SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO
BOARD RETREAT HIGHLIGHTS
FEBRUARY 2024

Educational Session on Current U.S. Economic Conditions

Dr. Anirban Basu, Chairman and CEO of Sage Policy Group, Inc., provided a Board Workshop on the current economic conditions in the U.S. and Ohio.

When Basu addressed the Board last year, he mentioned that he saw economic warning signs that the U.S. could experience a recession in 2023. In October 2022, Bloomberg also predicted there was a 100% chance of a recession in 2023. But that never happened.

Instead, the U.S. economy registered a 2.5% gross domestic product (GDP) number for 2023 fueled mainly by aggressive consumer spending. There were record Black Friday and Cyber Monday sales, and record spending on travel and entertainment. Basu said that households had significant money to spend after the pandemic but warned that the pandemic relief funds were now largely gone and consumers cannot be expected to keep spending at the pace they did last year.

Other boosts to the economy include continued job growth mainly in southern states but also in Columbus, falling natural gas and oil prices, and the restoration of the global supply chain following the pandemic. These conditions are the main reasons why consumer sentiment has been rising despite the current inflationary pressures.

Another big part of the economy is housing. As interest rates increased, economists predicted that house prices would fall since mortgage rates would increase and fewer buyers would be in the market. What really happened is that a housing shortage kept buyers in the market and people with really low mortgages stayed in their homes, reducing supply. This dynamic kept house prices high.

Additionally, the housing crisis pushed rents much higher. However, in reviewing housing construction permits, it appears that builders are having problems securing funding to build multi-family structures (apartments) and are building single family homes instead.

This will not impact the housing crisis as fast.

By nature, Basu described himself as a pessimist, which led him to detail some economic pressures that could cause a recession in 2024.

First, credit card debt is rising. At $1.13 trillion, it is not at historic highs yet, but the rising trend is ominous. Banks have taken steps to tighten standards for closing accounts and opening new accounts with higher maximums and lower interest rates, which is a warning sign that consumers are financially overextended.

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Basu also thinks that the Federal Reserve's interest rate increases have not yet affected the economy and that supply chain improvements are the reason inflation has cooled. When the interest rate hikes do start to work, it could trigger a recession.

Finally, the biggest indicator of a recession is that the yield curve is inverted, meaning that the yield on 10-year bonds is lower than the yield on one-year bonds. This situation has preceded nearly every U.S. recession.

A silver lining in the recession prediction is that Basu believes a recession is necessary to reduce high equity values and to get the U.S. back to the 2.0% GDP rate the Fed desires.

Economic Outlook: Glass Half Full

David McNellis, head of research and U.S. macro for KKR's Global Macro, Balance Sheet, and Risk team, and Ari Barkan, managing director in Global Client Solutions at KKR, provided an overview of the current U.S and global economic outlook.

McNellis remarked that KKR does not believe the U.S. economy is headed for a hard landing.

Recession downturns typically occur following housing and inventory contractions, and that does not look likely in this cycle. Construction and inventory are just now starting to bounce back after the Great Recession and COVID-19 pandemic, and non-residential construction is not yet above trend.

The U.S. job market confirms this idea. While job growth is slowing, non-cyclical sectors such as education/health, professional services, and retail trade are providing some stability. The construction sector is also experiencing payroll growth compared to pre-pandemic rates. With this in mind, McNellis expects unemployment to remain fairly low and that the Fed will gradually cut rates.

McNellis referred to the old adage, "It's hard to get hurt falling out of a basement window," when discussing GDP growth. In other words, the government moved from being a deterrent, at -0.4% in the 2011-2013 period, to being a driver of GDP growth this cycle, at 0.5%.

As such, the government, not the consumer or corporate industry, is currently over-leveraged. McNellis noted that two-thirds of households in the U.S. own a home. Of those two-thirds who have a mortgage, 97% have a fixed mortgage, compared to 71% in 2007.

Outside of the U.S., large capitalization equities and valuations still appear to be reasonable in many parts of the world, with significant opportunities for investors across multiple asset classes.

McNellis opined that the bear market in equities ended in October 2022. He suggested that we are still in a recovery bull market as returns are above average after a 25% S&P decline in 2023. In addition, he believed central bank tightening should be less of an issue in 2024 as banks are closer to the end of the tightening period.

As far as Europe, KKR is seeing a faster deceleration of headline inflation than the consensus. Despite a decrease in manufacturers' pricing, there is an excess of inventory and weak consumer demand.

In China, the economy is undergoing a substantial change. While inflation in Asia is not far from "normal," China is flirting with deflation. Geopolitical tensions continue across the nation, which has caused the opportunity set to become more constrained. China is becoming more self-sufficient, with a

large focus on industrial digitalization and energy transition, and a competitive cost and resource advantage. This presents areas of growth as China begins to export more of these goods and services and a “new” Chinese economy emerges.

In Japan, it appears the country is exiting deflation for the first time in decades. Tight labor markets are helping to put more upward pressure on Japan inflation. In addition, the region is experiencing rapid improvement, which came as a surprise to investors considering the economy’s rising margins, weaker currency, better-than-expected GDP, and pessimistic expectations.

Though cooling, McNellis suggests that U.S. inflation will be at a “higher resting heart rate” for the current cycle, due to sticky labor costs, heightened geopolitics, a messy energy transition, and a sizable fiscal impulse.

Overall, McNellis believes we are in a new investing regime. Historically, stocks go down when the economy is softening and bonds go up, making them important shock absorbers. Now, both are more positively correlated. When inflation is a little high, *both* stocks and bonds decrease.

Because of this, he suggests a different approach to asset allocation, including a meaningful reduction in bonds and a more diversified portfolio by way of alternative investments such as decarbonization, digitalization, and industrial automation.

In closing, McNellis touched on five key themes that support the firm’s “regime change” thesis and “glass half full” outlook:

1. Historically, periods of labor scarcity have been opportunities for greater automation. Wage gains and capital investment typically lead to periods of rising productivity.
2. Industrial automation is critical when labor costs pressure margins. In a higher nominal GDP environment, technology and automation deliver more efficiency and productivity.
3. Security of Everything: Organizations need resiliency and to ensure security of key inputs such as data and energy. Cybersecurity has become a major risk surrounding generative AI models.
4. There is a massive investment cycle to develop the underlying AI infrastructure. While there is a long-term potential in AI, the most compelling opportunities have to do with building out the ‘backbone’ of physical infrastructure before generative AI can expand.
5. Asia became more Asia-centric. In 1990, just 46% of Asian trade took place within Asia. That figure increased to 58% by 2021. Rising Asian consumption made local markets more attractive.

AI Introductory Training

Nate Haws, associate principal consultant and AI researcher at Linea Solutions, provided an introductory session on artificial intelligence, or AI.

AI consists of computer systems that are able to perform tasks that normally require human intelligence. It has been around for decades in forms such as Siri and autocorrect, but has evolved in its complexity to generative AI (GAI). GAI is a type of deep learning AI that creates new content based on what it has learned from existing content. This content can include text, images, audio, videos, and code.

Haws began the discussion by taking an informal poll of ChatGPT usage. ChatGPT is an AI chatbot that generates answers within seconds. Nearly half of the Board members have used the tool, with one member utilizing it for 10 or more hours. He noted that it takes approximately 10 hours of usage for AI tools to “click.”

Generative AI could help boost worker productivity by reducing digital debt. Digital debt is the inability to keep up with the administration of our lives, in that we spend most of our day responding to emails, texts, and calls, and less time creating and producing.

Haws notes that, on average, workers spend 57% of the day communicating, and 68% of people say they lack uninterrupted time during the workday. Generative AI could provide the ability to recover from this by acting as a worker's personal assistant, in a sense. Workers have reported that GAI helps save time, lessen the time needed to learn new skills, and alleviate busywork.

In the public pension sector, early adopters of GAI utilized internal chatbots to help staff find information, such as a knowledge bank. Haws emphasized that future chatbot uses at SERS would likely be to assist internal staff and not planned to be external facing or trained on member data, since there is still much unknown regarding the risk.

As for SERS, the System has created an AI usage policy, which sets strict guidelines to protect data, mitigate risks, and use AI responsibly. The organization also has formed an AI Committee that is responsible for AI-related decisions, use case approvals, and ensuring SERS' data and values are protected.

If staff members would like to use an AI tool, they must complete an AI Intake Form which will be evaluated by the AI Committee.

Decisions will be made on a case-by-case basis and the AI Intake Form is still being finalized.

Haws commented that there are many opportunities where SERS can benefit from utilizing AI tools, such as chatbots that will improve customer service to members and retirees; cybersecurity, automated threat detection, and identity verification services to keep member data safe and secure; AI pattern detection for investment opportunity decision-making assistance; and IT software development for debugging and enhancing code. Internally, staff could benefit from automated meeting minutes; code generation and database query assistance; and AI-generated images and avatars for slide decks and communications.

Haws concluded the training with an interactive demonstration of GAI tools for the Board.

Risk Assessment Educational Session

Todd Green, president and consulting actuary with Cavanaugh Macdonald Consulting, provided a risk analysis of SERS' defined benefit plan. This session was scheduled as part of the Board's ongoing commitment to review the System's sustainability metrics at least once per year.

As SERS' actuary, one of Cavanaugh Macdonald's roles is to identify risks that could impact the System's future financial condition. The primary types of risk that could affect funding are:

- **Investment risk:** Investment return is different than expected
- **Longevity risk:** Mortality experience is different than expected
- **Covered payroll risk:** Covered payroll will not increase as assumed
- **Active population risk:** Number of active members decline
- **Contribution rate risk:** Contribution rates are too high for the employer to pay

Actuaries assess these risks through a series of plan maturity measurements, such as comparing the number of actives to retirees; retired liability to total liability; net cash flow to market value of assets; and market value of assets to payroll.

Cavanaugh Macdonald began its qualitative risk assessment by examining SERS' funding and amortization policies; the size of active membership compared to growth in total covered payroll; and the effect of annual cost-of-living adjustments (COLAs).

Currently, employers and members are required to pay a contribution rate of 14% and 10%, respectfully Employer contributions exceeding those required to pay basic benefits may be allocated the Health Care Fund.

In keeping with SERS' objective of maintaining a closed amortization period, the Board approved a change to the System's funding policy in 2015.

If the funded ratio of the pension fund is below 70%, all 14% of the employer contribution must be allocated to SERS' basic benefits; if the funded ratio is at least 70%, but less than 80%, the Board can allocate up to 0.50% of the 14% employer contribution toward health care; if the funded ratio is at least 80%, but less than 90%, the Board can allocate up to 0.75% to basic benefits; and if the funded ratio is 90% or greater, the Health Care Fund may receive any portion of the employer contribution that is not needed for basic benefits.

Green noted that SERS' funding policy is a **positive factor** as it has accelerated the funding of the pension plan.

The System's amortization policy is that SERS' unfunded actuarial accrued pension liability must be amortized, or paid off, within 30 years. SERS has steadily improved its funding ratio since the Great Recession. Currently, the System is 76.61% funded over a 21-year period.

Green also noted that the pension reform changes implemented in 2017 improved the funded ratio by 1% and reduced liabilities by more than $222 million. He remarked that this is also a **positive factor**.

When evaluating the size of SERS' active membership to the total covered payroll, the assessment found that this factor presents a **limited risk**.

Currently, there are approximately two active members contributing to SERS for every retiree. While this is an adequate ratio to be able to fund basic benefits and active membership has actually increased since last fiscal year, covered payroll may not increase as assumed if active membership decreases or salary increases are less than expected.

Senate Bill 8 became effective in March 2018, allowing SERS' Board to decide how many anniversaries new benefit recipients must achieve before they are eligible for a COLA. Green indicated this authority is considered a **positive factor** as it allowed SERS to act proactively rather than pursuing legislation to address an issue and mitigate a portion of the risk.

As far as mortality risk is concerned, small, continuous improvements in mortality are anticipated. This presents a **slight risk** as retirees will be receiving a benefit for longer periods of time and there is the possibility in a sudden shift in life expectancy due to major medical advancements.

In conclusion, Green stated SERS' risk profile had improved since the FY2022 assessment primarily due to investment performance, the Board's funding policy, and the fact that payroll grew by 7.6% compared to the assumed rate of 1.75%.

However, the Board needs to continue to monitor risks and adjust as necessary.