The Regents of the University of California

INVESTMENTS SUBCOMMITTEE
September 12, 2017

The Investments Subcommittee met on the above date at the Price Center, San Diego campus.

Members present: Regents Anguiano, Lemus, Sherman, and Zettel; Ex officio member Makarechian; Advisory members Anderson and May; Chancellors Hawgood and Khosla

In attendance: Regents Kieffer, Mancia, and Napolitano, Regent-designate Morimoto, Faculty Representative White, Secretary and Chief of Staff Shaw, Chief Investment Officer Bachher, Deputy General Counsel Nosowky, and Recording Secretary McCarthy

The meeting convened at 2:05 p.m. with Subcommittee Chair Sherman presiding.

1. **PUBLIC COMMENT**

There were no speakers wishing to address the Subcommittee.

2. **APPROVAL OF MINUTES OF PREVIOUS MEETING**

Upon motion duly made and seconded, the minutes of the meeting of July 11, 2017 were approved.

3. **UPDATE ON INVESTMENT PRODUCTS**

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Chief Investment Officer (CIO) Bachher reported on investment results for fiscal year 2016-17. On June 30, 2016, the Office of the CIO had $97.6 billion in assets; as of June 30, 2017 assets had increased to $109.8 billion. Three years prior, assets totaled $90.6 billion. Holdings had benefited from strong markets over the past three years. As of the end of the fiscal year, the General Endowment Pool (GEP) had assets of $10.8 billion; the UC Retirement Plan (UCRP) had assets of $61.6 billion; the UC Retirement Savings Program (UCRSP) held $22.3 billion; and the working capital pools held $14.2 billion; Fiat Lux, UC's captive insurance company, the assets of which the Office of the CIO began to manage in the current year, held $0.9 billion.

UC's assets are invested globally, with 74 percent, or $81 billion, in the U.S., and $8 billion in developed Europe not including the United Kingdom. Mr. Bachher expressed his intention to increase holdings outside of the U.S., focusing in specific markets with both size and scale, such as China and India. Half of UC's assets are in public equity markets and 30 percent in fixed income. Of the public equity holdings, 40 percent are passively managed and 60 percent are actively managed. Over the past three years, the Office of the CIO has concentrated the number of its relationships with third parties with whom it invests. UCRP currently has 28 public equity external managers; the GEP has 14. Alternative investments are 14 percent of holdings and include private equity, real estate, real assets, and absolute return. Cash holdings are $5.6 billion or five percent, which Mr. Bachher said was unusual and not intentional. Markets were robust and valuations were high. When assets were sold, the cash could not be quickly redeployed into other investments. Holding the cash is a safer hedge than investing in assets with high valuations.

Mr. Bachher emphasized the importance of long-term investment results. For the 2016-17 fiscal year, the GEP earned 15.1 percent, even while holding ten percent in cash; UCRP returned 14.5 percent, while holding six percent in cash. The Total Return Investment Pool (TRIP) returned 7.7 percent; and the Short Term Investment Pool (STIP) returned 1.3 percent. Over a five-year period, both the GEP and UCRP earned about nine percent. Three-year returns were lower as earnings the prior fiscal year were lower. Over the longer term the goal of the Office of the CIO is to ensure it meets the objectives set for UCRP and the spending rate of the GEP. For all assets of the Office of the CIO, market gains contributed $8.5 billion for the fiscal year, $10 billion over three years, and $25.1 billion over five years. Active management of the Office of the CIO added $1.4 billion above market returns for one year, $2.2 billion over three years, and $3.3 billion over five years.

Mr. Bachher remarked that the Office of the CIO creates value by partnering with its stakeholders to set realistic expectations; managing investment products differently based on their risk and return objectives; implementing asset and risk allocation for all products; adding value through active and passive management; reducing costs aggressively in a low-return environment; creating opportunities through innovation and collaboration; and leveraging UC’s competitive advantages.

Mr. Bachher expressed enthusiasm about growth in India in upcoming years. He introduced Mr. Ratan Tata, Indian industrialist, investor, and philanthropist, who has been a partner in investing with the Office of the CIO for the past 18 to 24 months. Mr. Tata has longstanding relationships with members of the UC community.

Mr. Tata stated that he and the Office of the CIO had been partners in investing in India over the past year or two, in a different manner than most investment partnerships. The landslide election of Prime Minster Narendra Modi represented a change in direction in India. Mr. Modi had promised a government free of corruption, a focus on India’s low-income population, investment in infrastructure, and a working government. He would endeavor to galvanize the countries surrounding India into a more unified area. This landscape of the new India prevailed when Mr. Bachher asked Mr. Tata if he would like to partner with UC.

Mr. Tata noted the rapidly growing consumer market in India. Smart cellular phones and online commerce are transforming India and have led to the formation of startup companies. The stock market is booming. Mr. Tata expressed his view that India is a country on the move with a vibrant population eager to see change and a government that would like to cooperate with neighboring countries. UC is perceived as a true partner and an intelligent investor in India. Mr. Tata commented that working with the University has been very worthwhile from his point of view. The partnership was just beginning, but has already garnered respect in India, and would involve not only the Indian marketplace, but also taking U.S. technology, most often UC technology, to India. For instance the partnership has invested in a project that would be partly in India and partly in San Diego to change the DNA of mosquitos so they do not carry malaria. This would have an impact on millions of people and could possibly be adapted to Zika and other mosquito-borne diseases. Another area of possible investment is cancer research. Mr. Tata expressed his thanks to Mr. Bachher and Chancellor Khosla for their support of this creative partnership. He hoped it would help to dismantle barriers that have existed over the years between the United States and India.

Regent Zettel asked what other areas Mr. Tata viewed as prudent for investment. Mr. Tata responded that he saw health care and education as the two largest areas. Tata Investment Corporation Limited had made the fight against malnutrition its largest single area of attention, in partnership with the Gates Foundation and other foundations. Cancer research would be important to the partnership with UC. He foresaw many areas such as human genomics where there would be a role that India could play at a competitive cost by partnering with a U.S. research operation or by helping with clinical trials. The partnership would open the possibility of the best minds in the U.S. working with India's best minds to achieve solutions to difficult problems, such as finding cures for diabetes and cancer.

Regent Makarechian expressed appreciation for Mr. Tata's presentation and asked about his view on possible Indian government policies that could help dispel income disparities between the very wealthy and the general Indian population. Mr. Tata addressed challenges standing in the way of diminishing the disparity between the rich and the poor in India. Making it easier to do business in India to allow growth would be one way to meet the huge market demand that continues to exist. A challenge is that 40 percent of India's population is under the age of 24. While having a large working-age population is potentially beneficial, those young people must be adequately educated and then have potential jobs, or social unrest could result. Mr. Modi seems to be aware of this. Encouraging tourism and air travel to India could be of some help. The government is trying to move away from a country built on subsidies. With its large population and poverty, the challenges will remain.

Subcommittee Chair Sherman asked about the evolution of the banking system in India, and moving from an underground economy to an economy where taxes are paid to finance the country's infrastructure growth. Mr. Tata responded that banks are under pressure to present their books differently. The country underwent a demonetization process, which had its own disruptive effects, from which the country is currently recovering. Mr. Tata said most believe that the demonetization process would be worthwhile for India in the long term.

Chair Kieffer asked Mr. Tata what mistakes he thought the United States was making in the world currently. Mr. Tata commented that U.S. foreign policy had changed. India suffered sanctions in the past on its science, engineering, and military that had changed under Presidents Clinton, G.W. Bush, and Obama. The current U.S. position is not clear. Importantly, the U.S. currently had separate policies for India and Pakistan, which Mr. Tata saw as a positive step. The greatest possible disruption would involve Indian information technology workers in the U.S. that had been affected by recent events. He said the people of the U.S. and India are similar in their desire for freedom and embracing democracy, and he envisioned the two countries continuing to work together closely.

Subcommittee Chair Sherman thanked Mr. Tata for his insightful comments.

Mr. Bachher and his team reported on investment returns for the fiscal year. Managing Director Edmond Fong noted that the GEP, founded in 1933, was comprised of 5,400 separate endowments serving 265,000 UC students across UC's ten campuses. UC's systemwide endowments total close to $18 billion, including the $10.8 billion GEP managed by the Office of the CIO and the campus foundations. For the past ten years, the GEP paid out more than $2.6 billion. In the last five years, the GEP has had inflows of $2.15 billion, reflecting a higher level of cooperation between the Office of the CIO and UC's campuses.

The GEP began the fiscal year with $9.1 billion in assets, and had market gains of $1.2 billion, value added of $0.2 billion, and a net cash inflow of $0.3 billion to end the fiscal year at $10.8 billion. The GEP returned 16.9 percent before paying management costs and 15.1 percent net return after costs. Management costs consist of management fees and performance fees. The Office of the CIO was working to reduce management fees, particularly, but incentivizing performance benefited UC. At end of the fiscal year, the GEP asset allocation was overweight in equities and cash, and underweight in alternative assets. Mr. Fong said the GEP's 1.7 percent overweight to public equities earlier in the fiscal year had been reduced to 0.9 percent by the end of the fiscal year by his office's taking advantage of the strong equity markets to reposition the portfolio from a risk perspective. The GEP's cash holdings ranged from six to ten percent through the fiscal year. Risk analysis indicated that the GEP's biggest risk factor is to economic growth risk, meaning sensitivity to the business cycle. The GEP's forecast volatility at the end of the fiscal year was 7.2 percent, compared with 7.5 percent for its policy benchmark.

Mr. Fong discussed the direction of the GEP asset allocations. Its long-term strategic allocation to alternative investments indicates a willingness to take on more illiquidity risk. The path to this goal would be driven by opportunities that become available and Mr. Fong saw assets as being fully priced currently.

Mr. Fong discussed the GEP returns of 15.1 percent for the year, 12.5 percent from market gains and 2.6 percent from value added. Returns were driven by the very robust public equity market. Nearly 85 percent of GEP returns came from public and private equity. GEP public equity market returns were 20 percent in market gains and 3.8 percent value added, driven by its non-U.S. equity portfolio, which is 25 percent of GEP public equities and which generated returns of 35 percent against a benchmark of 20 percent. Private equity generated returns of over 21 percent.

Mr. Fong emphasized the importance of long-term results. The GEP had returned 9.4 percent for five years. The objective of the GEP is to generate a total rate of return of 4.75 percent plus the rate of inflation.

Chair Kieffer asked about portfolio risk and protection from downside risk. Mr. Fong commented that risk factors have to be considered when considering any investment. Mr. Bachher added that one way to reduce risk was to move in the direction of the GEP long-term allocation of 30 percent public equities from its 43 percent actual public equity allocation at the end of the fiscal year. Finding good private market assets was another way to reduce risk. The GEP has the flexibility and the illiquidity budget to be able to invest longer term. In general, private equity valuations are currently high. The third way to reduce risk is to buy downside protection through insurance strategies, but the associated cost must be considered. Mr. Bachher anticipated that the GEP would be in the top quartile of endowment performers for the fiscal year.

Chief Risk Officer Richard Bookstaber explained that the 7.2 percent volatility was low compared with historical rates of volatility. The perception of risk in the market is currently low, but he cautioned that does not mean that actual risk is low. Mr. Bookstaber expressed his view that the low volatility number was based on a misperception of the markets.

Subcommittee Chair Sherman asked about the time period considered by that volatility measure. Mr. Bookstaber said the calculation was based on the past one-year period. Given the period being used, the representation may not be indicative of what could happen over the upcoming few years. In response to a question from Subcommittee Chair Sherman, Mr. Fong said that much capital was currently seeking private equity investments and he would be cautious about buying at high values. He would look for opportunities for co-investments and public equity managers that invested differently from the benchmark. Implementation within asset classes would be important.

Regent-designate Anderson asked how private equity returns were evaluated for performance and if most were illiquid investments. Chief Operating Officer Arthur Guimaraes said the Office of the CIO works with Deloitte to determine fair-value proxies for UC’s alternative assets. Mt. Bachher added that UC’s external auditors gather confirmations of the proxies and compare actual returns to the proxies; their process is independent of the processes of the Office of the CIO. In addition, an independent valuation committee is set up outside of the Office of the CIO to examine this entire process. During the past three years, the Office of the CIO has worked to establish this dependable, repeatable process. The proxies have proven to be very close to actuals.

Regent Kieffer asked Mr. Bachher if he would change UC’s asset allocations if he knew, hypothetically, that a recession would occur in six months. Mr. Bachher responded that under those circumstances his office would definitely change its asset allocation to move away from public equities and risky assets, and would increase cash. Corrections offer good buying opportunities. Mr. Bookstaber added that options could be used to mitigate effects of market losses.

Regent Makarechian asked if UC's private equity holdings include co-investments. Mr. Bachher answered in the affirmative. Regent Makarechian commented that co-investments offer a better opportunity to know what is being bought. He suggested that future materials for updates on investment products include a one-page graph showing both returns and asset allocations side-by-side for each product.

Regent Lemus asked about the potential risk of the increased use of passive management in public equities compared with a more actively managed portfolio. Mr. Bachher said movement toward passive or active management is not driven by considerations of downside protection, but rather by efficiency in portfolio management. He recalled that the GEP public equity portfolio had contained roughly 8,000 stocks when he came to the office. The Office of the CIO had worked in recent years to control costs and not pay active management fees for what amounted to passive management. The number of stock holdings has been reduced to between 700 and 800 stocks. Mr. Fong added that working with active managers who bought stocks at good values provided a margin of safety.

Mr. Guimaraes discussed the UCRSP, created by the Regents in 1967, currently with 312,000 participants who together save $1 billion a year. With assets of $22.3 billion the UCRSP is the second largest public defined contribution plan in the nation, smaller than only the federal Thrift Savings Plan. The UCRSP offers participants 16 savings options across three tiers, the Target Date Funds, core funds, and a brokerage window. UCRSP participants include many UCRP participants who also participate voluntarily in the UCRSP, UC's safe harbor part-time or seasonal employees, who do not qualify for UCRP, and many inactive former employees. Participants' average age is 41 and the average savings rate is 10.3 percent.

UCRSP's Target Date Funds, the default investment option for any new incoming contributions, hold $6.4 billion, having increased more than $1 billion over the past year, The Office of the CIO continues to improve the core investment options. The UC Global Fund would be eliminated, as it is comprised of 85 percent U.S. equities and 15 percent international equities and these underlying components are available to participants as core fund options. The UC Balanced Growth Fund, launched in 2004 and designed to replicate the asset allocation of UCRP, would also be eliminated. It is a balanced fund, similar to the Target Date Funds, with the key difference that it does not reduce risk over time. The Academic Senate was consulted and supports these changes.

Mr. Guimaraes said the average management cost of the UCRSP is seven basis points, which he said was less than half of other plans' costs. With its anticipated growth in the future, the UCRSP could become the Office of the CIO's largest product, critical to the retirement readiness of its participants.

Mr. Bachher stated that UCRP, UC's defined benefit plan, has 233,000 members, with retirees receiving an average benefit of $42,000 per year. At the beginning of the fiscal year, UCRP had assets of $51.4 billion. During the fiscal year, UCRP enjoyed market gains of $6.8 billion, value added of $1 billion, and a net cash flow of minus $0.3 billion, to end the year at $61.6 billion. UCRP had net returns of 14.5 percent and 15.3 percent gross returns before management costs. The Office of the CIO was not averse to paying performance-based management fees to reward good performance, but worked to reduce overall management costs. On a market-value basis, UCRP's funded ratio was estimated to be 82 percent at the end of the fiscal year.

Mr. Bachher reviewed UCRP's asset allocation, slightly overweight in public equities relative to the policy weight of 52 percent. That overweight had been reduced by about one percent since the end of the fiscal year to reduce risk. Mr. Bachher said there was no rush, given current market valuations, to reach policy allocations. Similar to the GEP, risk allocation in UCRP is largely related to the economic growth cycle, or sensitivity to the business cycle. UCRP's current 55 percent public equity allocation would be reduced in the direction of the policy weight of 50 percent and alternative investments would be increased over time as opportunities arose.

For the fiscal year, UCRP's 14.5 percent return was attributable 12.7 percent to market gains and 1.8 percent of value added. More important are long-term returns, which are estimated by the discount rate, which is what the product is expected to earn, currently at 7.25 percent, having been reduced from 7.5 percent a few years prior. UCRP has earned 6.7 percent over the past 20 years. Despite higher one-year returns, Mr. Bachher expressed his view that the long-term environment still is one of low growth and low returns. He emphasized the importance of setting realistic expectations about future earnings.

Faculty Representative White agreed with the importance of setting realistic expectations. The Academic Senate's Task Force on Investment and Retirement was of the opinion that examining the discount rate and the expected inflation rate would be prudent. Mr. Bachher agreed and said his office was continuing to examine this in consultation with Executive Vice President and Chief Financial Officer Brostrom and UC's actuaries.

Regent Makarechian asked about UCRP's funding ratio. Mr. Bachher said that his office estimated it to be from 82 to 84 percent. He commented that for every one-quarter percent the discount rate is lowered, UCRP's liabilities increase by roughly $2 billion.

Investment Officer Susie Ardeshir reported on Fiat Lux, UC's captive insurance program formed in 2012, holding 26 lines of coverage such as medical malpractice, Workers Compensation, employee professional liability, cyber security insurance, automobile insurance, and others. The goal of Fiat Lux was to bring cost savings, better risk pooling and sharing for the University, and to better manage UC's enterprise-wide risk. A loss portfolio of $787 million was transferred to Fiat Lux from STIP in February 2016, giving Fiat Lux a large amount of cash to deploy in this time of highly valued markets. Fiat Lux collects monthly premiums from the UC campuses, totaling $320 million per year.

Ms. Ardeshir discussed Fiat Lux's asset allocation. The portfolio is on a glide path to interim policy weights based on the Regents' preferences and risk tolerance of 80 percent income-related assets. As of the end of August, that allocation is 70 percent. These would tend to be shorter duration of about 4.5 to five years. The interim policy weights included five percent growth holdings in equities, primarily passive. As of June 30, roughly 40 percent of assets have been deployed. The policy weight for alternative assets is five percent, but none of that allocation has been deployed to date. Ms. Ardeshir would seek liquid alternatives and in possible partnerships with other products' investments. The policy allocation for cash is ten percent; at the end of August the portfolio held 30 percent cash. Long-term policy allocations are 20 percent growth, 65 percent income, 15 percent alternatives, and no cash. While there is no prescribed time frame, Ms. Ardeshir anticipated reaching the long term allocations within one to three years. Having been invested in STIP through much of the fiscal year, Fiat Lux's returns through June were 1.5 percent, helped by its deployment into public equity markets. Mr. Bachher added that the cash allocation earned 1.3 percent.

Senior Managing Director Steven Sterman commented that $82 billion a year is processed by the Office of the CIO's cash and liquidity management team from UC campuses and medical centers. He reviewed the working capital portfolios, which he said had not changed much since the last meeting. The working capital portfolios held $14.2 billion at the beginning of the fiscal year. Mr. Sterman said one of his top priorities for the upcoming year would be to look for ways to better utilize working capital resources to improve revenue for UC campuses. More than 50 percent of UC's working capital belongs to three of its campuses: UCLA, UCSF, and UC Berkeley. The working capital is close to the goal of being distributed one-third to STIP and two-thirds to TRIP.

For the fiscal year, TRIP returned 7.7 percent; STIP returned 1.3 percent. Returns in TRIP were driven mainly by equity returns of 19 percent. Importantly, for the long term TRIP has accomplished its purpose of earning more revenue than STIP for UC's working capital. That differential was anticipated to be about three to four percent. In fact, since its inception TRIP has gained five percent more in annual returns than STIP. UC's working capital assets have grown from $8 billion in 2008 to more than $14 billion currently. During that time more than $2.3 billion was lent from working capital to UCRP and another $1 billion was moved to funds functioning as endowments (FFEs) in the GEP. As the working capital continues to grow, it might be appropriate to invest more TRIP funds in longer term vehicles to increase returns further. Over one-, three-, five-, and seven-year periods, the GEP has returned more than TRIP. Mr. Sterman reflected that more might be done to allocate capital more efficiently to gain revenue.

Regent Makarechian asked about campus allocations between STIP and TRIP. Mr. Sterman said that UC Berkeley had a larger allocation to TRIP because it had been using STIP holdings over the past two or three years to fund campus operating deficits. Regent Makarechian commented that it appeared that some campuses, for instance UCLA, could move some assets from TRIP to the GEP. Mr. Sterman agreed that UCLA had a good deal of liquidity and said that campus had been active in moving funds to earn higher returns. Regent Makarechian asked who is responsible for deciding how much liquidity a campus needs and in which vehicles its assets could earn the most revenue. Mr. Sterman said those decisions were made by the campuses, but the Office of the CIO can have input on discussions in partnership with Mr. Brostrom’s office to forecast campus needs. Much working capital has been moved from STIP to TRIP, and from TRIP to the GEP.

Mr. Bachher agreed that the Office of the CIO would be supportive of efforts to invest working capital most efficiently, but it must be done in collaboration with Mr. Brostrom’s office and the campuses.

Regent Anguiano cautioned that uses for working capital, intended for day-to-day expenses, were quite different from uses for GEP funds, which are intended to be longer term. It would be important to discuss with campuses when they intended to use the funds. Mr. Sterman agreed.

Mr. Bachher summarized that it had been a good year for UC investments. More importantly, over the past three years a culture had been established at the Office of the CIO based on these principles: less is more, risk rules, concentrate, creativity pays, build knowledge, team up, leverage UC’s competitive advantages, align with partners, take advantage of technology, and focus on long-term performance.

The Office of the CIO manages its funds with 26 investment professionals, 13 operations staff, five risk professionals, six treasury staff, seven investment fellows, and six support staff. On average in the industry, an investment professional manages $1.1 billion; at the Office of the CIO each investment professional manages an average of $4.2 billion. The number of external fund managers had been reduced from more than 240 managers and 340 funds, to 120 external managers currently, and would be further reduced to 100 in 2018, allowing for more meaningful relationships. Over the past three years, the Office of the CIO reduced management costs by $230 million. It renegotiated all fee contracts and added hurdle rates. Internal management costs of the Office of the CIO are 2.7 basis points for active management. Typical management company fees are 30 basis points. The Office of the CIO had added value of $2.2 billion over the past three years.

Mr. Bachher recognized personnel of the Office of the CIO for their accomplishments. Subcommittee Chair Sherman acknowledged the work of Mr. Fong, and announced the following promotions: Senior Managing Director Gloria Gil, Investment Director Susie Ardeshir, Investment Director John Beil, Investment Director Tony Lo, Investment Officer Jia Luo, Investment Officer Sheng-Sheng Fu, Investment Officer Jessica Hans, Investment Officer Matt Webster, Investment Officer Grahame Deasy, and a 15-year award for Milkah Cunningham.

Mr. White complimented Mr. Bachher on his efforts to reduce costs and to work with the campuses and with Mr. Brostrom’s office to improve the use of UC’s working capital. Faculty Representative May noted the GEP’s excellent returns and expressed hope that dialogue with the campuses would continue about taking advantage of the expertise of the Office of the CIO.

President Napolitano added her appreciation for the impressive performance of the team at the Office of the CIO and their focus on reducing fees and unnecessary costs.

Mr. Bachher welcomed guest speaker Laurence Fink, UCLA alumnus and Chief Executive Officer of BlackRock, the largest asset manager in the world. Mr. Fink commented that the UC Regents had been a great partner of BlackRock. He noted that his wife and his parents were also UC graduates, along with many other family members.

Mr. Fink said he had just completed a trip to Asia and discussed his views of that region. While North Korea had been in the news lately, it was not raised as an issue by those Mr. Fink visited. The U.S. was seen more as the aggressor through its military exercises in the region. Japan had undergone big changes during the past two years. China’s economy was developing in two phases: fast growth in the cities and slow or no growth in the regions. China’s state-owned enterprises create many jobs in the cities, but there is job destruction in the regions. Mr. Fink asserted that this trend is similar to that in the United States. China is no longer the least expensive place for manufacturing, and that country currently has extraordinary excess capacity. Mr. Fink anticipated that China would continue its overall growth rate of more than five percent a year.

Mr. Fink said that India continues to grow from six to eight percent a year. The Modi government’s reforms were starting to have an effect. While still difficult for investors, opportunities exist in India for infrastructure development in partnership with Indian companies. As India increases in importance, Asia has three very strong economies, with Japan, China, and India performing better than anticipated a year ago.

In Europe, there was more political unity than anticipated a year prior. The backdrop of the Brexit referendum in the United Kingdom and the election of President Trump created a transformation in Europe, which moved to the center. The German election the following month would solidify Chancellor Merkel’s role. The election of President Macron in France meant that for the first time in 20 years, France and Germany would be moving in the same direction. There is enthusiasm from French business leaders. Mr. Fink anticipated labor reform in France, which could lead to dramatic changes. The European Central Bank (ECB) has been very accommodating and was given the task of being the regulator of large European banks, which had previously been done by domestic regulators in each country. ECB stress tests of large banks forced the banks to raise more than $30 billion in capital. An adequate banking system is necessary for the flow of capital. The combination of political stability in Europe, the resolution of the banking crisis, and effective policies of the ECB was leading toward growth in Europe of more than two percent.

The Canadian economy, which had been commodity-based, was branching into more fields such as technology and financial services. Mr. Fink noted the great success of the Canadian immigration policy. Even with a drop in commodity prices and in spite of the debate with the U.S. about the North American Free Trade Agreement, the Canadian economy grew at 2.7 percent. The Mexican economy is growing at about two percent.

Mr. Fink said the only country with questions about its future is the United States. Outcomes in Washington, D.C. are hard to decipher because of a lack of consistent messaging. And yet, the U.S. has the most dynamic economy in the world, with more innovation than any other society. The energy revolution is a result of technology’s finding better imaging technology to find energy and new mechanisms to extract energy. The rapid decline in the cost of manufacturing alternative energy such as solar was opening a whole new dynamic. New solar fields are being created at three cents a kilowatt, less expensive than coal and natural gas. Despite inconsistent messaging from Washington, D.C., the U.S. economy is growing 2.5 percent.

Mr. Fink summarized his view that the world is better off politically and economically than was thought possible a year prior. He anticipated that, even though there had been an eight-year bull market, there would still be room for growth. Corporate earnings have generally justified stock appreciation. U.S. stocks are relatively expensive, which he attributed to U.S. pension systems' appetite for investing in equities.

Mr. Fink discussed the investment climate. He cited the most common fear that low inflation would result in a low-return environment. However, equity and private equity markets have been good. He noted that companies were reducing their discount rates, which would put more pressure on pension plan participants or the organization. Longer life expectancies combined with lower expected returns create a double-edged sword. Mr. Fink expressed his view that the greatest risk over the upcoming five years is that the demand for long-dated assets worldwide is very strong and central banks would probably raise short-term rates. The question arises if this could lead to an inverted yield curve, a situation in which equity markets perform poorly.

Mr. Fink added that he saw the biggest problem in the U.S. and the world as a lack of preparation for retirement. He saw the Brexit vote and the election of Donald Trump as the result of people's fear of the future, and the inability of most Americans to fund a dignified retirement. According to the BlackRock Investment Institute, the average American has saved $18,000 toward retirement and would earn $18,000 to $20,000 annually from Social Security, which would leave them in poverty. It is BlackRock's view that the transition away from defined benefit to defined contribution pension plans is one of the major causes of this problem. He said that a defined benefit plan creates certainty for retirees, but in a defined contribution plan the responsibility is passed on to the holder, most of whom do not have the financial literacy to understand what to do. Mr. Fink sees this as the greatest threat to the U.S. economy, with a corresponding opportunity for the U.S. to find solutions. The retirement issue would become bigger and would accelerate as more companies transform themselves through use of technology.

Mr. Fink said it was BlackRock's view that technology would transform the investment business, both by creating more efficiencies and for risk management. Using online technology and education to improve financial literacy could help Americans prepare for their future. Technology could be transformational in the effort to improve financial literacy.

Regulation was changing the financial industry and the behavior of financial advisors. The Department of Labor had changed the responsibilities of financial advisors from a suitability standard to a fiduciary standard. Most clients likely thought their financial advisors were fiduciaries, but legally they were not. Most large financial advisory firms were not going to allow financial advisors to construct portfolios any longer. As much as $5 trillion of managed assets would move from active to passive management. As more money moves into passive investments, opportunities for active investing would increase. Mr. Fink expressed support for Mr. Bachher's design of the Office of the CIO's investment platform.

Mr. Fink reported that BlackRock would play a more active management role in the corporate stewardship of companies in which they invest to communicate what his company expects on behalf of its investors on a deeper level than just a proxy vote. BlackRock was not an activist manager, but would be more active. Mr. Fink said the long-term health of companies should be paramount. He also saw environmental, social, and governance issues playing an increasingly larger role in corporate governance.

Mr. Fink said there was no better public university system than UC and he thanked Mr. Bachher and his team for their work on behalf of the University.

Subcommittee Chair Sherman asked Mr. Fink whether the aging of the U.S. population would lead to reduced consumption and about the effect of a more restrictive immigration policy. Mr. Fink said that estimates have concluded that immigration added one-half a percent a year to the gross domestic product, just in new consumption for the additional population, not even including the accomplishments of many great immigrants and the companies they created. Immigration has been an unquestionable foundation of the United States. He expressed disagreement with the current federal Administration's view on immigration.

Regent-designate Morimoto asked for Mr. Fink's opinion about the rise of digital currencies and Bitcoin. Mr. Fink responded that, while he saw a role for a legitimate digitization of assets in the future, the entire foundation of Bitcoin was illegal activity, such as money laundering.

Chair Kieffer asked Mr. Fink what he saw as possible solutions to the problem of inadequate retirement savings and lack of financial literacy. Mr. Fink responded that the largest segment of job creation since 2009 was for people over 50. People have no choice but to work longer, but that led to anger as reflected in the last presidential election.

Mr. White asked about increasing access to retirement plans and not reducing access to existing retirement plans. Mr. Fink expressed his support for having more commingled retirement plans with reduced expenses, rather than small communities having their own retirement plans that can be inefficient. He expressed his view that to raise the educational bar, more school districts should be regionalized to reduce the number of small, inefficient districts, which he cited as a big problem in the Northeast. He cited the need for leadership, which is currently lacking.

Mr. Bachher thanked Mr. Fink for his presentation and for BlackRock's responsiveness in its relationship with UC. Mr. Fink reiterated his continuing affection for the University of California.

The meeting adjourned at 5:20 p.m.

Attest:

Secretary and Chief of Staff