

Global Fixed Income

Sustainable Investment Practice Guidelines

Background

This document is meant to articulate Global Fixed Income (GFI) expectations for how Environmental, Social and Governance (ESG) factors are incorporated into investment processes.

Global Fixed Income ESG Beliefs:

GFI, as an asset class, serves to be a diversifier to CalPERS equity risk and to be a reliable source of income. Consistent with CalPERS investment beliefs, GFI invests for the long-term. GFI staff seek to identify exposures where we have a strong belief we will be rewarded for the risk taken. GFI believes that attention to ESG factors is important in the assessment and management of risk relative to return.

GFI takes an all-inclusive view of risk and considers a range of risks that are continually evolving and that go beyond ESG's application to a sole industry or company. As examples, GFI takes an active role engaging in regulatory and industry dialogue on many different reform efforts, (including rating agency reform, the Dodd Frank Act, Libor benchmarks, mortgage fraud, Corporate Bond market tender process, and discussions with the U.S. Treasury Department on reviving the Private Label Security mortgage market), that broadly affect CalPERS and the integrity of financial markets. Our Portfolio Managers have met with congressmen and regulators and written white papers and comment letters, independently and with industry groups, on these matters.

ESG Factors

At the portfolio level, our approach to investing seeks to identify ESG risks that are material. An ESG risk is material within the context of a portfolio strategy if it impacts a portfolio's risk and return. The GFI index has 63% of its exposure in US Government and US Government Sponsored Entities. As such, our US Government Portfolio Managers continually monitor regulation and policy emanating from Washington. At the Sovereign and Corporate level, our fundamental credit analysis process focuses on identifying those risks, as expressed in quantitative or qualitative factors, from an economic, financial, and operational perspective.

In many industries, material ESG risk factors can easily be overlooked if analysis is solely focused on financial factors. Thus, CalPERS Credit Analysts evaluate how corporate management teams address ESG related risks along with other risks in their quarterly and annual SEC filed financial statements, offering documents related to new securities issued, and other investor materials. We use the management team's transparency in reporting and their responsiveness to material ESG factors as a means to assess a company's risk, and include this assessment in discussion with Portfolio Managers.

GFI follows regulatory developments and a management team's responses because of the potential impact on the company's bottom line, fundamental financial profile, operating risks and industry outlook. We believe that these risks are multi-faceted and can vary across and within industries over time.

GFI currently utilizes MSCI's ESG pillars and the PRI Reporting Framework definition of Corporate- Focused ESG risks as sources for identifying potential relevant ESG risks (Appendix, Item A & B). Although GFI recognizes there is not one single source that provides an inclusive list of ESG risks, and thus relies on GFI's analysts to identify industry specific material ESG risks. Once material ESG risks are identified, the Portfolio Manager and Credit Analysts assess whether that risk is adequately priced into the particular securities.

Investment Practices

A. Selection

1. Corporate Credit

GFI's Corporate Investment Grade portfolio is measured against the Barclays Long Liability Index. The Barclays Long Liability Index, by virtue of being dollar denominated and investment grade, is dominated by US and European companies that are subject to robust environmental protections by regulators. Some examples of the industries where ESG factors can affect the performance and risk profile of fixed income investments include: utilities, energy, manufacturing, mining, insurance.

GFI's Corporate Investment Grade portfolio is managed according to CalPERS Statement of Investment Policy, which requires investment grade credit ratings by at least one of the major credit rating agencies. As such, companies in our portfolio are subjected to an ESG analysis of material risks by the rating agencies, in addition to the analysis conducted by CalPERS internal Credit Analyst staff.

Our Credit Analysts assess the extent to which risks, including ESG factors, are satisfactorily addressed and whether the compensation in terms of yield and credit spreads are sufficient to compensate for the risk.

2. Sovereign Credit Analysis and Qualitative Factors

The GFI sovereign team, which invests in the debt of sovereign nations, conducts credit analysis through a process that evaluates both quantitative and qualitative factors. The quantitative factors include economic indicators to assess the country's ability to payback and service its debt. Qualitative analyses are used to assess the country's willingness—of equal importance to a country's ability—to meet creditor obligations. Willingness to repay debt is measured by a wide range of factors, including: policy continuity, governance, voice and accountability, freedom of press, labor rights, rule of law, judicial system effectiveness and efficiency, women's rights, GINI indicator, corruption indicator, ease of doing business, freedom of association, human rights, human development index, freedom of religion, etc.

GFI's sovereign credit team draws on qualitative indicators found in Appendix, Item C.

In the same manner as in our credit portfolios, GFI Sovereign Portfolio Managers and research staff consider the macro and relevant micro-economic factors including, but not limited to, ESG factors and their impact on a country's financial capacity to pay its debt obligations.

B. Monitoring and Management

1. Corporate Credit

As part of the ongoing surveillance of ESG risk factors, staff completes a quantitative and qualitative assessment of the Corporate Investment Grade portfolio vs the Barclays Long Liability Index on a quarterly basis using MSCI's database of ESG factor risks. This process seeks to identify those issuers in the portfolio displaying higher ESG factor risks than the industry group and which CalPERS portfolio is overweight vs the index. Once a high risk issuer is identified, the assigned industry specialist credit analyst on the team will conduct research and diligence

to understand/assess the risk, identify whether it's a known or unknown risk, determine whether it's a material financial risk, assess if management is seeking to reduce or mitigate the risk and whether the market is pricing in the risk. The credit analyst reports back his finding to the portfolio management team at the regularly scheduled quarterly industry review meeting.

2. Sovereign Credit

Likewise, the Sovereign investment team regularly conducts surveillance and updates of those quantitative and qualitative factors that affect risk and pricing of for all of its investments. Their surveillance process includes assessing changes in the ESG related quantitative factors highlighted in the investment selection process.

Conclusion

GFI's primary performance objective is to exceed the returns of the Global Benchmark Index while maintaining a high level of diversification. GFI's investment process seeks to identify opportunities across bond market sectors and invest where risks are understood and manageable. Credit risk is controlled by requiring minimum credit quality and investment grade ratings for our domestic, corporate bond portfolio. The policies of GFI are consistent with the overall objective of CalPERS, accomplished through a carefully planned and executed long-term investment program. As long-term investors, GFI naturally assesses the importance of ESG factors in the context of the risk reward when making portfolio decisions.

Appendix

Item A — MSCI ESG Research — ESG Pillars

ESG (IVA) Rating									
Environment Pillar				Social Pillar				Government Pillar	
Climate Change	Natural Capital	Pollution & Waste	Env. Opportunities	Human Capital	Product Liability	Stakeholder Opposition	Social Opportunities	Corporate Governance	Corporate Behavior
Carbon Emissions	Water Stress	Toxic Emissions & Waste	Opportunities in Clean Tech	Labor Management	Product Safety & Quality	Controversial Sourcing	Access to Communication	Board	Business Ethics
Energy Efficiency	Biodiversity & Land Use	Packaging Material & Waste	Opportunities in Green Building	Health & Safety	Chemical Safety		Access to Finance	Pay	Anti-Competitive Practices
Product Carbon Footprint	Raw Material Sourcing	Electronic Waste	Opportunities in Renewable Energy	Human Capital Development	Financial Product Safety		Access to Health Care	Ownership	Corruption & Instability
Financing Environmental Impact				Supply Chain Labor Standards	Privacy & Data Security		Opportunities in Nutrition & Health	Accounting	Financial System Instability
Climate Change Vulnerability					Responsible Investment				
					Insuring Health & Demographic Risk				

Source: MSCI ESG Ratings Methodology | May 2015

Item B — PRI Reporting Framework 2013
Main definitions, Corporate-Focused ESG
Example Issues

Environmental (E)—Issues relating to the quality and functioning of the natural environment and natural systems. These include: biodiversity loss; greenhouse gas (GHG) emissions, climate change, renewable energy, energy efficiency, air, water or resource depletion or pollution; waste management; stratospheric ozone depletion; changes in land use; ocean acidification and changes to the nitrogen and phosphorus cycles.

Social (S)—Issues relating to the rights, well-being and interests of people and communities. These include: human rights, labor standards in the supply chain, child, slave and bonded labor, workplace health and safety, freedom of association and freedom of expression, human capital management and employee relations; diversity; relations with local communities, activities in conflict zones, health and access to medicine, HIV/AIDS, consumer protection; and controversial weapons.

Governance (G)—Issues relating to the governance of companies and other investee entities. In the listed equity context these include: board structure, size, diversity, skills and independence; executive pay; shareholder rights; stakeholder interaction; disclosure of information; business ethics; bribery and corruption; internal controls and risk management; and, in general, issues dealing with the relationship between a company’s management, its board, its shareholders and its other stakeholders. This category may also include matters of business strategy, encompassing both the implications of business strategy for environmental and social issues, and how the strategy is to be implemented.

Item C — CalPERS Global Fixed Income
Qualitative Indicators

Source	Factor
Transparency International	Corruption Perception Index
	Control of Corruption
	Open Budget Index
IMD World Competitiveness Report	Global Competitiveness Index
United Nations	Human Development Index
World Bank	GINI Coefficient
	Voice and Accountability Index
World Justice Project	Rule of Law Index
Heritage Foundation	International Property Rights Index (IPRI)
	Regulatory Efficiency
	Open Markets
Freedom House	Freedom of Press
International Labor Organization	Labor Rights
Human Rights Watch	Freedom of Association
	Womens Rights
	Freedom of Religion
International Finance Corp.	Ease of Doing Business