tier 1 ratios on the whole in line with the EA average; and large credit to GDP gaps (negative) suggesting no accumulation of excessive private debt as a source of potential vulnerability, but also indicating weak credit growth and potential banking system fragilities.
- The **'Institutional & Political Risk'** score reflects above-average scores on the various governance dimensions.

CEE[5]:

- The **'Domestic Economic Risk'** score balances relatively high potential growth rates and moderate inflation levels with comparatively low per capita income levels and, on average, small economies.
- The **'Public Finance Risk'** score captures significant heterogeneity in terms of sovereign debt stocks (as measured relative to GDP) ranging from the single digits to well above the Maastricht criterion of 60%; on average balanced primary budgets; and moderate gross financing needs.
- The **'External Economic Risk'** score reflects relatively low, albeit generally increasing, external debt ratios, projected deteriorations in current account balances and sizable negative NIIPs.
- The **'Financial Stability Risk'** score balances adequate capital ratios with sizeable levels of NPLs and large/negative credit-to-GDP gaps limiting the risk of excessive credit in the economy.
- The **'Institutional & Political Risk'** score reflects a slightly better-than-average score on the various dimensions of governance, compared to the 63-country sample.

Nordics[6]

- The **'Domestic Economic Risk'** score is underpinned by mature and competitive economies with very high per capita incomes and well-anchored inflation expectations. A shrinking share of the working age population and somewhat elevated unemployment rates negatively impact the score.
- The **'Public Finance Risk'** score reflects low interest payments and gross financing requirements, moderate debt burdens and, on average, balanced primary budgets.
- The **'External Economic Risk'** score balances highly traded currencies, positive net international investment positions and current account surpluses with somewhat elevated external debt levels.
- The **'Financial Stability Risk'** score reflects high asset quality as captured by very low NPLs, well-capitalised banking sectors and widening negative credit to GDP gaps driven by fast growth, mitigating against financial vulnerabilities.
- The **'Institutional & Political Risk'** score reflects the predictable and effective policymaking environment of the Nordics.

[5] Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Slovakia, Slovenia, Estonia, Latvia, Lithuania
[6] Denmark, Finland, Sweden, Norway

Annex II: Group composition

EA	Core EA	EA periphery	CEE	Nordics
Germany	Germany	Italy	Slovakia	Finland
France	France	Spain	Slovenia	Denmark
Italy	Netherlands	Portugal	Estonia	Sweden
Netherlands	Belgium	Ireland	Latvia	Norway
Belgium	Austria	Greece	Lithuania	
Spain			Czech Republic	
Portugal			Hungary	
Ireland			Poland	
Austria			Romania	
Finland			Bulgaria	
Greece			Croatia	
Slovakia				
Slovenia				
Estonia				
Latvia				
Lithuania				

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