SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO
BOARD RETREAT HIGHLIGHTS
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2020 Long-Term Capital Markets Outlook Educational Session

Michael Hood, managing director of the Global Strategy Team within Multi-Asset Solutions at JP Morgan Asset Management, provided an overview of current U.S. economic conditions and discussed indicators used to help predict investment returns over the next 5-15 years.

Over the last 12 months, the U.S. economy experienced its first recession in the last decade. Recessions usually begin with a value wipeout of financial markets followed by a gradual recovery; however, because the latest recession was due to the COVID-19 pandemic and not a financial crisis, stocks experienced a sharp value decline, but economic growth and financial markets recovered quickly. There was no big hit to SERS' asset value, but the current economic period started with high stock valuations, making it more difficult to get higher investment returns on U.S. investments.

Hood compared the expected stock/bond frontier of 2021 with the actual results from 2008 and 2020. The results indicate that compound returns are expected to be 3-5% lower than 2008 and 1-2% lower than last year.

One of the biggest concerns is the poor outlook for fixed income returns. Fixed income assets like bonds provide important risk reduction for the total fund, but because their future return expectation is so low, investors have to look to other options to meet their return expectations. A bright spot in fixed income is that high-yield and emerging market debt could have returns close to that of U.S. equities.

Investments in alternative assets such as private equity, real estate emerging market debt, and non-U.S. equity may be rewarded; however, these investments carry several types of risks. The risks associated with these investments include illiquidity risk where capital is tied up for extended periods; dispersion risk where there is only exposure to a small part of the entire market; and manager risk where there is a big return difference between top quartile managers and those in the bottom three-quarters.

JP Morgan's long-term capital market assumptions indicate that moderate GDP growth and inflation are expected in both developed and emerging market economies. While the U.S. remains the fastest growing economy among developed countries, emerging economies appear to offer potential for higher returns. U.S. stocks are expensive which leaves little room for large returns; foreign stocks are cheaper, and foreign currencies are surging against the U.S. dollar, which usually adds value to international stocks.

Despite having a lower return potential than international stocks, Hood says that U.S. equity remains a solid investment vehicle. This is because U.S. stocks have structural advantages that enhance their desirability: U.S. companies are high quality, U.S. economic growth is best among developed countries, and there is significant exposure to technology in the U.S. market.

In response to Board questions, Hood stressed that diversification remained the key in constructing a portfolio that functions well in all economic conditions. Moving too much capital into one asset class like U.S. equities could cost the fund up to 2% in international equity returns and increase the volatility of the overall portfolio. He also said that the increased quantitative easing due to the pandemic was factored into JP Morgan's projections and that similar government spending was happening globally.

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In conclusion, Hood said that commodities were not expected to provide above average returns because there was little demand for them, and climate initiatives were expected to reduce the demand for oil. As far as cryptocurrencies like Bitcoin, he said that there was no place for these investments in portfolios at this time because it was impossible to calculate the value of the currency and its pricing was extremely volatile.

Educational Session on Investing in China

Chip Kaye, chief executive officer of Warburg Pincus, discussed how the investment environment in China was different from the rest of the world, and why his company believed that China and Southeast Asia were important markets for investors.

For 25 years, Warburg has invested in Chinese assets. More than half of its employees work outside of the U.S. It has teams of employees stationed in Hong Kong, Shanghai, Beijing, Singapore, and Mumbai.

China's economic growth over the last 10 years has been explosive. Over that period, global gross domestic product (GDP) has increased by $23 trillion. More than half of that amount is credited to China and the U.S., but China's $8 trillion growth has almost doubled the $4.4 trillion of growth attributed to the U.S. Even over the last year, while many countries continued to deal with the economic fallout caused by the COVID-19 pandemic, China's economy is already back on a growth track. In 2020, China registered a 2.3% increase in GDP while the U.S. GDP declined by 7.2%.

China's extreme lockdown measures limited the spread of COVID, and allowed the country to resume full industrial production with limited government economic stimulus.

China's recent economic advancements include:

- Topping the U.S. in retail sales in 2020 with $6 trillion in sales
- Registering a 10.3% consumption growth rate over the last five years
- Becoming a global leader in innovation as evidenced by their patent applications outpacing the U.S. in 2020
- Overtaking the European Union in research and development spending
- Growing e-commerce sales from 15% to 45% of all sales since 2015 as compared to the U.S., which was only at 14% in 2020

All of this indicates that China's middle class is growing. Along with this growth, large domestic brands are emerging to meet growing demand for goods and services.

Over the last 25 years, China has been reforming its financial sector and opened investments to foreign capital. According to Kaye, the best way to get exposure to Chinese assets was through private equity investments.

"China's investment environment is complicated," said Kaye. This is due to the fact that China's government works in a way Americans do not understand. For example:

- China's authoritarian regime packages itself as a community, and its popularity among its citizens seems to remain high.
- The Chinese government engages in its economy in ways that free-market countries do not, yet it doesn't lead to massive inefficiencies associated with government similar to U.S. government engagements.
- China has developed an effective way to administer day-to-day government operations.

In response to Board questions, Kaye addressed areas of apprehension most investors have with respect to investments in China. One fear was that the government interfered with and manipulated investments. Kaye said that while the government was broadly involved in the economy, it was "hands-off" with respect to investment business. Kaye also said he saw no impediments to investing in China: there were no U.S. governmental China divestment initiatives underway; there were no constraints by China on foreign investments; and Chinese

entrepreneurs and partners continued to be open to investments made by foreign investors. He also said that his company has not had problems with liquidity or moving money with its China investments.

Public Pension Plan Design and Risk Sharing

Alex Brown, research manager for the National Association of State Retirement Administrators (NASRA), provided an overview of the differences between retirement plan design and retirement plan type; the primary risks in a public pension plan; who bears what risks (employers or members); and, examples and effects of risk-sharing.

Brown explained the definitions of retirement plan type and retirement plan design.

Retirement plan type refers to the category or classification of the retirement benefit. There are three primary retirement plan types: defined benefit (DB), defined contribution (DC), and hybrid. SERS is a DB plan, and a qualified plan under Section 401(a) of the Internal Revenue Code.

Retirement plan design refers to the framework of a retirement plan. It is defined by characteristics such as:

- Participation requirements (mandatory or optional)
- Required contributions by the employer and employees
- Vesting requirements
- Benefit levels
- Timing and methods of benefit distribution
- Risk-sharing

Plan design is fundamental to a successful retirement plan. It affects plan participants, employers, and all future board decisions.

SERS' Board of Trustees continues to explore and analyze SERS' plan design during its sustainability discussions to ensure the pension fund is sustainable and adaptive to meet the needs of its members, employers, and retirees.

Next, Brown discussed the types of risk and their impact on a public pension plan.

Nearly all definitions of risk involve uncertainty and loss; however, positive outcomes are also possible. One definition of risk is, "the possibility of outcomes that differ from expectations."

The primary risks in a public pension plan are investment, inflation, and demographic.

Investment risk is the greatest risk facing a pension plan. Because a majority of public pension funding comes from investment earnings, a shortfall relative to what the plan is expecting can have a significant impact on plan costs.

Inflation is an important element of actuarial assumptions, especially pertaining to investment returns, payroll growth, and salary growth. Inflation also is tied to the cost-of-living adjustment (COLA) for many plans.
SERS bases its COLA on the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), the average change over time in the prices paid for consumer goods and services.

Inflation risk occurs when inflation is higher than expected. High inflation can negatively affect employers, employees, and the pension fund.

Demographic risk refers to the outcomes of participant behavior. Some examples of demographic risk include the age a member begins working, the age a member terminates employment or retires, the number of members receiving disability benefits, salary growth rates and patterns, and mortality rates.

Public pension plans place more risk on plan participants than corporate pension plans. In public pension plans, risk can be assigned to three participant groups: retirees and survivors, active members, and future hires. In recent years, public pension plans have shifted more risk to plan participants through benefit changes.

Risk-sharing, which is the risk shared between employers and employees, varies depending on the type of retirement plan. In a DB plan, most risk is assumed by employers. DC plans place more risk on employees, and hybrid plans, which are a combination of a defined benefit plan and defined contribution plan, distribute risk evenly.

Next, Brown discussed examples of risk-sharing features.

Some pension plans have shifted more risk to plan participants via changes such as flexible employee contributions, adjustable pension benefit amounts, and variable COLAs.

Some public pension plans base the member contribution rate on the plan's funding level. However, linking the employee contribution rate to the plan's actual cost exposes employees to the plan's risks. Adjustable pension benefit models provide a core benefit that is guaranteed to be paid, and a second component that is based on the plan's investment and actuarial experience. Other plans provide a "stacked" retirement plan where defined benefit coverage is offered for a limited portion of salary.

Brown concluded his presentation by discussing the effects of risk-sharing.

Risk-sharing can reduce employer plan costs and cost volatility. However, it may or may not reduce a plan's unfunded liability. The larger the benefit, the greater the opportunity to lower volatility and reduce costs through risk-sharing.

Brown noted that SERS' benefit levels were modest for the majority of benefit recipients.

Following the presentation, the Board discussed pension fund sustainability topics. The Board decided it would like to further examine the definition of a career employee, the average amount of hours per day a typical employee works, and how many days per year should constitute a full year of SERS service credit. Board members agreed to resume sustainability discussions in March.