RBC Global Asset Management
PH&N Institutional

Investing in global bonds part I:

The global fixed income landscape

Over the past several decades, capital markets have evolved to become broader and more interconnected than ever before. As a result, investors now have access to a vast, global opportunity set of asset classes to build more robust portfolios. But despite this unprecedented expansion and the resulting globalization of most equity and alternatives portfolios, investors still routinely favour domestic assets for their fixed income allocations. Global fixed income is, in our opinion, an underexplored asset class that could have an important role to play in investors' long-term policy asset allocations.

The primary objective of our ***Investing in Global Bonds*** series is to create a comprehensive resource for investors who are either seeking an introduction to this asset class, or for those who are already familiar with the asset class but are looking for more practical details and insights. Throughout the series, we intend to touch upon many important considerations related to investing in global bonds, including:

- The market diversity that exists when adopting a global perspective on fixed income
- How different sub-categories can potentially fulfill different purposes (return-enhancement vs. risk-reduction)
- The meaningful effects of currency on global bond exposures and the merits of hedging
- How global bonds fit into different objective-oriented portfolios (e.g., liability driven investing)
- The implementation considerations associated with a broader opportunity set

In this first installment, we address item one by examining the diversity of the opportunity set, its broad characteristics, and the idiosyncrasies that can be observed in different local markets.

The global fixed income investment opportunity set

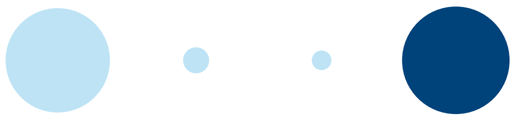
It is only natural that the typical starting point for investors seeking to allocate their capital is within their own domestic market – the issuing entities and the economic environment are familiar, and this can be reassuring. When it comes to fixed income, investors exhibit an especially strong propensity to orient their fixed income portfolios towards domestic securities, regardless of their country of domicile. In fact, around 70%[1] of the world's outstanding debt is held by the issuing regions' local populations. In order to determine whether or not such a domestic bias is suboptimal, we first need to define a realistic global opportunity set that would be relevant for the typical investor. Thus, for the purposes of this discussion, we have excluded debt obligations that are not sufficiently accessible or tradeable, focusing solely on public market benchmarks that are comprised of liquid securities.

We are able to create a sufficiently broad representation of the global fixed income landscape by using the underlying securities within conventional benchmarks, broken down according to three main issuer classifications: developed markets (DM), emerging markets (EM), and high yield (HY). As illustrated in Figure 1, these three segments represent a total market value of USD$59 trillion and exhibit very different characteristics. For example, the emerging markets segment has the greatest number of issuing countries (over 80), whereas the developed markets segment has the greatest number of individual securities (over 26,000) for investors to choose from. It is also noteworthy that the high yield market is primarily concentrated in shorter-term debt relative to the other classifications, and that both the high yield and emerging market segments are characterized by significant yield spreads over developed market bonds. This last observation is particularly relevant in light of the prevailing

[1]Data calculated using the International Monetary Fund's Coordinated Portfolio Investment Survey and the Bank of International Settlements' total debt securities statistics as at December 31, 2018.

low global interest rate environment, which has made it challenging for institutional investors to meet their long-term objectives. This yield differential likely explains why a growing number of investors have begun exploring the global bond market, mostly via small satellite allocations to emerging market and high yield bonds.

Figure 1: The global fixed income landscape[2]



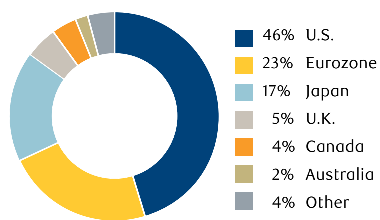
	Developed markets	Emerging markets	High yield	Total
Market size (USD trillion)	53.6	3.1	2.0	**58.7**
Number of issues	26,547	1,910	3,042	**31,499**
Number of issuers	2,474	526	1,446	**4,326**
Number of countries	22	81	73	**108**
Characteristics				
Average yield to maturity	1.3%	4.9%	5.7%	**1.6%**
Maturity (0-5 years)	42%	39%	47%	**42%**
Maturity (5-10 years)	32%	33%	46%	**32%**
Maturity (10+ years)	26%	28%	7%	**26%**

Increasing the yield of a fixed income portfolio is an important endeavor for investors, but achieving it in a way that takes into account optimal portfolio diversification is equally important. While institutional investors have begun looking to global markets primarily in the hunt for more yield, their home-country bias remains strong and what's more, the two segments that have received the most attention – emerging markets and high yield – only represent a combined 9% of the investable universe. With the remaining 91% of the fixed income landscape dominated by developed market securities (representing USD$54 trillion of investment grade sovereign and corporate bonds), maintaining a home-country bias could be particularly constraining, depending on the investor's domestic home base and their investment objectives. This constraint could result in a material source of unnecessary risk and/or overexposure to a narrow set of factors. Consequently, the remainder of this article will focus on the opportunities present in the developed market investment grade fixed income landscape.

The global developed market subset

Figure 2 depicts the breakdown by region of the DM investment grade fixed income landscape, as well as the broad yield and maturity profiles of the six largest components. This chart clearly illustrates the degree to which a Canadian investor is constrained if they limit themselves to their domestic market, and also shows the extent to which their fixed income allocation will be outsized relative to their country's market capitalization in the global landscape. This effect is particularly pronounced in Canada due to the small relative size of its market, but even in a region where the limitations are less extreme – a U.S. investor, for example, would access nearly half the market through domestic exposure alone – a meaningful opportunity set is being ignored. Thus, regardless of which region an investor calls home, the aggregate global landscape is always considerably larger and the potential overexposure to a single set of risk factors can be greatly reduced when going beyond a domestic market.

Figure 2: The global developed market fixed income landscape



	Maturity	Yield to maturity
U.S.	8.6	2.3%
Eurozone	8.6	0.3%
Japan	10.3	0.0%
U.K.	14.3	1.3%
Canada	10.4	2.3%
Australia	6.9	1.4%
DM	**9.2**	**1.3%**

Source: ICE Data Indices, LLC. ICE BofA ML Global Broad Market Index as at December 31, 2019 excluding emerging market issuers.

Figure 3 depicts the breakdown of the global DM investment grade fixed income market by sector and quality. Again, we see that there are significant differences between markets and that some are highly concentrated in certain sectors, potentially paving the way for unintended overexposures to certain risk factors. For example, a U.S. investor (A) who remains in domestic fixed income could potentially have

[2]Since many of the conventional market indices have overlaps and use different definitions in their construction, creating a pure representation of the landscape was achieved by applying a custom filter to the underlying securities of the following indices: ICE BofA ML Global Broad Market Index, ICE BofA ML Global High Yield Index, J.P. Morgan EMBIG Index, J.P. Morgan GBI-EM Global Index and J.P. Morgan CEMBI Broad Index. We note that both the DM and EM segments include sovereign and investment grade corporate bonds, while the high yield segment includes all sub-investment grade corporate bonds regardless of geography. For market characteristics of emerging markets, we used the diversified version of the indices to remove concentration bias created by the most heavily indebted countries. All supranational organizations are counted as a single country. Data as at December 31, 2019.

Figure 3: The global developed fixed income landscape by sector and quality

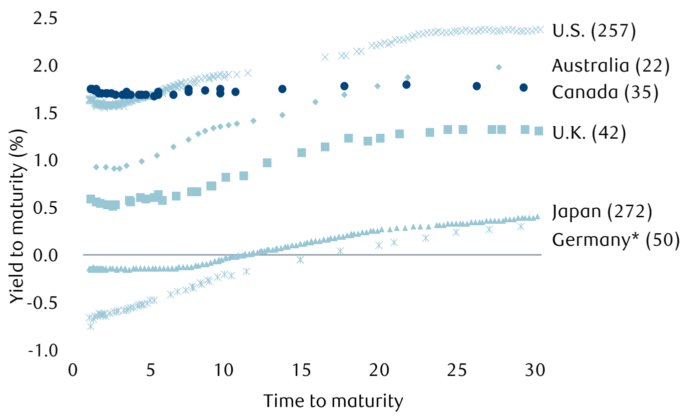
	U.S.	Eurozone	Japan	U.K.	Canada	Australia	DM
Sector							
Government	A 47%	73%	B 97%	63%	66%	66%	D **64%**
Corporate	53%	27%	3%	37%	34%	34%	**36%**
Sector - Corporates							
Covered	0%	24%	1%	6%	14%	18%	**6%**
Securitized	55%	0%	0%	8%	0%	0%	**38%**
Financial	11%	27%	59%	37%	C 34%	42%	**18%**
Industrial	30%	39%	31%	42%	44%	36%	**33%**
Utility	4%	10%	9%	6%	8%	5%	**5%**
Quality							
AAA	75%	23%	0%	3%	37%	59%	**44%**
AA	3%	31%	0%	64%	37%	23%	**15%**
A	10%	18%	99%	15%	12%	9%	**28%**
BBB	12%	27%	0%	19%	14%	9%	**14%**

Source: ICE Data Indices, LLC. ICE BofA ML Global Broad Market Index as at December 31, 2019 excluding emerging market issuers. Government includes “quasi-government” entities and Corporate includes securitized issues.

more exposure to corporate bonds than is ideal, potentially resulting in a riskier fixed income portfolio than desired. By contrast, a Japanese investor (B) who remains in domestic fixed income is essentially confined to very low yielding government bonds that likely provide insufficient return relative to investment objectives. In the case of a Canadian investor (C), remaining in the domestic credit market can restrict investment opportunities across industry sectors. While it is possible to compensate for these structural biases without venturing outside of the regional market, it is extremely difficult in some cases, and remains unnecessarily limiting in others.

Another important observation from Figure 3 is that the sovereign bond market (D) represents the majority of DM fixed income issuance by market value. Figure 4 expands on this segment of the market and shows the extent to which there are significant differences between the key issuing countries with respect to number of issues (indicated by the numbers in the chart), yield levels, coverage, and slope of the term structure, as well as how some domestic markets are more limited than others. For example, while a Canadian investor could only choose from 35 overall issues with very few extending past 10 years, the global opportunity set offers considerably more possibilities (1,033 total[3]) for creating a balanced exposure to interest rates. Furthermore, because the sovereign bonds comprising the global universe are not all driven by the same yield curve or central banking policy, broadening the exposure could also lead to less sensitivity to any one interest rate market, potentially resulting in additional diversification benefits (assuming no need to hedge any specific interest rate exposures).

Figure 4: Global developed sovereign bond universe



*One of the most influential economies in the Eurozone
Source: ICE Data Indices, LLC.

The divergence between the various regions represented in Figure 4 is the result of a number of different factors at play across those regions. For example, North American interest rates are notably higher than those of other major world

[3]Total based on constituents of the ICE BofA ML Global Government Index as at December 31, 2019.

economies, including Europe and Japan. This is primarily the result of different economic circumstances and the associated central bank policies and activities: an expanding U.S. economy led the U.S. Federal Reserve to raise interest rates until recently, while a decelerating European economy has resulted in the European Central Bank (ECB) cutting rates in an effort to stimulate growth. Structural differences between the various regions, such as demographics, are another source of divergence. For example, a growing working population in North America has helped fuel better economic growth in both Canada and the U.S., whereas an aging population in Europe and Japan has translated into lower growth, higher savings, and declining rates of investment. While these various differences have resulted in both positive and negative medium-term outcomes depending on the region, the fact remains that a domestic bias limits an investor to a single set of risk factors that can turn out to be less than ideal, especially over a longer-term period.

Potential implications of a global fixed income view

A persistently low interest rate environment has led many investors into the global terrain as they seek out higher yielding strategies. Typically, this has resulted in the introduction of small allocations to specific strategies such as high yield bonds and emerging market debt. However, despite the existence of an extensive and readily available global opportunity set, the dominant exposure and the perspective typically adopted when building a fixed income portfolio – whether knowingly or unknowingly – remains focused on the domestic home base. In defining the global fixed income landscape and examining the diversity of the opportunity set, we believe there are some potentially material benefits that are foregone by investors who do not consider the entire landscape and continue to maintain strong home-country biases, notably:

- Access to USD$59 trillion of market value across 100+ countries and more than 30,000 issues & 4,000 issuers[4]
- Ability to augment yield and access different term structures
- Ability to reduce local market-specific biases, concentrations, or risks
- Ability to gain exposure to different economic, fiscal, inflationary, and demographic environments

While these are all compelling factors, the underlying question is whether these benefits actually translate into superior performance and/or risk metrics. In the next installments of our ***Investing in Global Bonds*** series, we will investigate the historical risk and return profiles of the different components comprising the global fixed income landscape – including DM sovereign, DM corporate, emerging market and high yield debt – beginning with the largest and arguably most underutilized segment of the global fixed income landscape: developed market sovereign bonds.

[4]Source: ICE Data Indices, LLC. December 31, 2019.

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