AGENDA ITEM DETAILS

Subject: Review of Investment Performance for the 3rd Quarter of 2021 and Risk Update

Summary of ERS Performance

ERS returned 2.7% across all asset classes during the 3rd quarter, outperforming the policy benchmark by 1.3% (refer to Table 1) and ranking in the 2nd percentile in the Investment Metrics Public DB greater than $1 Billion Net of Fees Universe. On a relative basis, all of the Fund's major asset classes either contributed to outperforming the policy benchmark, or met benchmark performance. The largest contributors to outperformance were Private Equity (contributing +0.9%), Private Real Estate (contributing +0.2%) and Global Equity (contributing +0.1%). Positioning within asset classes also contributed positively to outperforming the policy benchmark, led by an overweight position to Private Equity.

Over the quarter, the ERS fund benefitted from a risk-on market environment and saw its market value rise from $33.9 billion to $34.9 billion. These gains were attributable to investment returns and receipt of the legacy payment related to SB 321.

In the three–year period ended September 30, 2021 (refer to Table 1), Fund returns of 11.0% outperformed the benchmark by 1.9% and ranked in the 25th percentile among its peers. On a risk-adjusted basis (refer to Table 2), the Sharpe Ratio and Sortino Ratio for Fund investments outperformed benchmarks indicating active investment management benefited the Plan. The Sharpe ratio of the fund ranked in the 13th percentile, and the Sortino ratio ranked in the 16th percentile. Private Equity, Real Estate and Absolute Return asset classes drove excess returns during this period. Public Equity performance detracted from excess returns.

In the five-year period ended September 30, 2021 (refer to Table 1), Fund returns of 10.8% outperformed the policy benchmark by 1.6% and the 7% assumed actuarial rate of return by 3.8%. Fund performance ranked in the 21st percentile among its peers. Referring to Table 2, active investment management benefitted the Fund as risk-adjusted returns outperformed the benchmark. Private Equity, Private Real Estate and Absolute Return contributed to positive excess returns while Public Equity underperformed during this period.

Table 1: Performance Summary ended September 30, 2021

	Market Value	Fiscal YTD	Rank	3 Mo	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
Total Fund	**$33,902,876,972**	**-0.9%**	**16**	**2.7%**	**2**	**25.8%**	**6**	**11.0%**	**25**	**10.8%**	**21**	**9.8%**	**42**
Total Fund Policy Index		*-1.7%*	*42*	*1.4%*	*18*	*18.1%*	*95*	*9.1%*	*80*	*9.2%*	*77*	*9.0%*	*68*
Long Term Public Index		*-3.4%*	*99*	*-0.8%*	*98*	*21.6%*	*47*	*11.2%*	*18*	*11.0%*	*14*	*10.1%*	*29*
InvMetrics Public DB > $1B Net Median		-1.8%		0.2%		21.2%		10.1%		9.9%		9.6%	

Table 2: Risk, Return and Risk-Adjusted Returns Summary

3 Years Ending September 30, 2021	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Total Fund	**10.96%**	**25**	**8.66%**	**16**	**1.15**	**13**	**1.34**	**16**
Total Fund Policy Index	9.10%	80	9.12%	22	0.88	39	1.12	29
InvMetrics Public DB > $1B Net Median	**10.07%**		**10.77%**		**0.81**		**0.94**	

5 Years Ending September 30, 2021	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Total Fund	**10.79%**	**21**	**6.99%**	**16**	**1.39**	**8**	**1.48**	**9**
Total Fund Policy Index	9.16%	77	7.46%	22	1.08	38	1.22	24
InvMetrics Public DB > $1B Net Median	**9.86%**		**8.75%**		**0.98**		**1.03**	

Asset class exposures are within the target ranges outlined in the Investment Policy Statement (refer to Table 3).

Table 3: Asset Allocation Compliance

Asset Allocation on September 30, 2021		Current	Current	Long-Term Target	Long-Term Target Range
Public Equity	$	13,564,096,040	38.8%	37.0%	27.0% - 47.0%
Total Rates	$	3,592,126,068	10.3%	11.0%	--
Global Credit	$	3,410,702,031	9.8%	13.0%	1.0% - 21.0%
Private Equity	$	6,198,135,994	17.7%	13.0%	8.0% - 18.0%
Absolute Return	$	1,489,645,750	4.3%	5.0%	0.0% - 10.0%
Real Estate - Private	$	3,025,075,579	8.7%	9.0%	4.0% - 14.0%
Real Estate - Public	$	1,269,049,694	3.6%	3.0%	0.0% - 13.0%
Infrastructure	$	1,454,441,995	4.2%	7.0%	2.0% - 12.0%
Cash	$	735,850,016	2.1%	1.0%	--
Special Situations	$	196,179,102	0.6%	1.0%	0.0% - 5.0%
Global Futures	$	12,984,492	0.0%	--	--
Total	**$**	**34,948,286,762**	**100%**	**100.0%**	

Capital Market Environment

Global Equities

Global equities turned in mixed performance for the three months ended September 30, rounding out the quarter with a streak of volatility as inflationary pressures fueled concerns around economic growth and tapering of monetary stimulus. U.S. equities were modestly positive in the quarter with the S&P 500 Index up 0.6%. International developed markets posted a moderate loss of 0.4%. Chinese stocks declined 18.2%, pulling down emerging markets 8.1%, as investors grew concerned over increasing regulatory risk and contagion from a potential default by struggling Chinese real estate conglomerate Evergrande. U.S. small-cap stocks lagged large-cap equities, while international and emerging market small caps outperformed large-cap equities. The diverging performance between value and growth stocks narrowed in the third quarter, with U.S. large-cap growth equities modestly outperforming large-cap value, while the reverse was true for U.S. small-cap equities. Financial, utility, communication services, healthcare and technology sectors led the market, while industrial, material, energy and consumer sectors lagged.

Global private equity fundraising totaled $118 billion in the third quarter, according to Preqin, significantly down from the prior quarter's record high of $299.6 billion. However, $646.2 billion in total fundraising so far this year is on track to surpass the $699 billion raised in 2020. U.S. buyout deal activity was a robust $297.5 billion during the quarter, according to PitchBook data, bringing the year-to-date total to a record $787.6 billion. U.S. buyout exit activity hit a new quarterly high of $283.7 billion. Exit activity in 2021, at its current pace, could more than double the previous record of $412.6 billion set in 2018, on its current pace. In another quarterly high, deal activity in venture capital totaled $82.8 billion for the three months ended September 30, fueled mostly by large late-stage deals of $50 million or more. During the same period, exit activity of $187.2 billion remained strong, according to PitchBook.

Global Fixed Income

Fixed-income markets ended the quarter mostly flat despite an uptick in volatility. Initially, yields on the 10-year Treasury note dipped on concerns around economic growth prospects and the COVID-19 Delta variant, but then moved back up to 1.5% as the Federal Reserve stayed the course on future tapering plans. In corporate credit, shorter-duration securities and high-yield debt outperformed Treasuries, while longer-dated corporate credit lagged.

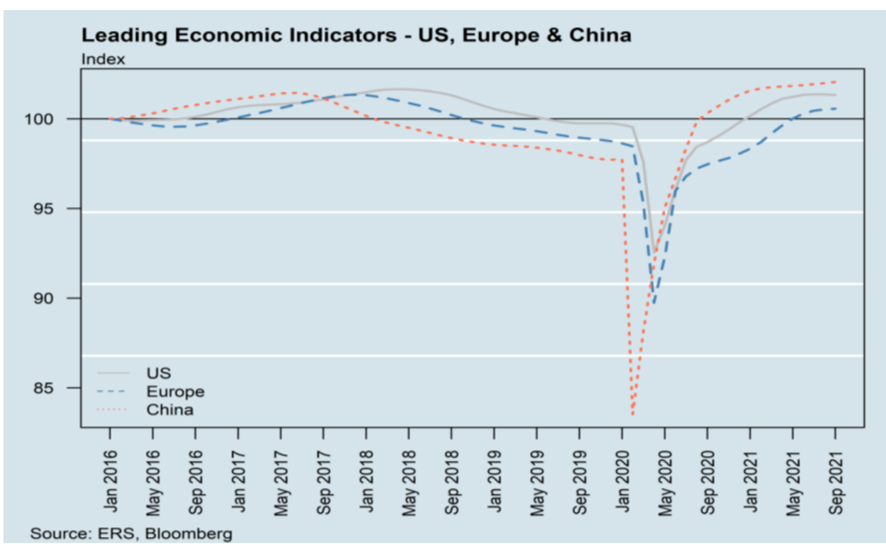
Real Assets

Real asset returns varied in the third quarter as volatility increased. During this period, real estate investment trusts (REITs) were up 1%, while energy equities gained 5%. Oil prices remained above $70 per barrel, with West Texas Intermediate (WTI) prices rising over 2% to approximately $75 per barrel. Natural gas increased 61% quarter-over quarter to $5.87 per MMBtu (MMBtu is the global standard unit for natural gas production measurement). Energy equities benefitted from the constructive commodity price environment as oil producing countries agreed to boost output until at least April 2022.

Private core real estate posted a record high quarterly gross return of 6.59% for the third quarter, according to the NCREIF ODCE Index, bringing year-to-date returns to 13.12%. Accelerating rent growth in industrial and multifamily assets largely drove this performance. Infrastructure indexes gained 0.8% during the quarter. While cash flows in the sector have proven to be largely resilient, the asset class performance trails public real estate and energy. Within private markets, data centers and renewable energy continue to generate significant demand from institutional investors.

Growth Rebound Begins To Slow

Policies enacted globally in early 2020 intended to stimulate the economy led to a vigorous economic recovery around the globe over the subsequent year. The exhibit below shows a quick V-shaped recovery, reinforced when COVID-19 vaccines received approval in late 2020.

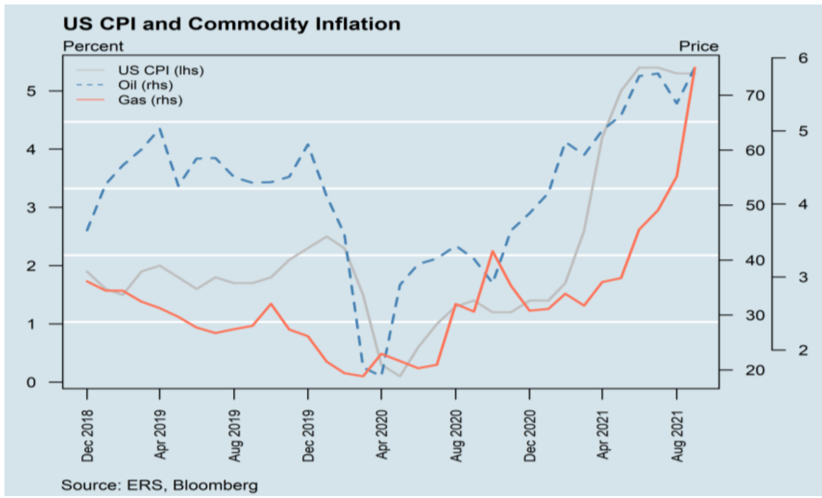


By mid-2021, industry discussions began about the sustainability of recent economic growth trends. These discussions took place in the midst of an uneven economic recovery with disrupted supply chains, including shortages of electronic components, raw materials, and labor.

Concerns about the risk of a slowdown have increased as leading economic indicators have leveled off recently and begun to decline in some cases. For example, the Purchasing Managers Index (PMI), a key forecast measure for economic activity, has begun to fall in the world's two largest economies. PMIs have fallen from a high of 64 in the US a year ago to 61 currently, and in China from 55 a year ago to 49 currently.

High and Persistent Inflation

The Federal Reserve Bank (Fed) has consistently communicated an expectation that current higher than normal levels of inflation will be transitory. The Fed also noted that it expects US inflation to average 2.5% per annum over the long term. However, commodity prices such as oil and gas rose to their highest level of the year during the 3rd quarter, pushing up the US inflation rate. By the end of the quarter, annualized US inflation was 5%, a far higher level than market expectations and the Fed projections.

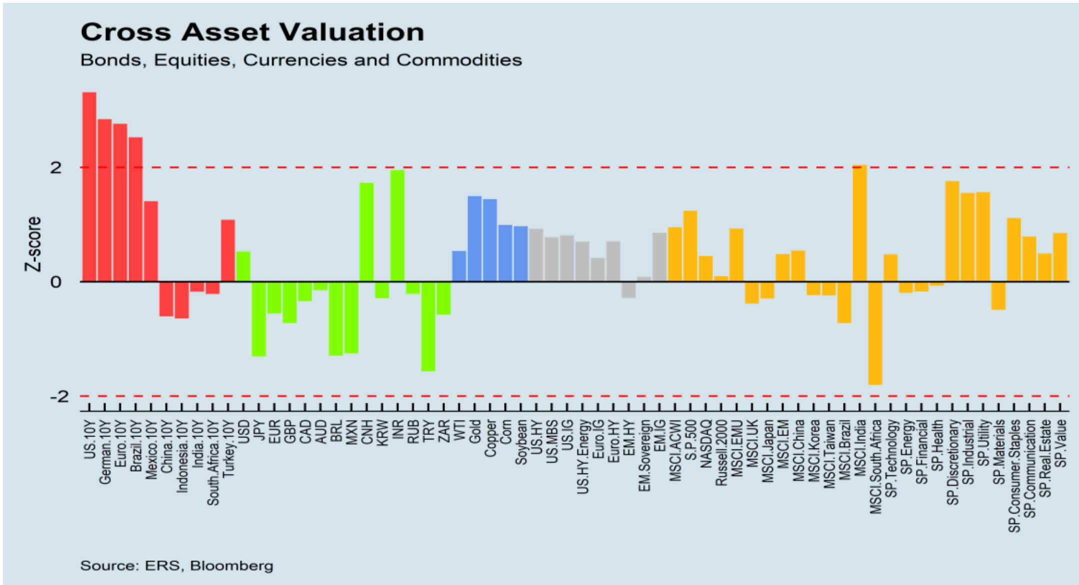


The combination of a slowdown in economic activity and rising inflation has raised concerns about a stagflationary (i.e., an economic contraction combined with rapidly rising price levels) outcome, which has in turn created anxiety about the risk of higher market volatility.

Asset Valuations Remain Elevated

Historically volatile asset valuations have remained an area of general concern throughout the year. The following exhibit illustrates this concern by showing the percentage of assets that trade at one-standard deviation (red line) and two-standard deviations (blue line) above their historical norms.

Current readings show that equity market declines during September alleviated elevated valuation levels in financial markets. By the end of the quarter, slightly more than 80% of the assets tracked traded closer to historical norms.

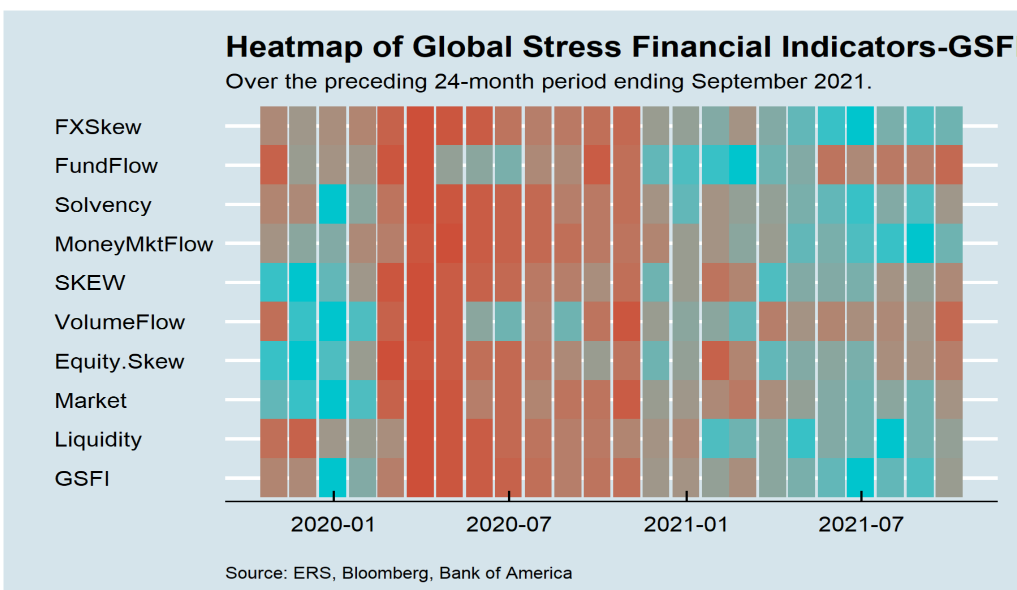


Source: ERS, Bloomberg

A closer look at the composition of the assets analyzed within this framework (a total of 68 assets across the equity, currency, fixed income and commodity asset classes) show that 10-year bond yields are the only asset that continue to trade well above historical norms.

Stress Indicators Increase

Against the backdrop described above, growth oriented assets continued to perform well during the early part of the 3rd Quarter as economic activity continued to strengthen. However, the economic recovery raised questions of whether the Fed might decide to shift economic policies to a more conservative stance. Mounting evidence of sustained price increases and slowing economic activity peaking towards the end of the quarter led investors to take a cautionary stance toward equity markets.

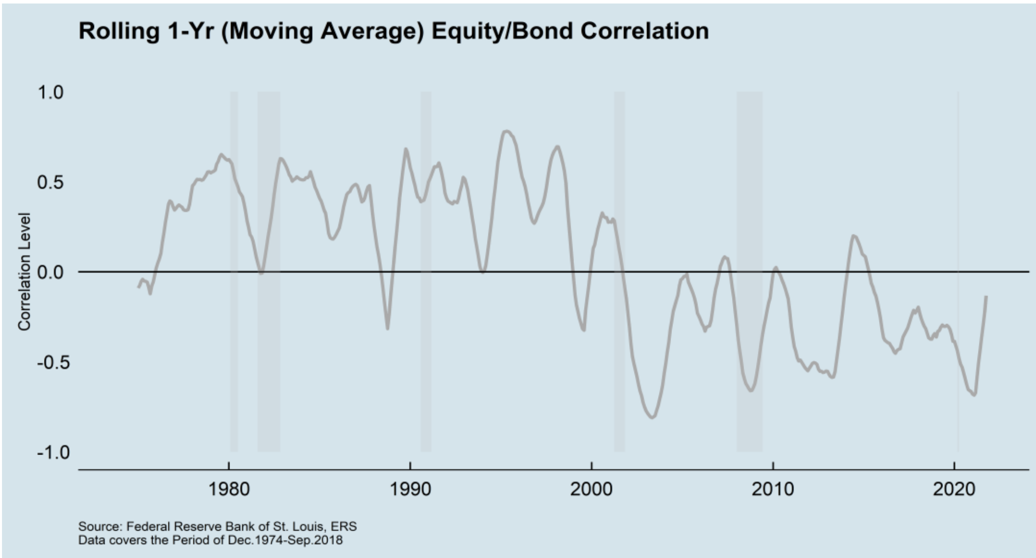


Source: ERS, Bloomberg, Bank of America

Our heat map of Global Stress Financial Indicators (GSFI) reflects this deterioration in sentiment as more risk indicators turned pink, indicating higher risk levels. While staff believes that no single indicator can signal a change in market conditions, an increasing breadth of higher risk indicators (as was the case by the end of the quarter) would forecast evolving markets. Within this environment, a variety of risk seeking assets pulled back, including global public equities.

Portfolio Diversification Intact

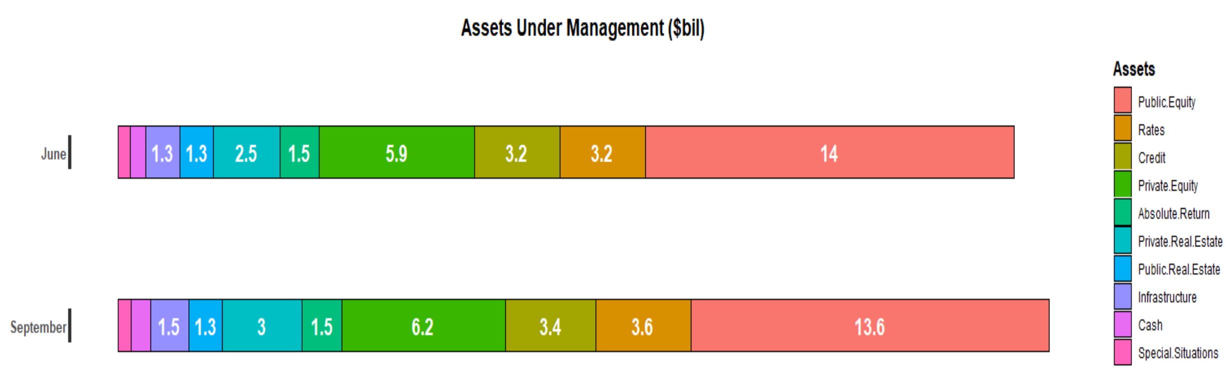
Growing concerns about stagflation has led investors to discuss related risks to individual financial assets and the value relationship between stocks and bonds. Specifically, investors have begun to question whether correlations between stock and bond returns would remain negative (as in recent decades) or whether it might it turn positive (as was the case in the 1980's and 1990's). However, despite trending upward this critical input to the portfolio construction process has remained in negative territory.



A return to positive correlation would significantly diminish the benefit of portfolio diversification and lead to higher overall portfolio risk. The heat map of Global Stress Financial Indicators, shown above, captures this concern through the equity skew indicator. These concerns led the markets to take a more cautious stance on stocks and bonds since there could be less ability to hedge the risk of stock market declines by allocating a portion of the portfolio to long-dated nominal bonds.

ERS Fund Gains Ground

In pursuit of robust portfolio diversification, ERS maintains allocations to a wide variety of asset classes. Owning a well-diversified portfolio generally diminishes the risk of large swings in returns and mitigates the possibility for large drawdowns, by maximizing the amount of returns relative to the amount or risk taken.



STAFF RECOMMENDATION:

This agenda item is provided for informational and discussion purposes only. No action is required.

**ERS is accredited by the State Pension Review Board (PRB) as a Minimum Educational Training (MET) sponsor for Texas public retirement systems. This accreditation does not constitute an endorsement by the PRB as to the quality of our MET program. This agenda item may be considered in-house training provided by ERS to board trustees and the system administrator for purposes of fulfilling the MET program requirements. ERS is an accredited sponsor of MET for its system administrator and trustees for continuing education.*

ATTACHMENTS:

1. Exhibit A – Q3 2021 Texas ERS Investment Performance Analysis
2. Exhibit B – Trust Performance Summary September 30, 2021
3. Appendix – Risk Update
4. Slides – Investment Performance 3rd Qtr 2021 and Risk Update