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4 NEW YORK CITY TEACHERS' RETIREMENT SYSTEM
5 INVESTMENT MEETING
6
7 Held on Thursday, June 2, 2022 via Videoconference
8 10:13 a.m.
9
10 ATTENDEES:
11 DEBRA PENNY, Chairperson, Trustee
12 DAVID KAZANSKY, Trustee
13 THOMAS BROWN, Trustee
14 SUMANTE RAY, Trustee, Mayor's Office
15 ALISON HIRSH, Trustee, Comptroller's Office
16 RUSSELL BUCKLEY, Trustee
17 PATRICIA REILLY, Teachers' Retirement System
18 SUSAN STANG, Teachers' Retirement System
19 ROBIN PELLISH, Rocaton
20 DEVON ALEXANDER, Rocaton
21 VALERIE BUDZIK, Teachers' Retirement System
22 LIZ SANCHEZ, Teachers' Retirement System
23
24 REPORTED BY:
YAFFA KAPLAN
25 JOB NO. 7321282

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2 ATTENDEES (Continued):

3 THAD McTIGUE, Teachers' Retirement System

4 DAVID LEVINE, Groom Law Group

5 MICHAEL HADDAD, Bureau of Asset Management

6 JOHN DORSA, Comptroller's Office

7 KOMIL ATAEV, Teachers' Retirement System

8 ISAAC GLOVINSKY, Teachers' Retirement System

9 BRENT PASTERNACK, Bureau of Asset Management

10 KAREN BARCLAY, Bureau of Asset Management

11 NOZA ZHUMANOVA, Bureau of Asset Management

12 TINA SUO, Bureau of Asset Management

13 ROBERT FENG, Bureau of Asset Management

14 JOHN GLUSZAK, Bureau of Asset Management

15 DAN HAAS, Bureau of Asset Management

16 DEV SUBHASH, StepStone

17 MARC RIVITZ, StepStone

18 JUSTIN THIBAULT, StepStone

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2 MS. REILLY: Good morning. Welcome to
3 the Investment Meeting of the Teachers'
4 Retirement Board for June 2, 2022.
5 I will start by calling the roll.
6 Thomas Brown?
7 MR. BROWN: Here. Good morning,
8 Patricia.
9 MS. REILLY: Russell Buckley?
10 MR. BUCKLEY: Good morning, Patricia. I
11 am here.
12 MS. REILLY: Good morning.
13 Suman Ray?
14 MR. RAY: Good morning. I am here.
15 Suman.
16 MS. REILLY: Thank you.
17 Alison Hirsh?
18 MS. HIRSH: Here.
19 MS. REILLY: Dave Kazansky?
20 MR. KAZANSKY: Present.
21 MS. REILLY: Debra Penny?
22 MS. PENNY: Here.
23 MS. REILLY: We have a quorum. Turn it
24 over to the chair.
25 MS. PENNY: Good morning, everyone. We

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2 are going to start with Passport Fund's first
3 quarter 2022 performance review. We are going
4 to go to Robin.
5 MS. PELLISH: So we have already
6 reviewed March results, but perhaps we can
7 just go through the quarterly performance
8 report. Thank you.
9 And flip forward a little bit to Slide
10 3, which has capital market performance as of
11 March. I just wanted to refresh everyone's
12 memory if everyone was not aware of this
13 already, but on this chart what we are showing
14 is performance over the first quarter. So
15 those in the green bars, the one-year period
16 ending with March 31st and then we chose five
17 years. And so you can see, this is as of
18 March and we will be talking about both April
19 and May in a few minutes; but as of March we
20 can see that the major equity markets, U.S.
21 equity market and the world equity capital
22 markets, were positive still for the one and
23 five-year periods despite losses in about the
24 5 or 6 percent range for the first quarter.
25 You can see that's true except for emerging

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2 markets, which were down 7 percent for the
3 first quarter and for the one-year period down
4 about 11 percent.
5 The other thing that is striking about
6 the first quarter is not only the negative
7 returns in equity markets, but also the lack
8 of diversification offered by fixed income to
9 those losses in the capital market. So if you
10 look at the right-hand side of this slide, you
11 will see performance for the U.S. Aggregate
12 Bond Index, which was down 6 percent for the
13 first quarter and for the one-year period down
14 a little over 4 percent. Still slightly
15 positive for five years, but for the first
16 time in a long time we are seeing that there
17 is no shelter from the storm in the fixed
18 income markets. We witnessed in the first
19 quarter some widening of spreads as well as
20 rising rates, and so those both combine to
21 lead to negative returns in the fixed income
22 markets. And I know that that's probably a
23 theme that Mike will talk about in his report
24 on the pension fund, but it's an important
25 theme and I think it's an important aspect of

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2 the current market volatility to remember when
3 we talk about other strategies that we are
4 trying to invest the pension fund.
5 So with that I could discuss
6 first-quarter returns for the individual
7 funds, but we have already talked about them
8 in prior meetings so I think it might be a
9 better use of time to talk about what happened
10 in April if that's acceptable to the board.
11 MS. PENNY: Sure.
12 MS. PELLISH: Okay. So that would
13 conclude my remarks for the first quarter, and
14 Devon Alexander will comment on April and May.
15 MR. ALEXANDER: Sure.
16 For the month of April we saw that the
17 Diversified Equity Fund down by just over
18 8-1/2 percent. A little bit past there is the
19 actively managed U.S. Equity Composite down by
20 just over 10 percent. On the relative basis
21 International Equity Composite was a slightly
22 better performer, down by only 6-1/2 percent
23 for the month. Moving down to the Balanced
24 Fund down by 3, 3.4 percent. In International
25 Equity on a relative basis, International

1 Proceedings
2 Equity Index Fund was actually slightly
3 stronger, down by just over 6 percent for the
4 month as well. We do see some lag here on the
5 U.S. side. U.S. equity was down by almost 9
6 percent, 8.79 percent for the month and on the
7 sustainable side as well we will get to some
8 challenges for the month. We saw the
9 Sustainable Equity Fund down by 12.9 percent
10 as well.
11 MS. PELLISH: I think it's worth noting
12 because of the losses during April, we now see
13 the year-to-date one-year performance as
14 negative for the U.S. Equity Fund as well as
15 for a number of the other variable funds. So,
16 in fact, all of the variable funds for the
17 one-year period are now negative.
18 MR. ALEXANDER: And are there any
19 questions on April?
20 Moving over to preliminary results for
21 the month of March -- sorry, for the month of
22 May, on the bright side they are all zeros
23 which could be a good signifier that is an
24 indication that this may be the end. There
25 may be an upswing there. We saw some -- you

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2 know, the highlights of the page we saw
3 relatively strong performance from Brown
4 Advisory. They are up by almost a half
5 percent for the month. On the international
6 side as well we saw Fidelity, the total
7 International Index Fund was just up just over
8 1-1/2 percent for the month. But for the most
9 part, everything was pretty flat across the
10 board. But I think that would be a good
11 indication, if you compare to that calendar
12 year to date which was negative throughout,
13 zero is not so bad after all.
14 MR. KAZANSKY: Thanks for cheering us
15 up.
16 MS. PELLISH: So that's really the story
17 for May, flat performance. Slightly positive
18 in non-U.S. equity markets from a dollar-basis
19 investor perspective and so better in the
20 fixed income markets.
21 MS. PENNY: Any questions for Robin or
22 Devon?
23 Okay, so then we are up to the public
24 agenda for the pension fund. We start with
25 the quarterly fund performance and review. I

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2 hope you do a little bit better.
3 MR. HADDAD: Unfortunately, Robin has
4 given me some of the burden of sharing the bad
5 news. Kate, can we get our slides up, please.
6 Next slide, please. So just to kind of
7 set the table what we are doing, we are going
8 through our normal Q1 review with myself and
9 then Dan doing some risk analytics, some
10 forward-looking concerns in the market which
11 are kind of similar to what we experienced.
12 Then we are going to show you some snapshots
13 of more current stuff and deep dive. Today is
14 all about fixed income, so we have Robert Feng
15 doing public fixed income and Tina Suo doing
16 alternative credit. Normally you will find my
17 remarks with all sorts of fixed income stuff
18 in it, and I am trying to limit those because
19 they are really going to harp on the themes
20 both within their asset classes and within
21 your managers. And then we go into our
22 investment recommendations. So with that
23 being said --
24 MS. HIRSH: I can just jump in. The
25 first part of your presentation will be in

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2 public and then we have to move into exec.
3 MR. HADDAD: And, yes, we will tie in
4 the information.
5 Next slide, please. So I will briefly
6 talk about the quarter returns in both fixed
7 income and equities. So I am going to go into
8 some rationale before that, but a couple of
9 takeaways from the slide I want to call your
10 attention to. So when you look at the first
11 row, public U.S. equities, terrible
12 performance in Q1. Strong performance in the
13 longer time period and importantly I want to
14 remind everyone again the last column is the
15 weighted average of the five consultants
16 returns, so not just Rocaton but the five.
17 And the point of that is just to show the
18 massive outperformance by U.S. equities over
19 some longer time periods. Key question that
20 we all face, is that going to continue or is
21 that going to revert? So we are going to come
22 back to that theme a few times.
23 The other thing I want to point out in
24 fixed income, the long duration stuff, rising
25 rates had a terrible quarter; but

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2 interestingly in a risk-off environment the
3 credit stuff, investment grade and high yield,
4 the negative returns there are from the
5 movement of interest rates, not from spread
6 widenings. And, again, that theme kind of
7 gets into are we going into recession or a
8 hard landing. In previous cycles, we have
9 seen credit be a canary in the coal mine;
10 that's not happening today. So you see those
11 negative returns and just as a reminder those
12 come from the moving rates, not from spread
13 widening.
14 Next slide, please. As this feels like
15 ancient history, the narrative around this is
16 really a rise of inflation, central bank
17 hikes. A few key things on this slide I just
18 pointed out and then that third bullet, rate
19 hikes in other countries as well. So this
20 isn't just a U.S. phenomena; virtually every
21 central bank in the world, other than Japan
22 and China, are raising rates. And Robert has
23 a great slide on the magnitude of that. As we
24 all know, the Russian invasion of Ukraine and
25 China's zero-COVID policy have added to the

1 Proceedings
2 inflationary pressures we are feeling in the
3 economy.
4 Next slide, please. So Robert is going
5 to talk about some of the fixed income
6 decline, so I want to focus on some of the
7 equity stuff. So we are labelling this
8 correction from historically expensive
9 valuations; and I think Robert and I both felt
10 like broken records talking about historically
11 expensive, historically expensive and then,
12 boom, it happens. What we are showing here is
13 the contraction in the forward PE ratio from
14 both the S&P 500 and the NASDAQ. And again if
15 you go back to the beginning of the year, the
16 forward PEs were the most expensive they have
17 been other than the pre-NASDAQ crash. So we
18 started in an expensive place and we are on
19 the way down. The big question is, are we
20 going to hold in those levels or is there more
21 damage to come? Obviously we don't know the
22 answer to that, but what we are trying to
23 show here is this has really been not about
24 earnings growth slowing; it's about rising
25 yields which bring down PE ratios because of

1 Proceedings

2 the change in the fixed income method.

3 Next slide, please. So this is the

4 Goldman Unprofitable Tech Index. As you can

5 see it at the starting point, in the beginning

6 of the pandemic was its peak; it went up

7 almost 450 percent, so a huge rally. It has

8 now crashed. It's down 75 percent from peak.

9 What names are in there? Think Zoom, think

10 Peloton, Teladoc, CrowdStrike of lot of these

11 firms that had multiple billion-dollar

12 valuations with negative earnings. And that

13 collapse is underway and, you know, it is what

14 it is. It's really that growth equity in

15 venture; that's great run-up and now it has

16 come down to earth. They are riding now, but

17 the growth rate changed and the stock got

18 valued on the growth rate during the pandemic.

19 So whatever the growth was like this, it went

20 like this and equity investors valued this ad

21 infinitum and then the growth rate slowed.

22 And then this is an attempt to frame the

23 historical nature of Q1 and how unusual it

24 was, so a histogram. And across the

25 horizontal axis we are showing quarterly

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2 returns from index 60 percent equity, 40
3 percent bond portfolio. And if you can read
4 it, it goes from minus 12 percent on the left
5 to plus 17 percent on the right. On the
6 vertical scale, the frequency, this is going
7 back 46 years. So where it was Q1 in the
8 history of 46 years, you see the dark bar.
9 You never want to be on the left tail; you
10 want to be on the right tail of these things.
11 In terms of percentile over the 46 years, it
12 was in the 8 percentile of return. So it
13 really was a terrible quarter historically.
14 Next slide, I think this goes over to --
15 is this still me? I can't remember. Oh, I'm
16 sorry. So those are the public markets. Now
17 your portfolio, how did the Teachers'
18 portfolio do in your specific asset classes.
19 So I am going to come back to this in the
20 excess returns but in the top two rows, U.S.
21 equity, world ex-U.S., you underperformed the
22 benchmark. So we are going to go into
23 greater detail on that. In high yield you
24 outperformed the benchmark. Tina is going to
25 cover that, so I am not going to touch that

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2 one.

3 Next slide. Here comes some good news.

4 So a couple of caveats here. So first of all

5 we are showing one-year returns, not three

6 month, and we really want to get in the habit

7 of thinking about private markets on rolling

8 one year. Not a lot changed from three month

9 to three month, so we are doing that.

10 Secondly and extraordinarily important

11 these are lagged by a quarter, so these are

12 the end of December. And as a reminder, at

13 the end of December the S&P was at an all-time

14 high; the 10-year yields were 100 --

15 MR. BROWN: You said it was good news.

16 MS. REILLY: It's a caveat, as our

17 lawyers have advised us. That being said,

18 the returns are spectacular. Private equity,

19 so markup in realizations. Core real estate,

20 rebound from -- I'm sorry, core real estate

21 you benefited greatly from the portfolio

22 construction. So relative to the benchmark,

23 you had overweights to industrial, to

24 multifamily and some of the niche strategies;

25 core real estate driven by recovery from

1 Proceedings
2 pandemic lows. Infrastructure, you know, a
3 little bit better than how it's performing,
4 but kind of in line with its historical
5 performance. And, again, concentrated
6 portfolio doing as expected. And importantly
7 it's designed to benefit from rise in
8 inflation, so we will get the benefit over
9 the next few quarters to see how that's done.
10 Opportunistic fixed, so the one-year return is
11 still positive. If we showed you three-month
12 return, that's slightly negative. With the
13 rising rate environment, we expect those
14 returns to come back down. Importantly
15 opportunistic fixed is marked at the end of
16 March 31st, so that does include that negative
17 first quarter.
18 MS. PELLISH: Can we talk about that a
19 little bit more, because we are going to have
20 some recommendations. I think that's a
21 notable number because that's the
22 first-quarter number. And if we look back at
23 what the Barclays Aggregate did, public market
24 fixed income did significantly.
25 MR. HADDAD: Significantly outperformed.

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2 MS. PELLISH: Yes. And that's the logic
3 for opportunistic fixed, which is that it's in
4 public fixed; either you are impacted by
5 rising rates, you are impacted by spread
6 tightening or widening and, you know, both of
7 those variables are sort of out of your
8 control. And there is a little bit of value
9 in security selection, but very modest value
10 in security selection. This is all about
11 strategy, finding opportunities in either
12 public or private credit markets, and this is
13 the kind of diversification that I think we
14 are going to be dependent on for some time.
15 MR. HADDAD: Said differently, some
16 uncorrelated strategies that don't just move
17 with public markets. That's the Holy Grail of
18 allocating.
19 MS. PELLISH: That's the logic.
20 MR. HADDAD: And then importantly the
21 bottom table on this chart, the dark line is
22 your performance over the various time periods
23 listed above and then the three benchmarks
24 that we measure ourselves against. So that's
25 -- start the first year, your custom policy

1 Proceedings
2 return you underperformed by a full percentage
3 point. That primarily comes from U.S.
4 equities and international developed market
5 equities. Going to that in a second. How
6 have you done versus public markets 65 to 35
7 equivalent, so you outperformed that by 110
8 basis points; that's because of your
9 allocation to privates which have done so
10 well. That same factor hurts you in the TUCS.
11 The TUCS as a reminder is a broader
12 20-billion-and-above endowments, foundations
13 and pensions and those, most of the funds in
14 there, have higher allocation to privates than
15 we have not because of our control, but
16 because of other controls. So those are the
17 three benchmarks that we like to measure
18 ourselves against. And if you look at longer
19 time periods there is not as much deviation,
20 but the same factors would hold onto that.
21 Next slide, please. So, importantly,
22 how do we disaggregate the excess returns? On
23 the far right hand the excess returns'
24 negative 92 basis points in the middle, that's
25 decomposed into two components. The asset

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2 allocation effect of plus 9 basis points and
3 these were the slight overweights we had to
4 cash, the slight underweights to fixed
5 income, the slight underweight to public
6 equity so that shows up. So the majority of
7 underperformance came from manager selection,
8 so let's dig into that.
9 Next slide, please. So here are the
10 excess returns for public markets. We are
11 going to show public and then private because
12 they are very different. So U.S. equities
13 three month and one-year underperformance and
14 this is -- this is unusual given that you are
15 mostly indexed, so you don't expect much
16 deviation so what's the driver of that? One
17 would be your lack of exposure to energy.
18 Energy in Q1 was up 38 percent. Energy on a
19 one-year basis was up 56 percent so you are
20 missing some of that, but equally
21 disappointing was the performance of your
22 small-cap managers. And with the exception of
23 Pandora, who is a quant manager, the rest of
24 them underperformed. So the two contributing
25 factors, those are two contributing factors.

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2 The world ex-US and ex-U.S. numbers
3 stick out like a sore thumb. Two managers
4 responsible for that on a shorter term basis.
5 On the longer term, they are the reasons you
6 have outperformed and they are Bailie Gifford.
7 Eye-popping number. On the three-month basis
8 they underperformed by 1,800 basis points, and
9 on a one-year basis 2,200 if memory serves;
10 1,800 was a three-year basis and on one year
11 you are 2,676 underperformance. And remember
12 what Baillie does; they are the growthiest of
13 the growth. They own Zoom, they own Peloton,
14 you know, they have that -- that's the thesis;
15 that's why we have hired them. They have done
16 great over the long term, but they were caught
17 in that collapse of the unprofitable tech
18 index. Walter Scott has underperformed. The
19 numbers with Walter Scott: Three month, 700
20 basis points underperformance. One year, 200
21 basis points underperformance. They are
22 growth, but quality growth so they are much
23 more concerned about the fundamentals of a
24 company and near term rather than longer term
25 like Baillie. So those are the contributors

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2 to that.
3 In emerging markets not much deviation,
4 but dispersion within your markets. The
5 growthy managers, Bailie Gifford, UBS, Sands
6 underperformed and then importantly Acadian,
7 AQR who are quant managers outperformed, so
8 offset each other; but just kind of to
9 understand the dispersion that happened there,
10 high yield Tina is going to cover. ETI, the
11 second-to-bottom line, as a reminder your ETI
12 portfolio has a slightly longer duration than
13 the index. What does that mean? In a
14 raising rate environment, we expect them to
15 underperform. In a falling rate environment,
16 we expected them to outperform; they did what
17 they were expected to do.
18 MR. KAZANSKY: Before we go into the
19 next slide, I want to kind of get a sense: So
20 you are talking about like these active
21 managers who are trying -- who are going into
22 growth. And anyone -- I mean, I would imagine
23 that if you are into Zoom and we are in the
24 pandemic, right, that's a smart place to be;
25 but as restrictions are easing and as things

2 are returning to normal, would the play be to
3 get out because Zoom can only do so much?
4 Right, like there is only so many more virtual
5 meetings that we aren't already doing, so
6 what's the logic behind these managers hanging
7 on much longer than it would seem logical to
8 hold on to Zoom?
9 MR. HADDAD: Use that one example.
10 Let's go back to the end of -- when did we get
11 the vaccine announcement, November 20th? I
12 know it's hard to remember. So that's when
13 things were, oh, my gosh, we might actually
14 emerge from this. And then take Zoom as an
15 example; it's been on this massive growth rate
16 and you are one of these small-cap managers or
17 you are Baillie and you are on it. And I
18 can't speak for them but the logic would be,
19 okay, massive growth rate; it's going to
20 decelerate to what level? Look, we are still
21 doing virtual; we are still using Zoom. And,
22 you know, I am not exclusively -- now we are
23 doing both and I think there was probably a
24 pretty healthy debate at the time is Zoom
25 going to be a permanent part of how we meet,

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2 is business travel going to be curtailed
3 and -- you know, because the airline stocks
4 are the opposite of the stay-at-home stocks.
5 And I don't think we knew as society at the
6 time and still personally I wonder if a Zoom
7 is a great buy right now.
8 MS. PENNY: And Peloton is.
9 MR. HADDAD: For family members. There
10 is a handful of stocks that really benefits
11 the stay-at-home stocks versus the travel
12 stocks. Then it's a tale of two stories; one
13 gets thrown in the growth category, one gets
14 thrown in the basket category. It's a better
15 question for Baillie to answer and we
16 certainly have -- we have not had them in. We
17 had them on Zoom and we have gone over this
18 with them.
19 Let's go to privates. Next slide,
20 please. So again the caveat with lags, but
21 really strong performance. So starting with
22 private equity one-year numbers -- as a
23 reminder these are dollar-weighted, not
24 time-weighted so there is some difference in
25 the numbers, but the benchmark was 25.6

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2 percent. That was the Russell 3000 return for
3 the dollar-value weight for that one year; 74
4 percent of your AUM outperformed that 25.6, so
5 really strong performance when you compare
6 apples to apples. Both markups and asset
7 sales benefited to that. Star performers
8 included KKR XII, which is a big weight in
9 your portfolio and an eye-popping low 8s IRR.
10 Other strong performers included Platinum V,
11 EQT VIII. Those are again eye-popping 65ish
12 numbers, so really strong.
13 In core real estate, I mentioned you
14 benefited from portfolio construction. So the
15 managers who really did well there in the
16 logistics section, think the Exeter Core Fund,
17 think ElmTree like, think Liontrust; they all
18 did well. And then in noncore, Exeter
19 Industrial Fund did extraordinarily well. KKR
20 Europe funded well. Aermont funded well.
21 Again, crazy eye-popping 50ish number, IRR
22 numbers. Again they aren't going to hold at
23 that level, but they are what they are for the
24 time being.
25 Infrastructure, again strong

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2 outperformance relative to its absolute
3 benchmark. And two managers, KKR and EQT,
4 benefited from; they both had two asset sales
5 within their portfolio that were meaningfully
6 higher than where they were marked and higher
7 than what they had underwritten them to. So
8 really strong performance by a couple of
9 managers there.

10 And opportunistic fixed, I am going to
11 defer to Tina to go into greater detail on
12 that.

13 Next slide, please. So in terms of
14 rebalancing Q1, what did we do on your behalf:
15 2-1/2 billion in and out of your portfolio;
16 1.7 billion of that had to do with funding
17 three new mid-cap managers for you and those
18 were Cooke & Bieler, and Victory, and
19 Westfield. The only rebalancing flow was 550
20 million that came out of the U.S. equity
21 market early in Q1 as we were reducing the
22 overweight while the market was still up.
23 Other than that, there has been no rebalancing
24 activity.

25 Next slide, please. This is a summary

1 Proceedings
2 of your overweights and underweights, again
3 trying to show you a little time series how
4 that evolved over the previous three quarters
5 as well as what your policy targets are. So
6 if you look at Q4 to Q1 what changed, cash
7 went up a little bit. The next three rows
8 were all about fixed income, no meaningful
9 change there; we maintained those slight
10 underweights. Then in the three sleeves of
11 equity, you can see what was an aggregate of
12 slight overweight is now turned into an
13 aggregate slight underweight. And,
14 importantly, the movement in emerging markets
15 happened through changes in NAV; no activity
16 on our part. Again, the only activity we did
17 was that small $550 in Q1.
18 So that kind of concludes Q1 from my
19 perspective. I think we go into Dan who is
20 going to do some risk analytics around that,
21 unless there are additional questions or
22 comments on Q1.
23 MS. PENNY: Any questions for Mike?
24 MR. HADDAD: Okay, Dan, over to you.
25 MR. HAAS: Thanks, Mike.

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2 Everyone hear me okay? Good morning,
3 everyone. I am here with your new chief risk
4 officer, Ed Berman. He is hiding just off
5 screen with a notepad, some support for me.
6 We are going to review some highlights
7 again as before of the risks summary that
8 appears in your quarterly reports. Again as
9 usual starting in the top left-hand corner,
10 there you can see the total plan risk for the
11 quarter ended March 31st was 10.95 percent, up
12 from 10.59 percent back in December. The
13 benchmark risk is also 10.95 percent in March;
14 that's increasing from 10.33 percent in
15 December. Benchmark risk increased a little
16 bit more than portfolio risk and we saw small
17 corresponding changes in your active risk and
18 portfolio beta number.
19 If we move to the bottom panel, again
20 this is your ex ante portfolio risk. That's
21 the blue line. The benchmark risk, your red
22 line. And portfolio beta, those gray bars
23 that correspond to the right-hand scale there
24 for each of the last 12 months. And again
25 wanted to show you the trends in the

1 Proceedings
2 portfolio, you know, in your risk over time
3 with this section. You can see of course as
4 markets became more volatile in March, your
5 overall risk increased slightly. This is
6 again forward-looking risk so it's modelled
7 through Bar 1, your ex ante risk. Let's see
8 here.
9 The chart at the top right breaks down
10 that change in risk during the quarter into
11 three broad categories. This is the change in
12 volatility, your change in correlation, and
13 the change in portfolio exposures. The change
14 in volatility and change in correlations
15 categories are market-driven phenomena so
16 these risks decline, you know, changed in step
17 with market risks and were not the results of
18 specific position rates or tilts in the
19 portfolio. And then the change in portfolio
20 exposures, that bottom line here represents
21 the portion of portfolio risk that's attached
22 to those market trends. You can see again
23 most of the change in risk in your portfolio
24 for the quarter had to do with the change in
25 volatility, so again markets became more

1 Proceedings
2 volatile as did the portfolio and that's what
3 drove most of the risk up. That's a bit of a
4 change from quarters past. One way to examine
5 the same metrics.
6 And then of course finally, the table at
7 the top center there shows you the difference
8 between your portfolio allocation by assets
9 and your allocation to risk. Again the
10 headline here, we are about 60/40 split
11 between equity and fixed income in terms of
12 allocation. And allocation, you are deriving
13 95 percent of your portfolio risk from your
14 allocation to equity. Just meaning that
15 equity drives most of the risk in your
16 portfolio.
17 We can take a look at this in a little
18 bit more detail on the next slide. Thanks,
19 Kate. Okay, here we are summarizing your
20 portfolio allocations. Your performance in
21 your risk by strategy, again, for the quarter
22 ended in March. Actually, we are using one
23 year look-back here. The left-most section
24 you are seeing a snapshot of your parking
25 place allocations adjusted on March 31st.

1 Proceedings
2 This is echoing the slide Mike shared with you
3 a few minutes ago. Again, at that time slight
4 overweight to cash and underweight our core
5 fixed income strategies. The performance
6 section in the center shows you the one-year
7 return by strategy relative to the benchmarks,
8 again echoing some of the slides Mike shared
9 with you. Here we see the alternatives
10 outperforming their benchmark as we talked
11 about, and then we have underperformance of
12 developed markets equity, and then finally
13 that last section we are decomposing the risk
14 by strategy. The first three columns in that
15 section show you the benchmark risk -- I'm
16 sorry, the portfolio risk, the benchmark risk,
17 and then the contribution to overall risk for
18 the portfolio. Again, you know, harking back
19 to the last slide, about two-thirds -- 95
20 percent of the overall risk comes from your
21 equity strategies which you can see broken
22 down here. Also interesting enough, about
23 two-thirds of the way down you see the core
24 fixed income strategy is a slight detractor
25 from risk of negative 0.1 percent and that's

1 Proceedings
2 due to the strategy's slight negative
3 correlation to the rest of the portfolio. I
4 think we saw that last quarter as well.
5 Then finally that right-most column, we
6 are showing you the active risk or tracking
7 error in the portfolio. Again I think we
8 mentioned this last quarter, but for context
9 you see very little tracking error coming from
10 a pure passive portfolio. You see maybe 1 or
11 2 percent coming from an enhanced index fund
12 like a smart beta strategy, then you see
13 perhaps 4 percent for actively-managed funds.
14 Along those lines, you note the tracking error
15 is comparatively a little low if we are
16 comparing U.S. equities which are largely
17 passive to say emerging markets which are more
18 actively managed. Finally as in quarters
19 past, we see much of the tracking error is
20 picked up through alternative investments.
21 Again, that's a function of the alternative
22 methods themselves are modelled through Bar 1
23 through the risk system. And they don't
24 necessarily the performance indices that we
25 assign to them as a matter of policy, don't

1 Proceedings

2 track the risk exposure within those modelled
3 asset classes particularly well. So, again,
4 perennially we pick up a lot of tracking
5 error for those. It's just a matter of
6 construction, but they are relatively stable
7 over time.
8 I think that covers the highlights of
9 the quarter. I think I will turn it over,
10 back over to Mike. We can start exploring
11 some more recent trends in the portfolio. Or
12 if you have any questions, happy to answer
13 them now.
14 MS. PENNY: Question for Dan?
15 No, we are good.
16 MR. HAAS: Okay, thanks.
17 MR. HADDAD: So let's talk about
18 concerns going forward. The concerns going
19 forward are similar to what we experienced and
20 that's slowing growth, high inflation, and
21 rate hikes. On top of that, the geopolitical
22 concerns still remain today. As to the
23 Russian-Ukraine War, when you talk to the
24 so-called experts there doesn't appear to be
25 any easy way out of this for either side so we

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2 expect those concerns to continue. In China,
3 you know a lot of uncertainty there, but the
4 zero-COVID policy certainly adds to supply
5 chain issues; it slows growth. The property
6 sector decline, they are still going through
7 that issue and this whole shared-prosperity
8 policies.
9 Next slide, please. So let's dig in a
10 little bit into the slowing growth and high
11 inflation. So what is going on, we have
12 central bank hikes. We have the Fed about to
13 embark on QT, Europe is about to end QE, and
14 we still have this high inflation rate that's
15 expected to kind of be sticky near term and
16 then come down later. The big question of
17 recession or soft landing has important
18 implications for the asset class and we are
19 going to try to frame that through two
20 different ways, neutral or restrictive
21 monetary policy and then financial conditions
22 index.
23 So let me back up to QT one second and
24 Robert is going to talk about this, but I want
25 to frame this in a historic way as well. What

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2 was passed in this country is almost $5

3 trillion during the pandemic. You know, with

4 a T. Never done that before. What does that

5 mean? That stimulates growth, causes. The

6 government has to borrow more money to do that

7 so borrowing requirements soared, but at the

8 same time the Fed embarked on QE. Lo and

9 behold, the size of the QE matched the size of

10 the increased borrowing.

11 MS. HIRSH: What is QE and what is QT.

12 MR. HADDAD: Quantitative easing and

13 quantitative tightening. This is when the

14 central banks buys securities in the market

15 and they are trying to influence the economy

16 through this. So the Fed bought everything

17 additional issued by the Treasury. Some

18 people might call this modern monetary theory;

19 some people might call this monetary fiscal

20 link. Whatever it was, it was extraordinary

21 and it's now ending. In little terms month by

22 month the Fed is lowering the amount they are

23 buying and their balance sheet is shrinking.

24 And then the simple principles of supply and

25 demand, if there is less demand for a given

2 security what has to happen? The price has to
3 be lower. So all things being equal, rates
4 should continue higher.
5 The other thing I am going to go back
6 to, neutral restrictive policy. What does
7 that mean? Neutral policy in economic speak
8 is R-starred. What is R-starred? It's a
9 policy rate that neither stimulates nor slows
10 the economy. It's a perfect setting that the
11 Fed tries to get. Restrictive means when they
12 raise rates enough to purposely slow the
13 economy. What happens then? Unemployment go
14 up, earnings go down, and they are
15 intentionally slowing the economy to get
16 inflation down. And one of the key questions
17 for markets is, which one is required to get
18 inflation down? And that is as inflation
19 falls and short rates go up, where do they get
20 to the point where it either stimulates, where
21 it get inflation down? And that's obviously
22 not knowable or we will spend some time on
23 that. I just wanted to set that up.
24 Next slide, please. So growth is -- I'm
25 sorry, let me set this up. This is change in

1 Proceedings
2 growth and change in inflation. A consensus
3 how it has evolved over the past year. The
4 light blue line is inflation, so we can see as
5 it has gone up expectations have gone up. We
6 have gone from this transitory to some other
7 word that we are using now, while growth
8 still hasn't come down as well. Why does GDP
9 growth matter so much? It's the single-most
10 important factor that drives earnings in the
11 equity market. And this slide shows the tight
12 fit between earnings and growth, so as growth
13 grows so do earnings and so does the equity
14 market. It's the single-most important
15 factor.
16 Next slide, please. So how does
17 recession impact the equity market? What this
18 slide shows is the last 12 recessions since
19 the end of World War II. The dotted blue line
20 across shows the median peak to trough decline
21 in the S&P 500. As you can see, that median
22 in history is about 24 percent. As of this
23 morning, we are only down 14 percent because
24 we had that nice rally in May. So relative to
25 history, we haven't really gone to a

1 Proceedings

2 recession. The other thing I would point on
3 this is the dispersion between the worst peak
4 to trough climb, which is the global financial
5 crisis and some of the lighter ones. So this
6 question of recession or soft landing,
7 important impact on the equity market and
8 recession or soft landing to going to be
9 driven by neutral or restrictive policy.
10 MR. KAZANSKY: And if it's not the
11 perfect time to ask this, we can get to this
12 at the end: So then how are like -- Jamie
13 Dimon spoke yesterday about a hurricane. Like
14 how does that -- is that just because people
15 shift, the market shifts the outcome? So is
16 that going to have any real effect or is he
17 just pontificating?
18 MR. HADDAD: I think he is
19 pontificating, but from a wealth of the
20 information. Think about the touchpoints of
21 that institution; they see a lot through their
22 businesses. It's funny, a week ago he was
23 giving calming remarks so I didn't delve into
24 them but -- if you think "hurricanes" is a
25 chosen word, but it's what -- it's the

1 Proceedings
2 exogenous shocks; the Russia situation, the
3 China situation, the things going on in our
4 country, the division in our country/the left
5 versus the right. These are hurricane-like
6 factors and we are facing higher inflations,
7 which means interest rates are going to be
8 higher for the next probably decade than we
9 have seen in the past decade, and that's not
10 great for asset markets. If we have benefited
11 from those high PE ratios, we have benefits
12 because we have low interest rates. And I
13 think some of that hurricane is the higher
14 interest rates.
15 MS. PELLISH: So the higher interest
16 rates, I think it's important to note they are
17 not great for equity market valuations; but we
18 have a big fixed income portfolio, so we will
19 have some shorter-term pain as market values
20 fall but we will be reinvesting at higher
21 rates.
22 MR. HADDAD: Tom, did you have a
23 different question?
24 MR. BROWN: No. Soft landing or
25 recession, when can we expect? Is there a

1 Proceedings
2 time frame you are saying recession or soft
3 landing?
4 MR. HADDAD: I think the appropriate
5 time frame is probably somewhere between a
6 year to three; eighteen months to three years.
7 There is a lot of momentum; there is a lot of
8 momentum in the economy still. Q1 was a
9 negative GDP quarter, but that's because of
10 the net trades dragged. Consumption is
11 two-thirds of our economy and that remained
12 strong in Q1, remains strong into Q2. There
13 is $2 trillion of excess savings in our
14 economy from folks saving as well as that 5
15 trillion stimulus, so -- and job growth still
16 remains strong. So there is a lot of positive
17 thing going on and no distress in the credit
18 markets that would say we are nowhere near a
19 recession right now.
20 MR. BROWN: Recession or soft landing,
21 can it be something else miraculously we
22 didn't anticipate?
23 MR. HADDAD: So Dan is going to do a
24 stress test around these and he is like,
25 aren't you going to give the good scenario?

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2 And I am like, what's the good scenario; Putin
3 ends the war, China ends zero-COVID policy.
4 MR. HAAS: As a matter of fact, yes.
5 MR. HADDAD: If a good scenario happens,
6 then all of my worries --
7 MR. BROWN: It wouldn't be soft landing
8 or recession?
9 MR. HADDAD: It would be continued
10 strong growth and somehow inflation
11 miraculously comes down. If we continue
12 strong growth, then you would not think
13 inflation would come down which then means the
14 interest rates have to work harder to get the
15 inflation down. So the really good outcome is
16 somehow growth remains above trend and
17 inflation comes all the way down to 2 percent
18 from the high 6. It's possible. The supply
19 side stuff gets worked out and I will have a
20 good graphic on that that I will share, so
21 it's possible. I just think to me investing
22 is risk, reward, and probability. So a good
23 outcome that's going to be great for the
24 portfolio, but what's the probability of that?
25 MR. BROWN: I guess you don't believe

1 Proceedings
2 it's possible.
3 MR. HADDAD: So when we think about
4 inflation, fundamentals about inflation, two
5 slides to share with you here.
6 On the left, this shows within the graph
7 there is a bunch of different things starting
8 with new cars. These are the items that have
9 been impacted meaningfully by the supply
10 constraints around the world. And what is the
11 black line in the graph of that line graph is
12 the sum of all those imports onto
13 year-over-year core inflation. So you can
14 see at peak it was adding about 150 basis
15 points to core inflation. And as the supply
16 kinks get worked out, we expect those numbers
17 to come down. They started to come down
18 slowly. This graph is a month or two old and
19 importantly this is a Goldman graph. They
20 see it contributing less over time and then
21 actually taking inflation lower over time. So
22 if and when this comes to fruition, this is
23 very positive for the supply -- the supply --
24 I'm sorry, the goods part of inflation and
25 these things happen. You know, you are going

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2 through it now trying to buy a used car; it's
3 real.
4 Unfortunately on the right side, I am
5 showing on OER. In CPI speak, that's owners'
6 equivalent rent. It's the Bureau of Labor and
7 Statistics trying to estimate cost of living
8 or living in your home, and what the model on
9 here shows is the dark line is the model and
10 it's forecasted to go higher. Where that X is
11 is where we are now. Key inputs into the
12 market are some rental indices that are more
13 realtime. Home prices, the theory is rental
14 price follow home price over time. And we
15 know home prices are up 20 percent year over
16 year and OER is about one-third of total core
17 inflation. So while we have inputs on the
18 left are going to push core down, we have
19 inputs on the right are going to push service
20 sector inflation higher.
21 If you divide our economy from goods
22 versus services we are like two-thirds
23 services, one-third goods. If you look at
24 trend goods, where is demand? It's up here
25 relative to trend line exacerbated by the

1 Proceedings
2 supply shortages. If you look at trend
3 services, we are down here because a lot of
4 these have been impacted by the pandemic. You
5 know, think travel, think all sorts of
6 different things. As we reopen, those are
7 going to come back up again. I think for
8 anyone who has flown and booked an airline
9 ticket, you feel the change in price that's
10 going to be rising inputs to inflation.
11 Next slide, please. Inflation is also
12 important to think about the labor market. If
13 you go back to the '70s, what was the vicious
14 cycle? We had higher labor costs and higher
15 inflationary costs and they spiraled and led
16 to one another. That's what the Fed
17 desperately wants to avoid; that's why they
18 need to slow the economy.
19 So how do we measure inflation in the
20 labor market? Two different graphs on this
21 slide on the left. Why they regarded a good
22 index the Atlanta Fed Wage Index, it's up
23 about 6 percent now. You can see going back
24 over the past 25 years, we are at new highs at
25 wage price inflation; and that doesn't appear

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2 to change because on the right what we are
3 showing is this is from the JOLTS series, job
4 openings versus number of unemployed, and that
5 gap is almost 2 to 1 of job openings
6 versus unemployed folks. So if you think
7 that's there much more demand for labor
8 principles of supply and demand, if the
9 demand is up then the cost of it has to go up
10 as well.

11 So the fundamentals in the labor market
12 appear to be continued inflation. Again,
13 that's why the Fed needs to raise rates. They
14 are doing it with two blunt tools, rate hikes
15 and QT, and where they get to the changes is
16 the big mystery that we face.

17 Next slide, please. So how do we think
18 about inflation globally? This graph came out
19 of the FT and for each country there is four
20 different bars. The first three bars are
21 actual inflation over the past three years and
22 can you see the spikes where --

23 MR. KAZANSKY: Which is that?

24 MR. HADDAD: The dark bar of April '22,
25 one-year trailing inflation. This doesn't

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2 include what got released earlier this week,
3 so European is inflation is even higher than
4 on this bar. The red bar is the consensus
5 forecast for the remainder of the year, so the
6 good news is you expect to see inflation come
7 down a little bit. And this restrictive
8 neutral thing gets down to the pace of the
9 decline versus the path of the rate hike and
10 when do they slow things enough.

11 Next slide, please. One more slide on
12 inflation. Inflation, also expectations of
13 inflation are important for consumers'
14 mindsets. So the theory would go if you think
15 airfares are going up in the future, you are
16 more likely to book now and lock in a price.
17 If you think airfares are going down, you are
18 going to weight. And that mindset tends to
19 spiral on one another. One way to manage
20 this comes from the New York Fed. The white
21 line is one-year-ahead consumer inflation
22 expectation. The blue line, three year. The
23 orange line, five year. So this is calming.
24 What this would suggest is consumers are
25 experiencing high inflation now, but they

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2 expect it to come down in the future. So
3 long-term purchases, they don't feel a rush to
4 go out and consume now and they are going to
5 wait. So this gives the Fed more calm than
6 anxiety.

7 Next slide, please. So this gets back
8 to the neutral or restrictive. I am trying to
9 frame this a little bit more clearly. On the
10 left-hand side, there is two different lines.
11 This is the real fund rate as defined as the
12 fund rate minus CPI, and the dark line is
13 headline CPI, the red line is core CPI. And
14 so these are the actual rates that exist
15 today; this is not what's discounted into
16 markets. So headline CPI, I think it's minus
17 7 now because inflation is 7-1/2. The funds
18 rate is three-quarters of a percent. Most
19 market participants think neutral is somewhere
20 where those come together where they are
21 around zero. Restrictive is something greater
22 than zero. So again the declining inflation
23 rate, the rise of the fund rate, if they can
24 meet around 3 percent we get a soft landing.

25 Importantly what's priced in the market

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2 on the right-hand side, that's the June '23
3 Fed Funds futures contract which is the market
4 indicator of what the market is expecting for
5 Fed Funds in June '23 which is the peak in
6 rate hikes that's priced. And the contract
7 works, it's 1 minus the scale on the right.
8 Said differently 97, the figure where the bar
9 on the right, is around 3 percent funds rate.
10 So the market is expecting the funds rate to
11 get to 3 percent by June of '23 and the market
12 feels that's sufficient to slow the economy.
13 And if all this comes to fruition, then these
14 two lines should come up to zero. The funds
15 -- the inflation rate will be around 3, the
16 funds rates will be around 3, zero funds rate.
17 And that's the soft landing markets are
18 optimistic and hoping for.
19 Okay, now here comes the bad news -- oh,
20 I'm sorry, financial conditions index; the
21 other way to frame this. Moving the federal
22 funds rate doing quantitative tightening are
23 blunt instruments. How do they slow the
24 economy? So the theory would be they slow
25 the economy through the impacts to various

1 Proceedings
2 channels of the market. So this is again the
3 Goldman Financial Conditions Index. These
4 incorporate four factors into it; so equity
5 markets short and long term interest rates,
6 the value of the dollar, and credit spreads.
7 So the lower the line is on the right, the
8 more stimulative financial condition index it
9 is. The higher it is, the more restrictive
10 that it is. Again, the theory is that
11 monetary policy works through channels of the
12 market and that's responsible for what's going
13 to happen in the economy.
14 So where are we now? That's where the
15 bar on the right shows. So judging just the
16 level, you have to look back in time and what
17 I would point to is here we were pre-pandemic
18 and we need to be above that level to slow the
19 economy enough to get inflation down. So if
20 it were just some simple observation, probably
21 FCI is probably not restrictive enough to slow
22 the economy enough to get it down. So how do
23 you get there? Through some combination of
24 those four factors. You got to get equity
25 market lowered, you got to get the long and

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2 short rates higher, you have to get values
3 stronger, or you have to get credit spreads
4 wider. It's how those markets move together
5 that move the index that will help shape the
6 economy going forward so the Fed doesn't
7 target markets. It targets the economy, but
8 they work through markets to achieve that.
9 Next slide, please. So these next few
10 slides are the ones that personally keep me up
11 at night. So this is a long-term chart back
12 to 1900. It shows a few different things.
13 The dark blue line is the Shiller
14 Price-to-Earnings Index and that's a 10-year
15 index. That's a long-term view of price
16 versus earnings, inflation adjusted, and
17 importantly how does the Shiller PE compare
18 now versus history, and then the top is
19 expensive obviously. So you can see on a PE
20 basis, we are still very expensive relative to
21 history. The orange line is 10-year yields
22 and though we are up a lot from the lows of
23 the pandemic, how are we historically? We are
24 still very low interest rates. The blue line
25 underneath is the average. And you can see

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2 again it's the average of those two indicators
3 we are very expensive relative to history, if
4 history is going to be a predictor of the
5 future.
6 MS. PELLISH: So what that blue line is
7 saying: For every dollar of earnings that you
8 buy in a public stock, you are paying a
9 historically expensive price.
10 MR. BROWN: So then it needs to go up
11 even more?
12 MS. PELLISH: Go down. So most of the
13 theory, everything that underlies this, is
14 there is a long-term equilibrium and things
15 average over time back to that long-term
16 equilibrium and that's what has happened
17 historically over reasonably long periods of
18 time. So if you are very high, you are going
19 to move down to average back to that
20 equilibrium. And if you are very low -- I
21 mean, that is really the fundamental tenet of
22 everything we are talking about here. If you
23 are way above historical averages, the
24 likelihood is you are going to come down to
25 meet that long-term average. If you are very

1 Proceedings
2 low relative to historical averages, the
3 likelihood you are going to move up. And what
4 this is saying is the market is, it feels,
5 historically expensive despite the fact that
6 it's down 13 percent year to date. Still
7 expensive because remember we have been
8 talking, we have been looking at this 10-year
9 period of time of absurdly high returns.
10 And the problem -- well, the problem is
11 you are seeing that private equity. Private
12 equity is just leveraged public equity, and so
13 we had great returns across the board in our
14 equity portfolio and we just can't expect that
15 -- we have been saying this for years; we knew
16 we would be right at some point, so now we
17 are right things are going to trend down to
18 long-term historical averages. We just don't
19 know at what pace or how long it will take;
20 that's all you don't know. It will happen;
21 you just don't know how it would happen.
22 MR. BROWN: You always knew it would
23 happen?
24 MS. PELLISH: Yes. But if you don't
25 know when it's going to happen, there is

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2 nothing to do about it. That's the problem.

3 MR. HADDAD: The next slide kind of

4 captures it. Kate, can we go to the next

5 slide, please. So again 120-year chart and

6 what this shows is four different episodes of

7 a lost decade of returns for an indexed

8 portfolio, so this is historical. So the

9 first, the financial bubble, is the one they

10 labelled 2000 to 2010; that 10-year period

11 captured both the NASDAQ crash and GFC, so

12 there is a long period of time when the equity

13 market on a 10-year basis returned nothing.

14 So the last 10 years returned 15 percent on

15 average. That time period returned zero.

16 MR. BROWN: What period was that?

17 MR. HADDAD: Between 2000 -- starting

18 2000 and starting 2003, any of those 10-year

19 periods. So 2000 to '10, '01 to '11, those

20 were all zero returns to the equity market

21 because they captured those drawdowns. And

22 you can see the labels for the other times in

23 history that's happened, but the other

24 takeaway from this graph is those lost

25 decades took place after very strong run-ups.

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2 So exactly to Robin's point; you get these
3 run-ups and then you go sideways for a while
4 and that's, you know, when you think about
5 our portfolio with a lot of exposure to both
6 public and private, you know, are we in one of
7 these scenarios where inflation is going to be
8 higher, then expected interest rates are going
9 to remain high which then suppresses value.
10 And, again, this is historical. Maybe we
11 don't experience it, maybe we do; but it's
12 just to share with you that we had one of
13 these periods not too long ago and we have had
14 a few of them over history. If we get Santa
15 Claus brings me my toy truck and inflation
16 falls and growth stays strong, we are still up
17 into the right.
18 MR. BROWN: Did you write a list?
19 MR. HADDAD: In case I am wrong. So Dan
20 is going to do a stress test on your
21 portfolio, around this portfolio.
22 MR. BROWN: Stress test on us; I am
23 ready for one.
24 MR. HADDAD: Let me turn it over to you,
25 Dan.

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2 MR. HAAS: Thanks, Mike.

3 So again the three stress scenarios for
4 you this quarter, again we are attempting to
5 frame the market's reaction function to a
6 lower growth inflationary environment. As in
7 the past, this is meant to be a sort of
8 thought experiment; the forensic direction and
9 general attitude of those market responses to
10 some broad macro inputs. We mentioned we have
11 got three scenarios here. We started with
12 MSCI research they published back in April and
13 then Ed, in particular, had some really
14 informed thoughts how we could modify that to
15 just reflect more recent trends that we have
16 seen since then because the world has changed
17 quite a lot in the last month.

18 Just looking at the cases themselves, we
19 have this base-case scenario that we see as a
20 quite likely outcome where we are assuming
21 here that the Federal Reserve is successful in
22 guiding the economy to a gentle slowdown, GDP
23 growth is slowing with a possible quarter or
24 two of negative growth, we see inflation
25 moderating leading to the bull steepening of

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2 the curve, equity markets are soft, and then
3 you see some pressure in credit spreads. This
4 scenario, again base case, we are assuming no
5 negative geopolitical shocks.
6 The next one over we labelled
7 "Recession," that's our negative scenario. A
8 less likely, but still significant outcome
9 certainly worth paying attention to. Here
10 markets are entering a prolonged recession.
11 Possible negative shocks could include a Fed
12 policy mistake, enhancing a political risk
13 some new negative news kind of enters our
14 consciousness, re-up of COVID, or even further
15 tightening in China. Under this scenario
16 inflation is accelerating driven by supply
17 which leads to bear flattening and negative
18 pressure on the stock market, we see credit
19 spreads widen, and commodities really rally
20 under this scenario.
21 And then finally Christmas comes early
22 and we have positive surprise. Perhaps the
23 least likely of all three of these outcomes,
24 but this could be driven by surprisers like
25 China, you know, removing COVID restrictions

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2 or providing, you know, some sort of fiscal or
3 monetary stimulus or maybe the successful
4 resolution of the Russian-Ukraine War. Again,
5 the concept behind this is that the world
6 starts trading again; oil flows freely, our
7 supply chains are -- you know, those
8 constraints are removed and supply chains
9 free up a little bit. So it's a risk on an
10 environment. We see under this scenario
11 inflation receding due to the supply lines and
12 increased supply commodities, asset pricing
13 rallies here, the rate curve steepens a bit,
14 credit spreads tighten, and commodity prices
15 would decline here.
16 Given these assumptions, we can see the
17 results on the next page. Here we are showing
18 the particular returns as before of the
19 scenarios for both the overall portfolio and
20 then selecting the strategies within that
21 portfolio. Each scenario is represented by a
22 different color bar and then the magnitude of
23 course along the horizontal axis there. At
24 the portfolio level, you can see the results
25 range from 8.6 percent increase under that

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2 positive surprise scenario to a 14.1 percent
3 further decline in the recession scenario. In
4 these negative scenarios you can see our more
5 defensive strategies like tips and core fixed
6 income mitigating losses, and then you may
7 also note that international markets tend to
8 sell off a bit more extremely than the U.S.
9 is; they are historically more volatile.
10 Similarly, you see private equity
11 showing sharper declines. Again this is a
12 function of how private equities models in
13 Bar 01, which is an important concept here. A
14 model like that is forward-looking, but it's
15 naive to the speed of recovery from a shock.
16 A model can't speak to the skill of our
17 managers in beating the markets or
18 successfully navigating a challenging
19 environment. And, you know, as an example I
20 guess if we were thinking about how private
21 equity responded in a V-shaped recovery like
22 we saw in COVID, you know, we see the private
23 equity actually performed quite well despite
24 the big negative prediction that you see in
25 the model. It's because the fundamental

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2 valuation metrics never suffered from the
3 portfolio response, the macroeconomic stress
4 was muted. However to the extent that these
5 macroeconomic headwinds persist, the model
6 expects more extreme valuation pressures over
7 the longer time frames. That of course
8 certainly lends credence to "The Lost Decade"
9 idea that Mike shared with you a few minutes
10 ago.
11 So I will leave you with that wonderful
12 news. Happy to take any questions you may
13 have now or we can move on to I think
14 executive session and talk about, you know,
15 more recent trends in the portfolio.
16 MS. PENNY: Questions for Dan or no?
17 Okay. Thank you.
18 MR. HAAS: Hey, thank you.
19 MR. HADDAD: We would like to go to
20 executive session.
21 MS. PENNY: So we are going into
22 executive session for the Pension Fund. Okay,
23 so we are ready to go into executive session.
24 Do I hear a motion to go into executive
25 session?

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2 MR. BROWN: So moved.

3 MS. PENNY: Thank you, Mr. Brown.

4 Do I hear a second?

5 MS. HIRSH: Second.

6 MS. PENNY: Thank you, Ms. Hirsh.

7 Any questions? All those in favor,

8 please say aye.

9 Aye.

10 MR. BUCKLEY: Aye.

11 MR. KAZANSKY: Aye.

12 MR. BROWN: Aye.

13 MR. RAY: Aye.

14 MS. HIRSH: Aye.

15 MS. PENNY: All those opposed? Any

16 abstentions?

17 We are going into executive session.

18 (Discussion off the record.)

19 (Discussion off the record.)

20 MS. PENNY: Okay, we are back in public

21 session. Ms. Stang, would you like to report

22 out?

23 MS. STANG: Certainly.

24 In executive session we received an

25 additional commentary on quarterly fund

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2 performance. We received two OFI
3 presentations; consensus was reached on both.
4 We received three presentations on real estate
5 investments; consensus was reached on all
6 three. And we discussed the renewal of
7 several investment management contracts and
8 the contracts for our commission recapture
9 brokers; consensus was reached.
10 MS. PENNY: Thank you very much.
11 Does anyone have anything else for
12 public session for this investment meeting?
13 Hearing none, do I hear a motion to
14 adjourn?
15 MR. BROWN: So moved.
16 MS. PENNY: Thank you, Mr. Brown.
17 Do I have a second?
18 MS. HIRSH: Second.
19 MS. PENNY: Thank you, Ms. Hirsh.
20 Any discussion? All those in favor
21 please say aye?
22 Aye.
23 MR. BUCKLEY: Aye.
24 MR. KAZANSKY: Aye.
25 MR. BROWN: Aye.

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2 MR. RAY: Aye.

3 MS. HIRSH: Aye.

4 MS. PENNY: Any opposed? Any

5 abstentions? Anyone want to stay a little bit

6 longer?

7 MR. BROWN: So moved.

8 [Time Noted: 2:02 p.m.]

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3 C E R T I F I C A T E
4 STATE OF NEW YORK)
5 : ss.
6 COUNTY OF QUEENS)
7
8 I, YAFFA KAPLAN, a Notary Public
9 within and for the State of New York, do
10 hereby certify that the foregoing record of
11 proceedings is a full and correct
12 transcript of the stenographic notes taken
13 by me therein.
14 IN WITNESS WHEREOF, I have hereunto
15 set my hand this 12th day of June, 2022.
16
17 ____________________
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