Jürgen Odenius, PhD
Chief Economist and Head of Global Macroeconomic Research
PGIM Fixed Income

Gerwin Bell, PhD
Lead Economist Asia, Global Macroeconomic Research
PGIM Fixed Income

PGIM Fixed Income's Sovereign Ratings Framework

Rating sovereign credit is essential to long-term investing. However, assigning sovereign ratings, admittedly, is as much of an art as it is a science. This paper discusses PGIM Fixed Income's ratings framework. In an effort to balance art and science, it comprises two major pillars—first, a ranking of sovereigns is devised, based on their fundamental macroeconomic strengths and vulnerabilities. The choice of variables entering this ranking is informed by the lessons from numerous crisis episodes, both in the emerging and developed markets.

We are mindful, however, of the fact that any quantitative framework is unlikely to capture all relevant information; so as a second pillar, a qualitative assessment is introduced. Its focus is on the institutional and political setting that guides policy formulation. This assessment brings to bear our team's hands-on and longstanding experience with policymaking.

As a result, our ratings in some instances diverge significantly from those assigned by the ratings agencies. These out-of-consensus views have proven to be meaningful drivers of alpha generation and thus are an integral part of PGIM Fixed Income's investment strategy.

A SYSTEMATIC APPROACH

Although constantly on the lookout for the next possibly destabilizing event, markets, rating agencies and economists alike continue to grapple with their apparent inability to anticipate the next crisis.

The recent euro area crisis serves as a timely reminder of pervasive judgment errors. Its root causes are all too familiar from historic crisis episodes, spanning both the emerging and developed world. Whether it is the (peripheral) competitiveness gap and resulting growth impediments, fiscal crises and rapidly rising public sector debt, inadequate liquidity to cover external debt payments, concerns about external sustainability and solvency, or financial sector instability resulting from the commonplace nexus between sovereigns and domestic banks—all of these major challenges to peripheral Europe played prominent roles in earlier crises. The surprising aspect of this crisis is that it occurred in the world's second largest economy that was deemed to have been operating within an effective supra-national policy framework. In the event, this framework however, proved ruefully incomplete.

Any meaningful ratings exercise should therefore capture not only macroeconomic fundamentals but also the institutional framework that guides policymaking. This brief sets out a systematic approach to achieve this objective within a disciplined and transparent rating process.

The ratings resulting from PGIM Fixed Income's approach are shown in the table below. The subsequent sections flesh out the framework that guided these ratings. First we look at the selection of relevant macroeconomic variables; the methodology chosen to aggregate these variables into a meaningful ranking of countries' economic fundamentals; and issues relating to the selection of a cohort that serves as a yardstick to establish a country's relative rank. Then we consider the country rankings for the developed markets (DM) and emerging markets (EM). Next we overlay these fundamental rankings with a qualitative assessment, before concluding our discussion.

Sovereign Credit Ratings—PGIM Fixed Income and Ratings Agencies

As of February 1, 2014

Country	Pru Rating	Average Agency Rating[1]	Notch Difference
Australia	AAA	AAA	0
Norway	AAA	AAA	0
Sweden	AAA	AAA	0
Austria	AA+	AAA	-1
Canada	AA+	AAA	-1
Denmark	AA+	AAA	-1
Germany	AA+	AAA	-1
Switzerland	AA+	AAA	-1
Finland	AA	AAA	-2
New Zealand	AA	AA+	-1
United States	AA	AAA	-2
Estonia	AA-	A+	1
Hong Kong	AA-	AAA	-3
Luxembourg	AA-	AAA	-3
South Korea	AA-	AA-	0
Singapore	A+	AAA	-4
Netherlands	A+	AAA	-4
Chile	A+	AA-	-1
United Kingdom	A+	AA+	-3
Czech	A	A+	-1
Belgium	A	AA	-3
Malaysia	A	A-	1
Mexico	A	BBB+	2
France	A	AA+	-4
Japan	A	AA-	-2

Country (cont.)	Pru Rating	Average Agency Rating[1]	Notch Difference
China	A-	AA-	-3
Israel	A-	A+	-2
Russia	A-	BBB	2
Slovakia	A-	A	-1
Poland	BBB+	A-	-1
Peru	BBB+	BBB+	0
Romania	BBB	BBB-	1
Thailand	BBB	BBB+	-1
Colombia	BBB	BBB	0
Philippines	BBB	BBB-	1
Slovenia	BBB	BBB	0
Hungary	BBB-	BB+	1
Brazil	BBB-	BBB	-1
Indonesia	BBB-	BBB-	0
Italy	BBB-	BBB	-1
Ireland	BB+	BBB	-2
Turkey	BB+	BBB-	-1
India	BB	BBB-	-2
South Africa	BB	BBB	-3
Spain	BB	BBB-	-2
Portugal	B+	BB	-2
Argentina	B	CCC	3
Ukraine	B-	B-	0
Venezuela	B-	B-	0
Greece	B-	CCC+	1

1. Average of S&P, Fitch and Moody's ratings

Sources: Fitch, Moody's, S&P, and PGIM Fixed Income.

DEVISING A FUNDAMENTAL MACROECONOMIC RANK

Variable Selection—Assessing Fundamental Strengths and Vulnerabilities

At its most basic level, our fundamental macroeconomic rank (FMR) encompasses an assessment of a country's relative strength in key macroeconomic areas. Its perspective is informed by the history of economic and financial crises and their respective root causes. We found five areas to be critical in assessing fundamentals, making these the core of our FMR:

- Sustainable Growth: Public (and private) debt is not sustainable if economic growth is not. Thus, an important part of any macroeconomic rank is to assess the level and sustainability of countries' economic performance.[1]
- Fiscal Stability: From concepts like "fiscal dominance" to a well-worn "bon-mot" which equates the acronym IMF with "it's mostly fiscal," it has long been recognized that economic crises have often reflected unsustainable fiscal positions. Thus an assessment of fiscal sustainability has to be part and parcel of any macroeconomic evaluation.[2]
- Financial Stability: More recent crises, after the widespread liberalization of capital accounts over the last three decades, have prominently arisen in unstable financial sectors, making this another key area to include in our FMR.[3]
- External Liquidity: Sudden stops and resulting payment crises have underscored the vulnerability arising from dwindling external liquidity, even if other macroeconomic metrics do not give rise to concern. This was the case in some of the Asian countries during the crisis that began in 1997. Assessing this vulnerability is another critical element of any ranking.[4]
- External Solvency: Finally, classical balance of payments crises were triggered when current or prospective external indebtedness no longer proved sustainable. This problem remains salient, as evidenced by the recent Greek case, making this the final aspect covered by our FMR.[5]

Index Methodology−Aggregating Differently Measured and Often Widely Ranging Data

With these basics established, one needs to decide on the aggregation of the relevant data into an index reflecting macro fundamentals. Several options are possible and were tried as explained in the following.

---

[1] Our relevant sub-index focuses on historic growth and inflation performance and the outlook for sustainable growth. The specific variables entering this sub-index are shown in Appendix I.
[2] This sub-index captures the fiscal legacy by focusing on select debt ratios, the current budget stance, as well as potential fiscal adjustment needs.
[3] This sub-index assesses private sector leverage, banking sector leverage, as well as banking sector capitalization.
[4] This sub-index gauges potential exchange rate pressures, the adequacy of foreign exchange reserves and an economy's ability to withstand capital outflows.
[5] This sub-index assesses an economy's potential external deficits and adjustment needs, as well as the sustainability of external debt.

SELECTING A METHODOLOGY FROM ALTERNATIVE APPROACHES TO INDEX CONSTRUCTION

Constructing any meaningful economic index from differently measured and often widely ranging data is fraught with difficulties. Practitioners typically use a host of different parametric methodologies.

- **Simple additive aggregation.** The values of selected macroeconomic variables are added. For example, fiscal and current account balances in percent of GDP are added to the real growth rate and the rate of inflation is subtracted. However, while potentially addressing some relevant macroeconomic trade-offs, this approach is likely to provide a misleading representation of macro fundamentals. Specifically, in this example, high current account and fiscal surpluses are not desirable, unless there are debt sustainability concerns, and absent such concerns, balanced fiscal and current accounts are likely to provide a more sustainable macro setting.
- **Normative benchmarking.** Country rankings are based on their deviations from a normative benchmark. However, economic theory does not have too many robust critical values that could permit setting such benchmarks (as the recent controversy over actual or interpreted Rogoff-Reinhart debt thresholds illustrates[6]), thus imparting a considerable degree of arbitrariness into threshold values.
- **Econometric methods.** These are prominent in the "Early Warning System" literature, where typically an econometric specification is fit in order to explain crisis probabilities. These approaches aggregate data into a probability space. While this is an intuitively appealing metric, it rests on the proper specification of the event whose probability is modeled, usually upon a narrowly defined crisis. For other events, this approach is less useful, and evaluation studies have found significant incidence of type 1 and type 2 statistical errors (i.e.,false alarms and missed events).
- **Statistical methods.** As an example, z-scores provide a unidimensional ranking of variables. While practitioners tend to accept the underlying assumption that macro variables are normally distributed, such an assumption can be difficult to square with the data. Furthermore, the sample mean is a critical reference point for z-scores, but it typically does not provide a benchmark for sustainable macro policies.

The inherent difficulty in comparing data has led us to adopt an essentially non-parametric approach. Our FMR ranks sovereigns based on the relative performance of 20 macro variables. More precisely, we compare each data point within its own country sample by assessing its rank in the distribution. That is to say, no normative assumption is placed on what constitutes an appropriate value for any data point, neither are any assumptions imposed on the statistical distribution of macro variables. Instead, our approach aggregates data based on each economic variable's relative rank within the sample.

Specifically, each of the five macro sub-indices—sustainable growth, fiscal stability, financial stability, external liquidity, and external solvency—is comprised of four underlying macro variables. For each one of these variables, a relative rank is established. In other words, country X may take the 12th rank in a sample of 26 countries for the first variable in the fiscal stability sub-index; 13th rank for the second variable; 14th rank for the third variable; and 15th rank for the fourth variable. Based on these ranks, a fundamental macro score (FMS) is calculated. The FMS for the fiscal stability sub-index score, therefore, would be calculated as the average of the ranks for these four variables (13.5). For presentational purposes, the score is normalized (10.4=13.5/26*20). Therefore, if a country scores "best" (or 26 out of 26) on all four variables in a given sub-index, the normalized value of its sub-index score would be 20. The highest possible FMR is 100, given that there are five sub-indices. It would be attained, if a country were to rank "best" across all 5 macro sub-indices comprising a total of 20 variables.

1) $\mathbf{FMS} = \sum_{i=1}^{5} \mathbf{MSIS}_i$

Where FMS = Fundamental Macro Score

MSIS = Macro Sub-Index Score

2) $\mathbf{MSIS}_i = \sum_{j=1}^{4}$ **Normalized Rank of MVj**

Where MVj= Macro Variable j

In addition to the inherent simplicity in constructing and interpreting these rankings, this approach has the benefit that relevant tradeoffs can be incorporated. For example, in the financial stability indicator, a high rate of credit growth and a resulting low rank for this variable can be mitigated by an overall low stock of credit, and a correspondingly high rank for this latter variable.

Source: PGIM Fixed Income.

[6] *See: Reinhart, Carmen M. and Kenneth S. Rogoff (2013): "Debt, Growth, and the Austerity Debate", New York Times, April 26, p. A6*

SELECTING DATA SERIES TO MAXIMIZE INFORMATION EXTRACTION AND ROBUSTNESS

Having settled on an appropriate index methodology, the two overarching objectives are to extract as much information as possible from each variable used, and to arrive at robust overall rankings. These should not be unduly impacted by data problems and outliers, problems that are prevalent in many macroeconomic cross-country data sets.

Ideally, any indicator, in addition to being economically relevant and plausible, should provide precise information without being unduly impacted by other indicators, or more technically, it should have a high signal to noise ratio and be orthogonal to other data. Indicator selection to arrive at the FMR followed this approach. The table below shows any indicator's signal to noise ratio on the diagonal and its coefficient of variation with the other indicators on the off-diagonal elements. Ideally, one would see high values on the diagonal and low values elsewhere.

Emerging Market Macroeconomic Variables–Signal-To-Noise Ratio and Correlation Matrix[7]

As of February 1, 2014

	Public Debt % GDP	Debt to Rev Ratio	Primary Balance' % GDP	Public Debt Stabilizing Gap	External Debt % GDP	External Debt to Export Multiple	Current Account Balance % GDP	IIP – 5 yr Avg	REER- 10yr Avg	FX Reserve Coverage: Months of Imports	FX Reserve Coverage:M2	FX Reserve Coverage: External Short-Term Debt	Credit Stock % GDP	Real Credit Growth YoY%	PSC/M2	Regulatory Tier 1 Capital to Risk-Weighted Assets (EOP,%)	CPI YOY%	CPI Cum 5 Yr Change	GDP Per Cap USD Nominal	Heritage Foundation Overall Score
Public Debt % GDP	2.1																			
Debt to Rev Ratio	0.8	1.8																		
Primary Balance' %GDP	0.1	0.0	-0.2																	
Public Debt Stabilizing Gap	0.3	0.4	0.5	0.2																
External Debt % GDP	0.4	0.5	0.3	0.6	0.7															
External Debt to Export Multiple	0.6	0.6	0.3	0.7	0.8	0.9														
Current Account Balance % GDP	0.5	0.6	0.1	0.6	0.6	0.6	0.0													
IIP - 5 yr Avg	0.6	0.6	0.3	0.6	0.5	0.8	0.6	-0.1												
REER- 10yr Avg	-0.1	0.0	-0.2	-0.1	-0.1	0.1	0.2	0.2	0.5											
FX Reserve Coverage: Months of Imports	-0.1	-0.1	0.4	0.2	-0.1	-0.1	0.2	0.2	0.4	1.7										
FX Reserve Coverage:M2	0.3	0.3	0.4	0.3	0.2	0.3	0.2	0.4	0.0	0.4	1.8									
FX Reserve Coverage: External Short-Term Debt	-0.2	-0.1	0.3	0.1	-0.4	-0.3	-0.1	0.0	0.5	0.8	0.3	1.1								
Credit Stock % GDP	0.2	0.3	0.3	0.3	0.6	0.2	0.4	0.1	-0.1	0.2	-0.1	-0.1	1.6							
Real Credit Growth YoY%	-0.3	0.0	-0.4	0.2	-0.3	0.0	0.1	-0.1	0.4	0.1	-0.3	0.2	-0.2	0.8						
PSC/M2	0.3	0.2	0.0	-0.2	-0.2	0.0	-0.3	0.1	0.1	0.1	0.4	0.2	-0.1	-0.1	2.0					
Regulatory Tier 1 Capital to Risk-Weighted Assets (EOP,%)	0.1	0.0	0.7	0.3	0.2	0.2	0.0	0.0	-0.3	0.0	0.1	0.0	0.0	-0.4	-0.2	3.8				
CPI YOY%	0.1	0.2	-0.7	0.0	-0.1	0.1	0.0	0.0	0.2	-0.3	-0.1	-0.2	-0.3	0.4	0.1	-0.7	1.2			
CPI Cum 5 Yr Change	0.0	0.1	-0.9	-0.2	-0.1	0.0	0.0	-0.1	0.3	-0.3	-0.2	-0.2	-0.4	0.5	0.0	-0.7	0.9	0.9		
GDP Per Cap USD Nominal	0.5	0.4	0.2	0.6	0.8	0.7	0.7	0.6	-0.1	0.0	0.1	-0.4	0.5	-0.2	-0.1	0.0	-0.1	-0.1	1.2	
Heritage Foundation Overall Score	0.2	0.3	0.6	0.5	0.7	0.4	0.3	0.3	-0.2	0.0	0.2	-0.2	0.6	-0.5	-0.1	0.4	-0.5	-0.6	0.7	5.3

Source: Haver Analytics and PGIM Fixed Income.

[7] *Any indicator's signal to noise ratio is shown on the diagonal; its coefficient of variation with other indicators is shown below the diagonal. Ideally, one would see high values on the diagonal and low values elsewhere.*

Cohort Selection−The Importance of Relativity

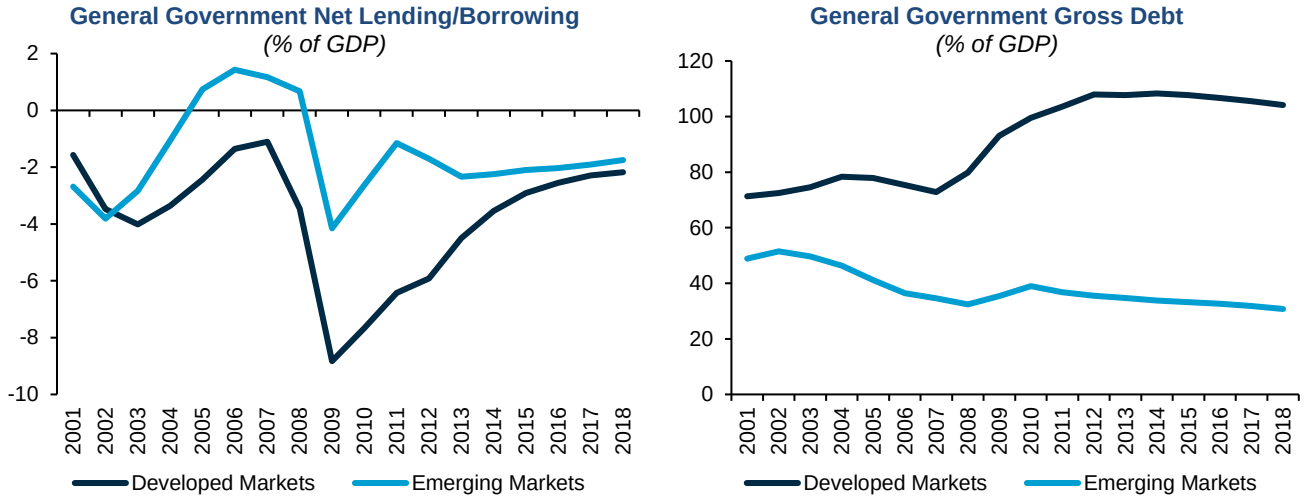
It is important to note that our FMR only provides a relative rank and does not provide an absolute measure of macro fundamentals. Besides its own fundamentals, the rank of any country therefore is also determined by the fundamental strengths and weaknesses of its cohort. Any changes to its cohort, therefore, are likely to affect a country's relative rank.

This observation illustrates that selecting the cohort is a crucial element of our ratings methodology; in particular, whether EM and DM economies should be treated as unified or separate cohorts. Rapid economic convergence over recent decades provides a strong argument in favor of treating these as a single cohort.

However, casual inspection of market tolerance to economic imbalances already suggests that developed economies are given a greater benefit of the doubt by investors. These different tolerance levels likely reflect a past track record of "good" policymaking, balanced and well diversified economic structures, the workings of the financial system, political stability, governance structures, the rule of law and, last but not least, the quality and availability of data. While these differences are difficult to quantify, markets clearly attribute considerable importance to these aspects.

Fiscal Performance—Developed Markets versus Emerging Markets

As of February 1, 2014



Sources: IMF and PGIM Fixed Income.

As a result, DM countries tend to enjoy more leeway in policymaking than their EM peers. Most notably, DM fiscal deficits and debt stocks are substantially higher than in EM, as shown in the chart above, but DM funding costs tend to remain well below those shouldered by EM countries. Moreover, all of the world's reserve currencies are issued by DM sovereigns, while EM is holding a disproportionate large share of global foreign exchange reserves to insure itself—at a considerable economic cost—against sudden stops in funding.

Against this background, DM and EM economies are treated as separate cohorts for the purpose of our FMR. In other words, EM economies are ranked within an EM cohort, and DM economies are ranked relative to their DM peers.[8] Splitting the samples also has the added benefit of focusing the exercise on more relevant data dimensions for each one of these two universes and staying clear of data deficiencies, while still maintaining a uniform overall approach.[9]

---

[8] Frontier markets are also assessed within their peer group. Over these three groups, PGIM Fixed Income's fundamental macro score covers 98 countries.

[9] In general, the variables comprising the sub-indices are the same. However, data such as short-term debt coverage are not widely available for EM. Splitting the sample allows to use these data for DM, but to rely on proxy variables for EM. Also, the absolute level of per-capita GDP is a more relevant factor in assessing EMs, which can benefit from catch-up convergence growth going forward. For DMs in turn, which more or less reside at the global production possibility frontier, growth cannot be assumed, and their actual growth performance is more relevant for the ranking. Splitting the sample permits to accommodate these key differences.

FUNDAMENTAL MACRO RANK—RESULTS FOR DM AND EM COUNTRIES

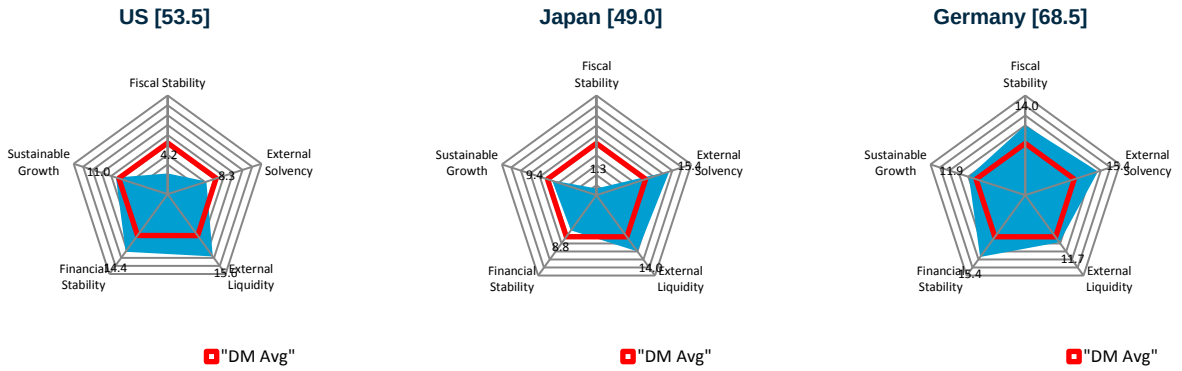
Developed Markets—Stark Differences in Fundamentals

The FMR and the associated fundamental macro score (FMS) highlights considerable differences across the DM economies and the G3 in particular. As shown in the following chart, the FMS for the US (53.5) falls well below that of Germany (68.5), but it is considerably ahead of the score for Japan (49.0). In particular, the US scores highly on financial stability and external liquidity. The former is indicative of relatively low leverage of the US banking system compared to its DM peers, continued deleveraging, and successful rebuilding of bank capital. The unrivaled status of the US dollar as the world's leading reserve currency explains the high score on external liquidity. However, US fiscal stability is questionable, according to the FMS.

Japan's fiscal stability is weakest within the DM universe. External solvency, however, is high, reflecting the historical strength of the current account, low external indebtedness, and a sizeable international investment position. Germany enjoys the highest FMR among the G3, largely due to its strong fiscal position and external solvency. Not unlike Japan, the latter reflects persistent current account surpluses, and a solid international investment position.

Developed Markets Fundamental Macro Score

As of February 1, 2014



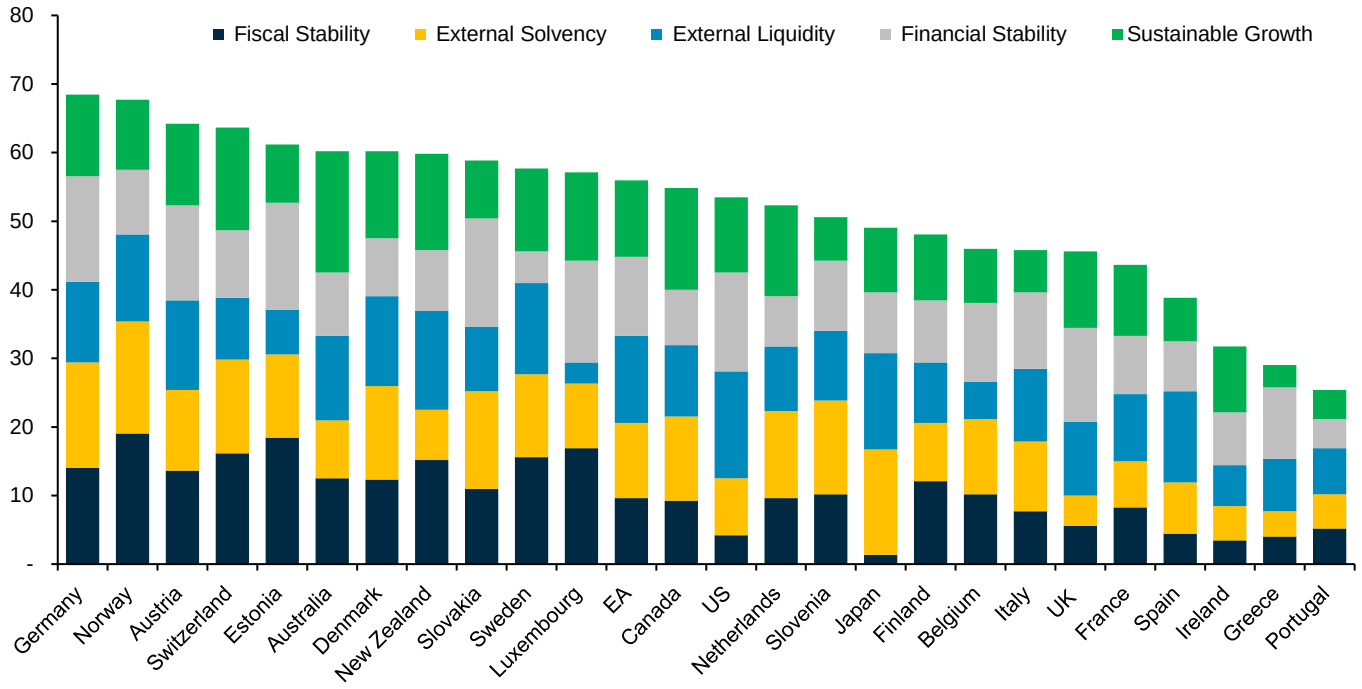
Sources: PGIM Fixed Income.

As can be seen from the DM FMS, in the following chart, besides Germany, the five countries ranked highest are Norway, Austria, Switzerland, and Estonia. Interestingly, Italy ranks ahead of France and the UK, mainly due to its higher external solvency, as measured by the external debt ratio, the external-debt-to-export multiple, the current account balance, and the international investment position (net). Finally, at the bottom end of the spectrum are countries from the European periphery. Spain, the euro area's fourth largest economy, ranks especially poorly on fiscal stability and sustainable growth. Both criteria point to challenging debt dynamics ahead. [10]

[10] *Spain's average ranking on the financial stability criterion appears largely due to data and reporting issues. These are considered as part of our qualitative assessment described in greater detail below.*

Developed Market Fundamental Macro Score (%)

As of February 1, 2014



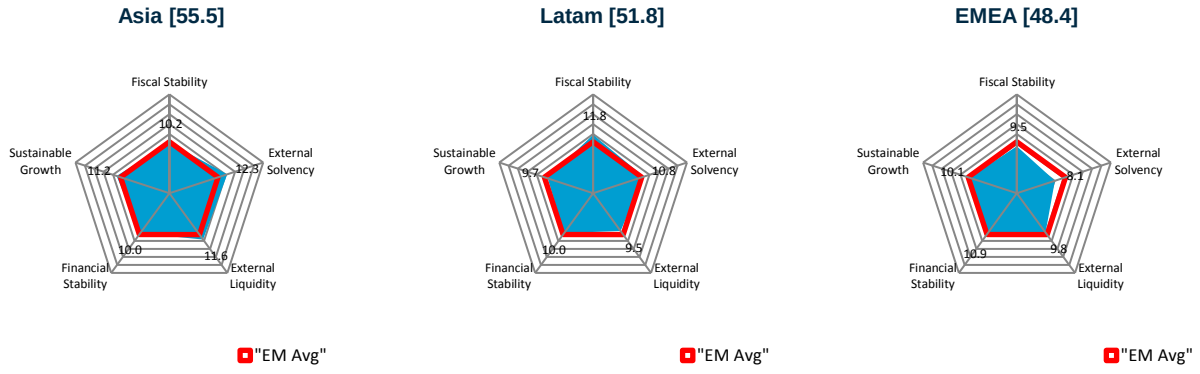
Source: PGIM Fixed Income.

Emerging Markets—Overall Sound Fundamentals With Some Regional Deviations

Overall, EM macro fundamentals are considerably more balanced than those in DM economies. As illustrated in the following chart, the contributions of the five major criteria—sustainable growth, fiscal stability, financial stability, external liquidity and, last but not least, external solvency—to overall macro fundamentals, as measured by our FMS, are rather similar across all EM regions.

Emerging Markets Fundamental Score[11]

As of February 1, 2014



Source: PGIM Fixed Income.

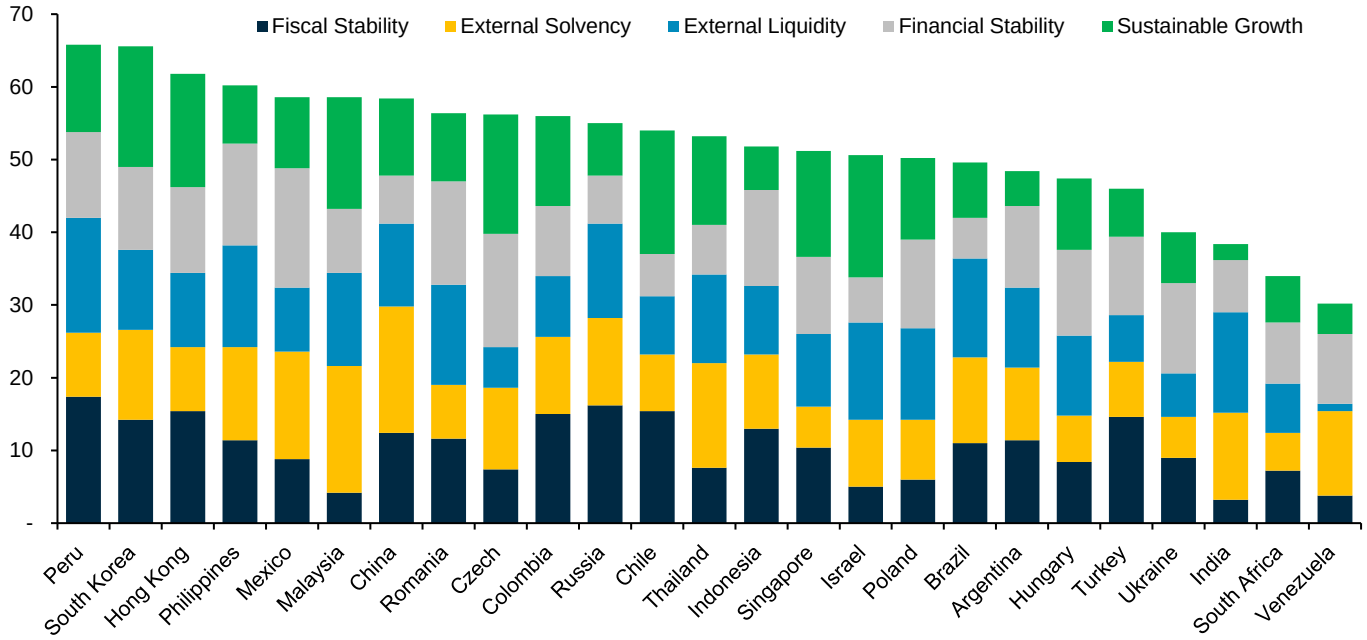
[11] *EMEA stands for Emerging Europe, Middle East, and Africa.*

However, some regional differences are noteworthy. Fundamentals are strongest in Asia (FMS 55.5), followed by Latin America (FMS 51.8) and, as a distant third, Emerging Europe, the Middle East and Africa (EMEA; FMS 48.4). Specifically:

- **Asia** outperforms its EM peers most notably on external solvency and external liquidity, but also on sustainable growth.
- **Latin America** outperforms on fiscal stability, while underperforming on sustainable growth and external liquidity; the financial stability score is broadly in line with the EM average.
- **EMEA** exhibits strong underperformance on external solvency, external liquidity, and fiscal stability; only financial stability is higher in EMEA than in both Asia and Latin America.

Moreover, as can be seen from the FMS in the following chart, within EMEA only Romania and Russia are ranked highly. Moreover, EMEA is overrepresented in the lower tail of the distribution. The Ukraine and South Africa are ranked broadly in line with India, but ahead of Venezuela.

Emerging Market Fundamental Macro Score (%)
As of February 1, 2014



Source: PGIM Fixed Income.

However, not all rankings are plausible. For example, the relatively high ranking of Argentina is counterintuitive. To a large extent, this is likely to reflect data misrepresentations, but it is also an artifact of the equal weighting rule applied to all variables. One of Argentina's many pressing problems is the overvaluation of its exchange rate and the resulting grave risks to its macro stability, which were kept in check —though not on a sustainable basis— by increasingly distortionary direct policy interventions. Given that the real effective exchange rate is only one of twenty variables, Argentina's macro score, by construction, understates risks from a potential exchange rate crisis and building structural distortions. For such reasons, our sovereign ratings are not solely determined by our FMS, but also a comprehensive qualitative assessment of the prevailing policy framework, as discussed in the following section.

POSSIBLE EXTERSIONS OF THE FUNDAMENTAL MACROECONOMIC SCORE

The behavior of country scores can be tracked over time, thereby keeping a record of how countries' relative fundamental positions are evolving. This can be done with a view to identifying emerging strengths and weaknesses before they become part of consensus. Tracking ratings over time would similarly give an idea as to whether macroeconomic soundness is improving across the world.

Our analytical framework is flexible enough to accommodate possible revisions of ratings rationales. For example:

- One could construct a global stress test scenario in which a sharp increase in G3 yields would result in a sudden-stop of flows into EMs. We performed this exercise in May 2013 on the heels of concerns about potential sudden stops to EM financing flows resulting from the expected onset of Federal Reserve "tapering" of its quantitative easing policies. We posited that the extent to which countries would be impacted by the withdrawal from Fed liquidity largely depended on their external liquidity and solvency scores (rather than on other macroeconomic sub-index scores). Thus overweighting these MSIS in the calculation of the FMS would provide a ranking premised on the susceptibility to a global sudden stop. Indeed, this reweighted FMS exhibited significant correlation of subsequently observed currency volatility.
- Another possible extension arises from the literature on early-warning systems or crisis thresholds. Here it is said that certain critical values of macroeconomic variables could make economic crises and defaults more likely. Our underlying database encompasses most of the relevant data listed in these models, and what remains to be done is to code these critical values into our framework (i.e., aggregate over values of variables rather than their relative ranks) in order to construct a relevant early warning indicator.

FROM FUNDAMENTAL RANKINGS TO RATINGS–THE NEED FOR QUALITATIVE ASSESSMENTS

Despite the merits of our fundamental ranking, there is undoubtedly more to sovereign ratings than hard data will reveal. In particular, a linear transformation of rankings into ratings would not be a meaningful exercise, as suggested by the preceding discussion on Argentina. Instead, our FMR needs to be complemented with sound judgment in order to give due consideration to intangible but important aspects that are not captured by our quantitative framework.

That said, any qualitative assessment risks becoming open-ended. To mitigate this risk and foster comparability of the assessment across countries, the qualitative assessment is structured into four distinct categories:[12]

- **Political Risks.** This assessment focuses on the track record of political stability, the election cycle, and risks of adverse policy developments that might result from a change in government or other political developments.
- **Policy Consistency.** This category evaluates whether fiscal policy, monetary and FX policy are broadly consistent, and the risks arising from potential inconsistencies. For instance, while we consider the policies of the European Central Bank (ECB) as highly credible, we are nevertheless concerned about the potential for quasi-fiscal losses that could result from the activation of the ECB's Outright Monetary Transactions (OMTs) and, therefore, lowered Germany's sovereign rating below the rating that is implied by its high macro score. At the same time, the sovereign ratings of countries in the periphery of Europe reflect that the necessary economic adjustment is more difficult to achieve in the absence of a national currency that otherwise could help facilitate the restoration of competitiveness. Separately, the ratings of euro are countries with large banking systems, including Belgium, Luxembourg and the Netherlands, take into account the quasi-fiscal risks stemming from the continued lack of a comprehensive banking union and framework for cross-border bail-outs. (See Appendix II.)

[12] *For any one of these factors, we use a matrix to indicate whether the assessment results in a ratings uplift or down-drift compared to those ratings that would result from a linear transformation of the Fundamental Macro Score (FMS). The color green indicates the rating would be higher than implied by the FMS, yellow suggests that the rating is in line with the rating implied by the FMS , while red suggests the rating is lower than implied by fundamentals.*

- **Structural Imbalances.** This part of the assessment highlights any structural and institutional strengths or weaknesses. Inter alia, it considers environmental, social, and governance (ESG) issues and their potential impact on overall macro stability, including the outlook for sustainable growth and debt sustainability. Other aspects that are considered are distortionary policies, including capital controls, and financial sector stability issues (above and beyond those captured in the financial stability sub-index).
- **Ability to Withstand Shocks.** This category assesses the ability to adjust to macroeconomic shocks. The assessment reviews potential wage rigidities in case of peripheral countries that are pursuing internal devaluations, and possibly unsustainable exchange rate policies. For instance, FX reserve coverage is deteriorating in the Ukraine, while the exchange rate remains at an unsustainably strong level. As a result, we see only limited scope for adjustment and have lowered the Ukraine rating several notches below the rating implied by its FMS. (See Appendix III.)

CONCLUSIONS

Our sovereign ratings framework rests on two major pillars: a quantitative assessment of macro fundamentals combined with a qualitative assessment of the institutional framework and policymaking.

A non-parametric approach is used to devise a fundamental macro score that provides a relative ranking of countries based on their economic strengths and vulnerabilities. This quantitative framework ensures a consistent assessment of fundamentals across countries.

However, mindful of the fact that any quantitative framework is unlikely to capture all relevant information, we overlay the quantitative assessment with a qualitative assessment. The latter focuses on the institutional and political framework that guides policy making and also captures dimensions of risk that are relevant to investor confidence and market behavior. Our ratings framework thus provides important sign posts for the investment process, it is our qualitative assessments that have proven to be vital to alpha generation. In addition to providing current sovereign ratings, our framework is also flexible enough to permit the construction of consistent counterfactual global scenarios.

APPENDIX I: FUNDAMENTAL MACRO SCORE—VARIABLE SELECTION

	Macro Variables	
	Developed Markets	**Emerging Markets**
Sustainable Growth	Projected 5 Year Average Population Growth	CPI, YoY%
	CPI Volatility (8 Year)	CPI Deviation from 5 Year Average
	Real Per Capita Growth (8 Year YoY Avg)	GDP Per Capita USD Nominal
	Heritage Foundation Overall Score	Heritage Foundation Overall Score
Fiscal Stability	Public Debt, % GDP	Public Debt, % GDP
	Debt-to-Revenue Ratio	Debt-to-Revenue Ration
	Primary Balance, % GDP	Primary Balance, % GDP
	Public Debt Stabilizing Fiscal Gap	Public Debt Stabilizing Fiscal Gap
Financial Stability	Private Sector Debt, % GDP	Credit Stock, % GDP
	Private Sector Debt, % YoY GDP Change	Real Credit Growth, YoY %
	Private-Sector-Credit to M2-Minues Currency Multiple	Private-Sector-Credit to M2 Multiple
	Capital-to-Assets Ratio	Regulatory Tier 1 Capital to Risk-Weighted Assets (EOP, %)
External Liquidity	REER Deviation from 10 Year Average	REER Deviation from 10 Year Average
	FX Reserve Coverage: Months of Imports	FX Reserve Coverage: Months of Imports
	ST Ext Debt Stock	FX Reserve Coverage: M2
	Hot Money, % Financial Account Balance	FX Reserve Coverage: External Short-Term Debt
External Solvency	External Debt, % GDP	External Debt, % GDP
	External-Debt-to-Export Multiple	External-Debt-to-Export Multiple
	Current Account Balance, % GDP	Current Account Balance, % GDP
	IIP, % GDP	IIP Deviation from 5 Year Average

Source: PGIM Fixed Income.

APPENDIX II: QUALITATIVE ASSESSMENT—EURO AREA *(AS OF FEBRUARY 1, 2014)*

Austria

POLITICAL RISK		
Election Cycle		Recent parliamentary elections yielded no clear majority. New government finally formed in Dec'13, no major policy change expected.
Strength of Support Base		Support for the establishment remains strong. However, fringe parties gained considerable support, including the newly founded anti-euro Team Stronach (11 MPs 183 MPS).
POLICY CONSISTENCY		
Fiscal Policy		Proven track record of adjustment and strong commitment to fiscal discipline.
Central Bank Credibility		High credibility in inflation fighting; however, OMTs and other operations may result in considerable losses and a potential need for recapitalization.
FX Policy		Euro is free floating and ECB does not intervene, despite at times considerable political pressure
STRUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Bailout fatigue may prevent a timely resolution of euro area crisis, which could eventually trigger further debt restructuring in periphery
Capital Controls /Other Distortionary Polices		Heavy tax burden and far-reaching social welfare policies
Financial Sector Health		Residual risks from banking sector exposure abroad, mainly in eastern Europe.
Ability to Adjust to Shocks		Resolution of euro crisis however may result in considerable fiscal transfers and potentially unforeseen increases in sovereign liabilities

Cyprus

POLITICAL RISK		
Election Cycle		The February 2013 elections were won a by a reform-friendly President.
Strength of Support Base		Popular support for adjustment is weak and the impending recession may yet fuel anti-euro sentiment.
POLICY CONSISTENCY		
Fiscal Policy		Troika bail-out unlikely to restore debt sustainability and solvency. Although presently seemingly unlikely, an eventual restructuring of bonded claims cannot be ruled out, especially in the context of a possible restructuring of official sector debt
Central Bank Credibility		Cyprus is presently not eligible for OMTs and sovereign is reliant on the Troika as lenders of last resort.
FX Policy		Euro is free floating and ECB does not intervene, despite at times considerable political pressure, but euro exchange rate contributes to unduly tight monetary conditions
STRUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Social unrest or widespread adjustment fatigue could yet halt the program.
Capital Controls /Other Distortionary Polices		Depositor bail-in resulted in capital controls—prolonged phase out likely.
Financial Sector Health		Banks are being recapitalized under the Troika program, but remain exposed to potential deposit runs, once capital controls are lifted
Ability to Adjust to Shocks		Fixed exchange rate impedes adjustment. Otherwise compromised ability to adjust, be it socially, fiscally, or in terms of heavily negative IIP position (5th weakest in euro area).

France

POLITICAL RISK		
Election Cycle		President Hollande elected in 2012 for a five-year term.
Strength of Support Base		The popularity of President Hollande has fallen precipitously, undermining his leadership.
POLICY CONSISTENCY		
Fiscal Policy		Fiscal adjustment remains too timid—debt stabilization seemingly unlikely over the medium term
Central Bank Credibility		High credibility in inflation fighting; however, OMTs and other operations may result in considerable losses and a potential need for recapitalization.
FX Policy		Euro is free floating and ECB does not intervene, despite at times considerable political pressure
STRUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Excessively large size of the public sector and rising debt are impeding the growth outlook, besides eroding competitiveness
Capital Controls /Other Distortionary Polices		Heavy tax burden and far-reaching social welfare policies
Financial Sector Health		Large-scale banking sector exposure to Spain and other periphery countries
Ability to Adjust to Shocks		Limited social support for reforms; public sector debt stock and IIP position could still act as a limited shock absorber; resolution of euro crisis however may result in considerable fiscal transfers and unforeseen increases in sovereign liabilities

Source: PGIM Fixed Income. As of February 1, 2014.
Provided for discussion purposes solely as an illustration of our country evaluation process and the output in our proprietary matrix. Does not constitute a recommendation regarding the merits of investing in securities of any of the issuers referenced therein or a complete listing of issuers analyzed. The samples provided above shall not constitute investment advice, and should not be used as the basis of any investment decision. Does not constitute a representation that PGIM Fixed Income would purchase any securities of the countries referenced or that an investment in any securities of such countries would be profitable. There can be no assurance that the matrix will be effective in evaluating countries or that opportunities identified within the matrix can be effectively implemented.

Germany

POLITICAL RISK		
Election Cycle		Merkel's center-right CDU scored a historic victory in the Parliamentary elections in September 2013. However, the party fell short of an absolute majority. A new "grand coalition" was formed with the center-left SPD.
Strength of Support Base		Given her outstanding popularity, Merkel's leadership is uncontested. However, the political landscape is changing and the newly-formed "Alternative for Germany" is gaining popular support for its anti-euro platform. Nevertheless, its support in the 2013 elections, at just below the 5% threshold, prevented it from entering Parliament.
POLICY CONSISTENCY		
Fiscal Policy		Budget in near balance and strong political commitment to maintain a structural balance
Central Bank Credibility		High credibility in inflation fighting; however, OMTs and other operations may result in considerable losses and a potential need for recapitalization.
FX Policy		Euro is free floating and ECB does not intervene, despite at times considerable political pressure
STRUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Bailout fatigue may prevent a timely resolution of the euro area crisis, which could trigger further debt restructuring in periphery
Capital Controls /Other Distortionary Polices		Far-reaching social welfare policies; introduction of minimum wage under consideration; however, proven track record of eventually reaching social consensus on necessary adjustment
Financial Sector Health		Longstanding current account surpluses resulted in considerable banking sector exposure to periphery and large Target-II imbalances
Ability to Adjust to Shocks		Resolution of euro crisis however may result in considerable fiscal transfers and potentially unforeseen increases in sovereign liabilities

Greece

POLITICAL RISK		
Election Cycle		The May 2012 elections resulted in a hung Parliament, but the conservative New Democracy emerged victorious from repeat elections in June 2012 and is leading a two party coalition government with a narrow majority.
Strength of Support Base		Popular support for the government and adjustment is weak. However, the opposition does not appear ready to precipitate early elections . However, early elections may be triggered in 2015, if Presidential elections "fail."
POLICY CONSISTENCY		
Fiscal Policy		Despite considerable fiscal adjustment and two "voluntary" restructurings, the sovereign remains insolvent. Outright debt forgiveness seems unlikely, but European creditors could provide gradual debt relief by easing repayment terms. A third PSI operation currently seems unlikely, but cannot be ruled out.
Central Bank Credibility		Greece is presently not eligible for OMTs and the sovereign remains without a lender of last resort, except for the Troika
FX Policy		Euro is free floating and ECB does not intervene, despite at times considerable political pressure, but euro exchange rate contributes to unduly tight monetary conditions
STRUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Social unrest or widespread adjustment fatigue could still halt the Troika program.
Capital Controls /Other Distortionary Polices		Restrictions in product and service markets continue to impede competiveness.
Financial Sector Health		The recession and non-performing loans continue to undermine the health of the banking systems .
Ability to Adjust to Shocks		Fixed exchange rate impedes adjustment. Otherwise compromised ability to adjust, be it socially, fiscally, or in terms of IIP position (2nd worst in the euro area besides Portugal).

Ireland

POLITICAL RISK		
Election Cycle		A coalition government involving Fine Gael and the Labour Party was formed following the elections in February 2011.
Strength of Support Base		The governing coalition enjoys a broad parliamentary majority and support for adjustment in the population.
POLICY CONSISTENCY		
Fiscal Policy		Despite steady adjustment, the fiscal deficit remains high and is targeted to fall to below 3% of GDP only in 2015. The Troika bail-out may not restore debt sustainability. Outright debt forgiveness seems unlikely, but European creditors could provide gradual debt relief by easing repayment terms. PSI currently seems highly unlikely, but cannot be fully ruled out.
Central Bank Credibility		Ireland is presently not eligible for OMTs; however, market access is being developed.
FX Policy		Euro is free floating and ECB does not intervene, despite at times considerable political pressure, but euro exchange rate contributes to tight monetary conditions
STRUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Potential adjustment fatigue poses risks to the program, although seemingly less so than elsewhere in the periphery
Capital Controls /Other Distortionary Polices		Austerity measures are weighing on recovery.
Financial Sector Health		Banks remain exposed to any further substantial declines in house prices.
Ability to Adjust to Shocks		Ireland's IIP position is the third weakest in the euro area, but largely on account of FDI-related liabilities. Continued need for fiscal adjustment leaves little room to absorb shocks, although population tends to favor continued austerity.

Source: PGIM Fixed Income. As of February 1, 2014.
Provided for discussion purposes solely as an illustration of our country evaluation process and the output in our proprietary matrix. Does not constitute a recommendation regarding the merits of investing in securities of any of the issuers referenced therein or a complete listing of issuers analyzed. The samples provided above shall not constitute investment advice, and should not be used as the basis of any investment decision. Does not constitute a representation that PGIM Fixed Income would purchase any securities of the countries referenced or that an investment in any securities of such countries would be profitable. There can be no assurance that the matrix will be effective in evaluating countries or that opportunities identified within the matrix can be effectively implemented.

Italy

POLITICAL RISK		
Election Cycle		February 2013 elections resulted in unstable coalition government—early elections highly likely
Strength of Support Base		Major rift in political landscape—strong showing in February 2013 elections of anti-establishment and anti-austerity Five–Star Movement
POLICY CONSISTENCY		
Fiscal Policy		Budget in primary surplus but commitment to fiscal austerity seemingly weakening, raising risks to debt sustainability over the medium term. In contrast to smaller countries in the periphery, any potential debt sustainability issue would be difficult to resolve through fiscal transfers or OSI, given the magnitudes involved.
Central Bank Credibility		OMTs continue to impart substantial support to periphery bond markets. However, OMTs can only be activated once an adjustment program is in place. The current political circumstances may limit the strength of such a program.
FX Policy		Euro is free floating and ECB does not intervene, despite at times considerable political pressure
STRUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Recent arrears issues call into question budget execution; high degree of tax evasion remains to be tackled.
Capital Controls /Other Distortionary Polices		Relatively high tax burden; restrictions on product and service markets continue to limit productivity, competitiveness, and growth.
Financial Sector Health		Large sovereign exposure, low profitability and inadequate capital levels suggest considerable risks in the context of a prolonged recession or stagnation.
Ability to Adjust to Shocks		Fixed exchange rate impedes adjustment. Negative IIP net position, large public sector debt stock, current account deficit and limited competitiveness all suggest limited scope for absorbing shocks, except through structural reform

Netherlands

POLITICAL RISK		
Election Cycle		Mark Rutte returned as PM following the September 2012 parliamentary elections heading a center-right-center-left government.
Strength of Support Base		The governing coalition enjoys only a slim majority (79 MPs out 150 MPs)
POLICY CONSISTENCY		
Fiscal Policy		Longstanding track record of fiscal resolve. Government delivered on its commitment to return the budget deficit to 3% of GDP by 2015, despite political difficulties.
Central Bank Credibility		High credibility in inflation fighting; however, OMTs and other operations may result in considerable losses and a potential need for recapitalization.
FX Policy		Euro is free floating and ECB does not intervene, despite at times considerable political pressure
STRUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Longstanding political stability, trust in institutions
Capital Controls /Other Distortionary Polices		Far-reaching social welfare policies, but business friendly regulation
Financial Sector Health		Multiple bailouts, including of SSN Reaal; recessions and housing market risks . Banking system assets relatively high in terms of GDP and a comprehensive framework for European banking union remains wanting.
Ability to Adjust to Shocks		Third largest IIP position in euro area after Luxembourg and Belgium, longstanding track record of reforms (when needed); resolution of euro crisis however may result in considerable fiscal transfers and unforeseen increases in sovereign liabilities

Portugal

POLITICAL RISK		
Election Cycle		A center-right government led by PM Passos Coelho emerged from the June 2011 elections. A governing crisis in 2013 proved to be short-lived, but was spurred by adjustment fatigue.
Strength of Support Base		The center-right won 130 seats in a Parliament of 230 MPs. While the population remains favor of euro-membership, adjustment fatigue has set in.
POLICY CONSISTENCY		
Fiscal Policy		Despite adjustment, the fiscal deficit remains high and is targeted to fall to 3% of GDP only in 2015. The Troika bail-out is unlikely to restore debt sustainability and solvency. Outright debt forgiveness seems unlikely, but European creditors could provide gradual debt relief by easing repayment terms. PSI currently seems highly unlikely, but cannot be fully ruled out.
Central Bank Credibility		Portugal is presently not eligible for OMTs and sovereign remains without a lender of last resort; however, a successor program appears likely once the current Troika program expires mid-2014.
FX Policy		Euro is free floating and ECB does not intervene, despite at times considerable political pressure, but euro exchange rate contributes to unduly tight monetary conditions
STRUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Adjustment fatigue and constitutional constraints on the scope for adjustment pose implementation risks to the program.
Capital Controls /Other Distortionary Polices		Restrictions on product and services markets continue to limit competiveness, despite impending improvements.
Financial Sector Health		Banks are heavily exposed to sovereign risk and likely to need further capital.
Ability to Adjust to Shocks		Fixed exchange rate impedes adjustment. Portugal's IIP position is the weakest in the euro area, and continued need for fiscal adjustment leaves little room to absorb shocks, besides population's willingness to endure adjustment.

Source: PGIM Fixed Income. As of February 1, 2014.

Provided for discussion purposes solely as an illustration of our country evaluation process and the output in our proprietary matrix. Does not constitute a recommendation regarding the merits of investing in securities of any of the issuers referenced therein or a complete listing of issuers analyzed. The samples provided above shall not constitute investment advice, and should not be used as the basis of any investment decision. Does not constitute a representation that PGIM Fixed Income would purchase any securities of the countries referenced or that an investment in any securities of such countries would be profitable. There can be no assurance that the matrix will be effective in evaluating countries or that opportunities identified within the matrix can be effectively implemented.

Spain		
POLITICAL RISK		
Election Cycle		PM Rajoy's Partido Popular won an absolute majority in November 2011 elections.
Strength of Support Base		The popularity of PM Rajoy has fallen precipitously, undermining his leadership
POLICY CONSISTENCY		
Fiscal Policy		Despite a several fiscal reform packages, the budget deficit remains unsustainably high and the EU Commission projects a renewed widening in 2015, unless additional measures are taken
Central Bank Credibility		OMTs continue to impart substantial support to periphery bond markets. However, OMTs can only be activated once an adjustment program is in place. The current political circumstances may limit the strength of such a program.
FX Policy		Euro is free floating and ECB does not intervene, despite at times considerable political pressure, but euro exchange rate contributes to unduly tight monetary conditions
STRUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Supervisory authorities failed to prevent the banking crisis. Central government tightened fiscal controls over the regions but is seemingly not prepared to make full use of these mechanisms.
Capital Controls /Other Distortionary Polices		Dual labor markets remain a major factor contributing to high unemployment
Financial Sector Health		Following the €40 bln ESM banking sector bailout, additional capital shortages appear likely, especially if NPLs continue to rise.
Ability to Adjust to Shocks		Fixed exchange rate impedes adjustment. Heavily negative IIP net position, all major sectors are overly levered, excessive fiscal deficits all suggest limited scope for shock absorption. However, the C/A has swung into a moderate surplus.

Source: PGIM Fixed Income. As of February 1, 2014.
Provided for discussion purposes solely as an illustration of our country evaluation process and the output in our proprietary matrix. Does not constitute a recommendation regarding the merits of investing in securities of any of the issuers referenced therein or a complete listing of issuers analyzed. The samples provided above shall not constitute investment advice, and should not be used as the basis of any investment decision. Does not constitute a representation that PGIM Fixed Income would purchase any securities of the countries referenced or that an investment in any securities of such countries would be profitable. There can be no assurance that the matrix will be effective in evaluating countries or that opportunities identified within the matrix can be effectively implemented.

APPENDIX III: QUALITATIVE ASSESSMENT—ASIA

(As of February 1, 2014)

China

POLITICAL RISK		
Election Cycle		New Leadership just installed for 5 year term
Strength of Support Base		Strong; yet, owing to potentially differentiated impact of required reforms on different parts of the support base, the authorities need to proactively secure consensus, and it is not yet clear whether they are in a position to do so.
POLICY CONSISTENCY		
Fiscal Policy		Strong public finances at the central level; still evolving fiscal management reform has not yet delivered similarly strong results at local governments and parastatals, thus opening the risk of large contingent liabilities.
Central Bank Credibility		With the benefits of technically highly skilled staff and large reserve buffers, the central bank is advancing on its roadmap to adopt a monetary policy framework relying to a greater degree on indirect instruments of monetary control, eventually also enabling further central bank independence. However, Central Bank is encountering difficulties in reining-in growth of non-bank lending.
FX Policy		Very strong reserve cover and current account. However, owing to its size as the world's largest exporter, limited scope for FX policy without triggering multilateral response.
STRUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Authorities face the challenge of steering clear of the middle income trap while adjusting the past growth model in face of competing demands by increasingly vocal stakeholders, while they are developing the political system to deliver equitable, effective and efficient governance.
Capital Controls /Other Distortionary Polices		The authorities have identified key priorities in removing implicit mispricing of factors of production, especially energy and capital. Proper sequencing of this liberalization is essential to mitigate financial stability risks (capital convertibility only as a last step).
Financial Sector Health		Credit from banks and the nonbanking system has grown rapidly and reached elevated levels. While structural reform underway should in the longer term reduce incentives for high leverage, the authorities are in the near term engaged in selective and discretionary remedial measures with potentially economy-wide impact that will need careful monitoring.
Ability to Adjust to Shocks		Strong fiscal and reserve buffers could potentially create moral hazard or complacency, a problem the authorities are aware of. At the same time the increasingly varied and vocal interest of all stakeholders will need to be effectively, equitably and efficiently integrated in the political system.

S Korea

POLITICAL RISK		
Election Cycle		New government elected in December 2012.
Strength of Support Base		solid
POLICY CONSISTENCY		
Fiscal Policy		Low public deficits and debt, but very large medium- and long term contingent liabilities and risks from North Korea.
Central Bank Credibility		In some past occasions, market participants expressed difficulty in effectively interpreting monetary policy communication, affecting their positioning and the transmission of monetary policy.
FX Policy		Strong external position, significant reserve holdings and flexible FX
STRUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Relatively segmented labor markets; low female labor participation; and rapidly aging society. Public opinion has expressed concerns about the potential role and influence of large conglomerate firms in shaping policies.
Capital Controls /Other Distortionary Polices		De facto still preferential access to capital for large-scale conglomerates.
Financial Sector Health		Large banking sector with high degree of private sector leverage, but deleveraging now under way.
Ability to Adjust to Shocks		Significant policy buffers, and past track record of successful adjustment as well as policy making credibility; however, very large tail risk form North Korea.

Source: PGIM Fixed Income. As of February 1, 2014.

Provided for discussion purposes solely as an illustration of our country evaluation process and the output in our proprietary matrix. Does not constitute a recommendation regarding the merits of investing in securities of any of the issuers referenced therein or a complete listing of issuers analyzed. The samples provided above shall not constitute investment advice, and should not be used as the basis of any investment decision. Does not constitute a representation that PGIM Fixed Income would purchase any securities of the countries referenced or that an investment in any securities of such countries would be profitable. There can be no assurance that the matrix will be effective in evaluating countries or that opportunities identified within the matrix can be effectively implemented.

Indonesia

POLITICAL RISK		
Election Cycle		Parliamentary and presidential elections due in 2014.
Strength of Support Base		In the run-up to the elections, parliamentary majorities are harder to find. However, so far little evidence of a populist tilt in policy making.
POLICY CONSISTENCY		
Fiscal Policy		Low public debt and deficit, and strong track record of consolidation.
Central Bank Credibility		In some past occasions, market participants expressed difficulty in effectively interpreting monetary policy communication, affecting their positioning and the transmission of monetary policy. BI has in the past generally strived to keep real rates positive, and has aggressively tightened after the adjustment of fuel prices. However, pervaisive incidence of subsidies is not consistent with BI's elevated inflation target, and risk continued volatile inflation performance going forward.
FX Policy		Large reserve buffers; though markets have not arrived at a uniform view about reserve policy, including the framework governing the use of buffers, which, together with patchy liquidity and idiosyncratic NDF fixing, has contributed to the relatively high degree of volatility in the IDR.
STUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		A large democracy with a track record of peaceful power transitions, though the authorities face the challenge of securing further rapid progress in living standards while also advancing the political system to effect equitable, effective and efficient governance.
Capital Controls /Other Distortionary Polices		Work on reforms to improve the quality and equity of growth while safeguarding the health of public finances is still ongoing, with a particular emphasis to better target subsidies.
Financial Sector Health		Strong balance sheets, but credit growth needs to be reined in, especially in the context of incipient signs of stretched valuations in some asset markets.
Ability to Adjust to Shocks		Strong fundamental buffers, though some market participants harbor residual uncertainty with respect to the framework governing their use. Macroeconomic policy making has recently been better co-ordinated and turned pro-active.

India

POLITICAL RISK		
Election Cycle		Government lost own parliamentary majority and elections are due by May 2014. State elections have diverted political attention from needed policy adjustment.
Strength of Support Base		Weak.
POLICY CONSISTENCY		
Fiscal Policy		Efforts to tackle excessive fiscal deficits are facing strong headwinds from the economy's cyclically poor position and remaining policy bias in favor of government-led development, forcing a choice between higher structural fiscal effort or higher than programmed debt if automatic stabilizers are allowed full play. The debt fallout from excessive deficit has in the past been mitigated by financial repression and inflationary finance, channels that may no longer be as easily available at current inlfation levels and prospective greater capital account liberalization.
Central Bank Credibility		Against the background of past elevated inflation and ill-conceived focus on wholesale inflation in setting monetary policy, excessive inflation expectations appear to have become structurally entrenched, forcing a tighter monetary stance than in peers, with attendant fiscal costs from implied higher interest rates. The new leadership at the central bank has moved to quickly tighten policies, but the RBI's limited independence could well limit scope for further required adjustment.
FX Policy		Classic twin defict case; elevated external current account deficit has been only contained at the cost of sharp demand tightening, while competitiveness developments remain unfavorable. External reserves remain adequate (though dropping), and the authorities have in the past made use of flexible FX regime.
STUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Strong democratic system with checks and balances and history of peaceful power transitions. Legacy large, public service that has in the past struggled to deliver equitable, effective and efficient governance.
Capital Controls /Other Distortionary Polices		High degree of regulation in many sectors has been cited as a key impediment to doing business and raising productivity. Still fairly extensive capital controls, albeit with some residual benefits given elevated current account deficit. Reforms at times incorporate counter-productive back-sliding.
Financial Sector Health		High loan to deposit ratio, and large mandated holdings of government debt. Incipient indications of financial disintermediation (e.g. gold imports/holdings)
Ability to Adjust to Shocks		Markets and rating agencies have so far given India the benefit of the doubt, ignoring a weaker than peers fundamental position. While this is unlikely to change near-term, the larger dependence on foreign inflows has sharply reduced the fallback buffer previously provided by a large domestic orientation of the economy. Recent moves to curtail twin deficits by lowering absorption are showing results but are aggravating near-term cyclical drag, and are, thus, at risk of not being sustained.

Source: PGIM Fixed Income. As of February 1, 2014.
Provided for discussion purposes solely as an illustration of our country evaluation process and the output in our proprietary matrix. Does not constitute a recommendation regarding the merits of investing in securities of any of the issuers referenced therein or a complete listing of issuers analyzed. The samples provided above shall not constitute investment advice, and should not be used as the basis of any investment decision. Does not constitute a representation that PGIM Fixed Income would purchase any securities of the countries referenced or that an investment in any securities of such countries would be profitable. There can be no assurance that the matrix will be effective in evaluating countries or that opportunities identified within the matrix can be effectively implemented.

Malaysia

POLITICAL RISK		
Election Cycle		Government lost popular vote in 2103 elections, but owing to allocation of votes enjoys strong majority in Parliament.
Strength of Support Base		PM appears to have effectively deflected within-party challenges following poor election performance and has promised resumption of needed reforms. However, the truce with potential challengers appears uneasy.
POLICY CONSISTENCY		
Fiscal Policy		High public debt and deficits compared to peers; market participants worry that recent large extension of loan guarantees could undermine the effectiveness of the debt-ceiling based fiscal rule. Needed fiscal reforms have been announced, but implementation is still some way off.
Central Bank Credibility		Consistent monetary policy conduct, eschewing activist stance.
FX Policy		Authorities have in the past been tolerant to FX changes.
STUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Different degree of institutional buy-in into the political system among different parts of the multi-ethnic society. While resource wealth has permitted social transfers, there are concerns about the equity, effectiveness and efficiency of governance. There is also no history of power transitions with opposition.
Capital Controls /Other Distortionary Polices		Potential and existing investors harbor concerns about level playing field. Perceived or actual irregularity in large-scale investment has become a political issue.
Financial Sector Health		Highly levered household sector
Ability to Adjust to Shocks		Very large buffers, which authorities have demonstrated to be able to use in the Asian crisis. However, longer term, economic and political reforms are essential.

Philippines

POLITICAL RISK		
Election Cycle		Presidential and parliamentary elections due in 2016
Strength of Support Base		good economic performance has made administration popular and supporters of President Aquino scored solid gains in the 2013 mid-term elections.
POLICY CONSISTENCY		
Fiscal Policy		Fiscal position kept in check by low capital spending. Tax reform needed.
Central Bank Credibility		High costs of sterilizing foreign capital inflows have triggered cuts in SDA interest rate, with risks of spilling over into an overly lose monetary stance. Risk that policy adjustment will be excessively delayed in order to avoid nominal fx appreciation.
FX Policy		The significant importance of inward remittances in income of socially vulnerable groups is a structural reason why nominal exchange rate appreciation is facing opposition.
STUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Various cross country comparisons of governance quality assign the Philippines a relatively low score, compared to peers, reflecting difficulties in improving the equity, effectiveness and efficiency of governance. While recent economic performance has been good, past performance has made the Philippine economy and defining case for the middle income trap.
Capital Controls /Other Distortionary Polices		Widespread perception of unlevel playing field in the investor community.
Financial Sector Health		Strong current fundamentals being chipped away by rapid credit growth and incipient signs of stretched asset valuations.
Ability to Adjust to Shocks		Very large buffers and reform minded government

Singapore

POLITICAL RISK		
Election Cycle		Next general elections in 2016
Strength of Support Base		Recent by-elections have resulted in poor results for the government, reflecting an unsatisfied electorate.
POLICY CONSISTENCY		
Fiscal Policy		strong track record and buffers
Central Bank Credibility		strong track record and credible policy framework.
FX Policy		credible policy framework and strong track record.
STUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		one of the best investment climates in all international surveys.
Capital Controls /Other Distortionary Polices		low general degree of business regulation.
Financial Sector Health		Very large financial sector compared to size of economy; property is approaching stretched valuations.
Ability to Adjust to Shocks		Very strong economic buffers, but politics could throw spanners into adjustment wheels, and very levered financial system could be affected in global sudden-stop scenarios.

Source: PGIM Fixed Income. As of February 1, 2014.

Provided for discussion purposes solely as an illustration of our country evaluation process and the output in our proprietary matrix. Does not constitute a recommendation regarding the merits of investing in securities of any of the issuers referenced therein or a complete listing of issuers analyzed. The samples provided above shall not constitute investment advice, and should not be used as the basis of any investment decision. Does not constitute a representation that PGIM Fixed Income would purchase any securities of the countries referenced or that an investment in any securities of such countries would be profitable. There can be no assurance that the matrix will be effective in evaluating countries or that opportunities identified within the matrix can be effectively implemented.

Thailand

POLITICAL RISK		
Election Cycle		Strong government victory in the mid-2011 elections, has only triggered increasingly hostile extra-parliamentary opposition from traditional vested interests.
Strength of Support Base		Relatively high degree of political uncertainty where risks of mis-steps loom large. Continued volatility likely through the transition of royal succession.
POLICY CONSISTENCY		
Fiscal Policy		Debt level remains manageable, but public finances face risks emanating from populist measures (e.g., rice pledging scheme, whose sustainable financing has not yet been put in place, or income support and car subsidies), while announced medium-term fiscal plans related to infrastructure spending could also over-stretch fiscal space, if fully implemented.
Central Bank Credibility		The central bank has in the past faced substantial political criticism after rate hikes.
FX Policy		Large buffers but potential imbalances, notably arising from rising leverage and stretched valuations, are also rapidly building.
STUCTURAL IMBALANCES		
Institutional Strengths & Weaknesses		Political rivalries have in the past spilled over into the economic sphere.
Capital Controls /Other Distortionary Polices		Generally investor friendly policies, but populist measures have shown to be appealing to politicians.
Financial Sector Health		Quickly growing leverage and incipient signs of stretched valuations in property and equity markets.
Ability to Adjust to Shocks		Strong buffers but decisive policy making is difficult given the potentially volatile politics.

Source: PGIM Fixed Income. As of February 1, 2014.

Provided for discussion purposes solely as an illustration of our country evaluation process and the output in our proprietary matrix. Does not constitute a recommendation regarding the merits of investing in securities of any of the issuers referenced therein or a complete listing of issuers analyzed. The samples provided above shall not constitute investment advice, and should not be used as the basis of any investment decision. Does not constitute a representation that PGIM Fixed Income would purchase any securities of the countries referenced or that an investment in any securities of such countries would be profitable. There can be no assurance that the matrix will be effective in evaluating countries or that opportunities identified within the matrix can be effectively implemented.

NOTICE

Source(s) of data (unless otherwise noted): PGIM Fixed Income as of February 2014.

PGIM Fixed Income operates primarily through PGIM, Inc., a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended, and a Prudential Financial, Inc. ("PFI") company. PGIM Fixed Income is headquartered in Newark, New Jersey and also includes the following businesses globally: (i) the public fixed income unit within PGIM Limited, located in London; (ii) PGIM Japan Co., Ltd. ("PGIM Japan"), located in Tokyo; and (iii) the public fixed income unit within PGIM (Singapore) Pte. Ltd., located in Singapore. Prudential Financial, Inc. of the United States is not affiliated with Prudential plc, which is headquartered in the United Kingdom. Prudential, PGIM, their respective logos, and the Rock symbol are service marks of PFI and its related entities, registered in many jurisdictions worldwide.

These materials are for informational or educational purposes only. The information is not intended as investment advice and is not a recommendation about managing or investing assets. In providing these materials, PGIM is not acting as your fiduciary as defined by the Department of Labor. These materials represent the views, opinions and recommendations of the author(s) regarding the economic conditions, asset classes, securities, issuers or financial instruments referenced herein. Distribution of this information to any person other than the person to whom it was originally delivered and to such person's advisers is unauthorized, and any reproduction of these materials, in whole or in part, or the divulgence of any of the contents hereof, without prior consent of PGIM Fixed Income is prohibited. Certain information contained herein has been obtained from sources that PGIM Fixed Income believes to be reliable as of the date presented; however, PGIM Fixed Income cannot guarantee the accuracy of such information, assure its completeness, or warrant such information will not be changed. The information contained herein is current as of the date of issuance (or such earlier date as referenced herein) and is subject to change without notice. PGIM Fixed Income has no obligation to update any or all of such information; nor do we make any express or implied warranties or representations as to the completeness or accuracy or accept responsibility for errors. **Your capital is at risk and the value of investments can go down as well as up. These materials are not intended as an offer or solicitation with respect to the purchase or sale of any security or other financial instrument or any investment management services and should not be used as the basis for any investment decision. No risk management technique can guarantee the mitigation or elimination of risk in any market environment. Past performance is not a guarantee or a reliable indicator of future results and an investment could lose value. No liability whatsoever is accepted for any loss (whether direct, indirect, or consequential) that may arise from any use of the information contained in or derived from this report. PGIM Fixed Income and its affiliates may make investment decisions that are inconsistent with the recommendations or views expressed herein, including for proprietary accounts of PGIM Fixed Income or its affiliates.**

The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients or prospects. No determination has been made regarding the suitability of any securities, financial instruments or strategies for particular clients or prospects. For any securities or financial instruments mentioned herein, the recipient(s) of this report must make its own independent decisions.

Conflicts of Interest: PGIM Fixed Income and its affiliates may have investment advisory or other business relationships with the issuers of securities referenced herein. PGIM Fixed Income and its affiliates, officers, directors and employees may from time to time have long or short positions in and buy or sell securities or financial instruments referenced herein. PGIM Fixed Income and its affiliates may develop and publish research that is independent of, and different than, the recommendations contained herein. PGIM Fixed Income's personnel other than the author(s), such as sales, marketing and trading personnel, may provide oral or written market commentary or ideas to PGIM Fixed Income's clients or prospects or proprietary investment ideas that differ from the views expressed herein. Additional information regarding actual and potential conflicts of interest is available in Part 2A of PGIM Fixed Income's Form ADV.

In the United Kingdom and various European Economic Area (`EEA') jurisdictions, information is issued by PGIM Limited with registered office: Grand Buildings, 1-3 Strand, Trafalgar Square, London, WC2N 5HR. PGIM Limited is authorised and regulated by the Financial Conduct Authority of the United Kingdom (registration number 193418) and duly passported in various jurisdictions in the EEA. These materials are issued by PGIM Limited to persons who are professional clients or eligible counterparties for the purposes of the Financial Conduct Authority's Conduct of Business Sourcebook. In certain countries in Asia, information is presented by PGIM Singapore, a Singapore investment manager registered with and licensed by the Monetary Authority of Singapore. In Japan, information is presented by PGIM Japan, registered investment adviser with the Japanese Financial Services Agency. In South Korea, information is presented by PGIM, Inc., which is licensed to provide discretionary investment management services directly to South Korean investors. In Hong Kong, information is presented by representatives of PGIM (Hong Kong) Limited, a regulated entity with the Securities and Futures Commission in Hong Kong to professional investors as defined in Part 1 of Schedule 1 of the Securities and Futures Ordinance.

2014-0375

PGIM FIXED INCOME