FOR INFORMATION ONLY

April 16, 2020

TO: Trustees – Board of Investments

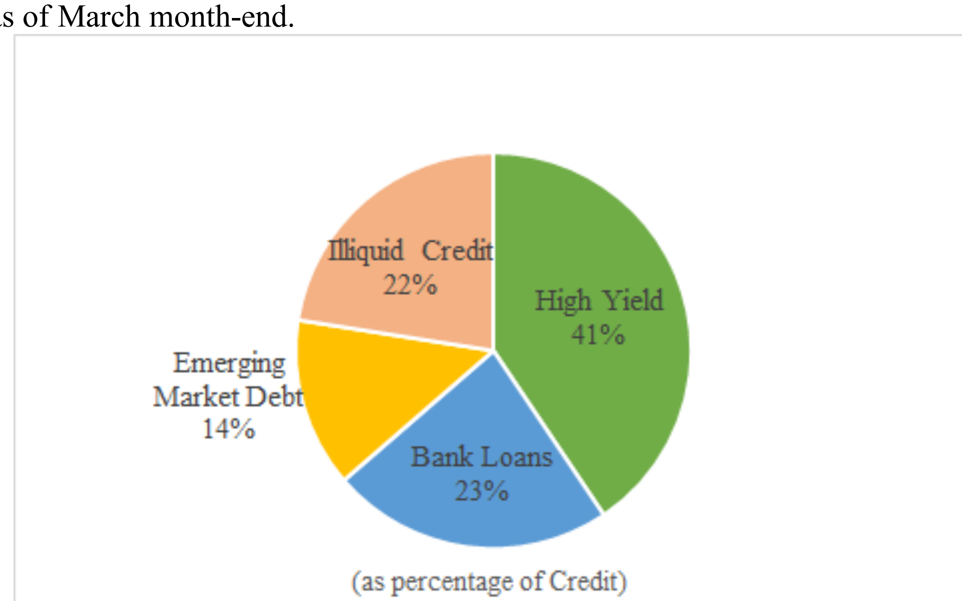
FROM: Jonathan Grabel
Chief Investment Officer

SUBJECT: **Functional Asset Category Update – Credit Investments**

The Investment Division is providing periodic updates on each of the functional asset categories. Below is the update on the Credit asset category.

The role of Credit within LACERA's Total Fund is to produce income and moderate long-term return. This category consists mainly of credit-related instruments (bonds and loans) rated below investment grade. In exchange for their lower credit quality these instruments offer a substantial yield enhancement ("yield spread") over government bonds. This category bears low to moderate interest rate risk; instead, the primary risk is getting repaid on a timely basis for lending money. In addition to the risk of default or downgrade in credit quality, bonds rated below investment grade have greater yield spread volatility ("spread risk") and are less liquid than investment grade bonds. Credit spreads can fluctuate in times of market stress due to general risk aversion, even when there are no changes to a specific issuer's ability to pay its debt. Another type of risk investors demand compensation for is complexity, which is present in securitized and structured instruments. Credit also has a fairly high correlation to equities so it tends to perform poorly in periods of risk aversion when equities also decline. This correlation was taken into consideration in LACERA's most recent strategic asset allocation, as reflected in the 0.65 correlation assumed between Credit and Growth.

LACERA's Credit category consists of four segments: high yield, bank loans, emerging market debt ("EMD"), and illiquid credit. The following pie chart shows the composition of the Credit category as of March month-end.



At the end of the first calendar quarter, Credit comprised 9.3% of the Total Fund. This is below the 12% target allocation, but within the policy range of 9% to 15%. As discussed further below, the recent selloff has materially increased the yields offered by credit instruments to historically attractive levels (that are above LACERA's actuarial return target of 7%). Therefore, staff is in active dialogue with several investment managers and prudently exploring opportunities to deploy capital in a manner consistent with our structure review and allocation targets.

Overview

The extraordinary stay-at-home mandates instituted to slow the spread of COVID-19 have led to a dramatic decline in global economic growth. As a result of the slowdown in economic activity, corporate revenues declined substantially, while costs were static. The ensuing declines in profits and cash flow meant that corporate borrowers were less able to service their existing debt. This decline in economic activity led to spikes in unemployment, calling into question the ability of individuals, in the near term, to pay for food and healthcare, let alone pay their mortgages, credit cards, or car payments. As a result, cash flows into securitized structures backed by real estate loans, credit card payments, and automobile loans became more uncertain.

At the same time the decline in economic activity reduced demand for commodities. This was compounded by the oil price war between Russia and Saudi Arabia, which caused a decline in oil prices of over 60%. Since many emerging market economies depend on commodity sales for export revenues, their balance of payments plummeted.

The combined impact of these developments was an increase in the risk that borrowers—corporations, consumers, and issuers of EMD—would be unable to repay their obligations on time. As a result of the increased aversion to risk, and the desire for liquidity, prices for high yield bonds, bank loans, and emerging market bonds declined with unprecedented speed. The following table shows the returns for the three main indices in liquid Credit.

Index	First Quarter Returns
High Yield	-12.7%
Bank Loans	-13.2%
Emerging Market Debt	-13.0%

As shown above, all three indices were down approximately 13% in the first quarter of this year. The fourth segment, illiquid credit, contains strategies whose performance is reported with a three-month lag, so their performance still shows a positive return for the quarter. Putting all the pieces together, the preliminary estimate for the return of the Credit composite in the first quarter was -10.1%, underperforming its combined benchmark return of -8.7% by 1.4%.

In response to the economic emergency, central banks and governments around the world took unprecedented actions to support their economies and their financial markets. In the U.S. the Federal Reserve instituted multiple programs to inject liquidity and to support bond markets including, for the first time, high yield bonds. As a result, there has been a remarkable rebound in bond prices thus far in April. As of April 13, bonds with credit risk have rallied materially, as shown in the following table.

Index	Month-to-Date Returns as of April 13
High Yield	+4.8%
Bank Loans	+3.9%
Emerging Market Debt	+1.8%

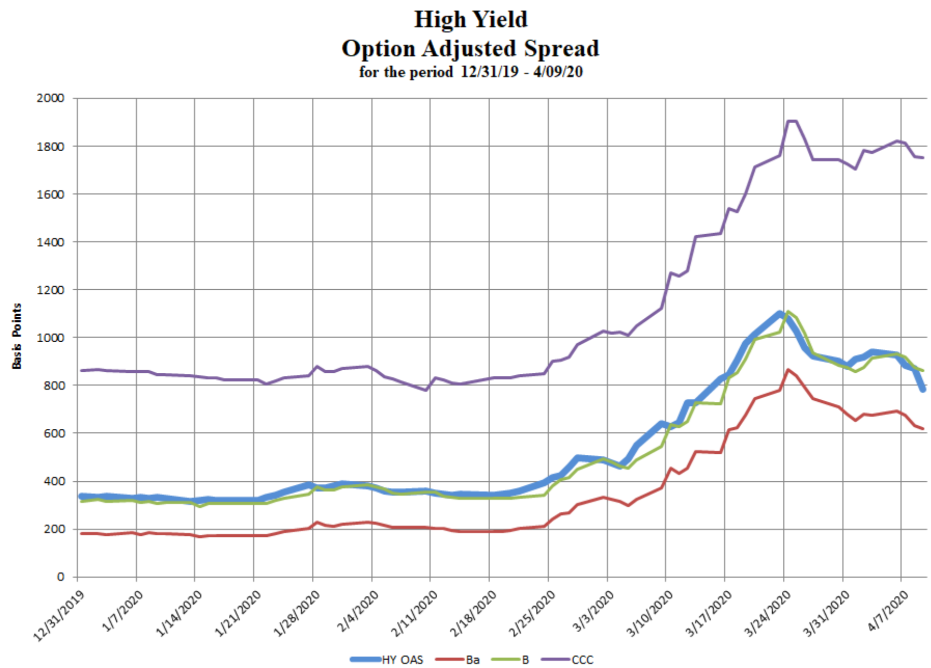
It is clear that global GDP will decline, and that the U.S. economy will likely experience a sharp recession, though no one knows the magnitude or duration of the decline: will it be quick ("V" shaped), moderate in length ("U shaped), or extended ("L" shaped). Regardless, the uncertain environment will create opportunities for astute Credit investors who possess the ability to conduct robust fundamental analysis and navigate the technical headwinds.

The following sections provide additional detail on each of the four components within Credit.

<u>High Yield Bonds</u>

The benchmark for the high yield component is the Bloomberg Barclays High Yield Bond index. This index consists of all U.S. dollar-denominated corporate bonds rated below investment grade with a maturity greater than one year.

In April, the Federal Reserve continued to support financial markets by expanding its bond buying program to include "fallen angels" (investment grade credits downgraded to high yield) as well as high yield ETFs. The market jumped on the news as high yield bonds posted a record move. Higher rated or "Ba" bonds led the move as the Fed stepped in to backstop investment grade credits falling into high yield. Ba rated bonds returned -9.3% in March and snapped back roughly 6.3% in the first couple weeks of April (4/13/2020).



The high yield market returned -11.5% in March before gaining 4.7% through April 13. Industries hardest hit by the pandemic, such as energy (-33.1%), retailers (-15.9%), hotels (-16.1%), and airlines (-14.6%), saw steep declines in March. In April these industries rebounded, but to varying degrees. News of an OPEC deal to cut production was positive for the energy sector which makes up roughly 10% of the high yield market. Energy gained 18.5% in April (4/13/2020), followed by hotels (+4.0%), retailers (+2.9%), and airlines (+0.4%).

As shown in the table below, the average yield of the high yield index increased from just under 6% at the start of the year, to over 8% as of April 13. As a result, the high yield index price return for the year-to-date return is -8.5%. However, performance has improved in April, recouping some of the March losses, as the month-to-date return is 4.7%.

	12/31/2019		**4/13/2020**	
	Yield	**Yield Spread**	**Yield**	**Yield Spread**
High Yield Credit	6.0%	3.4%	8.2%	7.5%

Bank Loans

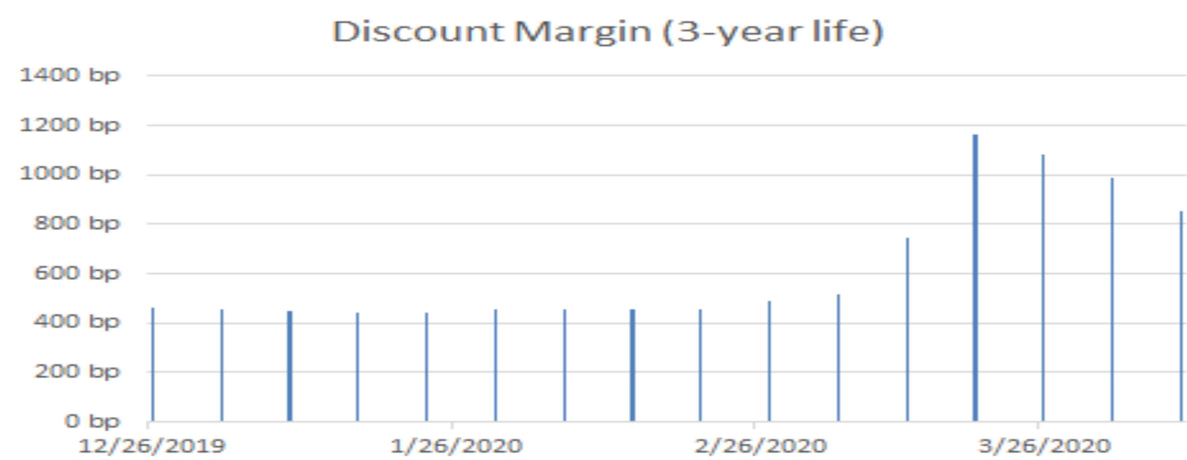
The benchmark for the bank loan component is the Credit Suisse Leveraged Loan index. This index tracks the investable market of the U.S. dollar-denominated leveraged loan market. It consists of issues rated "5B" or lower, meaning that the highest rated issues in the index are Moody's/S&P ratings of Baa1/BB+ or Ba1/BBB+. All loans are funded term loans with a tenor of at least one year and are made by issuers domiciled in developed countries.

Leveraged loans, often referred to as bank loans, suffered a turbulent month of March returning -12.5% as reported by the Credit Suisse Leveraged Loan index. This marked the Index's second worst month in history, the worst of which was during the Financial Crisis in 2008. The dual black swan events - COVID and oil - wreaked havoc on all sectors within the leveraged loan market beginning in early March. Sectors most impacted by COVID-19 performed the worst as energy, consumer non-durables, and retail returned -32.4%, -18.2%, and -17.8% respectively. Food and drug, forest products/containers, and financial sectors, performed the best, returning -3.2%, -9.3%, and -9.4%, respectively. The following table displays returns for different periods, showing the improved performance in April, in response to the Federal Reserve's support of the U.S. economy.

Performance as of April 14, 2020			
	Month-to-Date	**March**	**First Quarter**
CS LL Index	4.4%	-12.5%	-13.2%

Even though the first quarter results were negative, 5B rated issues performed the best, returning -5.6% in March. Performance progressively worsened going lower in credit quality, as BB, B, and CCC rated issues returned -8.9%, -13.5%, and -20.9%, respectively. Since that time through April 9, performance has turned positive along the entire credit quality stack.

Bank loans as a whole have moved into positive territory since quarter-end, up 8 of the last 9 trading days through April 13, with the average price of the leveraged loan index up 3.3% at 86 and the discount margin[1] (based on 3-year life) tightening 151 bps .



LACERA's newest bank loan manager was partially funded in mid-March. Currently the account has $325 million through mid-April and has been opportunistically deploying capital during these volatile times.

Emerging Markets Debt

The benchmark for the emerging market component of LACERA's Credit allocation is a combination of three J.P. Morgan emerging market bond indices: one for dollar-denominated government bonds, one for dollar-denominated corporate bonds, and one for sovereign bonds

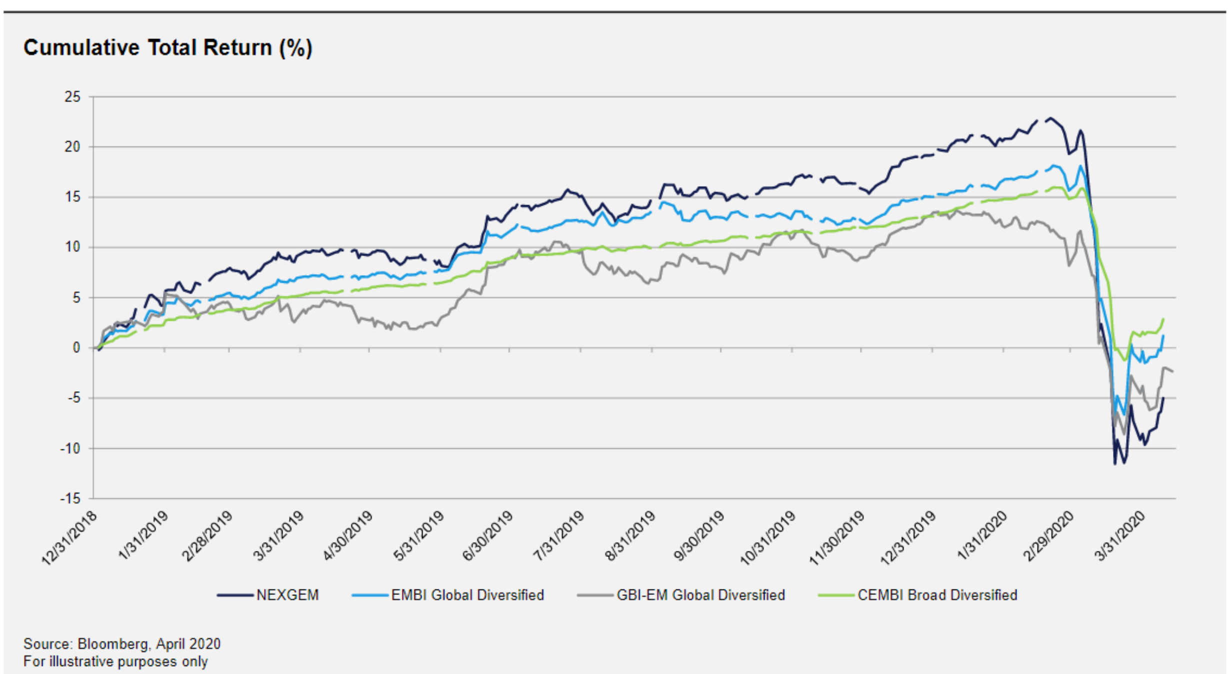
[1] The discount margin is the spread above the reference rate (typically LIBOR) in a floating rate instrument,

issued in local currency terms. The following chart shows the 50%/25%/25% mix of the indices, as well as their returns in the first quarter.

Index	Weight	Description	First Quarter Return
J.P. Morgan EMBI-GD	50%	Dollar-denominated sovereigns	-13.4%
J.P. Morgan CEMBI-BD	25%	Dollar-denominated corporates	-10.2%
J.P. Morgan GBI-EM	25%	Local currency sovereigns	-15.2%
LACERA Benchmark	100%		-13.0%

As the table shows, the broad EMD indices were down 10% to 15%, with LACERA's benchmark down 13%. Returns varied considerably between regions as Africa was down the most (20% to 25%, depending on sector), Latin America and the Middle East were in the middle (down 10% to 15%), while Asia and Europe suffered the least (down 5% to 10%). Investment grade issuers performed much better as a group (down 5% to 6%) than issuers rated below investment grade (down 16% to 22%). The local currency index (GBI-EM) had a more modest loss of 1% in local currency terms; the rest of the -15.2% first quarter return is attributable to currency declines versus the strengthening U.S. dollar.

As with the other components of Credit, emerging market debt has rebounded in April, though to a lesser extent than U.S. high yield bonds and bank loans. As of April 13, LACERA's EMD composite is up 1.8% month-to-date. This has been the fastest and sharpest correction in emerging markets over the past decade.



Due to the risk-off sentiment, EMD has seen the worst monthly outflows (-$38 billion) on record in March 2020. In addition, the price decline due to the oil dispute added further downward pressure on commodity exporting countries within emerging markets. As a result, central banks globally, as well as the World Bank and the IMF, have implemented various fiscal and/or monetary stimulus programs to combat the market downturn.

Illiquid Credit

The dislocations in the credit market are even more pronounced in the illiquid component. While this market is expansive, the following subcategories provides a useful overview of recent market conditions:

- In the event-driven/distressed credit space, the most negatively impacted sectors are hotels and restaurants, non-food retail, energy and commodities, airlines, cruises, and travel;
- In the structured credit space, the market as a whole seems to be under material stress and the extent of the deterioration will depend on the extent of the downturn;
- Private lending is expected to be severely impacted as many small- to mid-size businesses struggle to stay afloat during business shutdown due to the coronavirus pandemic;
- The real estate market is expected to experience negative impact on cash flows over the short-term and property value over the medium-term, though apartments have demonstrated the ability to be a defensive property type in previous recessions. Additionally, lender and investor hesitance due to lack of pricing and liquidity visibility in the current environment has impaired borrowers' ability to pay off loans by traditional means (i.e., sale or refinance).

As a reminder, the illiquid credit portfolio seeks to profit from idiosyncratic yields generated by less liquid assets, including asset-backed credit, real estate debt, and corporate and consumer credits. As such, asset pricing may be lagged due to lack of transparency or transactions. The combination of lagged valuation and reporting conventions for this portfolio make estimating performance challenging. Staff expects the illiquid portfolio to return 1.4%[2] quarter-to-date, primarily benefiting from avoiding all but modest exposures to energy-related credits or distressed investments, which have underperformed significantly in the recent drawdown. The portfolio underperformed its benchmark (-2.9% in the first quarter). However, staff expects the portfolio to outperform in the long term as a recently approved manager has been drawing capital commitments to capitalize on investment opportunities at attractive prices during this drawdown.

As of March-end, the illiquid credit portfolio totals $1.1 billion, which is below the target allocation by approximately $500 million. The portfolio is expected to receive approximately $200 million in cash distributions over the next 24 months as the hedge fund-of-funds program continues to wind down. Given recent market dislocations, managers are finding attractive relative values in various sleeves of the asset class. This may be an opportune time to deploy additional capital to reach the target allocation. Staff is conducting late-stage due diligence on several illiquid credit managers that would complement the existing portfolio and be well-positioned to generate long-term attractive returns for the Fund. Diligence is ongoing and staff will seek Board approval if recommendations are warranted.

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[2] Preliminarily and unaudited number; final performance for the quarter may be different.

<u>Ongoing Diligence</u>

Illiquidity and fear in the credit markets have historically created opportunities for long-term investors. The higher yield in below investment-grade credit means that yields are now at more attractive levels. Given the current environment, maintaining the course charted during the credit structure review is prudent. Staff continues to monitor existing investments and evaluate new and complementary strategies that move Credit toward its target allocation.

Next week there will be an update on LACERA's Corporate Governance initiatives.