Fiscal and debt trajectory risks: a comparative assessment of EU member states

Scope Ratings

Analysing structural factors that determine the relative strengths and weaknesses of EU countries, Italy, Spain and Greece stand out as three economies facing relatively greater comparative fiscal challenges under Scope's public finance and debt trajectory assessments, whereas Luxembourg, Malta and Germany display lower fiscal risks.

As global growth has slowed, major central banks around the world returned to policies of lower short-term policy rates or resumed balance sheet expansion. However, with interest rates already at or near all-time lows, the macroeconomic efficacy of additional monetary stimulus is now more restricted. Against this backdrop, fiscal policy has become a more central lever for buffering economies against slowdown and deflation risks.

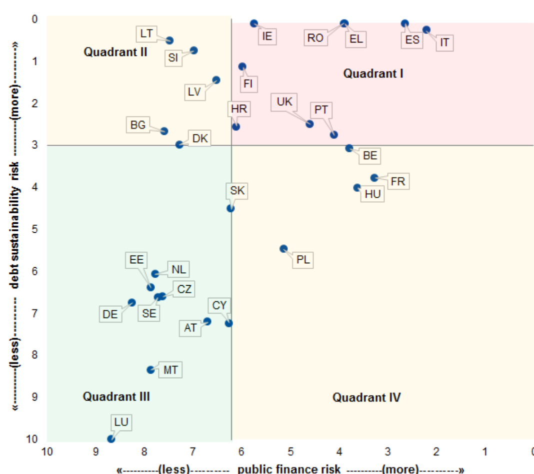
Looking across past and present EU countries, the capacity for economies to adopt fiscal stimulus is, however, uneven. Some countries can activate budgetary tools readily and invest by borrowing at low if not even negative rates under the guidance of fiscal rules. Others might in time risk negative responses in financial markets should borrowing endanger longer-term debt sustainability. An assessment of the extent of existing *fiscal space* that individual countries have is one way to differentiate between countries' degrees of fiscal risk. In a special comment published on 28 November 2019, Scope outlined that with regards to the fiscal space of EU nations, all member states have at least 'some' space for budgetary manoeuvre except in the case of Italy.

Another complementary way to view this question is to focus on the strength of existing balance sheets versus the risk for balance-sheet deterioration under an adverse scenario. This entails assessing how much fiscal capacity exists when a weakening in governments' growth, budgetary performance and financing rates occurs in the event of a future crisis.

In this report, Scope presents a framework for assessing fiscal risks of EU economies using a two-axis grid that compares the strength of current fiscal realities with future debt -sustainability risks in a highly adverse scenario. The analytical framework applied in this report indicates Italy (rated BBB+/Stable), Spain (A-/Stable) and Greece (BB/Positive) as being three EU states with more precarious fiscal circumstances. Romania (BBB-/Negative) also has comparatively high fiscal risk.

Conversely, Scope observes EU economies with lower fiscal risk in, for example, Luxembourg (AAA/Stable), Malta (A+/Stable) and Germany (AAA/Stable). Other countries *less exposed* to risks of debt sustainability include Sweden (AAA/Stable), Estonia (A+/Stable) and the Czech Republic (AA/Stable).

Scope's Public Finance Risk vs Debt Sustainability Stress Test (two-axis grid)



Source: Scope Ratings GmbH

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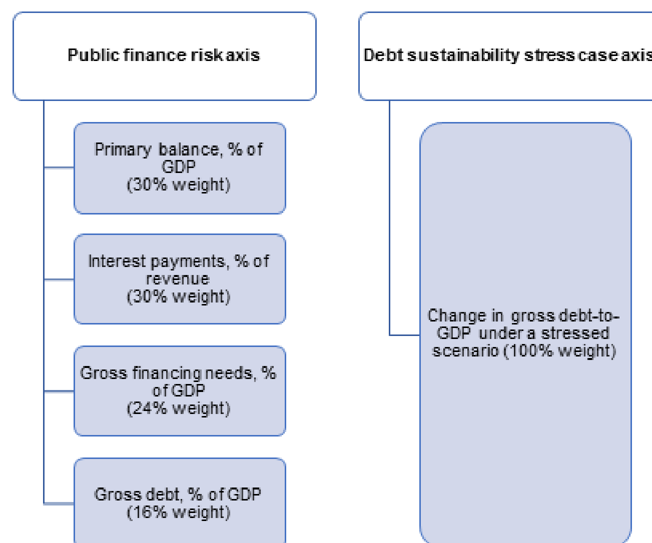
Complementary assessment of fiscal risks

Scope's fiscal risk evaluation

Importantly, Scope's sovereign credit rating methodology is based on *five* high-level pillars, each one assessed under dual quantitative and qualitative determinants. "Public finance risk" is one of the five sovereign methodological pillars, with a *30% weight* in the total sovereign rating assessment.

This report presents our methodological thinking on evaluating the *Public finance risk* pillar of the methodology by combining the quantitative model assessment on public finance risk with a complimentary evaluation of debt sustainability under a stressed scenario for EU member countries[1]. As such, this report presents: i) along one axis of the evaluation, a baseline assessment on public finance, which is premised on a set of quantitative indicators *identical* to those included under the *Public finance risk* dimension of the sovereign methodology; and ii) on the y-axis, an assessment on the extent of EU countries' debt sustainability risks in an adverse scenario.

Figure 1: Public finance risk and debt sustainability stress test axis variables



Source: Scope Ratings GmbH

The individual variables underlying this two-axis framework are outlined below and summarised in **Figure 1** above:

1) The public finance risk axis (based on the quantitative model variables included under *Public finance risk* in Scope's sovereign methodology) and reasons for the variables' relevance to fiscal risk:

- (**30% weight**) Primary balance as a share of GDP, seven-year weighted average using 2018 data, estimates for 2019 and 2020-24 forecasts via the IMF: a persistent primary budget deficit contributes to a build-up of debt and indicates a government's comparatively weaker capacity to service debt from own resources.
- (**30%**) Interest payments as a % of government revenues, seven-year weighted average using 2018 data, estimates for 2019 and 2020-24 IMF forecasts: a key indicator regarding the affordability of government debt.
- (**24%**) Gross government financing needs as a % of GDP, three-year average using 2018 data, 2019 estimates and 2020 IMF forecasts: significant financing

[1] This report includes an assessment on the United Kingdom as a member of the former EU-28, whilst recognising that the UK left the European Union on 31 January 2020.

requirements increase default risks owing to raising the needs of government borrowers in financial markets to continuously roll over debt.

- (**16%**) Gross government debt as a percent of GDP, seven-year weighted average using 2018 data, 2019 estimates and 2020-24 IMF forecasted figures: high public debt levels reduce fiscal space available to support national economies.

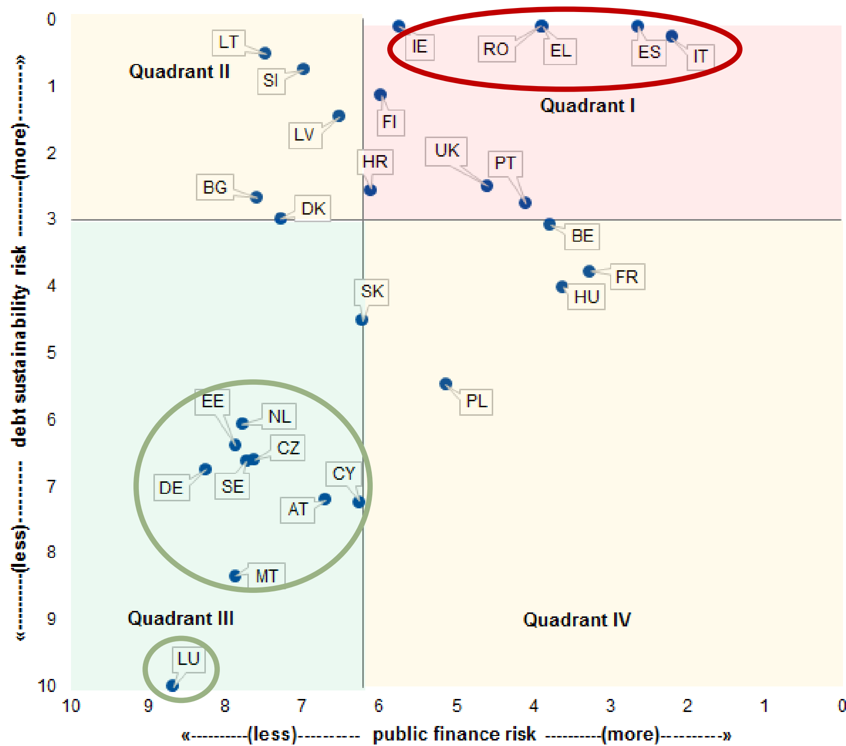
2) The debt sustainability stress test axis:

- (**100% weight**) The change in gross government debt-to-GDP over a two-year period assuming a one standard deviation (on the basis of 2004-18 historical economic/fiscal data) shock to growth, primary balances and interest payments: assesses the change in debt ratios under the scenario of a severe macroeconomic, fiscal and financing rate shock.

Scope uses a minimum-maximum algorithm to determine a score under each of the five factors between the two axes, with the score for each factor ranging from 0 to 10. Scores are then combined under the referenced weighting system to reach axis-level scores for each country.

Results for EU countries (plus the UK)

Figure 2: Public finance risk (10=least risky, 0=most risky) and debt sustainability stress case (10=most sustainable, 0=least sustainable) grid



For the second axis (debt sustainability risk), non-standardised results from the applied stress case can be found in Annex II.

Source: Scope Ratings GmbH; * Belgium (BE), Bulgaria (BG), Czech Rep. (CZ), Denmark (DK), Germany (DE), Estonia (EE), Ireland (IE), Greece (EL), Spain (ES), France (FR), Croatia (HR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE), United Kingdom (UK).

Fiscal risk evaluation divided into four quadrants

Figure 2 displays the fiscal risk and stress test coordinate grid for EU-27 member states plus the UK. The graph is divided into four quadrants; dividing lines between quadrants

reflect median country scores for each of the two axes: *Quadrant I.* countries with high existing public finance risk that see significant added risks in the crisis scenario; *II.* countries where baseline budgetary risks are low but risk in a stress scenario is high; *III.* countries where baseline risk is low and risk in a stress scenario is also low; and *IV.* countries where baseline levels of public finance risk is high but incremental risks in a stress scenario are low. Full axes scores, axes country rankings and underlying data are included in **Annexes I** and **II**.

In considering countries that are the most or least at risk using this two-axis framework, Scope takes into account the sum-score between the two axes.

The three countries most at risk

Scope's two-axis framework identifies the riskiest countries in the EU-27 plus the UK with regards to combined fiscal risk as being:

1) Italy
2) Spain
3) Greece

These are economies in Quadrant I of **Figure 2** on the previous page that not only show current fiscal vulnerabilities but also exhibit prevailing weakness in their future debt sustainability under a stressed scenario. Other Quadrant I countries amongst the most exposed to fiscal risk include Romania and Ireland.

The three countries least at risk

In addition, Scope observes the three EU economies least at risk as being:

1) Luxembourg
2) Malta
3) Germany

These are economies in Quadrant III of the four-quadrant grid that not only show fewer existing fiscal vulnerabilities but are moreover better positioned to deal with future crises were one to occur.

Risks in major Western European nations vary

Scores for Western European countries vary. Luxembourg, Germany, Austria and the Netherlands (all rated AAA/Stable by Scope) are shown in Quadrant III and rank among the strongest credits considering moderate-to-low debt ratios, low interest payments, budget surpluses, and resilience in the shock scenario.

France is displayed in Quadrant IV with the third weakest performance under the public finance risk axis (axis one), reflecting on average 2.5% of GDP projected fiscal deficits over the medium-run, an elevated debt ratio of 100.5% of GDP as of Q3 2019 and high gross government financing needs of an estimated 13.8% of GDP in 2020.

A decade after the onset of the euro area debt crisis, member countries of the euro area periphery, despite significant curtailments in fiscal imbalances, continue to display amongst the weakest fiscal scores in the EU at least compared with stronger EU peers. Italy, Spain, Greece, Ireland and Portugal are shown in **Figure 2** as being in Quadrant I. Greece and Italy have the highest gross government debt ratios in the EU at 178.2% and 137.3% as of Q3 2019 respectively; Spain's 97.9% debt ratio that quarter is also significantly higher than a euro area average of 86.1%. Interest payments of peripheral euro area economies relative to government revenues are also comparatively elevated, at an estimated 6.5% on average in 2019 – even though this figure is falling with the help of near record low borrowing rates. In the stressed scenario, Greece and Ireland see the most significant increases in debt ratios, by 28 percentage points on *average* within the two years of the stress case. Spain and Italy see an average increase of 16 percentage points by comparison.

In the Nordics, Sweden (AAA/Stable) displays the sixth strongest results in the EU on both the public finance risk axis and in the stress case examination and is displayed in Quadrant III. Similarly, Denmark shows low risks and is borderline between Quadrant III and Quadrant II, while Finland (AA+/Stable) displays somewhat greater fiscal vulnerabilities and is in Quadrant I with, however, moderate debt ratios at just under the Maastricht Treaty's 60% of GDP ceiling, moderate gross annual financing needs alongside limited interest payments as a % of GDP. Finland's budget balance is forecast at around a 1% of GDP deficit over the medium run, while Sweden and Denmark are expected to see modest fiscal surpluses. Finland displays a comparatively significant increase in its debt ratio under the stress scenario, by 12.1pps within the two-year horizon, compared with 9.8pps and 5.5pps in the cases of Denmark and Sweden.

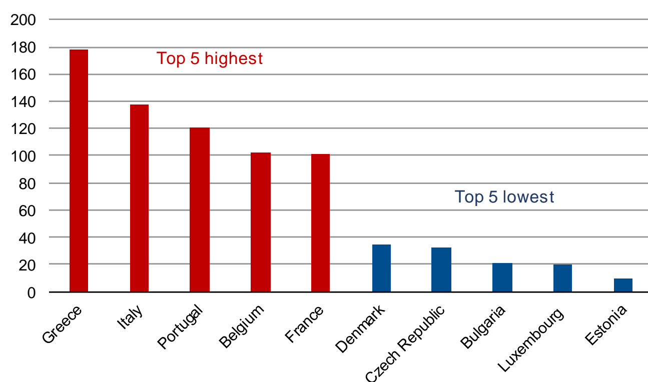
The UK has below-average scores

The UK (AA/Negative) is displayed in Quadrant I with below-average results on both axes. The UK's budget balance improved significantly in the period immediately after 2009 but it has deteriorated since the 2018-19 tax year (from -1.8% of GDP in 2018-19 to an estimated -1.9% of GDP in 2019-20), with more significant deterioration anticipated in the 2020-21 fiscal year after a re-elected Conservative Party government enacts an expansionary budget of tax reductions and increases in spending on health, police, infrastructure, among other areas. Furthermore, the UK's gross debt ratio declined only somewhat over a four-year period to 84.2% of GDP as of Q3 2019, remaining well above Germany's 61.2% debt ratio for example. However, the UK's moderate gross government financing needs of an estimated 8.5% of GDP in 2020 remain comfortably below an IMF vulnerability threshold of 20% of GDP (above which the IMF considers a government to have "limited" fiscal space), reflecting in part the very long average maturity of UK government debt. Gross government financing needs are well under those of similarly-AA-rated EU governments like France's and Belgium's.

Scores in CEE similarly vary

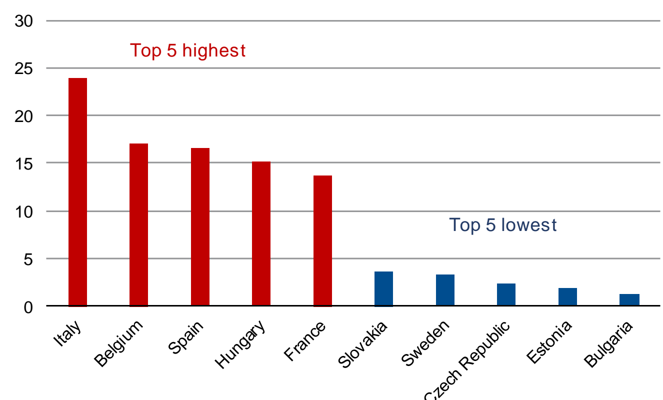
Scores for central and eastern European (CEE) economies are disparate. Estonia (A+/Stable) and the Czech Republic (AA/Stable) are presented in Quadrant III with amongst the lowest debt ratios in the EU at 9.2% and 32.0% of GDP as of Q3 2019. These countries display only moderate increases in debt under the stress scenario. Slovakia (A+/Stable) is borderline between quadrants III and IV with a moderate debt-to-GDP ratio of 48.4% and moderate debt ratio rises under stress.

Figure 3: Top 5 highest and lowest debt ratios in the EU, as of Q3 2019, % of GDP



Source: Eurostat, Scope Ratings GmbH

Figure 4: Top 5 highest and lowest gross government financing needs in the EU, % of GDP, 2020



Source: various IMF reports, Scope Ratings GmbH

Bulgaria (BBB+/Stable), Lithuania (A-/Positive), Latvia (A-/Stable), and Slovenia (A/Stable) are shown in Quadrant II, with comparatively healthy sovereign fiscal dynamics at present. However, debt would rise more significantly in a stress case, by 12 pps on average. Poland (A+/Stable) and Hungary (BBB+/Stable) are the lone CEE economies in

Quadrant IV of **Figure 2** with higher average levels of debt and elevated public sector financing requirements, but showing comparative resilience in the case of a future shock (with debt ratios increasing by on average 7.7pps within the two years of the stress case), reflecting robust growth, underpinned by sturdy macroeconomic stability. However, budget deficits for these two nations are expected to remain moderate at around an average of 2% of GDP over the medium-term. Croatia (BBB-/Stable) has average scores on the two axes. Finally, Romania (BBB-/Negative) is displayed in Quadrant I, exhibiting the weakest results for EU countries in the CEE region, reflecting an excess fiscal deficit expected at 3.5% of GDP in 2020, alongside a significant increase in its debt ratio under a stress scenario, by 13.3pps within two years.

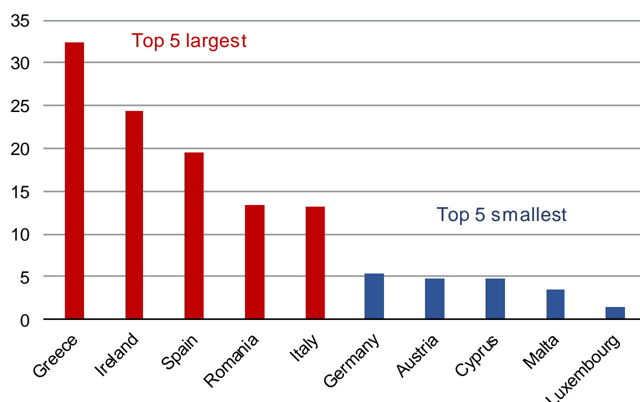
Debt sustainability stress test: an in-detail look

Evaluation of debt trajectories is central to Scope's evaluation of a sovereign's repayment capacity

The underlying trajectory of government debt levels is central to Scope's evaluation of a sovereign's longer-run capacity to repay outstanding debt obligations to private-sector creditors. Rising deficit and debt levels signal, for instance, an unsustainable fiscal trajectory, questioning whether deterioration in the nation's capacity to repay – and, as such, its sovereign creditworthiness – might be occurring. Under a similar train of thought, historically, debt levels have shown significant tendency to rise in times of distress in the *global* and/or *regional* economies. A synthesised global downturn can increase debt via multiple channels – from curtailing tax revenue flows and raising counter-cyclical spending, both driving budget deficits upwards, to cutting nominal GDP and raising the debt ratio via a denominator effect, to raising interest rates on new debt, to facilitating the crystallisation of contingent liabilities.

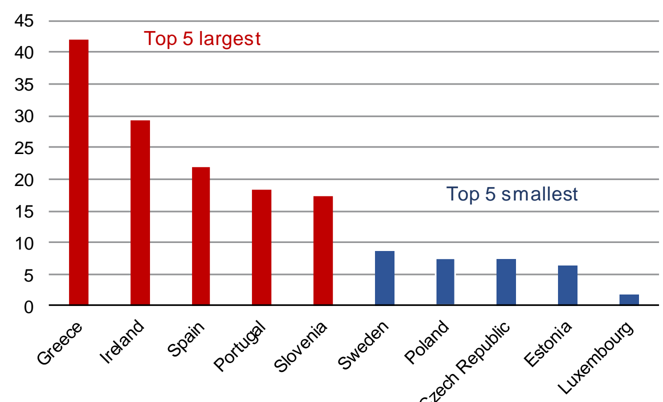
Scope reviews the impact on debt sustainability under *severe scenarios* routinely in the qualitative second stage of its sovereign rating review process. In this report, Scope mirrors this by *quantifying* this debt sustainability scenario assessment under one illustrative adverse scenario by evaluating fiscal sustainability over a two-year stress. This stress case assumes a *one standard deviation* (on the basis of 2004-18 historical data) coincident shock to growth, primary balances and interest payments.

Figure 5: Top 5 largest and most limited changes in public debt ratios over the two years of the stress case, % of GDP



Source: IMF, Scope Ratings GmbH

Figure 6: Top 5 largest and most limited disparities between the end-debt ratio under Scope stress scenario compared with the IMF's baseline 2021 debt ratio forecast, pps



Source: IMF, Scope Ratings GmbH

The advantage of simulating the shock on the basis of a one standard-deviation adverse shock to macroeconomic variables (as opposed to a static shock applied constantly across countries) is that the former captures country-specific sensitivities to the global cycle (depending on differing degrees of countries' openness, GDP and budget balance volatility, likelihoods of seeing significant increases in market financing rates under stress scenarios, etc.); however, one main limitation we acknowledge is that countries' past

performance thus determines their simulated responses in the shock scenario. This study, as such, does not capture potential *changes* in countries' relative sensitivities to macroeconomic shocks since the 2004-18 period.

Euro area periphery and Romania see greatest debt increases under stress scenario

As displayed in **Figure 5**, euro area periphery[2] member states alongside Romania see the largest increases in public sector debt ratios under the stress case examination. This reflects the combined effects from deterioration in primary balances, including to deficit levels of above 3% of GDP in the examples of Romania, Spain and Ireland at their peaks in the scenario. These economies enter recession in the scenario, with the Irish economy contracting by over 7% over two years, Greece by 4.7%, Italy and Romania by around 2.5%, and Spain by 1.7%.

Stress test results range from significant increases in debt to only modest rises

Other EU economies displaying amongst the most *significant* increases in debt ratios in the stress case include: i) Latvia, Lithuania and Slovenia (in CEE) by around 12pps on average; ii) in western Europe, the UK, Belgium and France by, on average, 10pps; and iii) in the Nordics, Finland by 12pps.

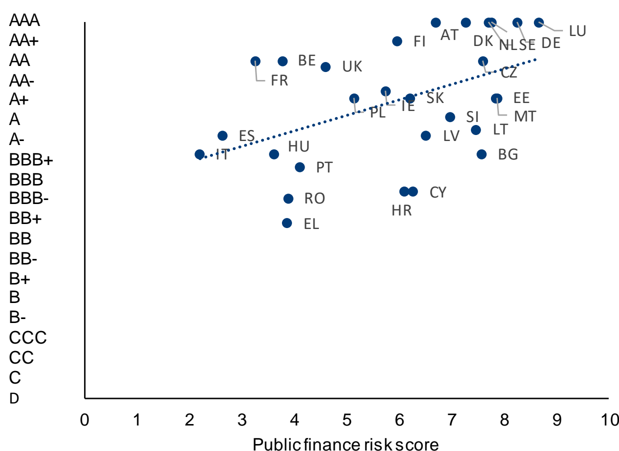
On the flip side, debt ratios for more resilient EU countries such as Luxembourg, Austria, Germany, Sweden, Malta and Cyprus (the latter rated BBB-/Stable) increase by on average only 4pps within the stress case's two-year horizon. Among CEE economies, the most resilient are the Czech Republic, Estonia and Poland, seeing around 6% of GDP average increases in debt.

Sovereign ratings versus fiscal risk assessments

Scores under both axes are linked to Scope's sovereign rating levels

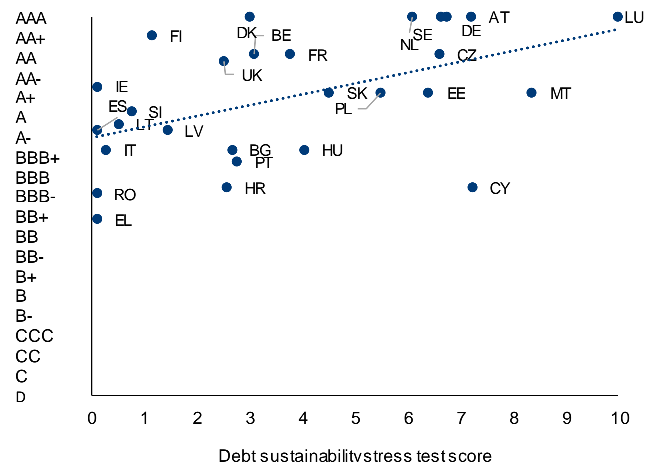
As Scope's *Public finance risk* pillar accounts for 30% of the sovereign rating assessment under Scope's methodology, there should be no surprise that the two axes studied in this report: i) public finance risk and ii) a debt sustainability stress case both have a degree of association with Scope's sovereign rating levels (**Figures 7** and **8**).

Figure 7: Public finance risk scores (axis one) versus Scope sovereign rating levels



Source: Scope Ratings GmbH. Positive/negative outlooks for ratings on the y-axis are treated with a +/-0.33 adjustment. Credit Watch positive/negative with a +/-0.67.

Figure 8: Debt sustainability stress test scores (axis two) versus Scope sovereign rating levels



Source: Scope Ratings GmbH. Positive/negative outlooks for ratings on the y-axis are treated with a +/-0.33 adjustment. Credit Watch positive/negative with a +/-0.67.

Although there are divergences

Countries in **Figure 7** that could be counted as outliers with *higher* sovereign rating assignments from Scope compared with public finance risk examined in this report include, for example, France and Belgium. Lower public finance scores for France are a result of the nation's primary fiscal deficits (expected at 1.3% of GDP over the medium-

[2] Designating in this study: Italy, Spain, Portugal, Greece and Ireland.

run) as well as elevated debt and gross financing need ratios of just over 100% as of Q3 2019 and around 13.5% of GDP over 2020-21 respectively. Belgium, as well, holds high debt ratios and gross financing needs, at an estimated 99.1% of GDP in 2019 and 14.6% (of 2019 GDP) in 2020 (including the refinancing of short-term debt) respectively, despite lower primary budget deficits expected at around 0.4% of GDP in 2020 under a no-policy change scenario. The UK is another issuer shown to have higher ratings than that which might be implied under an isolated assessment of public finance risk.

Conversely, countries with *lower* Scope sovereign ratings than those implied by our public finance risk assessment (axis one) include Bulgaria and Cyprus. Bulgaria's debt and gross financing need ratios are amongst the lowest in the EU, at around 20% of GDP and around 1% for 2020-21 respectively. Cyprus' primary fiscal surplus is projected at a significant 4.6% of GDP over 2020-24 by the IMF. Croatia is another country whose ratings are lower than implied levels from the first axis.

When we compare Scope's sovereign ratings with this report's debt-sustainability stress case results (**Figure 8**), there are some country-specific divergences with Scope sovereign ratings. This is no surprise given the debt sustainability stressed scenario evaluated in this report is only one of many scenarios that Scope might consider in its rating review's qualitative assessment of a government's debt sustainability.

However, outlier credits with higher sovereign ratings compared with this report's second axis results include Finland and Ireland (**Figure 8**). Ireland's debt ratio increases by near 25pps under the two-year stress case, as a highly open and cyclically volatile economy – the second highest such increase in the EU after Greece's (**Figure 5**), whereas Finland's stress case results are similarly shown to deviate somewhat from the country's strong AA+ ratings.

Conversely, sovereign issuers with significantly *lower* current sovereign ratings than the stress case axis scores include Cyprus and Malta. This reflects estimated increases in debt ratios under the two-year stress examination, by around 4pp in each example.

Limitations

This report represents a non-exhaustive glance at fiscal risk

Many complementary factors for the assessment of fiscal risk, which are relevant to, for example, sovereign debt refinancing risk, governments' available liquid reserves and prevailing budgetary rules and debt ceilings, are considered within the general guidance of Scope's sovereign methodology's qualitative overlay but excluded from this report's stylised, simplified two-axis assessment. As such, this report certainly does not represent an exhaustive look into factors that may be relevant to sovereigns' fiscal risk evaluations nor sovereign rating evaluations.

Some of the variables that are relevant during the sovereign rating review process but excluded from this report may tie, for instance, to economies' debt structures and the resilience of their investor bases. These considerations may include the share of a government's debt held by the non-resident sector, the weighted-average maturity of outstanding government debt, a government's available financial assets, the share of foreign-currency denominated debt as well as financial market indicators of market access and the cost of borrowing such as spread levels, yields and the diversity and composition of the existing investor base.

Annex I: Public finance risk axis (standardised scores: 10=least risk, 0=most risk)

Rank		Country	Primary balance, % of GDP	Interest payments, % of general government revenue	Gross financing needs, % of GDP	Gross debt, % of GDP		Public finance risk score
		Weight	30%	30%	24%	16%		
1	LU	Luxembourg	6.7	10.0	9.3	9.0		8.7
2	DE	Germany	8.4	8.9	8.6	6.1		8.2
3	MT	Malta	10.0	5.7	8.2	7.5		7.9
4	EE	Estonia	3.0	10.0	9.9	10.0		7.9
5	NL	Netherlands	7.7	8.7	7.3	6.8		7.8
6	SE	Sweden	4.6	10.0	8.7	7.8		7.7
7	CZ	Czech Republic	5.6	8.8	8.3	8.2		7.6
8	BG	Bulgaria	2.4	10.0	10.0	9.2		7.6
9	LT	Lithuania	4.2	10.0	8.0	8.2		7.5
10	DK	Denmark	3.4	10.0	8.3	8.0		7.3
11	SI	Slovenia	9.6	4.6	7.7	5.4		7.0
12	AT	Austria	6.7	7.5	6.7	5.2		6.7
13	LV	Latvia	4.1	7.2	7.9	7.8		6.5
14	CY	Cyprus	10.0	3.8	6.6	3.4		6.3
15	SK	Slovakia	4.1	6.9	7.6	6.8		6.2
16	HR	Croatia	8.6	5.2	4.7	5.1		6.1
17	FI	Finland	1.6	10.0	6.4	5.9		6.0
18	IE	Ireland	7.7	3.3	6.2	6.0		5.7
19	PL	Poland	2.7	5.8	6.2	6.9		5.1
20	UK	U.K.	3.7	5.4	5.3	3.9		4.6
21	PT	Portugal	10.0	0.9	2.4	1.5		4.1
22	RO	Romania	0.1	4.2	5.8	7.6		3.9
23	EL	Greece	10.0	0.1	3.4	0.1		3.9
24	BE	Belgium	4.9	6.2	0.1	2.7		3.8
25	HU	Hungary	4.3	4.3	0.6	5.4		3.6
26	FR	France	0.1	6.8	3.0	2.8		3.3
27	ES	Spain	3.8	3.1	0.3	3.1		2.6
28	IT	Italy	6.4	0.8	0.1	0.1		2.2

Source: Scope Ratings GmbH

Public finance risk axis: underlying data

Rank	Country	Primary balance, % of GDP (weighted average, 2018-24F)	Interest payments, % of revenue (weighted average, 2018-24F)	Gross financing needs, % of GDP (weighted average, 2018-20F)	Gross public debt, % of GDP (weighted average, 2018-24F)
1	Luxembourg	1.1	-0.4	2.6	21.2
2	Germany	1.7	1.2	3.6	56.8
3	Malta	2.3	3.5	4.3	40.1
4	Estonia	-0.3	-0.1	1.6	8.0
5	Netherlands	1.5	1.4	5.6	48.2
6	Sweden	0.3	-0.2	3.5	35.9
7	Czech Republic	0.7	1.3	4.1	31.0
8	Bulgaria	-0.5	0.4	1.4	18.5
9	Lithuania	0.2	-0.7	4.6	30.8
10	Denmark	-0.1	-0.5	4.1	33.4
11	Slovenia	2.2	4.4	5.0	65.7
12	Austria	1.1	2.3	6.6	68.8
13	Latvia	0.1	2.5	4.8	35.4
14	Cyprus	3.6	5.0	6.8	91.9
15	Slovakia	0.2	2.7	5.2	48.0
16	Croatia	1.8	3.9	9.8	69.4
17	Finland	-0.7	0.2	7.2	59.3
18	Ireland	1.5	5.3	7.4	59.0
19	Poland	-0.3	3.5	7.5	47.7
20	U.K.	0.0	3.8	8.9	85.3
21	Portugal	3.1	7.0	13.4	115.0
22	Romania	-2.0	4.7	8.1	38.3
23	Greece	3.1	7.6	11.8	174.0
24	Belgium	0.4	3.2	17.1	100.2
25	Hungary	0.3	4.6	16.3	66.3
26	France	-1.3	2.7	12.5	99.0
27	Spain	0.0	5.4	16.8	95.5
28	Italy	1.0	7.1	23.1	133.3

Source: IMF, Scope Ratings GmbH

Annex II: Debt sustainability stress test axis (10=least risk, 0=most risk) & underlying data

Rank	Country	Change in gross debt-to-GDP ratio under stress case
	Weight	100%
1	Luxembourg	10.0
2	Malta	8.3
3	Cyprus	7.2
4	Austria	7.2
5	Germany	6.7
6	Sweden	6.6
7	Czech Republic	6.6
8	Estonia	6.4
9	Netherlands	6.1
10	Poland	5.5
11	Slovakia	4.5
12	Hungary	4.0
13	France	3.8
14	Belgium	3.1
15	Denmark	3.0
16	Portugal	2.8
17	Bulgaria	2.7
18	Croatia	2.6
19	U.K.	2.5
20	Latvia	1.5
21	Finland	1.1
22	Slovenia	0.8
23	Lithuania	0.5
24	Italy	0.3
25	Romania	0.1
26	Spain	0.1
27	Ireland	0.1
28	Greece	0.1

Rank	Country	Change in gross debt-to-GDP ratio under stress (pps)
1	Luxembourg	1.4
2	Malta	3.4
3	Cyprus	4.7
4	Austria	4.8
5	Germany	5.3
6	Sweden	5.5
7	Czech Republic	5.5
8	Estonia	5.8
9	Netherlands	6.1
10	Poland	6.9
11	Slovakia	8.0
12	Hungary	8.6
13	France	8.9
14	Belgium	9.7
15	Denmark	9.8
16	Portugal	10.1
17	Bulgaria	10.2
18	Croatia	10.4
19	U.K.	10.4
20	Latvia	11.7
21	Finland	12.1
22	Slovenia	12.5
23	Lithuania	12.8
24	Italy	13.1
25	Romania	13.3
26	Spain	19.5
27	Ireland	24.4
28	Greece	32.5

Source: Scope Ratings GmbH

Debt sustainability stress test axis: shock scenario assumptions

Country	Real growth, %		Primary balance, % of GDP		Interest payments, % of GDP	
	2020	2021	2020	2021	2020	2021
Luxembourg	-0.2	-0.3	-0.4	-0.5	0.3	0.2
Malta	1.0	0.4	0.4	0.4	1.9	2.0
Cyprus	-0.6	-0.8	1.5	1.5	2.5	2.3
Austria	-0.1	-0.3	-0.5	-0.5	1.4	1.3
Germany	-1.1	-0.9	0.0	-0.4	1.2	1.1
Sweden	-1.1	-0.5	-1.4	-1.5	0.2	0.2
Czech Republic	-0.5	-0.5	-1.4	-1.6	0.7	0.7
Estonia	-3.2	-3.3	-1.8	-1.7	0.1	0.1
Netherlands	-0.2	-0.4	-1.3	-1.4	0.8	0.7
Poland	1.5	1.1	-2.7	-2.7	1.8	1.8
Slovakia	-0.9	-0.9	-2.0	-2.0	1.3	1.3
Hungary	0.2	-0.2	-1.8	-2.0	2.4	2.2
France	-0.1	-0.1	-2.4	-2.6	1.8	1.6
Belgium	-0.1	-0.1	-1.7	-2.0	2.2	2.0
Denmark	-0.1	-0.3	-3.4	-3.5	0.0	0.1
Portugal	-0.6	-0.7	0.1	0.5	3.9	3.6
Bulgaria	0.1	-0.1	-2.5	-2.5	0.5	0.5
Croatia	-0.6	-0.8	-1.0	-0.9	2.3	2.2
U.K.	-0.4	-0.3	-2.7	-2.6	1.8	1.9
Latvia	-3.9	-3.8	-1.8	-2.6	1.4	1.4
Finland	-1.8	-1.8	-3.7	-3.8	0.3	0.3
Slovenia	-0.7	-0.9	-1.8	-1.7	2.4	2.4
Lithuania	-3.0	-3.2	-3.1	-3.4	0.1	0.0
Italy	-1.5	-1.3	-0.3	-0.5	3.7	3.5
Romania	-0.9	-1.4	-4.0	-3.9	1.8	1.8
Spain	-0.8	-0.9	-4.1	-4.1	2.7	2.7
Ireland	-3.6	-3.9	-3.6	-3.6	2.2	2.1
Greece	-2.1	-2.6	-1.3	-1.5	4.7	4.6

Source: Scope Ratings GmbH

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