Scope External Vulnerability and Resilience Grid, and Trade War Exposure Rankings

Georgia, Ukraine and Turkey are the new "risky-3" in Scope's external vulnerability and resilience framework, whereas Switzerland, Japan and China are the "sturdy-3" of the most well positioned against external economic risks. In addition, Scope presents a framework ranking the most exposed nations to trade conflicts.

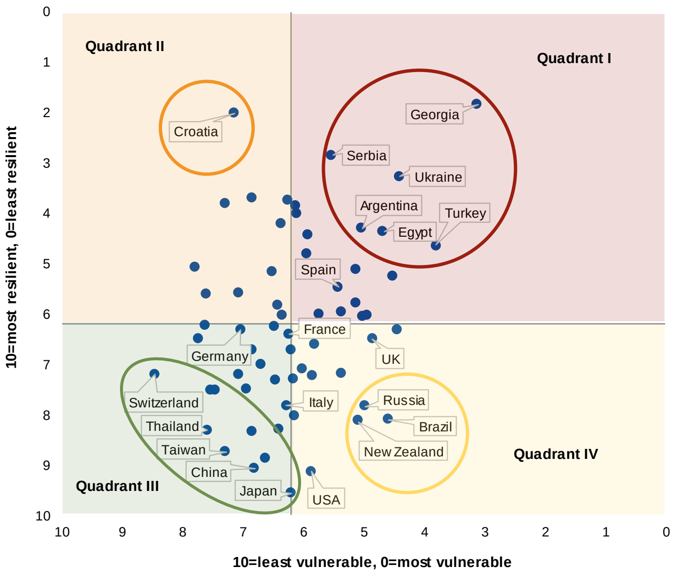
Tighter global financial conditions and fraught global trading conditions have exposed the vulnerabilities that many economies face owing to balance of payment weaknesses. This year, crises have emerged in Turkey (BB-/Negative), Argentina and Pakistan, to name only a few countries. With multiple stress factors set to weigh on global growth and sovereign risk in 2019, external vulnerabilities remain a key area to monitor.

In this report, Scope Ratings presents dual frameworks: 1) an external vulnerability and resilience two-axis coordinate grid, assessing countries on a) their *vulnerability* to balance of payment crises and b) their degree of *resilience* in the advent of crisis; and 2) a second framework that evaluates economies' exposure to contemporary trade disputes.

First, Scope's external vulnerability and resilience framework indicates a "risky-3": Georgia (BB/Stable), Ukraine and Turkey – economies that not only have vulnerability to the onset of balance of payment issues but also show prevailing weaknesses in ability to cope. Other countries amongst the most at risk of balance of payment issues include Serbia, Egypt and Argentina. In addition, Scope observes a "sturdy-3" of Switzerland (AAA/Stable), Japan (A+/Stable) and China (A+/Negative) – economies that are less vulnerable *and* more resilient to external crises.

Scores for major Western countries vary: the United States (AA/Stable) receives strong marks on resilience, supported by dollar primacy and Germany (AAA/Stable) is less vulnerable helped by large current account surpluses, but Spain (A-/Stable) scores on the weaker end of the two-axis framework and the UK (AA/Negative) shows deficits on vulnerability. Within the EU, Scope finds that Croatia (BB+/Stable), Romania (BBB-/Negative) and Hungary (BBB/Positive) are the three facing the greatest external risks.

External vulnerability and resilience grid



Source: Scope Ratings GmbH

Some economies that are the most vulnerable to classical balance of payment risks are also interestingly those that are least-at-risk from current trade disputes – including Ukraine, Turkey and Georgia. Instead, economies with the largest trade surpluses with the US are the most at risk from trade conflicts, with China, Mexico, Ireland (A+/Stable), Japan and Vietnam the most exposed in Scope's trade war exposure rankings.

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Scope's external vulnerability and resilience framework

Scope's external vulnerability and resilience grid

Scope's sovereign credit rating assessments are based on five pillars, of which "external economic risk" is one dimension, with a 15% weight in the overall evaluation. However, the significance of external vulnerabilities was made painfully clear over the course of 2018, as emerging economies with external weaknesses suffered under swings in global investor sentiment, seeing sharp FX devaluations and volatile changes in terms of trade. With these risks set to remain significant in 2019 under fraught global risk and trading conditions, vulnerabilities to sudden deterioration in external conditions remain a key factor in Scope's forward-looking credit risk assessment.

In this spirit, this report seeks to present an external vulnerability and resilience two-axis evaluation framework that assays countries on: i) their respective external *vulnerabilities* to the onset of balance of payment crises and ii) the extent of their *resilience* in the event of a balance of payment crisis. Later in this report, a complementary framework is laid out discussing the exposures of nations to the contemporary risk of trade disputes.

While external vulnerability assessments and rankings have traditionally focused on emerging markets, Scope notes that external risks are not unique to developing countries, but rather shared across nations, as evidenced over the European sovereign debt crisis when risks from large current account deficits and external competitiveness gaps were exposed in peripheral Europe. As such, this report is based on an assessment of a global set of economies – including advanced and emerging.

First, the design of the external vulnerability and resilience grid is outlined below:

1) The external vulnerability axis (composed of four factors, equally-weighted):

- (**25% weight**) Current account balance + net foreign direct investment (FDI), as a % GDP, as of 2017: large current account deficits signal a risk of unsustainable economic policies and excess domestic demand, deficits in external competitiveness, and/or the risk of further depletion of net foreign-exchange reserves. Foreign direct investment offers a comparatively stable cushion of possible inflows, less prone to sharp reversal in moments of stress, to finance current account deficits and could offset some risks to reserves.

- (**25%**) Net portfolio flows and other investment flows, as a % of GDP, 2014-17 weighted average: sustained net inflows of portfolio and other debt investment flows over a multi-year period signal a stable supplement to domestic savings. Conversely, sustained capital outflows over a multi-year period indicate a deficit of confidence with domestic and/or international investors and risk of future sudden stops[1] in capital flows precipitating currency and debt crises.

- (**25%**) Five-year standard deviation of monthly changes in nominal effective exchange rates: significant fluctuations in exchange rates signify a risk of future sharp devaluations or appreciations and associated disruptions to economic and financial stability, whereas lower currency volatility tends to nurture investor confidence and promote inward investment.

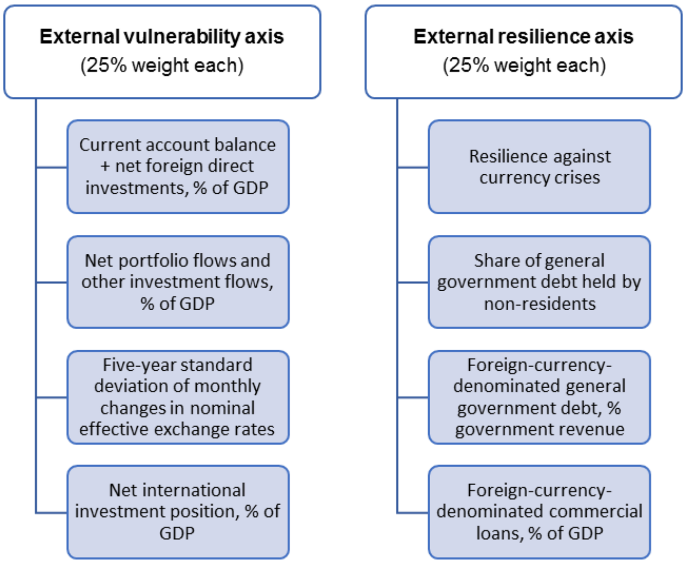
- (**25%**) Net international investment position (NIIP), % of GDP, as of 2017: large net external liabilities make the economy more exposed to developments in international financial markets and can lead to liquidity crises. Large net external asset positions can indicate open, competitive economies, whereas large net debtor positions can be a marker of underlying vulnerabilities.

[1] Calvo, G.A. and E. Talvi. (2005) "Sudden Stop, Financial Factors and Economic Collapse in Latin America: Learning from Argentina and Chile". NBER Working Paper No. 11153, Issued in February 2005.

2) The external resilience axis (composed of four factors, equally-weighted):

- (**25%**) Resilience against currency crises: two-step scoring: i) if the FX is a developed market or reserve currency (measured by either its 2016 FX turnover exceeding 5% of global daily turnover[2] or the country having a nominal GDP per capita of >USD 40,000 in 2017), then a maximum score of 10[3]; and if not (and the country does not possess a reserve currency), then ii) the score is based 50% on the log of its 2016 BIS FX turnover share and 50% on reserves ÷ short-term external debt: reserve currency countries enjoy meaningful protection from global risk routs, and can frequently see currency appreciation and capital inflows during such times. Non-reserve-currency countries must frequently defend themselves in the event of external shocks, with countries that have large arsenals of FX reserves better shielded against such incidents than those without.
- (**25%**) Share of general government debt held by non-residents, as of 2017: a high share of government debt held by foreigners could reduce resilience as foreign investors head for the exits once signs of crisis or instability arise.
- (**25%**) Foreign-currency-denominated general government debt as a % annual government revenues, 2017: a large stock of foreign-currency debt exposes a government to sudden deteriorations in repayment capacity should the currency de-value and debt service in local currency terms rises relative to revenues.
- (**25%**) Foreign-currency-denominated loans of deposit-taking institutions as a % of GDP, 2017: a highly euroised or dollarised financial system potentially makes an economy less resilient to a currency shock via borrowers' suddenly seeing repayment capacities weakened on foreign-currency debt, which must be repaid via local-currency-denominated financial resources. In addition, a high level of foreign currency lending reduces the effectiveness of monetary policy, limiting the ability of the central bank to control money supply.

Figure 1: External vulnerability and resilience framework



Source: Scope Ratings GmbH

[2] Percentage shares of average daily OTC foreign exchange turnover in April 2016 on a net-net basis. Source: Bank for International Settlements (BIS). (2016) "Triennial Central Bank Survey: Foreign exchange turnover in April 2016". Monetary and Economic Department, September 2016.

[3] The exception is for euro area countries, which receive a fixed score of 75 on the resilience against currency crises variable, owing to a lack of currency adjustment flexibility in the event of balance of payment issues (from being in a currency union). This is despite having a strong reserve currency in the euro.

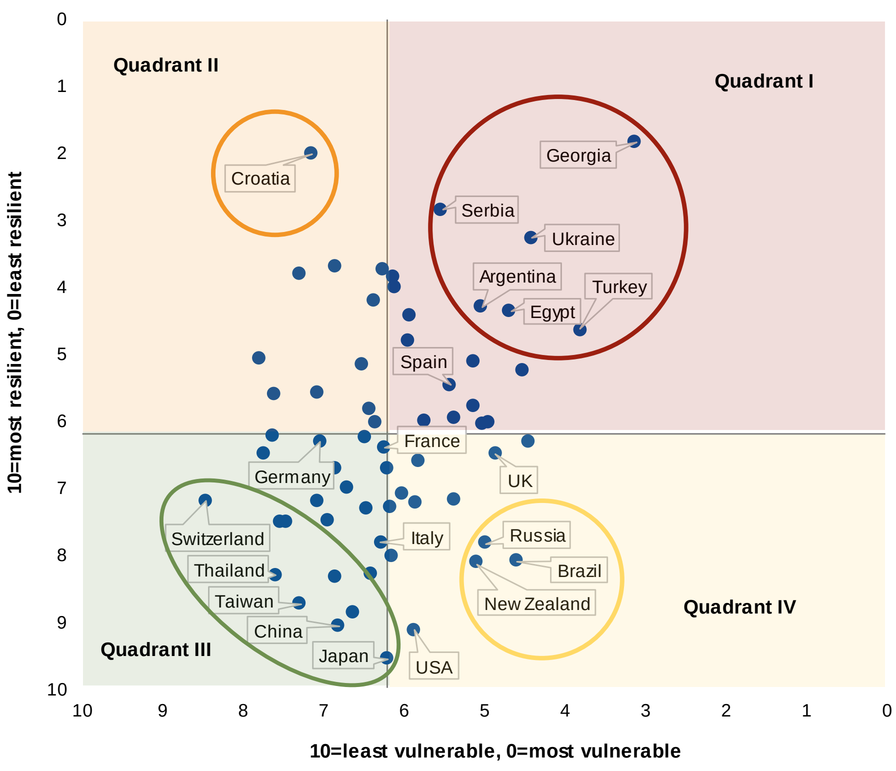
Scope uses a minimum-maximum algorithm to determine a score under each of the eight total factors, with the score ranging from 0 to 10. Scores are then combined to reach axes-level scores for each country under vulnerability and resilience.

External vulnerability and resilience framework: global results

External vulnerability and resilience grid divided into four quadrants

Figure 2 displays the external vulnerability and resilience coordinate grid for 63 countries[4]. The graph is divided into four quadrants: *Quadrant I.* countries that are vulnerable and not resilient; *II.* countries that are not vulnerable but not resilient; *III.* those that are not vulnerable and resilient; and *IV.* countries that are vulnerable but resilient. The dividing lines between quadrants reflect the median country scores on the vulnerability and resilience axes. Full vulnerability and resilience scores, axis rankings and data are included in **Annexes I** and **II**.

Figure 2: External vulnerability (10=least vulnerable, 0=most vulnerable) and resilience (10=most resilient, 0=least resilient) grid



Source: Scope Ratings GmbH

In considering countries that are the most or least at risk on the basis of Scope's two-axis framework, Scope takes into account the sum-score between the vulnerability and resilience axes in addition to giving preference to performance on the vulnerability axis in certain cases of close sum-scores (on the assumption that resilience is significant only should vulnerability precipitate the grounds for crisis).[5]

[4] Scope's sovereign rating approach is based on a quantitative model and a qualitative overlay. The quantitative model – Scope's Core Variable Scorecard – is based on a relative scoring system based on 63 countries. Of these 63 countries, Scope issues public ratings for 36 sovereigns.
[5] In addition, extreme results on one of the two axes that show significant areas of vulnerability (or lack thereof) or significant areas of resilience (or lack thereof) are taken into account. This emphasis on extreme results on either the vulnerability or resilience axis helps break near-ties in cases in which the sum-scores (adding the scores between the axes) for any two countries are similar.

Introducing Scope's risky-3

Scope's two-axis framework identifies a "risky-3" of:

1) Georgia
2) Ukraine
3) Turkey

These are economies in Quadrant I of the external vulnerability and resilience grid that not only show vulnerability to the onset of balance of payment crises but also exhibit prevailing weaknesses in ability to cope with crisis. Other countries amongst the most at risk include Serbia, Egypt and Argentina.

Introducing Scope's sturdy-3

In addition, Scope observes a "sturdy-3" of economies in:

1) Switzerland
2) Japan
3) China

These are countries in Quadrant III of the two-axis grid that are not only less vulnerable to balance of payment crises but are also well structured to deal with a crisis were one to occur. Thailand and Taiwan are further economies amongst the least at risk.

Furthermore, Quadrant IV portrays a set of countries that are vulnerable to crisis but resilient in the event of one, notably including Russia (BBB-/Stable), Brazil and New Zealand.

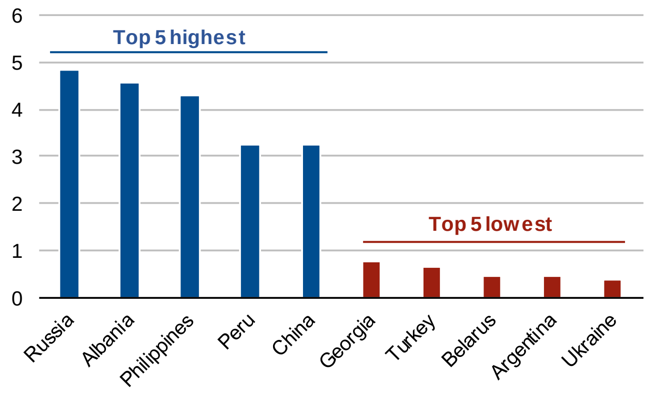
Scores for major Western countries vary

Scores for major Western countries vary. The United States is shown in Quadrant IV as the 23rd most vulnerable country (of 63) – weakened by its significant current account deficit of 2.2% of GDP in the four quarters to Q2 2018, however bolstered by the second highest resilience score out of the 63 country-set, helped by dollar primacy and very limited system-wide non-dollar-denominated debt. Germany ranks strongly as the 14th least vulnerable economy – boosted by a current account surplus of 7.7% of GDP in the year to October 2018 alongside a strong NIIP – but has only a middling score on resilience owing in part to high non-resident holdings of Bunds. France (AA/Stable) is mid-table as the 33rd most vulnerable and 30th most resilient. Italy (BBB+/Stable) is the 35th most vulnerable, weakened by capital outflows in recent years, but receives a strong resilience score, helped by a high share of general government debt held by the resident sector (63% of total public debt as of end-2017). Spain is in Quadrant I and receives weak overall scores – as the 18th most vulnerable, lowered by a NIIP of -82.4% of GDP in Q2 2018, and the 20th least resilient owing to high foreign holdings of government debt and significant foreign-currency-denominated lending in the banking system.

In Europe, Scandinavian economies – Sweden, Norway and Denmark (all three rated AAA/Stable) – receive amongst the strongest scores, with healthy current accounts and NIIP positions, as well as developed-market currencies.

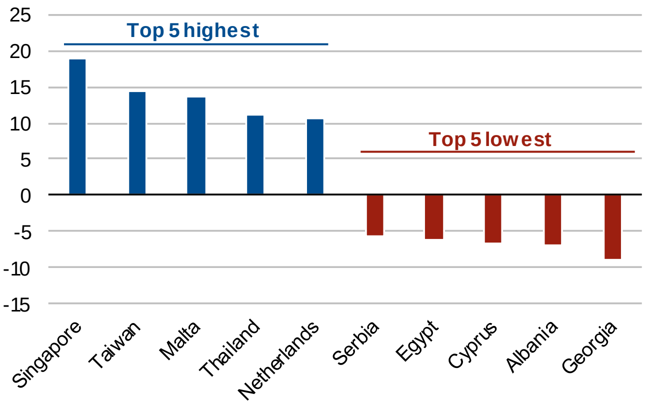
The UK is in Quadrant IV as a vulnerable but resilient country. The UK ranks as the 8th most vulnerable economy, because of a wide current account deficit and net FDI outflows in 2017, alongside recent volatility in the pound sterling linked to Brexit. While its resilience score is bolstered by sterling's reserve currency status (4.5% of all global allocated reserves were held in sterling in Q2 2018, the UK ranks overall only as the 28th most resilient, weakened by high foreign-currency lending in the banking system.

Figure 3: Top 5 highest and lowest levels of reserves relative to short-term external debt, 2017



Source: IMF, Scope Ratings GmbH

Figure 4: Top 5 highest and lowest current account balances, % of GDP, 2017



Source: IMF, Scope Ratings GmbH

Scope's Risky-3 in more detail

Scope next discusses its risky-3 of Georgia, Ukraine and Turkey in greater detail.

Georgia scores poorly, showing high vulnerability and low resilience

Georgia shows high external vulnerability and low resilience. The economy has posted persistently large current account deficits, of on average ~11% of GDP over the last decade, reflecting a low domestic savings rate, a narrow export base, high income outlays from inward FDI and a dependency on imports. Owing to its outsized external deficits, Georgia's small, open economy is reliant on external financing, as reflected in a large, negative NIIP, amounting to USD 23.2bn or -144.9% of GDP as of Q2 2018 – one reason for Georgia's weak vulnerability score, alongside the Georgian lari's high volatility.

External debt is high at 105% of GDP as of Q2 2018, although this represented a slight reduction compared to the same period in 2017. Around 90% of external debt is in foreign currency, leaving the economy vulnerable to volatile exchange rate movements. On the constructive end, a major slice of the debt stock consists of concessional, official loans, and an ongoing IMF Extended Fund Facility programme provides a meaningful buffer against balance of payment disturbances over the programme's duration to 2020.

While the use of foreign currency in the banking sector has been declining via proactive measures taken by authorities, the level remains elevated at 55.5% of all loans denominated in foreign currency and 61.2% of all deposits (predominantly in US dollars and euros). International reserves stood at USD 3.15bn in Q3 2018, up modestly on USD 3.03bn in Q3 2017. While reserve coverage of short-term external debt has improved, it remains below an IMF adequacy threshold of 100%.

Ukraine's low reserve adequacy, risk of capital flight, FX exposure and geopolitical risk are areas to monitor

Ukraine is shown in Quadrant I of **Figure 2** with the third weakest score of 63 countries on vulnerability, and fourth weakest of 63 on resilience. Ukraine must service more than USD 11bn on its foreign-currency-denominated government debt (including interest) over 2019-2020, which is significant relative to FX reserves of just USD 16.7bn as of November 2018. This represents dangers to resilience. Against this backdrop, a continued commitment to reforms and cooperation with international donors are key to maintaining external debt sustainability. The IMF and Ukrainian authorities reached agreement on a stand-by arrangement of USD 3.9bn this October, which will replace an Extended Fund Facility arrangement approved in 2015. Additionally, Ukraine has agreed on a EUR 1bn loan from the EU.

Ukraine's current account deficit stood at 2.2% of GDP in 2017, up from 1.4% in 2016, and is expected to widen to around 3.4% over the medium-term. While the share of direct investment in total international liabilities has increased moderately, it remains low at 29.2% as of Q2 2018, exposing the economy to capital flight in times of market turbulence. Here, the hryvnia has shown significant volatility, increasing economic vulnerability. On the constructive side, a net international investment position of -20% of GDP as of Q2 2018 remains moderate compared to that of peers.

Ukraine's economy is exposed to foreign-currency fluctuations, with more than 60% of public debt externally held, and around 44% of domestic loans and resident deposits denominated in foreign currency. Additionally, ongoing risk of escalation of geopolitical tensions with neighbouring Russia could aggravate existing vulnerabilities.

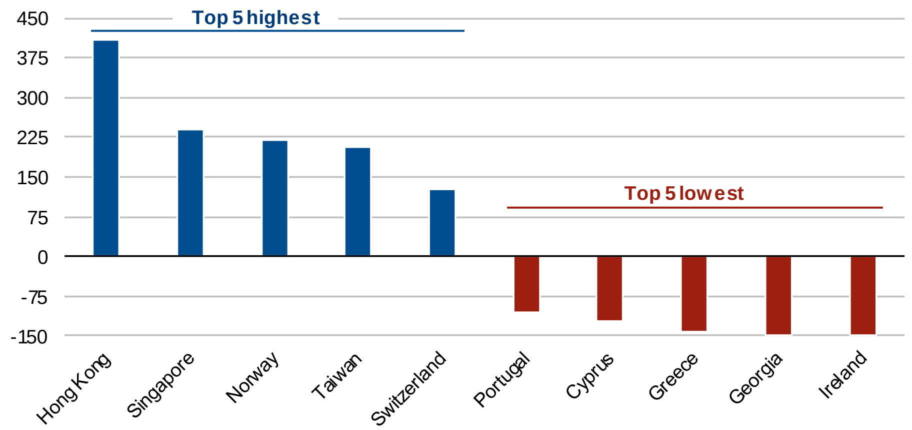
Turkey performs weakly, especially on vulnerability

Turkey rounds out Scope's Risky-3 countries, performing poorly particularly on the vulnerability axis (on which it's the second weakest of 63 countries, alongside 14th weakest on resilience). On 16 August 2018, Scope downgraded the Republic of Turkey's sovereign rating to BB- from BB+ and assigned a Negative Outlook. This year's FX depreciation and slowing economy have contributed to, however, a significant improvement in Turkey's trade balance. But the correction mostly owes to import contraction and could reverse once the Turkish economy stabilises next year. Official reserves are down to USD 86.2bn in October 2018 from a 2013 peak of USD 135bn. Weakened reserve buffers mean that Turkey is less resilient should capital outflow pressures escalate. Lira volatility – a significant reason for Turkey's weakness under vulnerability – holds implications for the net FX debt position of the private sector, which totalled USD 210bn as of September 2018. Non-resident holdings make up ~39% of government debt, with almost half of government debt denominated in foreign currency.

Lira sentiment has improved significantly after September's rate hike, as the currency now stands at 5.4 to the US dollar, appreciating some 28% from August lows, though still 29% weaker compared with year-end 2017. Still, given the weakening in Turkey's institutional and policy making environment, the lack of correction in many structural imbalances even though there has been reversal of cyclical imbalances, the chance for further monetary and fiscal policy mistakes next year, and the fact that global financial conditions are likely to continue tightening, Scope considers recent lira strength to be susceptible to reversal at stages next year.

In Scope's Sovereign Outlook for 2019, it noted that "*should credible fiscal, monetary and economic policies be implemented, the country's external vulnerabilities be reduced, including its reliance on volatile capital inflows, and/or the deterioration in Turkey's governance framework be reversed, Scope could stabilise Turkey's rating Outlook in 2019. Otherwise, should the policy and macroeconomic environment deteriorate further, Scope could downgrade Turkey's [credit] rating further into non-investment-grade.*"

Figure 5: Top 5 highest and lowest NIIP, % of GDP



Source: European Commission, national central banks and statistical offices, Scope Ratings GmbH

Scope's Sturdy-3

The Sturdy-3 represent three economies with low levels of external economic risk: Switzerland, Japan and China – each to an extent shielded from external vulnerabilities and resilient in the event of external shocks.

Switzerland's large current account surpluses and high NIIP make it the least vulnerable economy

Switzerland is shown in Quadrant III of **Figure 2**, ranking as the least vulnerable economy of 63 countries to external shocks (and 21st most resilient). Since 1981, Switzerland has persistently generated large current account surpluses, averaging 10% of GDP since 2009, resulting in a large positive net international investment position of 135% of GDP as of Q2 2018. While rising global protectionism and the US tax reform, the latter which incentivises the repatriation of funds held overseas, could have some negative effect on the Swiss economy, the overall impact will be largely contained, due to the exceptional competitiveness of the Swiss export sector and the government's commitment to maintaining a favourable business environment.

Switzerland's resilience benefits from the franc's reserve-currency status and a highly liquid capital market that provides unabated access to liquidity in times of international financial market volatility.

Switzerland's high savings level, at around 34% of GDP, supports a dominant resident holding of government debt, at around 90% of the total. However, sizeable commercial loans denominated in foreign currency weaken Switzerland's resilience score. The overseas exposures of Swiss banks have fallen steadily after the global financial crisis to USD 1.07trn in Q2 2018 (from USD 2.66trn in Q2 2007).

Japan's large net creditor status, competitive economy, reserve currency and limited FX exposure are strengths

Japan is the most *resilient* economy of 63 countries to external shocks (and 31st most vulnerable). The nation's net creditor status to the world, with a NIIP of 61% of GDP as of Q3 2018, reflects high savings. High income flows from abroad have helped sustain current account surpluses for more than three decades. In addition, Japan benefits from a globally competitive economy, supported by economic diversification and a highly skilled workforce. Japan has a very liquid capital market, supported by the yen's reserve-currency status. The share of yen claims in total global FX reserves stood at 5% in Q2 2018 (behind only the dollar and the euro), although the yen has shown significant volatility in recent years – weakening the vulnerability ranking.

Around 90% of Japanese government debt is held domestically, with very limited foreign-currency-denominated issuance. In addition, the share of foreign-currency deposits in the banking system remains under 3%, while non-resident yen deposits are under 1% of total deposits. Unlike Swiss banks, Japanese banks increased their foreign claims and other potential exposures to USD 3.99trn as of Q2 2018, from USD 1.88trn in Q2 2007.

China's large reserves, growing reserve currency, and largely closed capital account enhance resilience

China has the third most resilient economy to external stresses under the framework (and 19th least vulnerable). China's reserve stock of USD 3.06trn accounts for 27% of all global FX reserves (global FX reserves totalled USD 11.3trn as of end-October), offering the People's Bank of China an abundant resource to preserve macro-economic stability and stem balance-of-payment issues. This continues to bolster China's external resilience, a key credit strength reflected within China's A+/Negative sovereign ratings.

The increasing use of the renminbi in global markets enhances China's significant external strengths. The internationalisation of the renminbi has seen its inclusion in the IMF's Special Drawing Rights basket of currencies (now with five currencies) since October 2016 and the establishment of a new renminbi-denominated Shanghai oil futures market in March 2018. Presently, the share of yuan claims in total global FX reserves stands at 1.8% as of Q2 2018, up from 1.1% in Q2 2017.

The supervision of China's financial system remains in a development phase and the capital account remains largely closed, with investors in the bond market mostly being domestic institutions. Almost all central government debt is domestically issued in local currency, which shields the government to an extent from global financial volatility.

China's net international investment position peaked in 2007 (at 33.4% of GDP) and has eased to a still-healthy +13% of GDP as of Q2 2018. The current account balance has dropped from a peak surplus of 9.9% of GDP in 2007 to 1.3% in 2017 (in the first three quarters of 2018, China's current account fell into a small deficit of 0.2% of GDP seasonally-adjusted). While reductions in China's current account support global rebalancing and reduce global risks, a balanced position represents a major change in the global economy as China posted the world's largest current account surplus in nominal terms as recently as in 2015. However, Scope notes that recent improvements in net FDI flows have resulted in a partial offset to the weaker current account.

Most at-risk countries in the EU

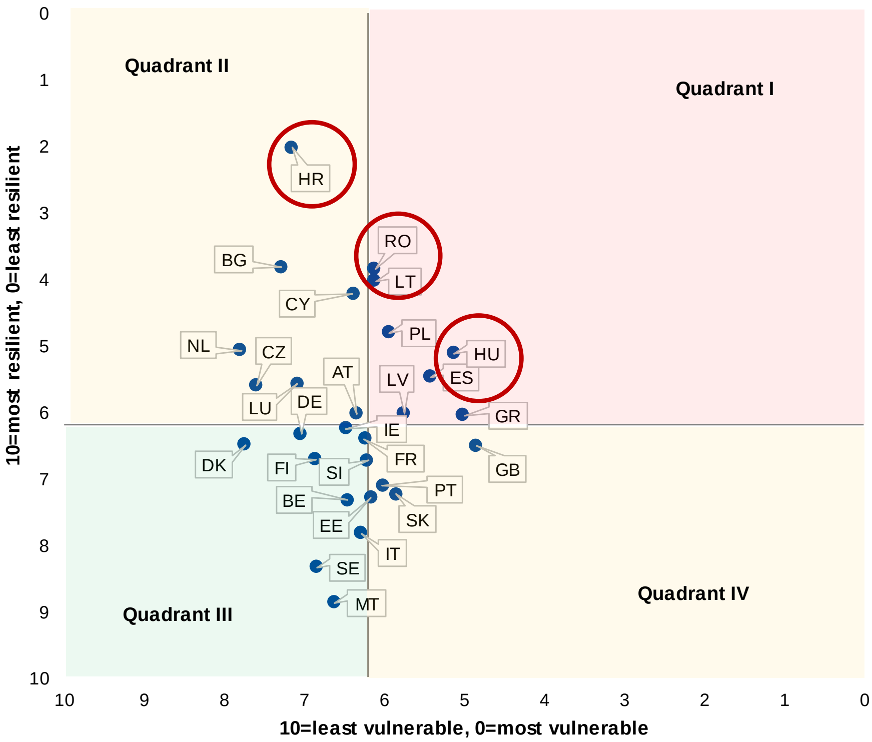
Croatia, Romania and Hungary the most exposed to external risk in the EU

In the EU, Croatia, Romania and Hungary are the three most at risk (**Figure 6)** under Scope's framework. Lithuania (A-/Stable), Cyprus (BBB-/Stable) and Poland (A+/Stable) represent several other EU economies with comparatively lower levels of resilience to external shocks.

Croatia is less vulnerable to balance of payment issues but also less resilient in case of one

Croatia stands out as a country in Quadrant II of the external vulnerability and resilience grid, with an economy less obviously vulnerable to balance of payment crises (53rd most vulnerable out of 63 countries) but one that would have dilemmas of resilience were one to occur (2nd least resilient). After a record current account deficit of 9% of GDP in 2008, private-sector deleveraging led to lower imports and a current account surplus in 2013. More recently, this improved to a strong current account surplus of 3.9% of GDP in 2017. Going forward, Scope expects the current account surplus to continue reducing Croatia's negative NIIP – which was around -60% of GDP in Q2 2018.

Figure 6: External vulnerability (10=least vulnerable, 0=most vulnerable) and resilience (10=most resilient, 0=least resilient) grid, only showing EU countries *(three most at risk circled)*



Source: Scope Ratings GmbH

Croatia's external debt has declined significantly over the past two years to 75% of GDP as of Q2 2018. However, any unseen depreciation in the kuna would adversely affect borrowers' balance sheets by raising the value of foreign-currency debt, with more than 90% of external debt and around 60% of domestic loans denominated in foreign currency – a consequence of the domestic market's limited absorption capacity and high level of euroisation. These risks have thus far been tempered by the quasi-peg of the kuna to the euro, which the central bank preserves through foreign-exchange liquidity regulation and occasional intervention. Croatia's resilience to short-term external shocks could be materially enhanced should a clear path open up towards participation in ERM II and the euro over the medium-run. In Scope's rating decision on Croatia this July, it cited reforms opening up a pathway towards ERM II participation as a possible upside rating trigger.

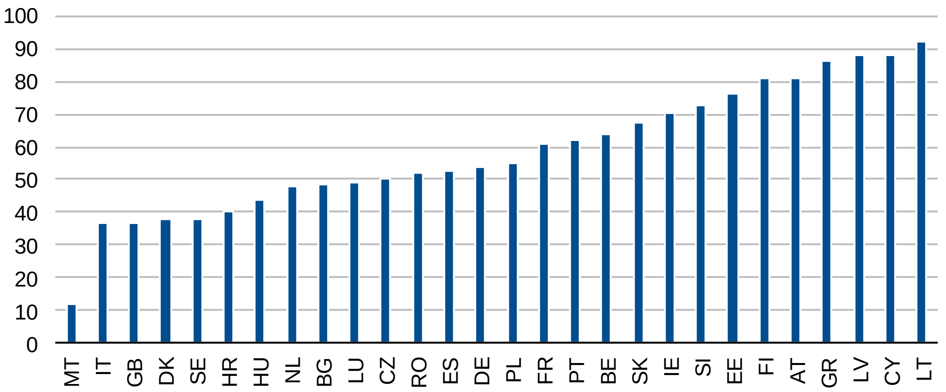
Romania's widening current account deficit, risk of FX depreciation and FX exposure underscore external risks

Romania is a country in Quadrant I of Scope's framework, amongst the most at risk to external stresses in the EU. Romania's current account deficit widened to 4.6% of GDP in the first three quarters of 2018, from 3.6% in the first three quarters of 2017, increasing the country's vulnerability to shocks. The current account is expected to remain below -3% of GDP going forward. High inflation may weaken the leu. This would increase the burden of foreign-currency-denominated public debt, which stands at 18% of GDP. The country's negative net international investment position has steadily improved to 45% of GDP in Q3 2018 based on high growth, while deteriorating in nominal terms. External competitiveness with Romania's trading partners remains weak based on high inflation, which is only partly compensated for by the leu's depreciation. In Scope's rating downgrade of Romania this September, it cited "*a large depreciation of the national currency, aggravating public finances and the balance of payments*" as one condition that could result in further downside for Romania's BBB-/Negative credit ratings.

Hungary shows continued vulnerabilities, despite progress made in reducing external imbalances

Hungary is a country in Quadrant I with ongoing external vulnerabilities and resilience gaps. However, Hungary has made progress in reducing external imbalances, evidenced in Scope's Outlook change to Positive this February, supported by sustained current-account surpluses since 2010, deleveraging in the banking sector, the redemption of loans granted under the EU Balance of Payments assistance programme in 2010-2012, and the government substituting its external debt for domestic issues. However, Hungary's NIIP remains weak at -53.4% of GDP as of Q2 2018, although improved from -116.5% of GDP in Q1 2010. Relatively high foreign holdings of general government debt (43.7% of the total in 2017) and the government's exposure to FX-denominated debt reflect weaknesses in periods of market stress. Meaningful capital outflows in recent years reflect a concern.

Figure 7: Non-resident holdings of general government debt, % of total, only showing EU countries



Source: IMF, Scope Ratings GmbH

A trade war exposure ranking system

An external vulnerability framework must also consider contemporary trade risks

An assessment on external vulnerabilities must also acknowledge contemporary economic risks facilitated by ongoing trade conflicts and threats to the post-war multilateral world order.

Since the current US administration's tenure began in January 2017, spiralling trade disputes have been prompted against US trading partners. These decisions include the United States' backing out from the Trans-Pacific Partnership, the renegotiation of the North American Free Trade Agreement (NAFTA), the halting of Transatlantic Trade and Investment Partnership negotiations, violations of World Trade Organization rules and regulations, and unilateral 25% steel and 10% aluminium tariffs on many partners of the United States. While a 90-day truce in US-China disputes was agreed on at the G-20 on 1 December, this represented just a temporary détente in an ongoing stand-off between the United States and China over the latter's trade surplus with the US. This April, Scope Ratings included trade and investment protectionism, and a weakening of the multilateral trading system, as one of its five major risks to the European and global outlook.

Research has shown China could benefit from trade diversion under uniform US tariffs

In this uncertain environment, research has sought to evaluate the global winners and losers from trade wars. As an example, the European Central Bank reviewed the impact on the global economy of a hypothetical escalation in trade tensions[6], estimated using the ECB's global model and the IMF's Global Integrated Monetary and Fiscal Model. ECB simulations suggested that the global economy would be 0.75% weaker in the first year of a global trade conflict, but that trade effects on China's GDP are initially *positive*.

[6] Dizioli, A.G. and B. van Roye. "Macroeconomic implications of increasing protectionism". ECB Economic Bulletin, Issue 6/2018.

However, the conclusion of a positive impact on China is predicated on a scenario in which the United States raises tariffs uniformly on *all* import partners by 10% and *all* trading partners retaliate with 10% tariffs on the United States. In this case, China benefits from trade diversion effects.

However, trade tariff risks have not been and will not be uniform

Unfortunately, the realisation of tariff conflicts has not been uniform, and instead has been most directed at countries with large goods trade surpluses with the United States. As such, ongoing trade war dangers are asymmetric, requiring an alternate framework to consider comparative country exposures.

Scope introduces a trade war exposure ranking

To analyse trade-related risks, Scope introduces a trade war exposure ranking, to complement the external vulnerability and resilience framework presented earlier in this report.

In this framework, which concerns at-risk levels of trading partners to US-centred trade conflicts (and thus excludes the US itself from the ranking), Scope equally weights three variables for 62 countries[7]. Together, these three variables capture: i) the risk of a country becoming subject to the initiation of trade conflicts with the United States; ii) the vulnerability to first-order trade effects in a scenario of trade disputes with the US; and iii) the vulnerability to second-order trade impacts should a country's trading partners see reduced demand and growth owing to ongoing trade disputes and uncertainties.

1) *(***33% Weight***) Initiation risk:* Nominal trade surplus with the United States, whereby a larger surplus increases a country's vulnerability to becoming entangled in successive tariff and counter-tariff rounds with the US[8]. The score is favourably maximised (at 100) at a 2017 trade balance of 0 with the US (as such, a trade deficit with the US receives the same maximum score as a bilateral trade balance of 0);
2) *(***33%***) First-order trade exposure:* The country's goods exports to the United States as a share of total goods exports of the country; and
3) *(***33%***) Second-order trade exposure:* Global value chain participation rate as a share of total exports of the economy.

A trade war exposure ranking system: global results

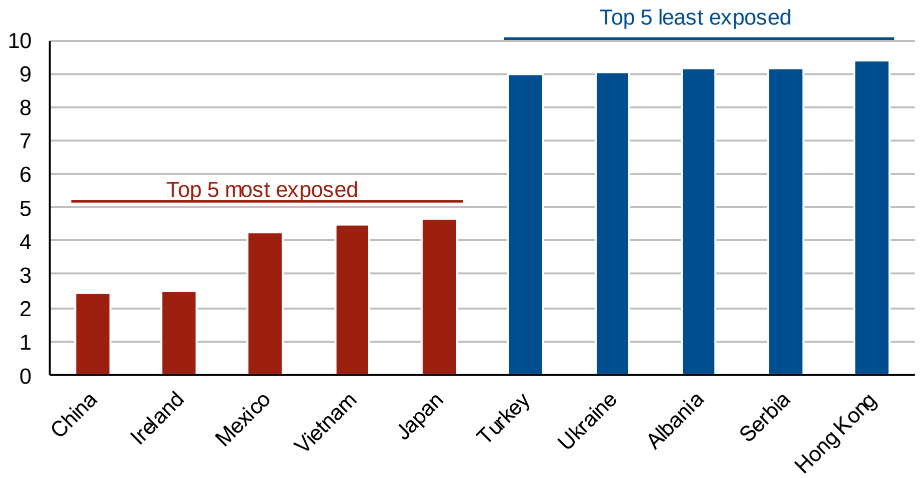
The top 5 most exposed countries to trade wars

On the basis of this framework, the most exposed five countries, facing the largest levels of risk to US-centred trade disputes are (**Figure 8**):

1) China
2) Ireland
3) Mexico
4) Vietnam
5) Japan

[7] Scope's sovereign rating approach is based on a quantitative model and a qualitative overlay. The quantitative model – Scope's Core Variable Scorecard – is based on a relative scoring system based on 63 countries. Excluding the US from the trade war exposure rankings, the set totals 62 countries.
[8] As trade policy for EU nations is decided at the EU level, and, as such, US tariffs on the EU impact all EU member states, this variable assumes for EU countries a 50% weight on the EU's trade surplus with the US and 50% the country's trade surplus with the US (with the latter score similarly maximised at a 2017 trade balance of 0 with the US). The 50% weight attributed to the EU country's trade surplus takes into account that countries with larger trade surpluses with the US have more to lose in a trade conflict.

Figure 8: Trade war exposure (scores): top 5 most exposed and top 5 least exposed

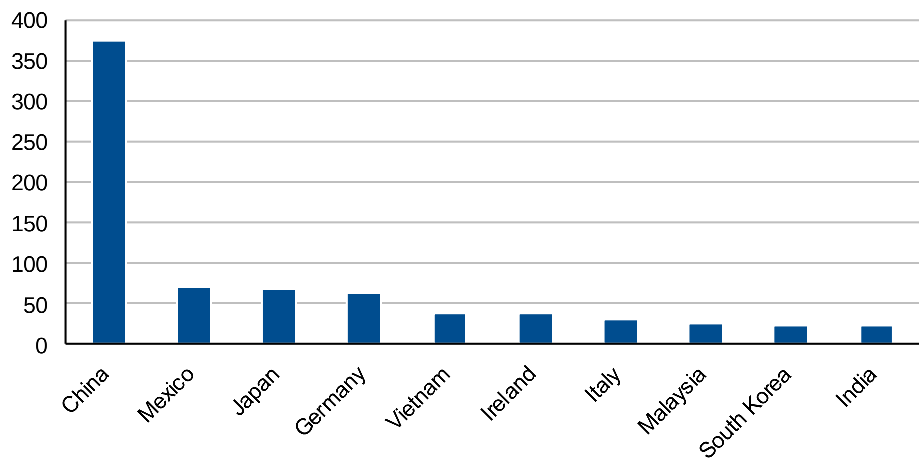


Source: Scope Ratings GmbH

China: the most exposed

China is the most exposed to US-centred trade disputes, with ongoing uncertainties surrounding additional conflagrations of disputes even after a temporary truce was declared between US President Donald J. Trump and China President Xi Jinping at the G-20 summit in Argentina. China's trade surplus with the United States (of USD 376bn in 2017) – by far the largest of any country (**Figure 9**), the significant share of China's exports that are destined for the United States (22% of total exports in 2017) as well as China's not insignificant exposure to global value chains underline the country's vulnerability to trade disputes. China's economy slowed to 6.5% year-over-year growth in Q3 2018, with further economic weakness evident in Q4 data. The risk that ongoing slowdown pressures, including those related to escalating trade conflicts with the United States, pressure targeted policy easing and exacerbate pre-existing macroeconomic imbalances contributed to Scope's September change of China's Outlook to Negative.

Figure 9: Trade surplus with the United States, top 10 from 2017, USD bn



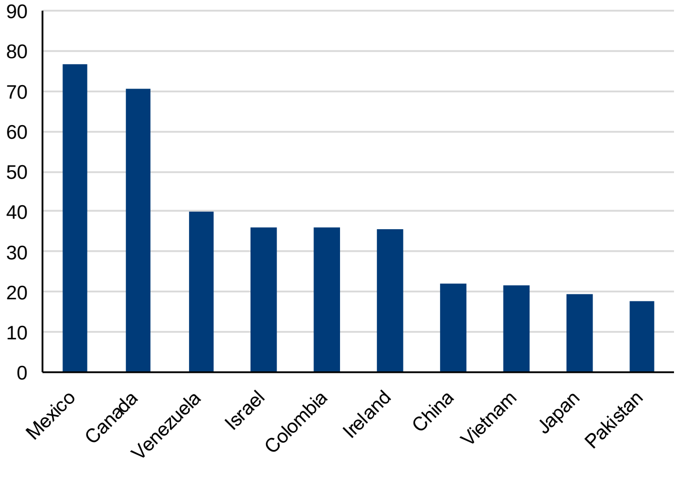
Source: US International Trade Administration

Mexico, Vietnam and Japan also in the top five most exposed

In addition to China, major trading partners of the United States, including Mexico, Vietnam and Japan, are on Scope's ranking of countries most vulnerable to trade disputes and associated adverse impacts on economic growth. Mexico holds the second largest trade surplus with the United States, after China's, totalling USD 71bn as of 2017

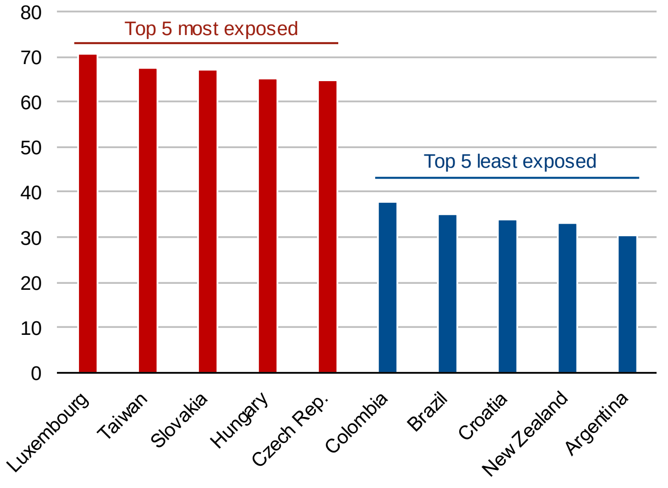
(**Figure 9**), with the issue of NAFTA renegotiation advanced in 2018's US-Mexico-Canada Agreement (USMCA). Mexico's large nominal trade surplus with the United States continues to leave it vulnerable to fresh conflicts with the US, however, with 77% of Mexico's exports moreover destined for the United States (**Figure 10**).

Figure 10: Goods exports to the US, % of total goods exports, top 10 highest shares



Source: US International Trade Administration, International Monetary Fund, Scope Ratings GmbH calculations

Figure 11: Global value chain participation, as a share of total exports, top 5 most exposed and top 5 least exposed



Source: World Trade Organization

Ireland, Luxembourg and Slovakia are the three most exposed economies inside the EU

In the EU, Ireland, Luxembourg (AAA/Stable) and Slovakia (A+/Stable) are the three most exposed countries to trade disputes. This owes to i) large trade surpluses with and a large share (36%) of overall exports travelling to the United States in the case of Ireland; as well as ii) the countries' high integration in regional and global value chains (**Figure 11**). Large EU countries also rank amongst the most exposed to trade disputes – including the UK, Germany and Italy, reflecting factors including a significant trade surplus with the US in Germany's case and a high share of goods exports (15% in 2017) destined for the United States in the case of the United Kingdom.

Eastern European countries amongst the least exposed

On the opposite end, there are also countries that are less exposed to trade disputes and/or the threat of escalation. These countries include some in Eastern Europe (see **Annex III** for the full trade war exposure rankings), including Ukraine, Turkey, and Georgia, which have trade deficits rather than surpluses with the US, have only limited trade with the US as a share of overall trade as well as being less integrated with global trading networks. As such, while Turkey, Ukraine and Georgia are three economies (the Risky-3) that are amongst the *most* vulnerable to balance of payment crises, they are also interestingly amongst the most insulated from risks tied to US-centred trade conflicts.

Annex I: Country external vulnerability score (sorted by rank) and resilience score (sorted by rank)

Vulnerability score (10=least vulnerable, 0=most vulnerable)						
Rank	Country	Current account + net foreign direct investments, % of GDP, 2017	Net portfolio and other investment flows, % of GDP, 2014-17 weighted average	Standard deviation of 5-year monthly changes in nominal effective exchange rate	Net international investment position, % of GDP, 2017	Vulnerability score
		25%	25%	25%	25%	
1	Switzerland	10.0	8.0	5.8	10.0	8.5
2	Netherlands	10.0	4.8	6.4	10.0	7.8
3	Denmark	6.7	4.8	9.5	10.0	7.7
4	Vietnam	10.0	5.9	8.4	6.1	7.6
5	Czech Republic	7.0	10.0	7.4	6.0	7.6
6	Thailand	10.0	5.5	8.0	6.8	7.6
7	Singapore	10.0	0.1	10.0	10.0	7.5
8	Israel	8.8	5.3	6.5	9.2	7.4
9	Bulgaria	10.0	4.3	9.6	5.2	7.3
10	Taiwan	10.0	0.1	9.0	10.0	7.3
11	Croatia	9.9	4.3	10.0	4.3	7.1
12	Hong Kong	10.0	0.1	8.2	10.0	7.1
13	Luxembourg	10.0	2.4	6.4	9.6	7.1
14	Germany	9.0	2.8	6.4	9.9	7.0
15	Norway	7.3	5.7	4.8	10.0	6.9
16	Albania	5.4	7.1	10.0	4.9	6.8
17	Finland	4.8	8.8	6.4	7.4	6.8
18	Sweden	6.4	7.1	6.5	7.4	6.8
19	China	5.9	5.9	7.4	8.0	6.8
20	Malaysia	7.4	7.2	5.0	7.2	6.7
21	Malta	10.0	0.1	6.4	10.0	6.6
22	Peru	5.9	7.0	7.7	5.5	6.5
23	Ireland	10.0	9.4	6.4	0.1	6.5
24	Belgium	1.0	8.6	6.4	9.8	6.5
25	Philippines	5.6	6.1	7.3	6.6	6.4
26	India	4.5	7.9	6.7	6.5	6.4
27	Cyprus	10.0	7.7	6.4	1.4	6.4
28	Austria	5.9	5.6	6.4	7.5	6.3
29	Italy	7.0	4.7	6.4	7.0	6.3
30	Venezuela	5.2	6.8	8.2	4.8	6.3
31	France	4.1	8.1	6.4	6.3	6.2
32	Slovenia	10.0	2.7	6.4	5.7	6.2
33	Japan	5.3	6.9	2.6	10.0	6.2
34	Estonia	9.4	3.1	6.4	5.8	6.2
35	South Korea	7.4	3.5	5.5	8.1	6.1
36	Romania	4.1	6.1	9.3	5.0	6.1
37	Lithuania	6.2	6.3	6.4	5.6	6.1
38	Portugal	7.8	7.6	6.4	2.2	6.0
39	Poland	5.6	6.8	7.0	4.3	5.9
40	Indonesia	4.8	8.1	5.0	5.7	5.9
41	U.S.A.	3.1	8.2	6.8	5.4	5.9
42	Slovakia	4.7	8.2	6.4	4.1	5.8
43	Canada	0.6	10.0	4.3	8.3	5.8
44	Latvia	5.5	6.5	6.4	4.6	5.7
45	Serbia	4.6	5.5	9.1	2.9	5.5
46	Spain	4.9	7.1	6.4	3.3	5.4
47	Australia	4.8	7.8	4.2	4.7	5.4
48	Chile	4.1	7.1	4.0	6.3	5.4
49	Pakistan	1.9	8.9	4.1	5.6	5.1
50	Hungary	7.6	1.3	6.8	4.7	5.1
51	New Zealand	3.8	8.3	3.5	4.7	5.1
52	Argentina	2.5	10.0	0.1	7.5	5.0
53	Greece	5.4	7.9	6.4	0.4	5.0
54	Russia	5.7	6.0	0.1	8.1	5.0
55	South Africa	2.0	10.0	0.1	7.7	4.9
56	U.K.	0.1	8.7	3.7	6.9	4.9
57	Egypt	4.2	10.0	0.1	4.4	4.7
58	Brazil	6.4	6.1	0.1	5.7	4.6
59	Colombia	4.6	8.3	0.1	5.0	4.5
60	Mexico	5.2	7.4	0.1	5.0	4.4
61	Ukraine	4.8	6.5	0.1	6.2	4.4
62	Turkey	1.7	8.8	0.1	4.7	3.8
63	Georgia	4.4	7.7	0.2	0.1	3.1

Source: Scope Ratings GmbH

Scope External Vulnerability and Resilience Grid, and Trade War Exposure Rankings

Rank	Country	Resilience against currency crisis	Share of non-resident holding in general government debt, 2017	General government foreign-currency-denominated debt, % of revenues,	Foreign-currency-denominated commercial loans, % of GDP, 2017	Resilience score
		Resilience score (10=most resilient, 0=least resilient)				
		25%	25%	25%	25%	
1	Japan	10.0	8.9	10.0	9.4	9.6
2	U.S.A.	10.0	6.6	10.0	10.0	9.1
3	China	8.2	9.1	9.7	9.3	9.1
4	Malta	7.5	8.7	10.0	9.3	8.9
5	Taiwan	6.6	9.7	10.0	8.7	8.7
6	Sweden	10.0	5.9	8.4	9.0	8.3
7	Thailand	6.4	8.6	9.8	8.5	8.3
8	India	6.0	9.4	9.2	8.7	8.3
9	New Zealand	10.0	3.7	10.0	8.9	8.1
10	Brazil	7.0	9.1	8.4	8.0	8.1
11	South Korea	6.8	8.6	9.6	7.1	8.0
12	Russia	9.0	7.6	8.2	6.6	7.8
13	Italy	7.5	6.0	9.8	8.0	7.8
14	Singapore	10.0	10.0	10.0	0.1	7.5
15	Israel	6.6	8.5	6.9	8.1	7.5
16	Norway	10.0	4.7	6.9	8.4	7.5
17	Belgium	7.5	3.2	9.5	9.1	7.3
18	Estonia	7.5	1.8	10.0	9.9	7.3
19	Slovakia	7.5	2.8	8.9	9.8	7.2
20	Hong Kong	10.0	9.4	9.3	0.1	7.2
21	Switzerland	10.0	8.7	10.0	0.1	7.2
22	Australia	10.0	5.2	10.0	3.5	7.2
23	Portugal	7.5	3.3	8.4	9.2	7.1
24	Malaysia	3.9	6.8	8.8	8.5	7.0
25	Slovenia	7.5	2.2	7.5	9.7	6.7
26	Finland	7.5	1.3	8.4	9.7	6.7
27	Canada	10.0	7.2	9.1	0.1	6.6
28	U.K.	10.0	6.0	9.9	0.1	6.5
29	Denmark	10.0	5.9	10.0	0.1	6.5
30	France	7.5	3.4	9.5	5.2	6.4
31	Germany	7.5	4.2	7.5	6.1	6.3
32	Mexico	6.1	6.7	3.1	9.3	6.3
33	Ireland	7.5	2.4	8.6	6.5	6.3
34	Vietnam	4.9	7.8	4.4	7.7	6.2
35	Greece	7.5	0.7	8.5	7.5	6.1
36	Austria	7.5	1.3	9.8	5.6	6.0
37	South Africa	5.0	5.7	5.1	8.3	6.0
38	Latvia	7.5	0.6	8.5	7.6	6.0
39	Chile	4.0	6.7	6.5	6.6	6.0
40	Philippines	7.2	7.3	0.1	8.7	5.8
41	Pakistan	5.0	6.8	1.8	9.6	5.8
42	Czech Republic	4.3	4.6	8.6	5.0	5.6
43	Luxembourg	7.5	4.7	10.0	0.1	5.6
44	Spain	7.5	4.4	9.9	0.1	5.5
45	Colombia	4.6	6.7	0.4	9.3	5.2
46	Peru	6.7	6.7	0.1	7.2	5.2
47	Hungary	4.5	5.3	2.6	8.1	5.1
48	Netherlands	7.5	4.8	7.9	0.1	5.1
49	Poland	4.7	4.1	3.9	6.6	4.8
50	Turkey	4.7	5.8	3.4	4.7	4.7
51	Indonesia	5.4	3.5	0.1	8.8	4.4
52	Egypt	4.8	8.3	0.1	4.3	4.4
53	Argentina	1.9	5.8	0.1	9.3	4.3
54	Cyprus	7.5	0.5	8.8	0.1	4.2
55	Lithuania	7.5	0.1	5.4	3.1	4.0
56	Romania	3.2	4.4	0.1	7.7	3.9
57	Bulgaria	3.6	4.8	1.9	5.0	3.8
58	Venezuela	2.1	4.7	0.1	8.1	3.7
59	Albania	4.5	5.3	0.1	5.0	3.7
60	Ukraine	2.2	4.7	0.1	6.0	3.3
61	Serbia	3.8	3.2	0.1	4.3	2.9
62	Croatia	2.2	5.7	0.1	0.1	2.0
63	Georgia	0.9	1.5	2.8	2.2	1.9

Source: Scope Ratings GmbH

Annex II: Vulnerability/resilience grid by components, hard figures (sorted by region)

		Current account + net foreign direct investments, % of GDP, 2017	Net portfolio and other investment flows, % of GDP, 2014-17 weighted average	Standard deviation of 5-year monthly changes in nominal effective exchange rate	Net international investment position, % of GDP, 2017	Log of BIS currency turnover	Reserves/short-term external debt***	Share of non-resident holding in general government debt, 2017	General government foreign-currency-denominated debt, % of revenues,	Foreign-currency-denominated commercial loans, % of GDP, 2017
North America	U.S.A.	-2.4	1.4	1.1	-39.6	6.6	-	31.9	0.0	0.0
	Canada	-6.2	5.5	1.6	20.2	5.4	-	25.9	7.0	56.4
	Mexico	0.8	0.3	2.4	-48.3	5.0	1.5	30.6	53.4	3.0
EMU	Germany	6.6	-6.1	1.2	54.0	6.2	-	53.9	19.3	16.9
	France	-0.9	1.3	1.2	-20.1	6.2	-	61.1	4.0	20.6*
	Italy	3.5	-3.5	1.2	-5.3	6.2	-	37.0	1.4	8.8
	Netherlands	8.7	-3.4	1.2	59.7	6.2	-	48.0	16.5	55.2
	Belgium	-5.6	1.9	1.2	52.6	6.2	-	63.6	3.6	3.9
	Spain	0.4	-0.1	1.2	-83.8	6.2	-	52.4	0.6	90.7*
	Portugal	4.8	0.5	1.2	-104.9	6.2	-	61.8	12.3	3.7
	Ireland	20.5	3.1	1.2	-149.3	6.2	-	70.3	11.1	15.1*
	Austria	1.9	-2.3	1.2	3.7	6.2	-	80.9	1.8	19.2
	Finland	0.2	2.2	1.2	2.4	6.2	-	80.7	12.5	1.5
	Greece	1.0	0.9	1.2	-142.5	6.2	-	86.0	11.9	10.8
	Slovakia	0.0	1.4	1.2	-65.6	6.2	-	67.3	8.2	1.0
	Slovenia	8.1	-6.3	1.2	-32.3	6.2	-	72.6	19.3	1.2
	Estonia	7.2	-5.7	1.2	-31.4	6.2	-	76.0	0.0	0.6
	Latvia	1.3	-1.0	1.2	-56.3	6.2	-	87.8	11.8	10.5
	Lithuania	2.3	-1.2	1.2	-35.9	6.2	-	92.0	35.6	29.9*
	Luxembourg	44.1	-6.8	1.2	47.0	6.2	-	48.9	0.0	371.7
	Cyprus	17.2	0.6	1.2	-121.5	6.2	-	88.3	9.3	83.3*
	Malta	96.3	-96.5	1.2	62.6	6.2	-	11.9	0.0	3.0
Non-EMU EU	U.K.	-7.0	2.1	1.7	-8.6	5.8	-	37.0	0.8	168.7
	Denmark	3.0	-3.3	0.6	56.3	4.6	0.3	37.9	0.3	72.2
	Sweden	2.5	-0.1	1.2	1.8	5.1	0.2	38.0	12.2	4.2
	Czech Republic	3.5	9.6	1.0	-26.5	4.2	1.2	50.4	11.0	21.8*
	Hungary	4.5	-8.3	1.1	-52.9	4.2	1.3	43.7	57.2	8.2
	Poland	1.3	-0.6	1.1	-61.2	4.5	1.0	55.1	47.5	14.9
	Romania	-0.9	-1.6	0.7	-47.7	3.7	0.9	51.9	90.4	10.1
	Bulgaria	9.0	-4.0	0.6	-42.8	3.1	2.0	48.7	63.0	21.5
	Croatia	8.0	-4.0	0.5	-62.4	2.7	1.3	40.2	137.9	42.8
Non-EU Europe	Switzerland	17.7	1.2	1.3	126.8	5.4	-	11.8	0.0	125.3
	Norway	3.9	-2.1	1.5	220.1	4.9	0.2	49.1	24.2	7.0
	Russia	1.6	-1.7	4.9	17.2	4.8	4.3	22.7	14.2	14.6
	Turkey	-4.6	2.2	3.6	-54.7	4.9	0.6	38.8	50.8	23.1
	Ukraine	0.1	-0.9	5.8	-22.9	3.3	0.6	48.8	135.7	17.1
	Serbia	-0.2	-2.4	0.7	-91.3	2.8	2.6	63.0	86.0	24.7
	Albania	1.1	-0.2	0.5	-49.3	2.3	3.9	44.0	162.1	21.8
	Georgia	-0.5	0.7	2.4	-149.2	2.3	0.8	79.0	55.8	33.7
Latin America	Argentina	-3.3	3.9	4.9	3.6	3.3	0.4	38.9	152.4	2.8
	Brazil	2.7	-1.5	3.3	-32.6	4.7	2.7	8.7	12.7	8.6
	Chile	-0.9	-0.2	1.7	-21.0	4.1	1.0	30.3	27.0	14.7
	Colombia	-0.1	1.5	2.9	-47.1	3.9	1.8	30.9	74.0	3.1
	Peru	1.8	-0.3	1.0	-36.5	3.6	4.0	31.0	76.7	12.0
	Venezuela**	0.8	-0.6	0.9	-51.0	3.4	0.4	49.3	381.9	8.3
Pacific Rim	Japan	0.9	-0.4	2.0	60.1	6.0	-	10.5	0.0	2.7
	Australia	0.1	0.8	1.6	-54.0	5.5	-	44.3	0.1	27.9
	New Zealand	-1.3	1.6	1.8	-53.7	5.0	0.2	58.9	0.0	4.9*
Asia	China	1.9	-1.8	1.0	14.8	5.3	2.9	8.0	2.1	3.1
	Taiwan	13.0	-9.9	0.7	206.2	4.5	2.7	3.0	0.0	5.7
	Hong Kong	10.6	-14.6	0.9	409.4	4.9	0.4	5.5	5.1	148.6
	South Korea	4.2	-5.2	1.4	16.2	4.9	2.3	13.1	2.9	12.5*
	Indonesia	0.2	1.3	1.5	-32.7	4.0	2.3	60.7	87.8	5.2
	Thailand	8.7	-2.4	0.9	-9.1	4.3	2.8	13.4	1.2	6.7
	Malaysia	4.2	0.0	1.5	-1.9	4.3	0.7	29.5	9.0	6.5
	Singapore	30.8	-28.6	0.5	240.3	5.0	0.3	0.0	0.0	104.0
	Philippines	1.4	-1.6	1.0	-13.5	3.8	4.1	24.8	82.8	5.7
	India	-0.4	1.0	1.2	-16.4	4.8	1.8	5.9	6.2	5.7
	Pakistan	-4.3	2.4	1.7	-34.5	3.7	2.3	30.0	63.4	1.9
	Vietnam	8.8	-1.9	0.8	-23.7	3.5	2.5	20.2	43.0	9.8
Africa & Mid.East	South Africa	-4.1	5.2	2.8	7.6	4.7	1.0	39.7	38.0	7.3
	Egypt	-0.7	5.8	5.8	-60.9	3.8	2.1	15.9	147.1	24.8
	Israel	6.3	-2.6	1.2	40.0	4.1	3.1	13.8	24.2	8.2

Source: Scope Ratings GmbH, *Latest available data, **Venezuela data quality and availability is more inadequate, ***For non-highly-traded currencies.

Annex III: Trade war exposure ranking, with component scores

	Trade balance with the US	Goods exports to the US	Exposure to global value chains	Trade war exposure score (1=most exposed, 100=least exposed)	
	33%	33%	33%		Rank
China	1.0	1.0	70.5	**24.2**	1
Ireland	38.0	1.0	35.9	**25.0**	2
Mexico	53.6	1.0	73.2	**42.6**	3
Vietnam	74.9	3.1	56.7	**44.9**	4
Japan	55.0	13.5	71.4	**46.6**	5
Malaysia	84.0	24.9	32.3	**47.0**	6
Luxembourg	50.5	90.3	1.0	**47.2**	7
Taiwan	89.1	42.9	10.6	**47.5**	8
Slovakia	49.6	89.5	11.5	**50.2**	9
Hungary	49.5	85.4	18.2	**51.0**	10
Finland	49.1	65.0	41.6	**51.9**	11
U.K.	50.5	34.4	70.8	**51.9**	12
South Korea	84.9	47.4	27.2	**53.1**	13
Denmark	48.7	70.7	42.8	**54.1**	14
Germany	29.7	68.0	64.8	**54.2**	15
Czech Republic	49.7	94.6	19.4	**54.5**	16
Italy	40.2	59.7	71.1	**57.0**	17
Venezuela	94.6	1.0	76.5	**57.4**	18
Sweden	48.2	73.3	52.5	**58.0**	19
Israel	93.9	1.0	80.7	**58.6**	20
Canada	88.8	1.0	86.5	**58.8**	21
Austria	48.1	71.8	56.7	**58.9**	22
Belgium	50.5	90.1	39.8	**60.1**	23
Bulgaria	50.4	86.4	43.7	**60.2**	24
Thailand	86.8	43.5	50.7	**60.3**	25
France	45.5	63.1	72.6	**60.4**	26
Slovenia	50.4	95.4	37.4	**61.0**	27
Estonia	50.4	86.9	47.0	**61.4**	28
Philippines	97.9	26.0	60.9	**61.6**	29
Poland	49.7	92.1	47.0	**62.9**	30
Malta	50.5	87.7	51.0	**63.0**	31
Chile	100.0	34.0	57.9	**64.0**	32
Portugal	49.7	79.9	62.7	**64.1**	33
Switzerland	90.6	30.1	71.7	**64.2**	34
Latvia	50.5	90.1	55.8	**65.4**	35
Peru	100.0	29.4	67.5	**65.6**	36
India	85.0	29.2	84.4	**66.2**	37
Pakistan	99.5	23.3	76.5	**66.4**	38
Colombia	99.8	1.0	100.0	**67.0**	39
Spain	49.0	83.4	74.1	**68.8**	40
Lithuania	50.2	82.9	74.7	**69.3**	41
Romania	50.1	91.9	66.6	**69.5**	42
Singapore	100.0	82.0	28.7	**70.2**	43
Netherlands	50.5	90.7	71.4	**70.9**	44
Greece	50.4	88.4	83.8	**74.2**	45
Norway	100.0	83.1	40.4	**74.5**	46
Indonesia	91.3	49.6	83.1	**74.7**	47
Russia	93.4	83.8	58.2	**78.4**	48
South Africa	98.2	65.2	75.9	**79.8**	49
Brazil	100.0	42.2	100.0	**80.8**	50
Croatia	50.5	93.5	100.0	**81.3**	51
Cyprus	50.5	100.0	98.2	**82.9**	52
Egypt	100.0	76.3	76.5	**84.3**	53
New Zealand	99.8	54.6	100.0	**84.8**	54
Georgia	100.0	83.9	76.5	**86.8**	55
Argentina	100.0	67.7	100.0	**89.2**	56
Australia	100.0	86.0	82.8	**89.6**	57
Turkey	100.0	78.2	90.7	**89.6**	58
Ukraine	100.0	95.5	76.5	**90.7**	59
Albania	100.0	98.1	76.5	**91.5**	60
Serbia	99.9	98.6	76.5	**91.6**	61
Hong Kong	100.0	99.7	82.8	**94.2**	62

Source: Scope Ratings GmbH

Annex IV: Trade war exposure ranking, by components, hard figures (sorted by region)

		Trade balance with the US in USD bn, 2017	Goods exports to the US, % of total exports, 2017	Exposure to global value chains, % of total exports
North America	Canada	17.1	70.6	42.4
	Mexico	71.0	76.7	46.8
EMU	Germany	63.7	8.1	49.6
	France	15.3	9.1	47.0
	Italy	31.5	9.9	47.5
	Netherlands	-23.7	3.4	47.4
	Belgium	-14.9	3.5	57.9
	Spain	4.6	4.9	46.5
	Portugal	2.3	5.6	50.3
	Ireland	38.1	35.6	59.2
	Austria	7.5	7.3	52.3
	Finland	4.4	8.8	57.3
	Greece	0.3	3.9	43.3
	Slovakia	2.6	3.6	67.3
	Slovenia	0.4	2.4	58.7
	Estonia	0.3	4.2	55.5
	Latvia	0.1	3.5	52.6
	Lithuania	0.9	5.0	46.3
	Luxembourg	-0.6	3.5	70.8
	Cyprus	0.0	1.4	38.5
	Malta	-0.1	4.0	54.2
Non-EMU EU	U.K.	-3.2	15.2	47.6
	Denmark	5.5	7.6	56.9
	Sweden	7.0	7.0	53.7
	Czech Republic	2.3	2.5	64.7
	Hungary	3.2	4.5	65.1
	Poland	2.6	3.1	55.5
	Romania	1.2	3.1	49.0
	Bulgaria	0.3	4.3	56.6
	Croatia	0.0	2.8	34.0
Non-EU Europe	Switzerland	14.3	16.1	47.3
	Norway	-0.4	5.0	57.7
	Russia	10.0	4.8	51.8
	Turkey	-0.3	6.0	41.0
	Ukraine	-0.8	2.4	45.7
	Serbia	0.2	1.7	45.7
	Albania	0.0	1.8	45.7
	Georgia	-0.3	4.8	45.7
Latin America	Argentina	-4.8	8.2	30.5
	Brazil	-7.8	13.5	35.2
	Chile	-3.1	15.2	51.9
	Colombia	0.2	35.9	37.9
	Peru	-1.4	16.2	48.7
	Venezuela	8.2	39.8	45.7
Pacific Rim	Japan	68.9	19.5	47.4
	Australia	-14.5	4.3	43.6
	New Zealand	0.2	10.9	33.3
Asia	China	375.6	22.2	47.7
	Taiwan	16.7	13.4	67.6
	Hong Kong	-32.6	1.5	43.6
	South Korea	23.1	12.4	62.1
	Indonesia	13.3	12.0	43.5
	Thailand	20.2	13.3	54.3
	Malaysia	24.4	17.2	60.4
	Singapore	-10.4	5.2	61.6
	Philippines	3.2	16.9	50.9
	India	22.9	16.3	43.1
	Pakistan	0.8	17.5	45.7
	Vietnam	38.4	21.7	52.3
Africa & Mid.East	South Africa	2.7	8.7	45.9
	Egypt	-2.4	6.4	45.7
	Israel	9.4	35.9	44.3

Source: Scope Ratings GmbH

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