AGENDA

Employees' Retirement System Board Meeting

May 20th, 2020 at 12:00 PM
Electronic Remote Participation via GoToMeeting
(248) 524-3306
ERSPublicComments@troymi.gov

500 West Big Beaver
Troy, MI 48084
troymi.gov

Roll Call

Resolution: To allow members to participate in public meetings by electronic means during the State of Emergency

RESOLVED, that the City of Troy Employees' Retirement System hereby allows all members to participate in public meetings by electronic means during the state of emergency. Members participating electronically will be considered present and in attendance at the meeting and may participate in the meeting as if physically present. However, members must avoid using email, texting, instant messaging, and other such electronic forms of communication to make a decision or deliberate toward a decision.

Resolution: To establish public participation rules during the State of Emergency

RESOLVED, that the City of Troy Employees' Retirement System hereby establishes public participation rules during the state of emergency to provide for two methods by which members of the public can be heard by others during meetings. Email sent to ERSPublicComments@troymi.gov and received by 9 AM on the day of the meeting will be read during the public comment period of the meeting. Voicemail left at 248-524-3306 and received by 9 AM on the day of the meeting will be played during the public comment period of the meeting. Both email and voicemail public comments will be limited to three minutes each.

Public Comment

Minutes from the March 11th, 2020 Meeting

Retirement Requests

Name	William Sanders	Janice Hynes	Jeffrey Oberski
Pension Program	DC	DB	DC
Retirement Date	April 25, 2020	May 26, 2020	July 25, 2020
Department	Engineering	DPW-Streets	Police
Service Time	19 years 0 months	25 years 0 months	30 years 9 months

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Regular Business

- Election Results - Kurt Bovensiep elected to serve as member of the ERS and RHC Boards for a term ending December 31st, 2021.
- Request for reimbursement to City in the amount of $4,000,000 in June 2020; $2 million each from Morgan Stanley and UBS.

Investments

- Graystone Consulting Investment Review
  - Market Review
  - Market Slides
  - Total Fund Performance - QE 3/31/2020
  - Performance Update - As of April 30th, 2020
  - ERS Market Values 5/12/2020
  - ERS Rebalance - Cash Raise of $2 million
  - Monthly Perspectives
  - On the Markets
- UBS Financial Services Investment Review
  - Market Review and discussion
  - Performance and Asset Allocation Review - April 30th, 2020
  - Cash Raise Recommendations:
    - ERS Portfolio:
      - Current cash available of approximately $1,261,000 - hold in Institutional Money Market Fund for June distribution.
      - Covered Call option recommendations.

    - NAIC Portfolio:
      - Current cash available of approximately $282,000 - hold in Institutional Money Market Fund for June distribution.
      - The NAIC portfolio holds the following stocks that are current sell recommendations by Investor Advisory Service (NAIC). UBS does not follow these companies. If the Board sells these holdings then hold excess proceeds in money market fund for December distribution:
        - Allegiant Travel - Discount airline
        - Eagle Bank - Bank Holding Company
        - IAA - Auction services for damaged vehicles
        - Nexstar Media - TV Broadcasting and Media Company
        - IDEX - Applied solutions company

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    - Old Dominion Freight Line - Trucking Company
  - If the above positions are not sold, we suggest meeting the additional June cash need ($457,000) by taking from Loomis Sayles Investment Grade Bond Fund held in the ERS portfolio.
- Review of UBS House View - May 2020

Other Business

Adjourn

The next meeting is Wednesday, June 10th, 2020 at 12:00 PM.

MINUTES

Employees' Retirement System Board Meeting

500 West Big Beaver
Troy, MI 48084
troymi.gov

March 11th, 2020 at 12:00 PM
Troy City Hall Council Board Room
500 West Big Beaver Troy, Michigan 48084
(248) 524-3330

Roll Call

The monthly meeting for the Employees' Retirement System Board of Trustees was held on **March 11th, 2020** at Troy City Hall, 500 W. Big Beaver Road, Troy, MI 48084.

The meeting was called to order at 12:06 PM by Vice Chairman Thomas Gordon and deferred to Administrator Maleszyk.

Trustees Present:	Mark Calice (arrived at 12:09 PM) Thomas Gordon II Robert C Maleszyk Mark F Miller David Hamilton
Trustees Absent:	Justin Novak Mark Owczarzak
Also Present:	Robert F. Alati – Graystone Consulting Amy Cole – Graystone Consulting Tim Brice – Graystone Consulting Darin McBride **-** UBS Financial Management Michael C Kerr – Retiree Troy PD Lisa Burnham Shazia Fatima

Motion to Excuse Absentees

Resolution # ER – 2020-03-05
Moved by: Hamilton
Seconded by: Gordon

RESOLVED, that the absentees be excused from the meeting be **APPROVED**.
Yeas: - 4 -
Absent: - 2 –
Motion Passes

Minutes from the February 12th, 2020 Meeting

Resolution # ER – 2020-03-06
Moved by: Hamilton
Seconded by: Gordon

RESOLVED, that the Minutes of the February, 12th, 2020 meeting be **APPROVED**.
Yeas: - 4 -
Absent: - 2 –
Motion Passes

Retirement Requests

- None

Regular Business

- None

Investments

Graystone Consulting Group Presentation

- **Market Review – Bob Alati / Tim Brice**
    - Bob talked about the extreme volatility in the markets, the market corrections causing a slowdown in the economy and, causing the oil prices to drop which led to the federal rate cuts.
    - Federal rate cuts due to the growing threat from the corona virus signify the bottom of a market.
    - He highlighted that the market is acutely oversold and believes that when the news changes regarding the virus and the federal stimulus the market will turn around and should go up.
    - Tim talked about market corrections and reiterated that the market is volatile but this is not a recession and the market will continue to correct itself.

- **Investment Review – Amy Cole / Tim Brice**
    - Amy presented Performance Update Report as of March 4th,2020
        - Net Return Net of Fees YTD as of March 4th, 2020: -3.38%.
    - She discussed Asset Allocations, Manager Performance and Market Values.
    - Tim presented the Fixed Income manager analysis and the Large Cap Value Equity Manager Analysis.

- Administrator Maleszyk stated that for the June distribution the City will need $2 million instead of the originally expected amount of $4 million from each consultant.

- **Recommendations:**
  - Liquidate 100% of Domestic Large Cap Value Equity – Delaware and replace with 50% position in Large Cap Value Equity – Aristotle and 50% position in Large Cap Value Equity – JP Morgan

    Resolution # ER – 2020-03-07
    Moved by: Hamilton
    Seconded by: Miller

    RESOLVED, that 100% of Domestic Large Cap Value Equity – Delaware be liquidated and be replaced with 50% position in Large Cap Value Equity – Aristotle and 50% position in Large Cap Value Equity – JP Morgan be **APPROVED**.
    Yeas: - 5 -
    Absent: - 2 –
    Motion Passes

  - Liquidate 100% of Fixed Income – JP Morgan Strategic Income and 100% of Fixed Income – Templeton Global Total Return and purchase a position in Domestic Fixed Income – Western Core Plus with the proceeds.

    Resolution # ER – 2020-03-08
    Moved by: Hamilton
    Seconded by: Miller

    RESOLVED, that 100% of Fixed Income – JP Morgan Strategic Income and 100% of Fixed Income – Templeton Global Total Return be liquidated and the proceeds be used to purchase a position in Domestic Fixed Income – Western Core Plus be **APPROVED**.
    Yeas: - 5 -
    Absent: - 2 –
    Motion Passes

  - Graystone recommended to raise the $2 million needed for the June distribution by using existing cash and raising the remainder from selling a portion of Loomis Sayles Bond which will be discussed in June.

UBS Financial Presentation

- **Market Review – Darin McBride**
  - Darin talked about factors such as the corona virus, oil crash and federal tax cuts that led to a slowdown in the market.
  - He suggested that we could have a recession but it could be shallow and once the news gets better the market will correct itself.

- **Investment Review – Darin McBride**
  - The performance as of March 4th, 2020 YTD Net Rate of Return Net of Fees was as follows: Combined -1.86%.
  - He also discussed the Asset Allocation Review as of March 4th, 2020.
  - The Board decided that due to the current state of the market no actions will be taken on any recommendations as printed in the agenda packet for the ERS and NAIC portfolios and a decision will be taken at a later meeting with all board members in attendance.
  - Rob stated that the City will need $2 million from UBS for the June distribution and which will be discussed at a later meeting.

Other Business

- None

Public Comment

- Michael Kerr thanked the Board for everything they do for the retirees.

Adjourn

The meeting adjourned at 1:40 PM.

The next meeting is Wednesday, April 8th, 2020 at 12:00 PM at Troy City Hall, Council Board Conference Room, 500 W. Big Beaver Road, Troy, MI 48084.

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Mark Calice, Chairman

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Thomas Gordon II, Vice Chairman

MORGAN STANLEY GRAYSTONE CONSULTING
SOUTHEAST MICHIGAN

INVESTMENT PERFORMANCE ANALYSIS FOR

CITY OF TROY EMPLOYEES' RETIREMENT SYSTEM

QUARTER ENDING MARCH 31, 2020

SOUTHEAST MICHIGAN
GRAYSTONE CONSULTING

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Presented by:

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Meeting Date: May 20, 2020

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Market Slides

Prepared on April 21, 2020

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Various sub-sections of this Document may not contain information on all accounts/positions covered in this Document.

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Asset Class Index Performance

Capital Market Returns

As of March 31, 2020; Private Real Estate as of January 31, 2020

ASSET CLASS	INDEX IN USD	1-MONTH	YTD	1-YR	3-YR ANN	5-YR ANN
Global Equity						
Global Equity	MSCI All Country World	-13.4%	-21.3%	-10.8%	2.0%	3.4%
US Equity	S&P 500	-12.4%	-19.6%	-7.0%	4.0%	6.2%
International Equity	MSCI All Country World ex US	-14.4%	-23.3%	-15.1%	-1.5%	-0.2%
Emerging Markets Equity	MSCI Emerging Markets	-15.4%	-23.6%	-17.4%	-1.3%	-0.2%
Global Fixed Income						
Investment Grade Fixed Income	Barclays US Aggregate	-0.6%	3.1%	8.9%	4.8%	3.3%
Inflation-Linked Securities	Barclays Universal Govt Inflation-Linked	-3.4%	0.3%	4.5%	3.7%	3.6%
High Yield	Barclays Global High Yield (H)	-13.4%	-14.5%	-9.2%	-0.3%	2.6%
Emerging Markets Fixed Income	JP Morgan EM Bonds (UH in USD)	-11.1%	-15.2%	-6.5%	-1.3%	1.0%
Alternative Investments						
Global REITs	FTSE EPRA/NAREIT Global REITs	-22.3%	-28.4%	-23.0%	-2.4%	-0.8%
Commodities	Bloomberg Commodities	-12.8%	-23.3%	-22.3%	-9.2%	-8.4%
MLPs	Alerian MLP	-47.2%	-57.2%	-61.0%	-29.6%	-21.1%
Hedged Strategies	HFRX Global Hedge Fund Index	-5.9%	-6.9%	-1.4%	-0.6%	-0.7%
Managed Futures	HFRX Macro/CTA Index	-1.0%	-1.3%	4.4%	1.1%	-1.1%
Private Real Estate	NCREIF Private Real Estate	-	0.0%	6.4%	6.7%	8.2%
Global Cash						
Cash	Citigroup 3-month Treasury Bill	0.1%	0.4%	2.0%	1.7%	1.1%
Other Fixed Income						
Municipal Fixed Income	Barclays Municipal Bond	-3.6%	-0.6%	3.8%	4.0%	3.2%

Source: FactSet, Morgan Stanley Wealth Management GIC. For more information about the risks to Master Limited Partnerships (MLPs), please refer to the Risk Considerations section at the end of this material.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material. This slide sourced from Market Performance section.

Asset Class Returns

As of March 31, 2020

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 YTD	10-Yrs ('10-'19) Ann. Return	10-Yrs ('10-'19) Volatility
EM Equities 82.9%	MLPs 35.9%	MLPs 13.9%	REITs 29.8%	US Equities 32.4%	REITs 14.7%	US Equities 1.4%	MLPs 18.3%	EM Equities 37.3%	US Debt 0.0%	US Equities 31.5%	US Debt 3.1%	US Equities 13.6%	MLPs 17.2%
MLPs 76.4%	EM Equities 20.2%	Inflation-Linked 13.6%	High Yield 19.6%	MLPs 27.6%	US Equities 13.7%	DM Int'l Equities 0.9%	High Yield 14.3%	DM Int'l Equities 26.7%	DM Int'l Debt -0.8%	REITs 23.6%	Inflation-Linked 1.7%	REITs 8.9%	Commod. 13.6%
High Yield 59.4%	REITs 20.0%	US Debt 7.8%	EM Equities 19.1%	DM Int'l Equities 24.0%	Managed Futures 12.3%	US Debt 0.5%	US Equities 12.0%	US Equities 21.8%	Inflation-Linked -1.3%	DM Int'l Equities 23.1%	Managed Futures 0.4%	High Yield 7.3%	US Equities 13.5%
REITs 41.3%	Commod. 16.8%	DM Int'l Debt 6.0%	DM Int'l Equities 18.2%	Diversified Portfolio 15.1%	US Debt 6.0%	REITs -0.4%	Commod. 11.8%	EMD 15.2%	High Yield -4.1%	Diversified Portfolio 19.1%	DM Int'l Debt -0.9%	Diversified Portfolio 7.3%	REITs 12.0%
DM Int'l Equities 33.9%	EMD 15.7%	High Yield 3.1%	EMD 16.8%	Hedged Strategies 8.8%	MLPs 4.8%	Managed Futures -0.9%	EM Equities 10.3%	REITs 15.0%	US Equities -4.4%	EM Equities 18.1%	Hedged Strategies -6.9%	DM Int'l Equities 6.4%	EM Equities 11.9%
US Equities 26.5%	US Equities 15.1%	US Equities 2.1%	US Equities 16.0%	High Yield 7.3%	Diversified Portfolio 4.7%	Inflation-Linked -1.4%	EMD 9.9%	Diversified Portfolio 14.9%	Managed Futures -4.6%	EMD 13.5%	Diversified Portfolio -14.8%	US Debt 4.3%	DM Int'l Equities 11.5%
Diversified Portfolio 23.6%	High Yield 14.8%	EMD -1.8%	Diversified Portfolio 12.0%	REITs 2.2%	Inflation-Linked 3.6%	Diversified Portfolio -1.9%	Diversified Portfolio 7.5%	High Yield 10.4%	REITs -5.5%	High Yield 12.6%	High Yield -15.0%	MLPs 4.2%	DM Int'l Debt 6.9%
EMD 22.0%	Diversified Portfolio 12.7%	Diversified Portfolio -2.1%	Inflation-Linked 7.0%	Managed Futures 0.7%	Hedged Strategies 3.4%	High Yield -2.7%	Inflation-Linked 4.7%	DM Int'l Debt 8.8%	Diversified Portfolio -6.1%	Hedged Strategies 8.6%	EMD -15.2%	EM Equities 4.0%	High Yield 6.8%
Commod. 18.9%	DM Int'l Equities 9.8%	Managed Futures -4.3%	MLPs[2] 4.8%	EM Equities -1.9%	High Yield 0.0%	Hedged Strategies -3.6%	REITs 4.6%	Hedged Strategies 6.0%	EMD -6.2%	US Debt 8.7%	US Equities -19.6%	Inflation-Linked 3.4%	Managed Futures 6.5%
Hedged Strategies 11.5%	DM Int'l Debt 7.0%	Hedged Strategies -5.7%	Hedged Strategies 4.8%	US Debt -2.0%	EM Equities -1.4%	DM Int'l Debt -4.4%	US Debt 2.6%	US Debt 3.5%	Hedged Strategies -7.0%	Inflation-Linked 8.4%	Commod. -23.3%	EMD 2.7%	Diversified Portfolio 5.6%
Inflation-Linked 11.4%	US Debt 6.5%	REITs -8.1%	US Debt 4.2%	DM Int'l Debt -5.6%	DM Int'l Debt -3.0%	EM Equities -13.5%	Hedged Strategies 2.5%	Inflation-Linked 3.0%	Commod. -11.2%	Commod. 7.7%	DM Int'l Equities -23.4%	DM Int'l Debt 1.4%	Inflation-Linked 4.3%
US Debt 5.9%	Managed Futures 6.4%	DM Int'l Equities -12.2%	DM Int'l Debt 0.5%	Inflation-Linked -8.6%	DM Int'l Equities -4.5%	EMD -14.9%	DM Int'l Debt 2.1%	Commod. 1.7%	MLPs -12.4%	Managed Futures 6.7%	EM Equities -24.4%	Hedged Strategies 1.1%	Hedged Strategies 4.0%
DM Int'l Debt 3.7%	Inflation-Linked 6.3%	Commod. -13.3%	Commod. -1.1%	EMD -9.0%	EMD -5.7%	Commod. -24.7%	DM Int'l Equities 1.6%	Managed Futures -0.8%	DM Int'l Equities -14.0%	MLPs 6.6%	REITs -28.4%	Managed Futures 0.8%	EMD 3.7%
Managed Futures -4.8%	Hedged Strategies 4.2%	EM Equities -19.2%	Managed Futures -1.8%	Commod. -9.5%	Commod. -17.0%	MLPs -32.6%	Managed Futures -4.4%	MLPs -6.5%	EM Equities -14.7%	DM Int'l Debt 4.6%	MLPs -57.2%	Commod. -4.7%	US Debt 2.9%

Source: FactSet, Morgan Stanley Wealth Management GIC; Indices used: Bloomberg Barclays Capital US Aggregate for US Bonds. FTSE 3M Treasury Bill for cash, Bloomberg Barclays US Aggregate for US Bonds, Bloomberg Barclays Global Majors ex US for DM Int'l Bonds, Bloomberg Barclays US TIPS for Inflation-linked securities, Bloomberg Barclays Global High Yield for global high yield, JP Morgan EMBI for EM Bonds, S&P 500 for US Stocks, MSCI EAFE IMI for Int'l Stocks, MSCI EM IMI for Emerging Market Stocks, FTSE EPRA/NAREIT Global for REITs, Bloomberg Commodity Index for commodities, BarclayHedge US Managed Futures Index for Managed Futures [presented w/ 1-month delay], Alerian MLP Index for MLPs , and HFRX Global hedge Funds for hedged strategies. Diversified portfolio is comprised of 25% S&P 500, 10% Russell 2000, 15% MSCI EAFE, 5% MSCI EME, 25% Bloomberg Barclays US Aggregate, 5% 3 mo. T-Bills, 5% HFRX Global Hedge Funds, 5% Bloomberg Commodity Index, and 5% FTSE EPRA/NAREIT Global Index. MLP data begins on January 1, 2007. Standard deviation (volatility) is a measure of the dispersion of a set of data from its mean.

US Equity Market Capitalization and Style Returns

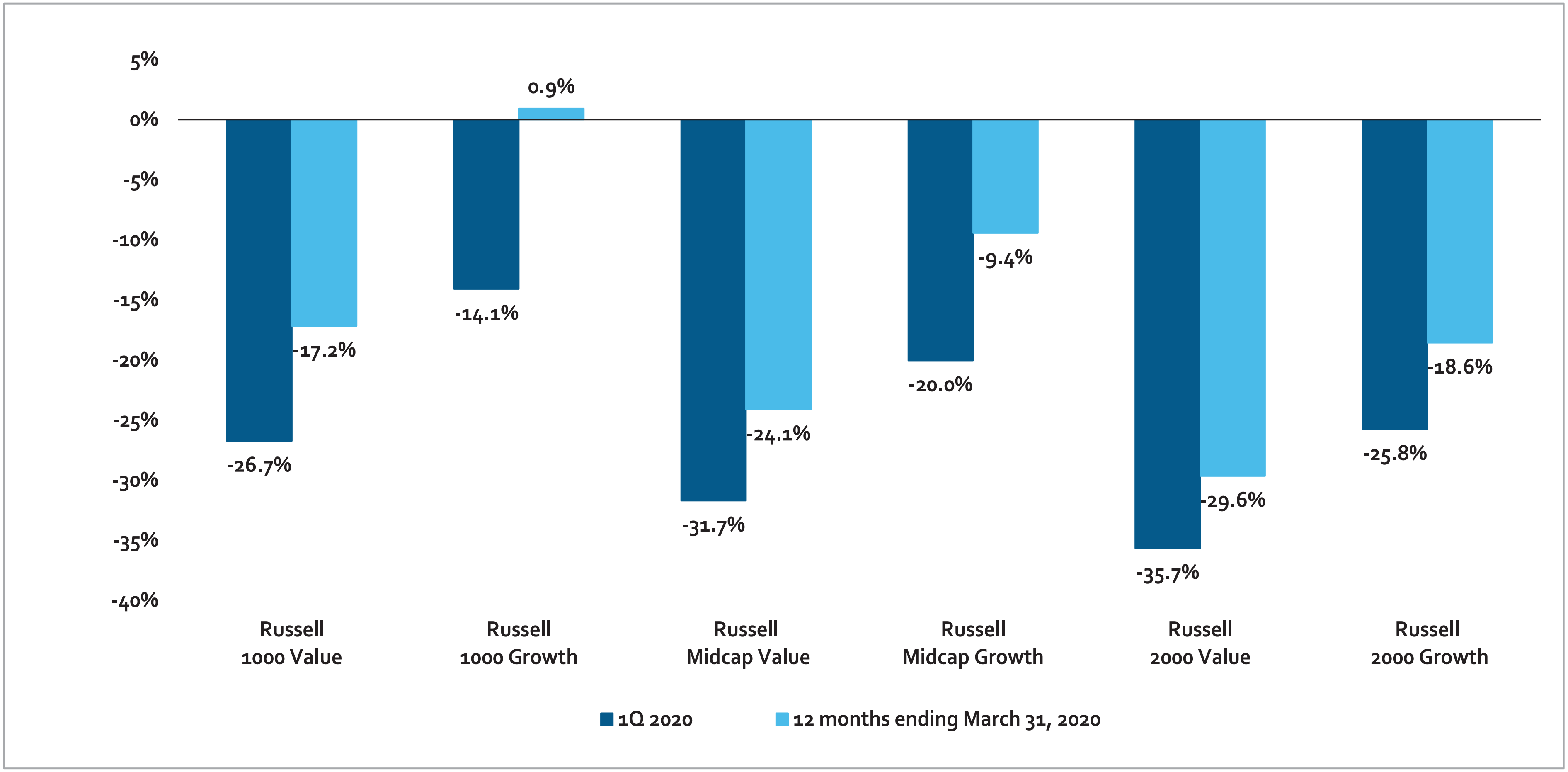
Return as of March 31, 2020

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10-Years ('10-'19) Ann.
Small-Cap Growth 29.1%	Large-Cap Growth 2.6%	Mid-Cap Value 18.5%	Small-Cap Growth 43.3%	Mid-Cap Value 14.7%	Large-Cap Growth 5.7%	Small-Cap Value 31.7%	Large-Cap Growth 30.2%	Large-Cap Growth -1.5%	Large-Cap Growth 36.4%	Large-Cap Growth -14.1%	Large-Cap Growth 18.9%
Mid-Cap Growth 26.4%	S&P 500 2.1%	Small-Cap Value 18.1%	Mid-Cap Growth 35.7%	S&P 500 13.7%	S&P 500 1.4%	Mid-Cap Value 20.0%	Mid-Cap Growth 25.3%	S&P 500 -4.4%	Mid-Cap Growth 35.5%	S&P 500 -19.6%	Mid-Cap Growth 18.7%
Mid-Cap Value 24.8%	Large-Cap Value 0.4%	Large-Cap Value 17.5%	Small-Cap Value 34.5%	Large-Cap Value 13.5%	Mid-Cap Growth -0.2%	Large-Cap Value 17.3%	Small-Cap Growth 22.2%	Mid-Cap Growth -4.8%	S&P 500 31.5%	Mid-Cap Growth -20.0%	Small-Cap Growth 16.4%
Small-Cap Value 24.5%	Mid-Cap Value -1.4%	S&P 500 16.0%	Large-Cap Growth 33.5%	Large-Cap Growth 13.0%	Small-Cap Growth -1.4%	S&P 500 12.0%	S&P 500 21.8%	Large-Cap Value -8.3%	Small-Cap Growth 28.5%	Small-Cap Growth -25.8%	S&P 500 16.3%
Large-Cap Growth 16.7%	Mid-Cap Growth -1.7%	Mid-Cap Growth 15.8%	Mid-Cap Value 33.5%	Mid-Cap Growth 11.9%	Large-Cap Value -3.8%	Small-Cap Growth 11.3%	Large-Cap Value 13.7%	Small-Cap Growth -9.3%	Mid-Cap Value 27.1%	Large-Cap Value -26.7%	Mid-Cap Value 15.8%
Large-Cap Value 15.5%	Small-Cap Growth -2.9%	Large-Cap Growth 15.3%	Large-Cap Value 32.5%	Small-Cap Growth 5.6%	Mid-Cap Value -4.8%	Mid-Cap Growth 7.3%	Mid-Cap Value 13.3%	Mid-Cap Value -12.3%	Large-Cap Value 26.5%	Mid-Cap Value -31.7%	Large-Cap Value 13.8%
S&P 500 15.1%	Small-Cap Value -5.5%	Small-Cap Growth 14.6%	S&P 500 32.4%	Small-Cap Value 4.2%	Small-Cap Value -7.5%	Large-Cap Growth 7.1%	Small-Cap Value 7.8%	Small-Cap Value -12.9%	Small-Cap Value 22.4%	Small-Cap Value -35.7%	Small-Cap Value 12.7%

Source: FactSet, Morgan Stanley Wealth Management GIC. Indices used for this analysis include: Russell Midcap Value, Russell 2000 Value, Russell 1000 Value, Russell Midcap Growth, Russell 2000 Growth, Russell 1000 Growth, and S&P 500.

Russell Style and Market Capitalization Indices

As of March 31, 2020



Source: Bloomberg

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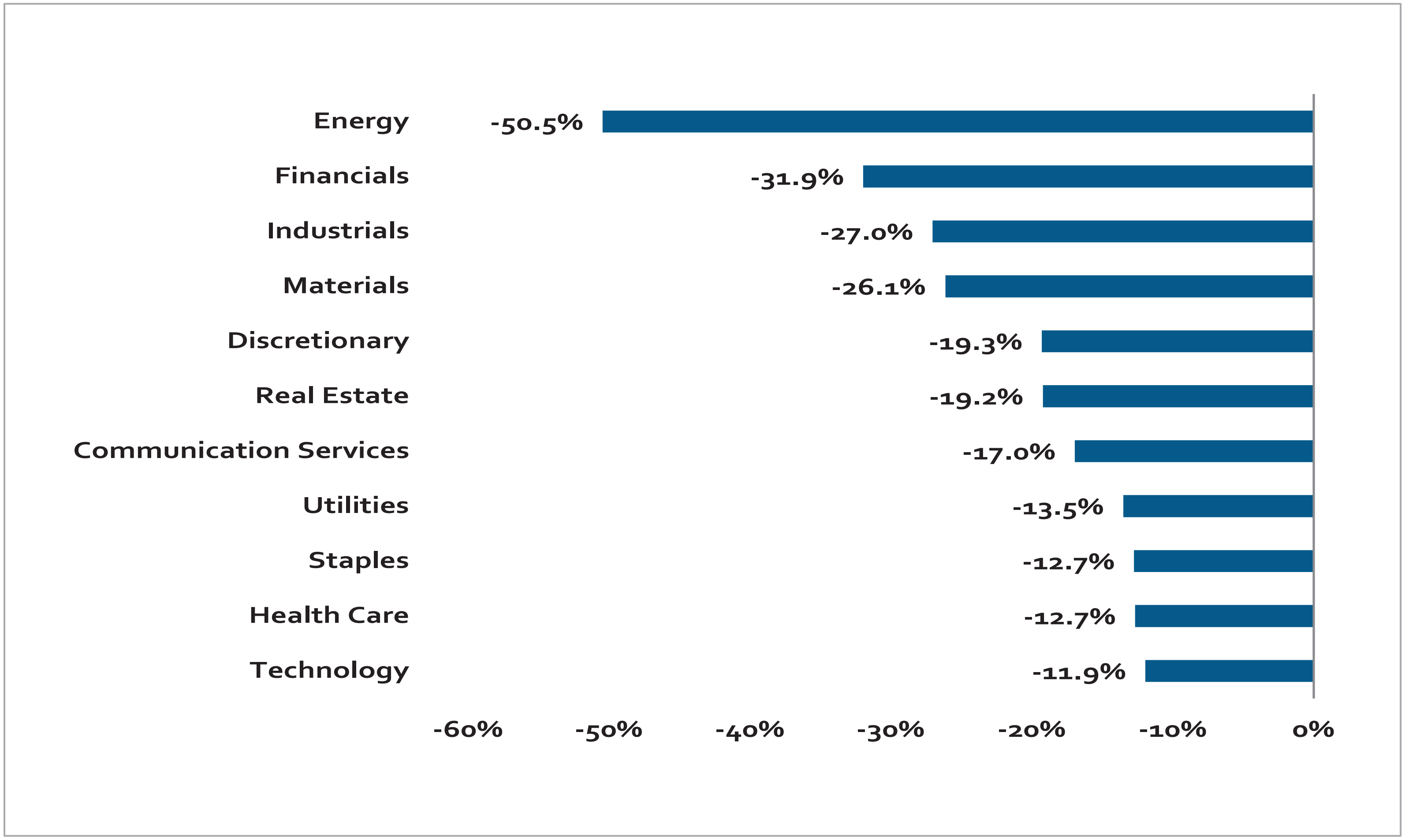
S&P 500 Sectors

YTD Total Return

As of March 31, 2020



Source: Bloomberg

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Summary of GIC Tactical Advice: Global Equities

As of April 2, 2020

Global Equities	Relative Weight Within Equities	Rationale
US	Market Weight	Global stock markets have entered a bear market on concerns about the negative growth impact of the coronavirus. Although we expect US and global recessions in the second quarter of 2020, our base case is that recent extraordinary policy actions from both central banks and national governments will help cushion the economic impact. Markets are already pricing the most likely scenarios. We recently upgraded our exposure to large-cap growth and small- and mid-cap equities, believing that active stock pickers have a good entry point over the next several months
International Equities (Developed Markets)	Overweight	We maintain a positive bias for Japanese and European equity markets. Recent bear market sell-offs have created extreme valuations and, as in the US, policymakers look to be ready to provide policy stabilizers. A global recovery in the second half, coupled with US-dollar depreciation from crisis level highs, are likely to provide the catalysts
Emerging Markets	Overweight	China was the first country to enter the COVID-19 crisis and appears poised to be the first out. Resumption of economic activity during the second quarter should jump-start global growth, especially given huge government stimulus programs. Ample liquidity from the Fed and a weakening dollar should catalyze investor interest. China stands to gain the most from US tariff rollbacks, and global trade dynamics should improve. Valuations appear attractive and local central banks should be able to maintain accommodation and stimulus. For most countries, especially China, the collapse in oil prices is a material tailwind for consumer purchasing power

Source: Morgan Stanley Wealth Management GIC

Summary of GIC Tactical Advice: Global Fixed Income

As of April 2, 2020

Global Fixed Income	Relative Weight Within Bonds	Rationale
US Fixed Income (Investment Grade)	Market Weight	We have recommended shorter-duration* (maturities) since March 2018 given the extremely low yields and potential capital losses associated with rising interest rates from such low levels and had been pairing that position with a large exposure to long-term US Treasuries to hedge what we expected would be a modest correction in stocks. With long-term Treasury yields troughing for the cycle, we recently removed that position and resumed a benchmark exposure to duration. Recent dislocation of investment grade credit spreads and market illiquidity have created opportunities. Fed programs aimed at backstopping this market give reason to be an active bond selector
International Investment Grade	Underweight	Negative interest rates suggest that this is not a preferred asset class for US-dollar clients at this time. Actively managed funds may provide very patient, risk-tolerant clients with income opportunities in select corporate credits
Inflation-Protected Securities	Underweight	The "sudden stop" recession has caused a severe pricing of real interest rates, pushing them negative and near all-time lows. In the near term, upside appears limited
High Yield	Overweight	High yield bonds remain at the epicenter of the dual risks from COVID-19 and the collapse in oil prices from the failure of OPEC negotiations. In our view, some of the most extreme risks have been discounted, especially in light of unprecedented monetary and fiscal policy intervention aimed not only at market liquidity

* For more information about the risks to Duration please refer to the Risk Considerations section at the end of this material.

Summary of GIC Tactical Advice: Alternative Investments

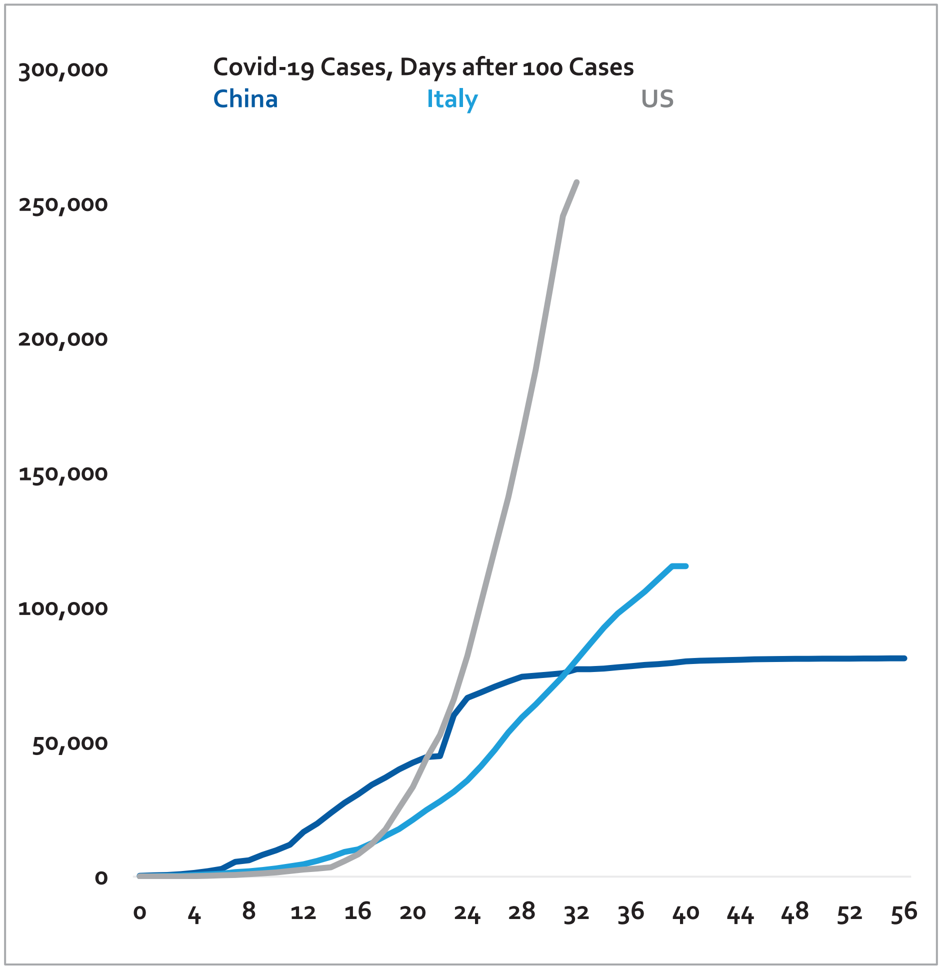
As of April 2, 2020

Alternative Investments	Relative Weight Within Alts	Rationale
REITs	Underweight	Real estate investment trusts (REITs) have performed very well as global growth slowed and interest rates fell. However, REITs remain expensive and are vulnerable to credit risks. We will revisit our position as nominal GDP troughs and/or valuations become more attractive.
Commodities	Overweight	The "sudden stop" global recession has driven commodities such as oil to multi-decade lows. The rush to invest in the US dollar, which is near a multiyear high, has exacerbated these dynamics. While we recognize the complexity of the geopolitical issues that surround oil, we believe that on a six-to-12 month basis, the outlook for the global economy and overall demand improves materially. Thus, we suggest risk-oriented clients establish exposure to the broad diversified asset class through the use of active managers. Pure passive exposure is not advised.
Hedged Strategies (Hedge Funds and Managed Futures)	Overweight	This asset category can provide uncorrelated exposure to traditional risk-asset markets. It tends to outperform when traditional asset categories are challenged by growth concerns and/or interest rate volatility spikes, a scenario that is increasingly probable given valuations and year-end stock market euphoria. We prefer very active and fundamental strategies, especially equity long/short.

Dual Economic Shocks: COVID-19 + Oil Disruption

Global Coronavirus Cases

As of April 3, 2020



Oil Falls 50% Following Failed OPEC Production Cut

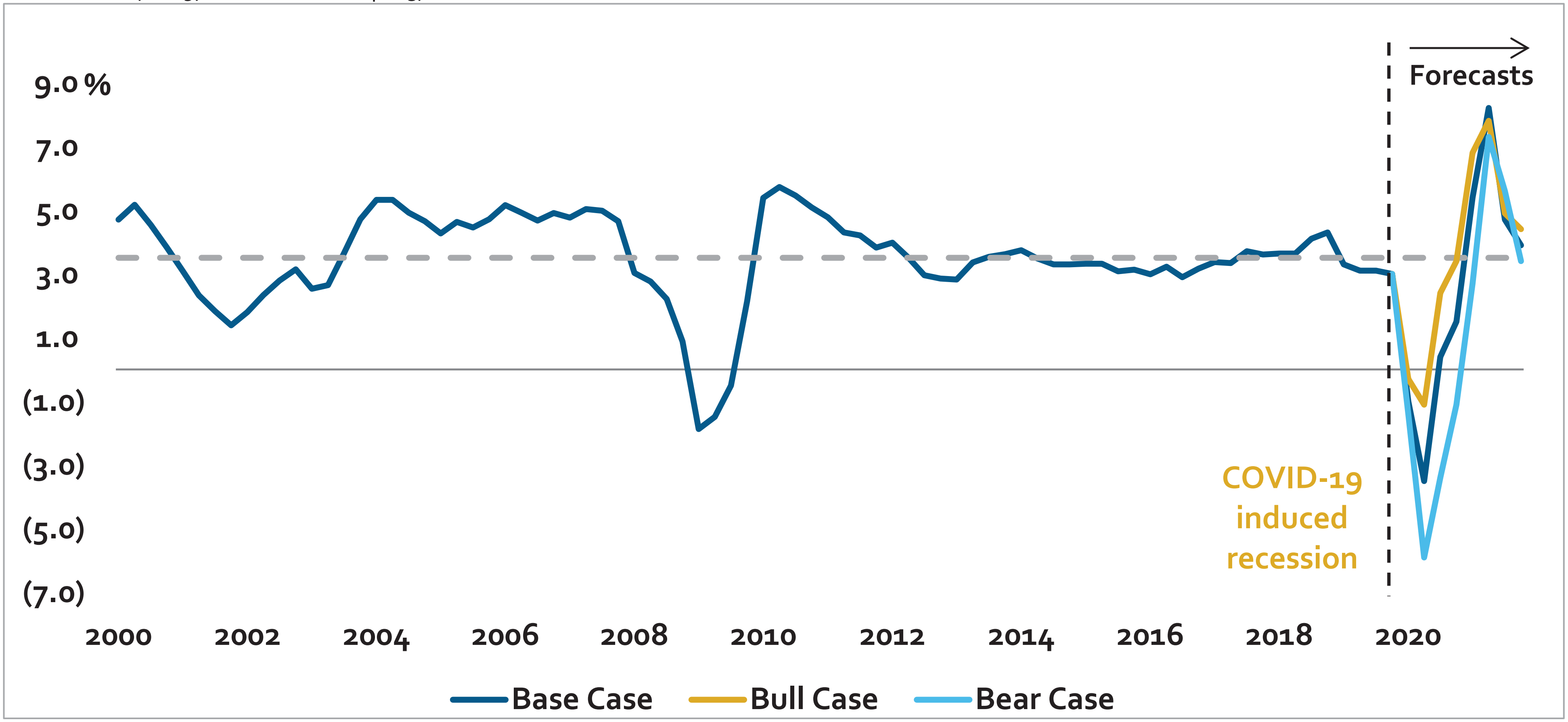
As of April 3, 2020

Source: Bloomberg, Morgan Stanley Wealth Management Market Strategy Team

Global Economy Entering a "Sudden Halt" Recession; COVID-19 Results in Material Downgrades to Growth Estimates

Global Real GDP Growth (YoY %)

Data as of Q4 2019, Forecasts as of April 3, 2020

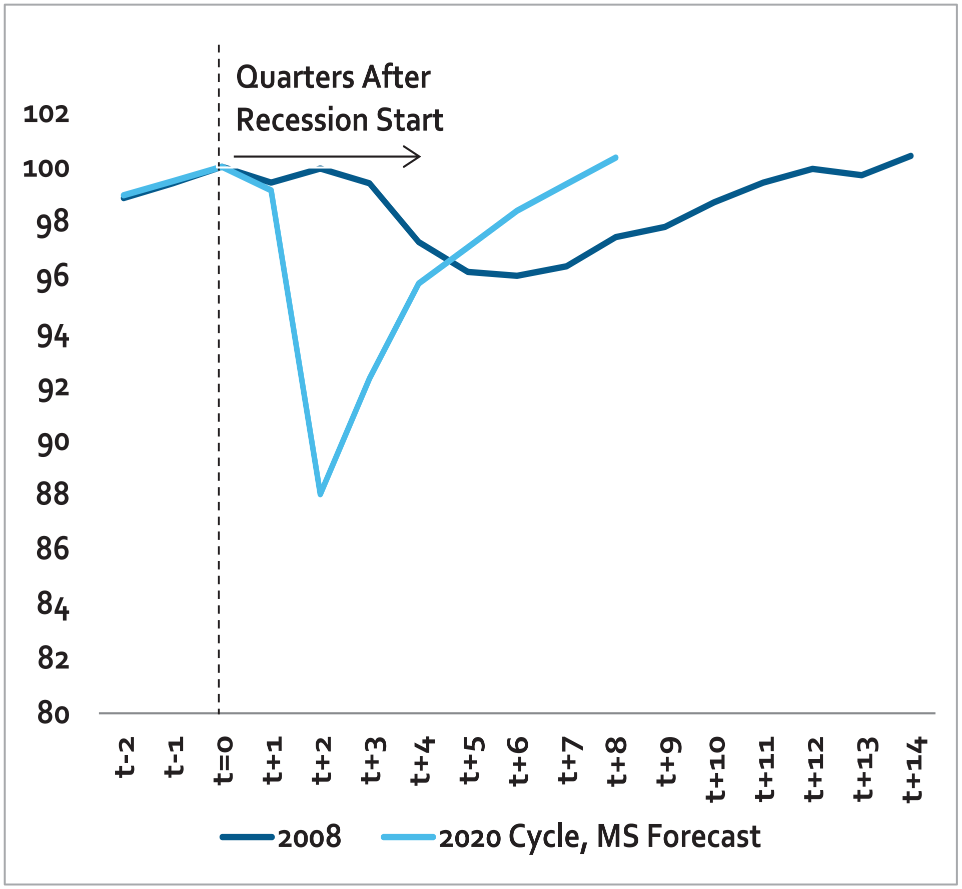


Source: Bloomberg, Morgan Stanley & Co., Morgan Stanley Wealth Management Market Strategy Team

While the GDP Impact Will Be Severe, We Expect the Recovery to be Quicker than Prior Recessions

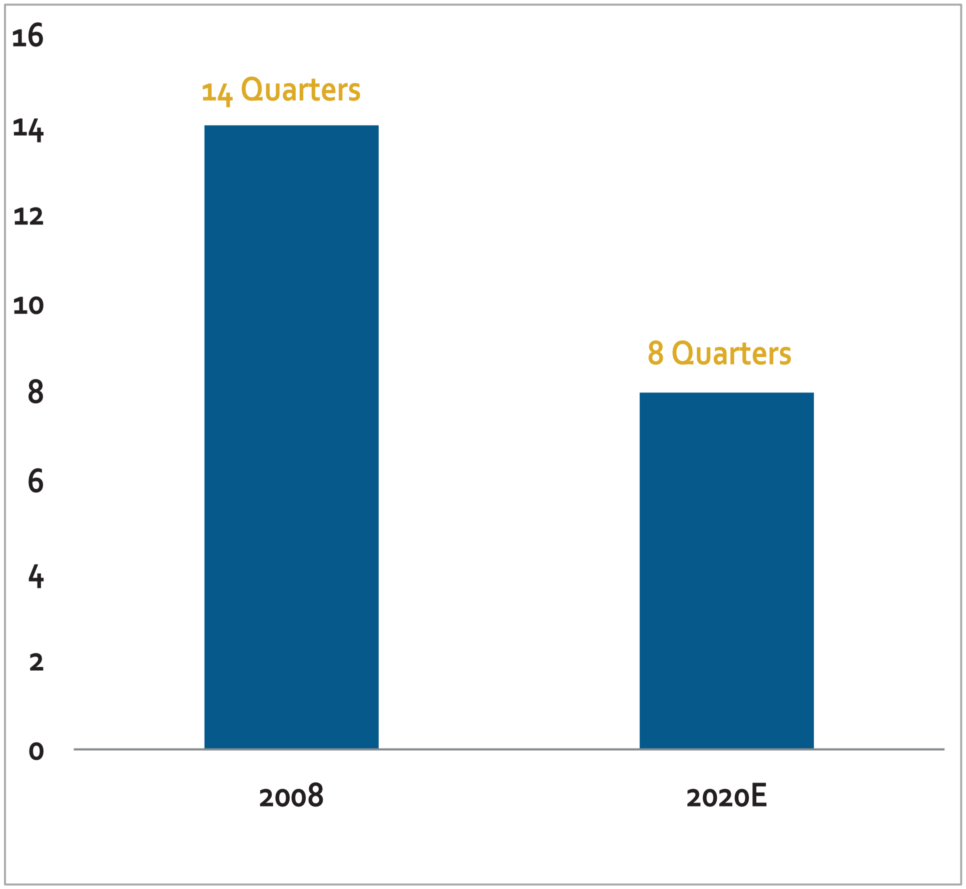
Real GDP (Index, First Quarter of Recession = 0)

As of April 3, 2020



Number of Quarters to Recover Back to Pre-Recession Level of Real GDP

As of April 3, 2020



Source: Bureau of Economic Analysis, Morgan Stanley & Co. Research, Morgan Stanley Wealth Management Market Strategy Team

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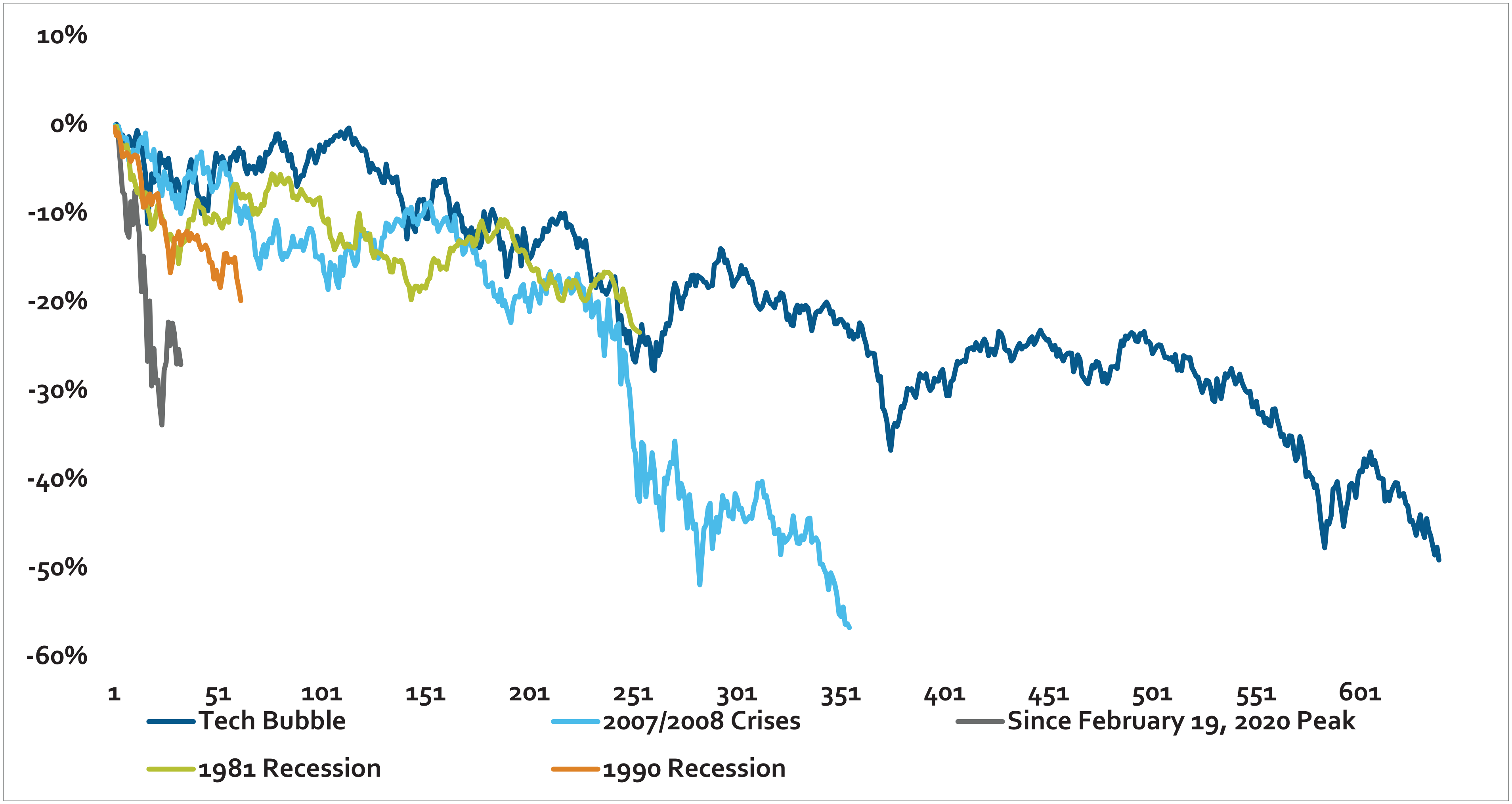
Equity Markets Have Priced These Risks Quickly…

S&P 500 Price Index Normalized
As of April 3, 2020



Source: Bloomberg, Morgan Stanley Wealth Management Market Strategy Team

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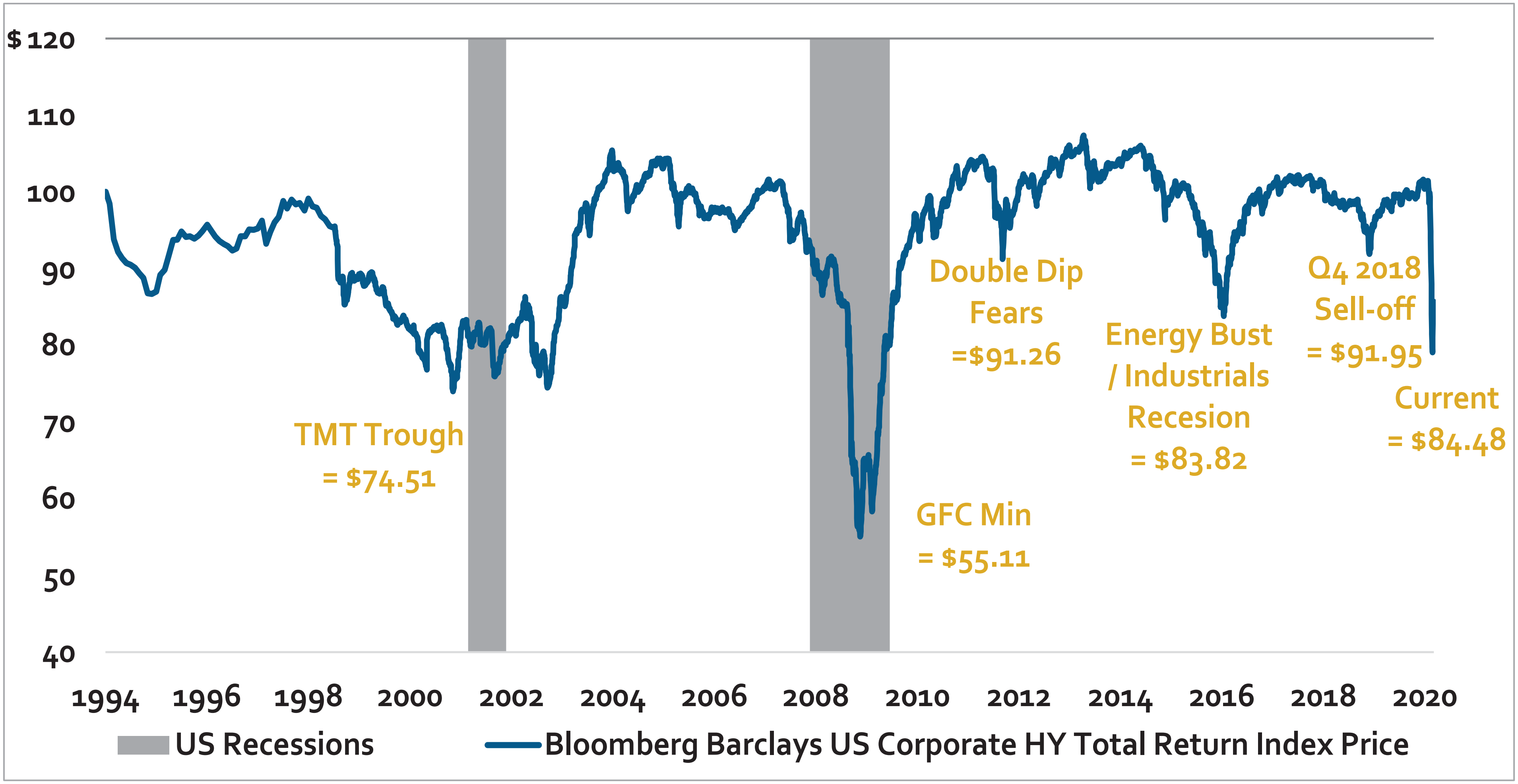
…And HY Credit Reveals the Weakness

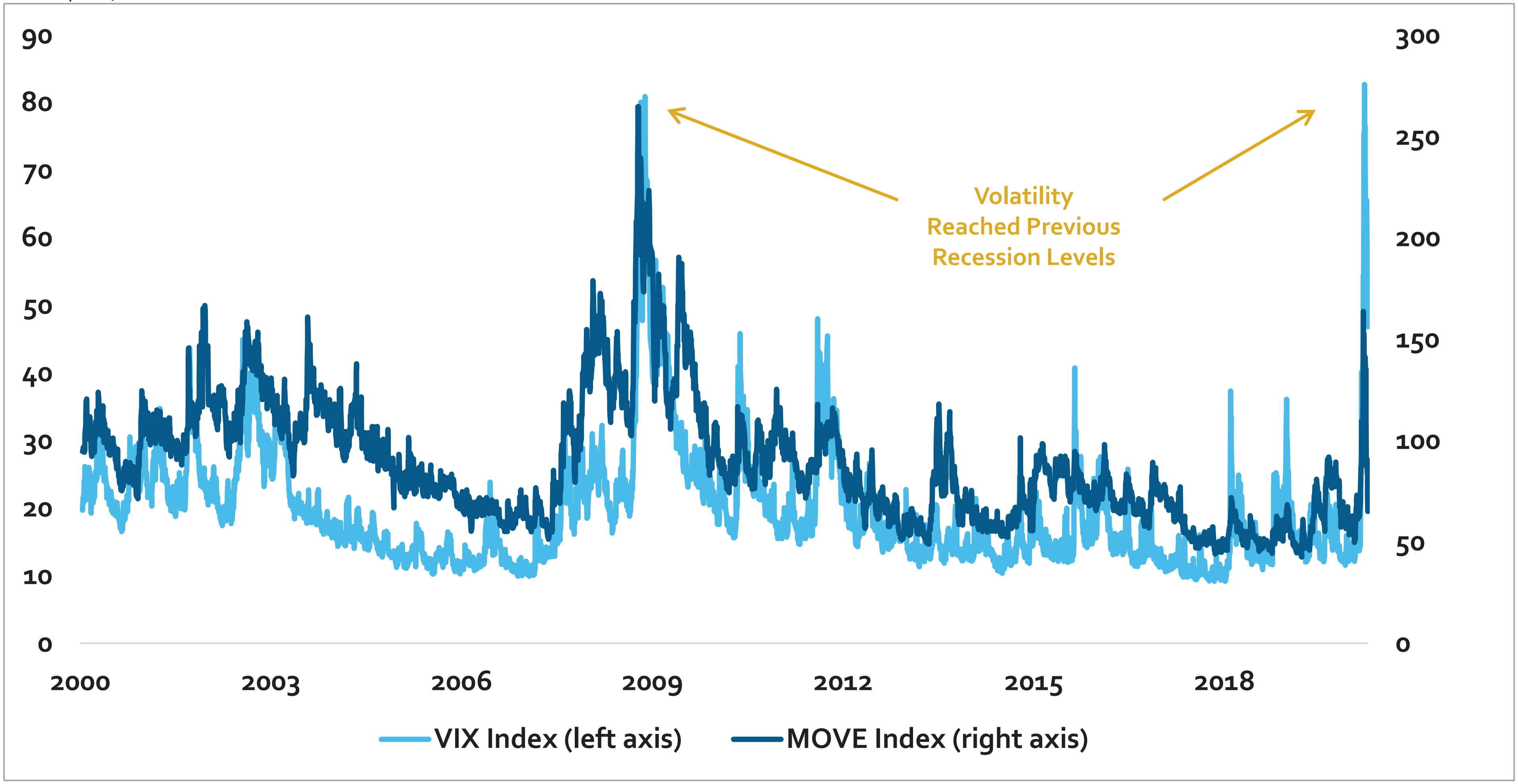
As of April 2, 2020



Source: Bloomberg, Morgan Stanley Wealth Management Market Strategy Team

Volatility Spike Toward 2008/2009 Levels Underscores the Magnitude of the Move

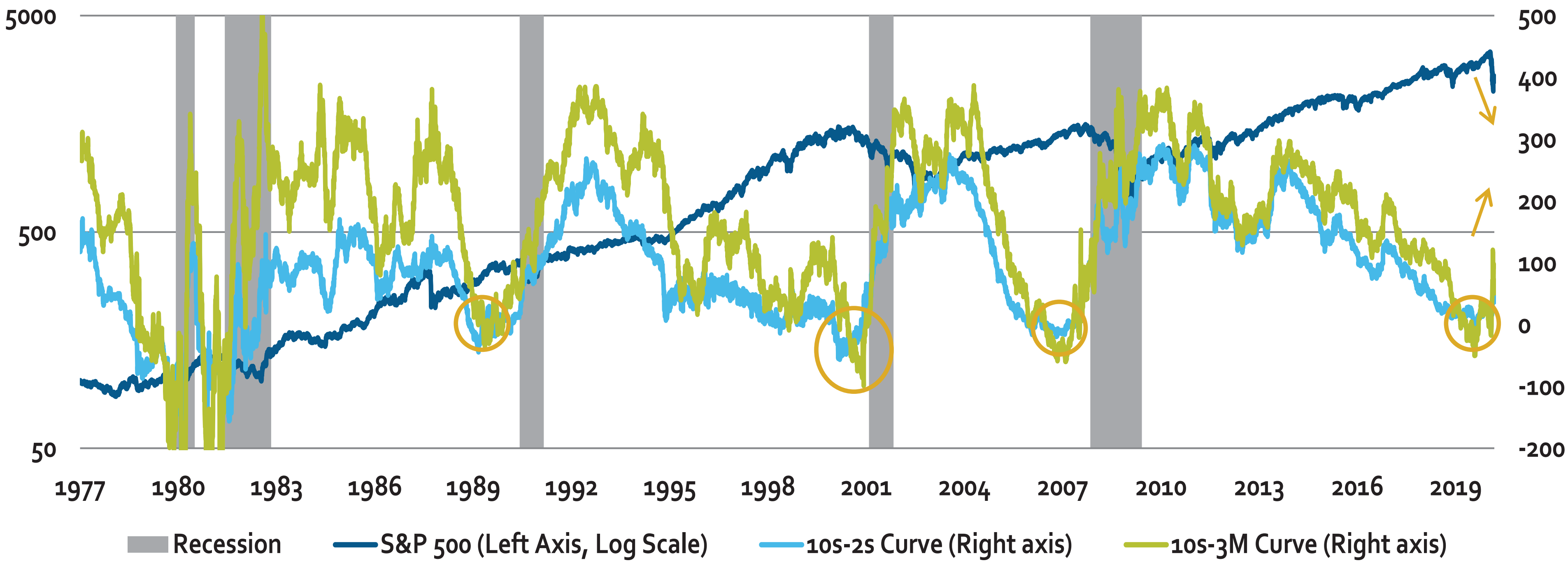
Implied Volatility Rises Sharply
As of April 2, 2020



Source: Bloomberg, Morgan Stanley Wealth Management Market Strategy Team

Curve Inversion in Late 2019 Was Leading Indicator: "This Time Wasn't Different"

Yield Curve, Recessions and Stock Market Peaks
Data as of April 2, 2020



Initial Inversion 10s-2s	Initial Inversion 10s-3m	Stock Market Peak	Months From 10s-2s Inversion to Market Peak	Months From 10s-3m Inversion to Market Peak	S&P 500 Gain from 10s-2s Inversion to Peak	S&P 500 Gain from 10s-3m Inversion to Peak
12/14/1988	5/22/1989	7/16/1990	19	14	41%	19%
5/26/1998	4/7/2000	3/24/2000	22	0	43%	N/M
12/27/2005	2/22/2006	10/9/2007	21	20	29%	25%
			21	11	38%	15%

Average roughly 1 to 2 years from inversion to stock market peak

Source: Bloomberg, Morgan Stanley Wealth Management GIC

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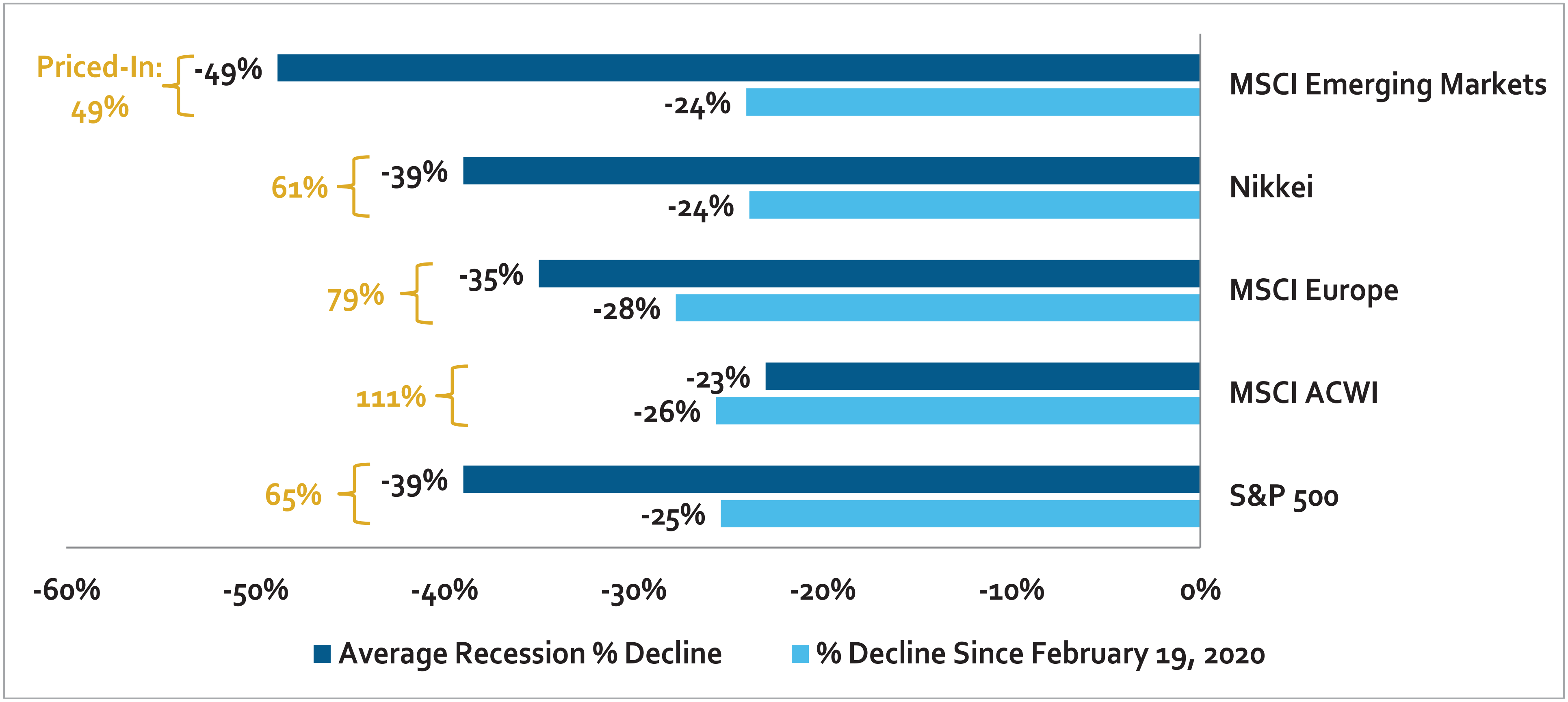
However, Most Equities Have Already Priced This in…

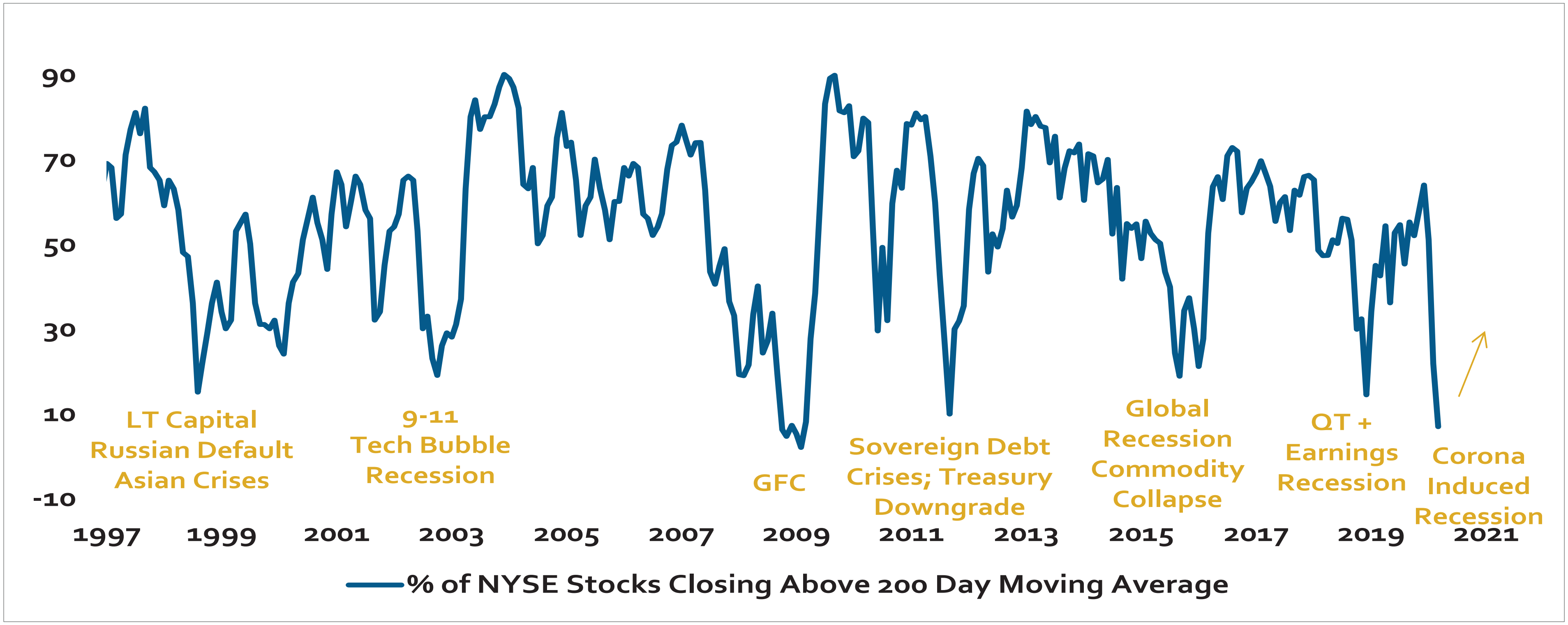
Recent Equity Market Declines Vs. Average Recession Declines (Peak to Trough)
As of April 2, 2020



Source: Bloomberg, Morgan Stanley Wealth Management GIC

...Indicating a Potential Opportunity

As of March 31, 2020



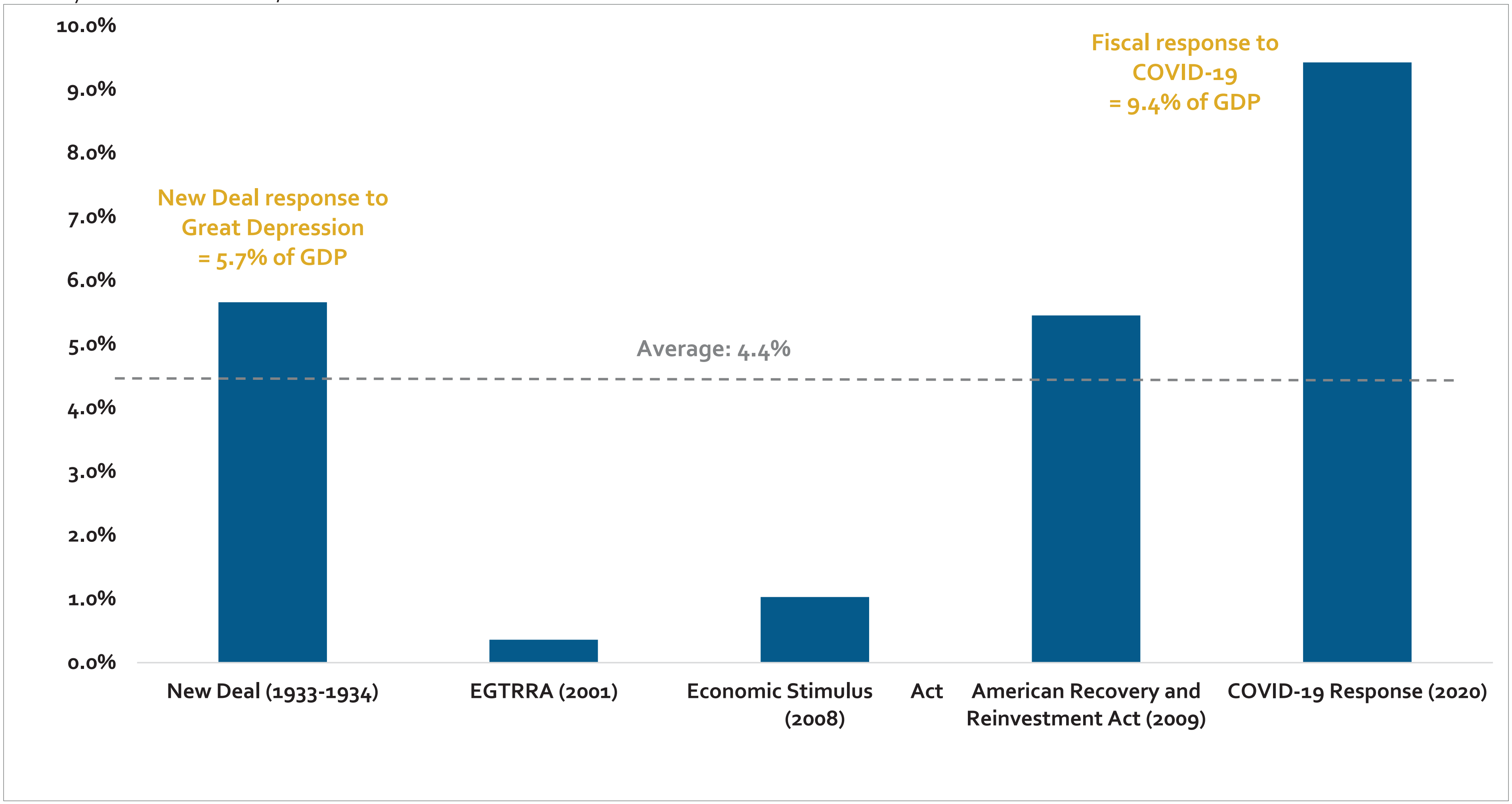
	LT Capital, Russian Default, Asian Crises	9-11, Tech Bubble, Recession	Global Financial Crises	Sovereign Debt Crises, Treasury Downgrade	Global Recession, Commodity Collapse	QT + Earnings Recession
12-Month Subsequent Return From Trough	+27.4%	+19.2%	+52.4%	+21.5%	+9.4%	+21.3%

Source: Bloomberg, Morgan Stanley Wealth Management GIC

Recovery Should Also Be Supported by Record Fiscal Stimulus…

Fiscal Stimulus as a % of GDP

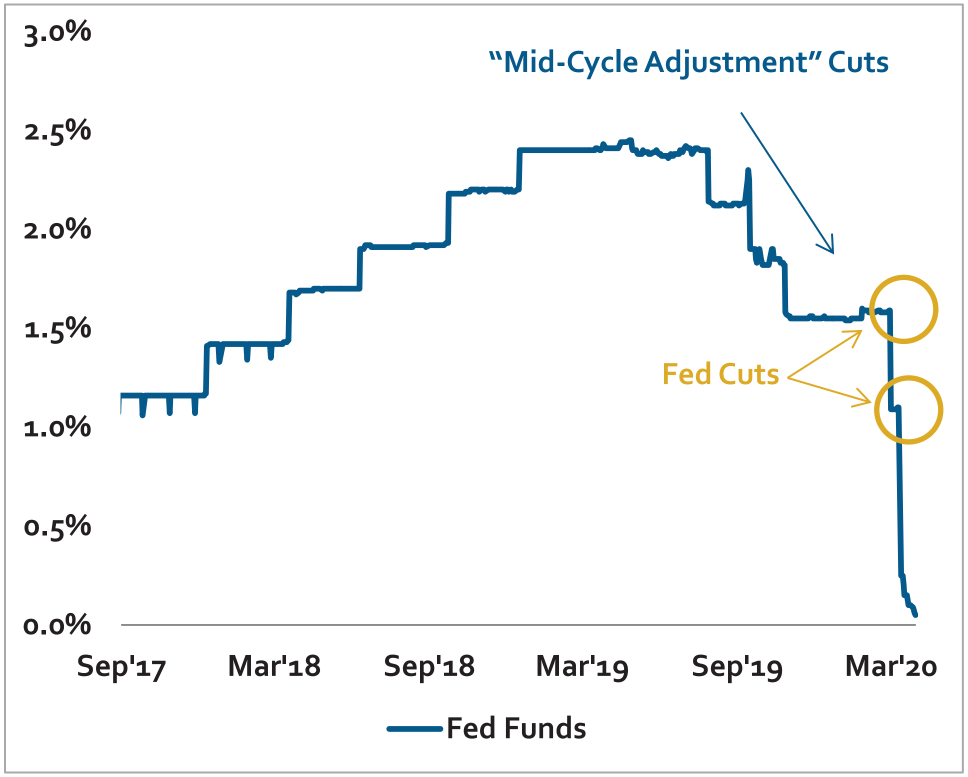
Monthly data as of March 26, 2020



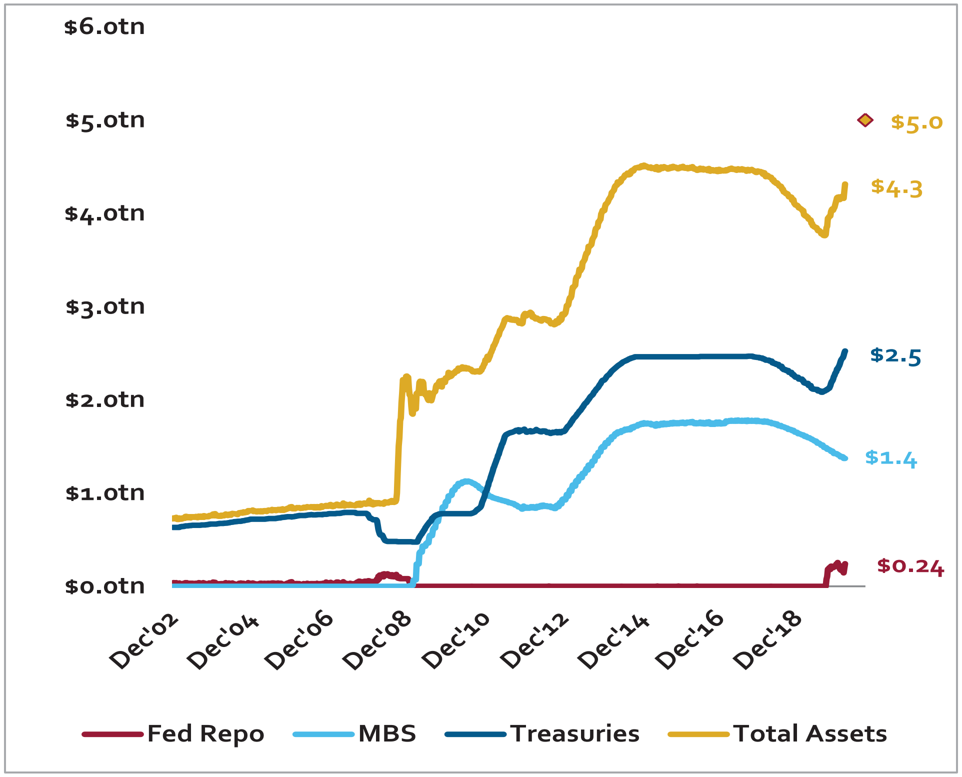
Source: Office of Management and Budget (OMB), Morgan Stanley Wealth Management GIC

…And an Accommodating Fed—Cutting Rates to Zero and Expanding Balance Sheet

Fed Funds Cut to Steepen Yield Curves
As of March 2020



Balance Sheet Expanded with First Repo Liquidity Since 2007
As of March 2020



Source: Bloomberg, Morgan Stanley Wealth Management GIC

Historical Data Suggests That Markets Will Recover

S&P 500 25%+ Declines and Recoveries Since 1929

Downturn from Peak S&P 500 — Peak to Trough	Decline (%)	Duration (Months)	Subsequent Return (%)			Price/Earnings Ratio		Price/Book Ratio		Duration from Trough to Prior Peak (Months)
			3 Months	6 Months	12 Months	Peak	Trough	Peak	Trough	
Sep 1929 - Jun 1932	-86.2	33	93	53	121	20.7	8.5	4.0	0.4	267
Jul 1933 - Mar 1935	-33.9	20	27	46	77	25.7	13.4	1.1	1.0	7
Mar 1937 - Apr 1942	-60.0	62	15	25	54	16.8	7.7	2.1	0.9	45
May 1946 - Jun 1949	-29.6	37	16	23	42	21.3	5.9	1.7	1.0	12
Dec 1961 - Jun 1962	-28.0	6	7	20	33	22.7	17.4	2.1	1.7	14
Nov 1968 - May 1970	-36.1	18	17	23	44	18.2	14.6	2.2	1.6	21
Jan 1973 - Oct 1974	-48.2	21	14	31	38	18.2	6.9	2.0	1.0	69
Nov 1980 - Aug 1982	-27.1	21	36	44	58	8.7	7.7	1.3	1.0	3
Aug 1987 - Dec 1987	-33.5	5	21	21	26	20.2	13.1	2.2	1.6	20
Mar 2000 - Oct 2002	-47.4	31	20	13	36	25.7	17.6	5.0	2.5	56
Oct 2007 - Mar 2009	-55.3	17	40	55	72	17.5	10.2	3.0	1.5	37
Average:	-44.1	24.6	27.8	32.1	54.6	19.6	11.2	2.4	1.3	50.1

There Have Been 8 Recessions in the Past 86 Years

Great Depression

Cuban Missile Crisis

1987 Crash

Grey bars indicate periods of recession

It took 37 months after the 2009 trough to climb back to the pre-crisis peak.

Source: Bloomberg, Morgan Stanley Wealth Management GIC

While Volatility Is Likely to Remain Elevated, Watch For Inflection Points in These Key Metrics

US High Yield Spread (bps)

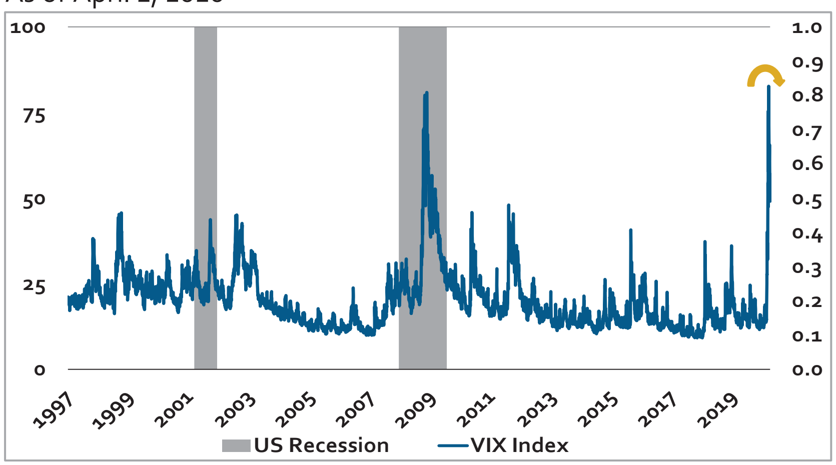
As of April 2, 2020

US Investment Grade Spread (bps)

As of April 2, 2020

VIX Index

As of April 2, 2020



USD Spot Index

Trade as of April 2, 2020

Source: Bloomberg, Morgan Stanley & Co. Research, Morgan Stanley Wealth Management GIC

Despite a Looming "Sudden Shock" Recession, We See an Opportunity for Long-term Investors

Morgan Stanley & Co. S&P 500 Targets: Year-End 2020

Landscape	2020E Earnings	2020E EPS Growth	2021E Earnings	2021E EPS Growth	Current Fwd P/E Multiple	MS Tgt Fwd P/E Multiple	Price Target	Upside / Downside	Previous Targets	Upside / Downside
Bull Case	$142	-13%	$170	20%	21.3x	19.1x	3,250	13%	3,000	4%
Base Case	$130	-20%	$156	20%	21.3x	19.1x	3,000	4%	2,700	-6%
Bear Case	$119	-27%	$149	25%	21.3x	16.7x	2,500	-13%	2,400	-17%
				Current Price as of 4/17/2020			2,875			

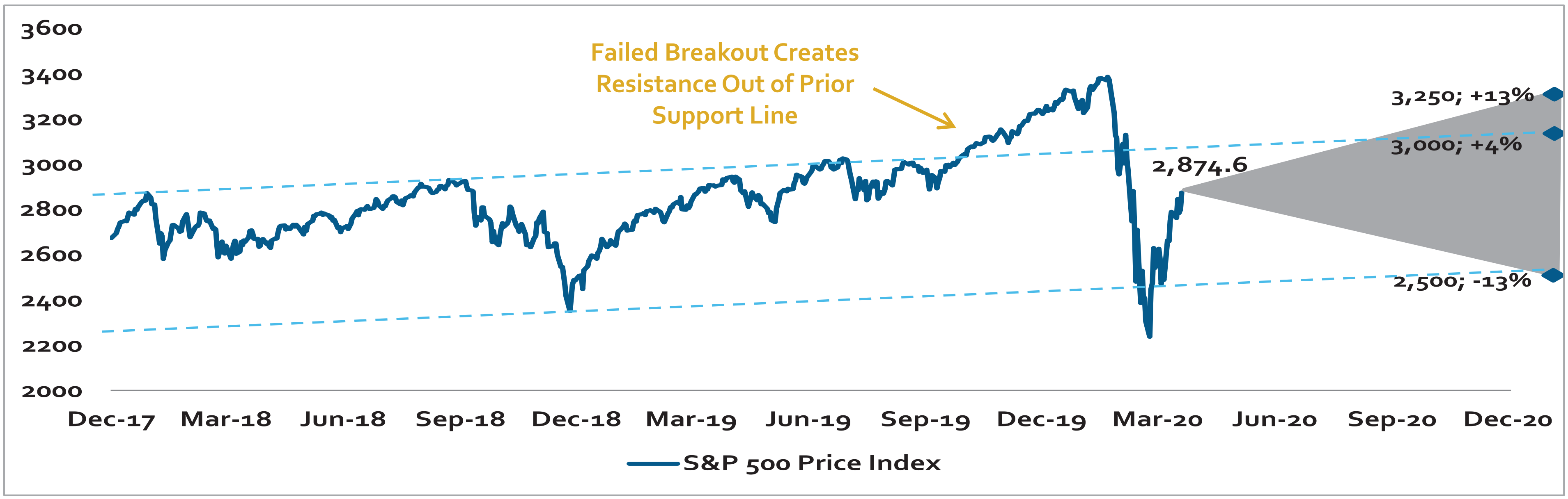
Note: Morgan Stanley & Co. Research applies a forward PE multiple to 2021E EPS.

Morgan Stanley & Co. S&P 500 Sector Recommendations

Overweight	Consumer Staples	Financials	Healthcare
Neutral	Communication Services	Energy	Utilities
	Industrials	Materials	Real Estate
Underweight	Consumer Discretionary	Technology	

S&P 500 Price Index & Forecasts

As of April 17, 2020

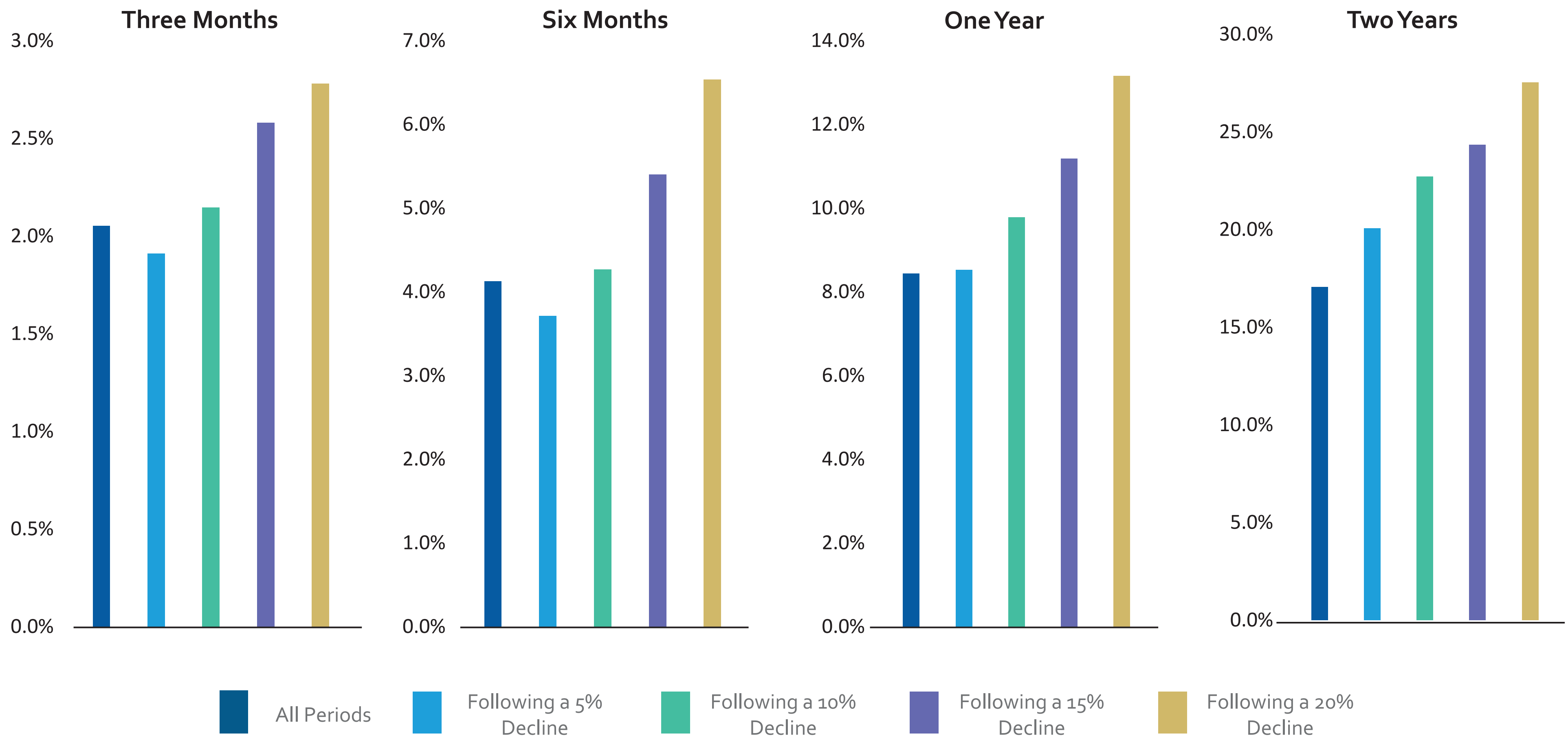


Source: Bloomberg, Morgan Stanley & Co. Research, Morgan Stanley Wealth Management GIC

Investors Who Held Through Market Declines Have Earned Above-Average Returns

MSCI All Country World Index (ACWI) Returns Following Market Selloffs

Data from Jan 1, 1988 to Feb 28, 2020



Source: Bloomberg, Morgan Stanley Wealth Management GIC

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Nontraditional investment options and strategies are often employed by a portfolio manager to further a fund's investment objective and to help offset market risks. However, these features may be complex, making it more difficult to understand the fund's essential characteristics and risks, and how it will perform in different market environments and over various periods of time. They may also expose the fund to increased volatility and unanticipated risks particularly when used in complex combinations and/or accompanied by the use of borrowing or "leverage."

KEY ASSET CLASS CONSIDERATIONS AND OTHER RISKS

Investing in the markets entails the risk of market volatility. The value of all types of investments, including stocks, mutual funds, exchange-traded funds ("ETFs"), closed-end funds, and unit investment trusts, may increase or decrease over varying time periods. To the extent the investments depicted herein represent **international securities**, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in **emerging markets and frontier markets**. **Small- and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small- and mid-capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies. The value of **fixed income securities** will fluctuate and, upon a sale, may be worth more or less than their original cost or maturity value. Bonds are subject to interest rate risk, call risk, reinvestment risk, liquidity risk, and credit risk of the issuer. **High yield bonds** are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. In the case of **municipal bonds**, income is generally exempt from federal income taxes. Some income may be subject to state and local taxes and to the federal alternative minimum tax. Capital gains, if any, are subject to tax. **Treasury Inflation Protection Securities' (TIPS)** coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation. There is no guarantee that investors will receive par if TIPS are sold prior to maturity. The returns on a portfolio consisting primarily of **environmental, social, and governance-aware investments ("ESG")** may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client's account will be managed as described herein. **Options** and margin trading involve substantial risk and are not suitable for all investors. Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, **closed-end funds** may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance and potential leverage. Closed-end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange. NAV is total assets less total liabilities divided by the number of shares outstanding. At the time an investor purchases shares of a closed-end fund, shares may have a market price that is above or below NAV. Portfolios that invest a large percentage of assets in only one industry **sector** (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors.

Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; Risks associated with the operations, personnel, and processes of the manager; and Risks associated with cybersecurity. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. All expressions of opinion are subject to change without notice and are not intended to be a forecast of future events or results. Further, opinions expressed herein may differ from the opinions expressed by Morgan Stanley Wealth Management and/or other businesses/affiliates of Morgan Stanley Wealth Management. This is not a "research report" as defined by FINRA Rule 2241 or a "debt research report" as defined by FINRA Rule 2242 and was not prepared by the Research Departments of Morgan Stanley Smith Barney LLC or Morgan Stanley & Co. LLC or its affiliates. Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing. While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Individual funds have specific tax risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Wealth Management and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley Wealth Management or any of its affiliates, (3) are not guaranteed by Morgan Stanley Wealth Management and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Wealth Management is a registered broker-dealer, not a bank. 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Investment products in this category may employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives and options, which can increase volatility and the risk of investment loss. Alternative investments are not suitable for all investors. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

A majority of Alternative Investment managers reviewed and selected by GIMA pay or cause to be paid an ongoing fee for distribution from their management fees to Morgan Stanley Wealth Management in connection with Morgan Stanley Wealth Management clients that purchase an interest in an Alternative Investment and in some instances pay these fees on the investments held by advisory clients. Morgan Stanley Wealth Management rebates such fees that are received and attributable to an investment held by an advisory client and retains the fees paid in connection with investments held by brokerage clients. Morgan Stanley Wealth Management has a conflict of interest in offering alternative investments because Morgan Stanley Wealth Management or our affiliates, in most instances, earn more money in your account from your investments in alternative investments than from other investment options.

It should be noted that the majority of hedge fund indexes are comprised of hedge fund manager returns. This is in contrast to traditional indexes, which are comprised of individual securities in the various market segments they represent and offer complete transparency as to membership and construction methodology. As such, some believe that hedge fund index returns have certain biases that are not present in traditional indexes. Some of these biases inflate index performance, while others may skew performance negatively. However, many studies indicate that overall hedge fund index performance has been biased to the upside. Some studies suggest performance has been inflated by up to 260 basis points or more annually depending on the types of biases included and the time period studied. Although there are numerous potential biases that could affect hedge fund returns, we identify some of the more common ones throughout this paper.

Self-selection bias results when certain manager returns are not included in the index returns and may result in performance being skewed up or down. Because hedge funds are private placements, hedge fund managers are able to decide which fund returns they want to report and are able to opt out of reporting to the various databases. Certain hedge fund managers may choose only to report returns for funds with strong returns and opt out of reporting returns for weak performers. Other hedge funds that close may decide to stop reporting in order to retain secrecy, which may cause a downward bias in returns.

Survivorship bias results when certain constituents are removed from an index. This often results from the closure of funds due to poor performance, "blow ups," or other such events. As such, this bias typically results in performance being skewed higher. As noted, hedge fund index performance biases can result in positive or negative skew. However, it would appear that the skew is more often positive. While it is difficult to quantify the effects precisely, investors should be aware that idiosyncratic factors may be giving hedge fund index returns an artificial "lift" or upwards bias.

Hedge Funds of Funds and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax-inefficient investing and delays in distributing important tax information. Categorically, hedge funds and funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns. An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. An investment in a **target date portfolio** is subject to the risks attendant to the underlying funds in which it invests, in these portfolios the funds are the Consulting Group Capital Market funds. A target date portfolio is geared to investors who will retire and/or require income at an approximate year. The portfolio is managed to meet the investor's goals by the pre-established year or "target date." A target date portfolio will transition its invested assets from a more aggressive portfolio to a more conservative portfolio as the target date draws closer. An investment in the target date portfolio is not guaranteed at any time, including, before or after the target date is reached. **Managed futures** investments are speculative, involve a high degree of risk, use significant leverage, are generally illiquid, have substantial charges, subject investors to conflicts of interest, and are suitable only for the risk capital portion of an investor's portfolio. Managed futures investments do not replace equities or bonds but rather may act as a complement in a well diversified portfolio. Managed Futures are complex and not appropriate for all investors. **Rebalancing** does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy.

Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets. Past performance is no guarantee of future results. Actual results may vary.

Tax laws are complex and subject to change. Morgan Stanley Smith Barney LLC ("Morgan Stanley"), its affiliates and Morgan Stanley Financial Advisors and Private Wealth Advisors do not provide tax or legal advice and are not "fiduciaries" (under ERISA, the Internal Revenue Code or otherwise) with respect to the services or activities described herein except as otherwise provided in writing by Morgan Stanley and/or as described at www.morganstanley.com/disclosures/dol (unsafe:http://<span class=link>www.morganstanley.com/disclosures/dol). Individuals are encouraged to consult their tax and legal advisors (a) before establishing a retirement plan or account, and (b) regarding any potential tax, ERISA and related consequences of any investments made under such plan or account.

Annuities and insurance products are offered in conjunction with Morgan Stanley Smith Barney LLC's licensed insurance agency affiliates.

Indices are unmanaged and investors cannot directly invest in them. They are not subject to expenses or fees and are often comprised of securities and other investment instruments the liquidity of which is not restricted. A particular investment product may consist of securities significantly different than those in any index referred to herein. Composite index results are shown for illustrative purposes only, generally do not represent the performance of a specific investment, may not, for a variety of reasons, be a suitable comparison or benchmark for a particular investment and may not necessarily reflect the actual investment strategy or objective of a particular investment. Consequently, comparing an investment to a particular index may be of limited use.

This material is not a financial plan and does not create an investment advisory relationship between you and your Morgan Stanley Financial Advisor. We are not your fiduciary either under the Employee Retirement Income Security Act of 1974 (ERISA) or the Internal Revenue Code of 1986, and any information in this report is not intended to form the primary basis for any investment decision by you, or an investment advice or recommendation for either ERISA or Internal Revenue Code purposes. Morgan Stanley Private Wealth Management will only prepare a financial plan at your specific request using

Private Wealth Management approved financial planning signature.

We may act in the capacity of a broker or that of an advisor. As your broker, we are not your fiduciary and our interests may not always be identical to yours. Please consult with your Private Wealth Advisor to discuss our obligations to disclose to you any conflicts we may from time to time have and our duty to act in your best interest. We may be paid both by you and by others who compensate us based on what you buy. Our compensation, including that of your Private Wealth Advisor, may vary by product and over time.

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For index, indicator and survey definitions referenced in this report please visit the following: https://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions (unsafe:https://<span class=link>www.morganstanley.com/wealth-investmentsolutions/wmir-definitions)
Graystone Consulting is a business of Morgan Stanley.

GLOBAL INVESTMENT COMMITTEE (GIC) ASSET ALLOCATION MODELS: The Asset Allocation Models are created by Morgan Stanley Wealth Management's GIC.
HYPOTHETICAL MODEL PERFORMANCE (GROSS): Hypothetical model performance results do not reflect the investment or performance of an actual portfolio following a GIC Strategy, but simply reflect actual historical performance of selected indices on a real-time basis over the specified period of time representing the GIC's strategic and tactical allocations as of the date of this report. The past performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation or trading strategy. Hypothetical performance results do not represent actual trading and are generally designed with the benefit of hindsight. Actual performance results of accounts vary due to, for example, market factors (such as liquidity) and client-specific factors (such as investment vehicle selection, timing of contributions and withdrawals, restrictions and rebalancing schedules). Clients would not necessarily have obtained the performance results shown here if they had invested in accordance with any GIC Asset Allocation Model for the periods indicated. Despite the limitations of hypothetical performance, these hypothetical performance results allow clients and Financial Advisors to obtain a sense of the risk/return trade-off of different asset allocation constructs. The hypothetical performance results in this report are calculated using the returns of benchmark indices for the asset classes, and not the returns of securities, fund or other investment products. Models may contain allocations to Hedge Funds, Private Equity and Private Real Estate. The benchmark indices for these asset classes are not issued on a daily basis. When calculating model performance on a day for which no benchmark index data is issued, we have assumed straight line growth between the index levels issued before and after that date.

FEES REDUCE THE PERFORMANCE OF ACTUAL ACCOUNTS: None of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, fees) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models. The GIC Asset Allocation Models and any model performance included in this presentation are intended as educational materials. Were a client to use these models in connection with investing, any investment decisions made would be subject to transaction and other costs which, when compounded over a period of years, would decrease returns. Information regarding Morgan Stanley's standard advisory fees is available in the Form ADV Part 2, which is available at www.morganstanley.com/adv. The following hypothetical illustrates the compound effect fees have on investment returns: For example, if a portfolio's annual rate of return is 15% for 5 years and the account pays 50 basis points in fees per annum, the gross cumulative five-year return would be 101.1% and the five-year return net of fees would be 96.8%. Fees and/or expenses would apply to clients who invest in investments in an account based on these asset allocations, and would reduce clients' returns. The impact of fees and/or expenses can be material.

Variable annuities are long-term investments designed for retirement purposes and may be subject to market fluctuations, investment risk, and possible loss of principal. All guarantees, including optional benefits, are based on the financial strength and claims-paying ability of the issuing insurance company and do not apply to the underlying investment options. Optional riders may not be able to be purchased in combination and are available at an additional cost. Some optional riders must be elected at time of purchase. Optional riders may be subject to specific limitations, restrictions, holding periods, costs, and expenses as specified by the insurance company in the annuity contract. If you are investing in a **variable annuity** through a tax-advantaged retirement plan such as an IRA, you will get no additional tax advantage from the variable annuity. Under these circumstances, you should only consider buying a variable annuity because of its other features, such as lifetime income payments and death benefits protection. Taxable distributions (and certain deemed distributions) are subject to ordinary income tax and, if taken prior to age 59½, may be subject to a 10% federal income tax penalty. Early withdrawals will reduce the death benefit and cash surrender value.

Equity securities may fluctuate in response to news on companies, industries, market conditions and general economic environment. **Ultrashort-term fixed income** asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

Master Limited Partnerships (MLPs) are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk. Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk. The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value. MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV, and, as a result, the MLP fund's after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

Investing in commodities entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention. **Physical precious metals** are non-regulated products. Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be suitable for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor.

REITs investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions. Risks of **private real estate** include: illiquidity; a long-term investment horizon with a limited or nonexistent secondary market; lack of transparency; volatility (risk of loss); and leverage. Principal is returned on a monthly basis over the life of a **mortgage-backed security.** Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. **Asset-backed securities** generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments.

Yields are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision. **Credit ratings** are subject to change. **Duration**, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. The majority of $25 and $1000 par **preferred securities** are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per $25 or $1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price. The initial interest rate on a **floating-rate security** may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security's underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk. The market value of **convertible bonds** and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield. Some $25 or $1000 **par preferred securities** are QDI (Qualified Dividend Income) eligible. Information on QDI eligibility is obtained from third party sources. The dividend income on QDI eligible preferreds qualifies for a reduced tax rate. Many traditional 'dividend paying' perpetual preferred securities (traditional preferreds with no maturity date) are QDI eligible. In order to qualify for the preferential tax treatment all qualifying preferred securities must be held by investors for a minimum period – 91 days during a 180 day window period, beginning 90 days before the ex-dividend date.

Companies paying **dividends** can reduce or cut payouts at any time.

Nondiversification: For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio's overall value to decline to a greater degree than a less concentrated portfolio. The **indices selected by Morgan Stanley Wealth Management** to measure performance are representative of broad asset classes. Morgan Stanley Wealth Management retains the right to change representative indices at any time. Because of their narrow focus, **sector investments** tend to be more volatile than investments that diversify across many sectors and companies.

Growth investing does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. **Value investing** does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.
Any type of **continuous or periodic investment plan** does not assure a profit and does not protect against loss in declining markets. Since such a plan involves continuous investment in securities regardless of fluctuating price levels of such securities, the investor should consider his financial ability to continue his purchases through periods of low price levels.

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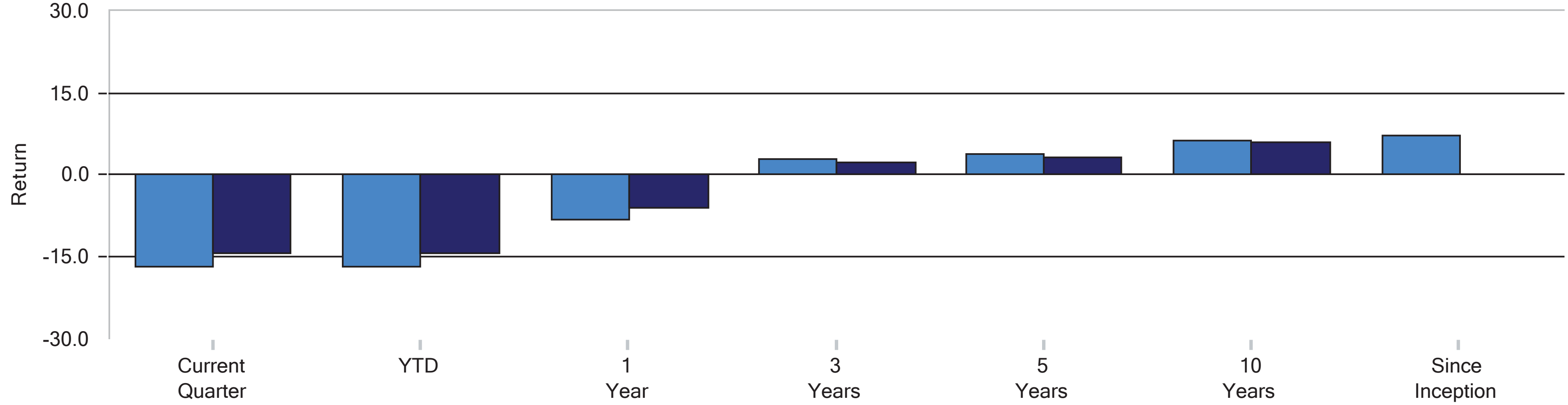
City of Troy Employees Retirement System

City of Troy Quarterly Report

March 31, 2020

Total Fund Performance

City of Troy Employees Retirement System | As of March 31, 2020



	Current Quarter	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Combined Accounts	-16.83	-16.83	-8.21	2.87	3.69	6.26	7.10	Oct -91
Policy Index	*-14.38*	*-14.38*	*-5.95*	*2.45*	*3.21*	*6.09*	*N/A*	
Difference	*-2.45*	*-2.45*	*-2.26*	*0.42*	*0.48*	*0.17*	*N/A*	

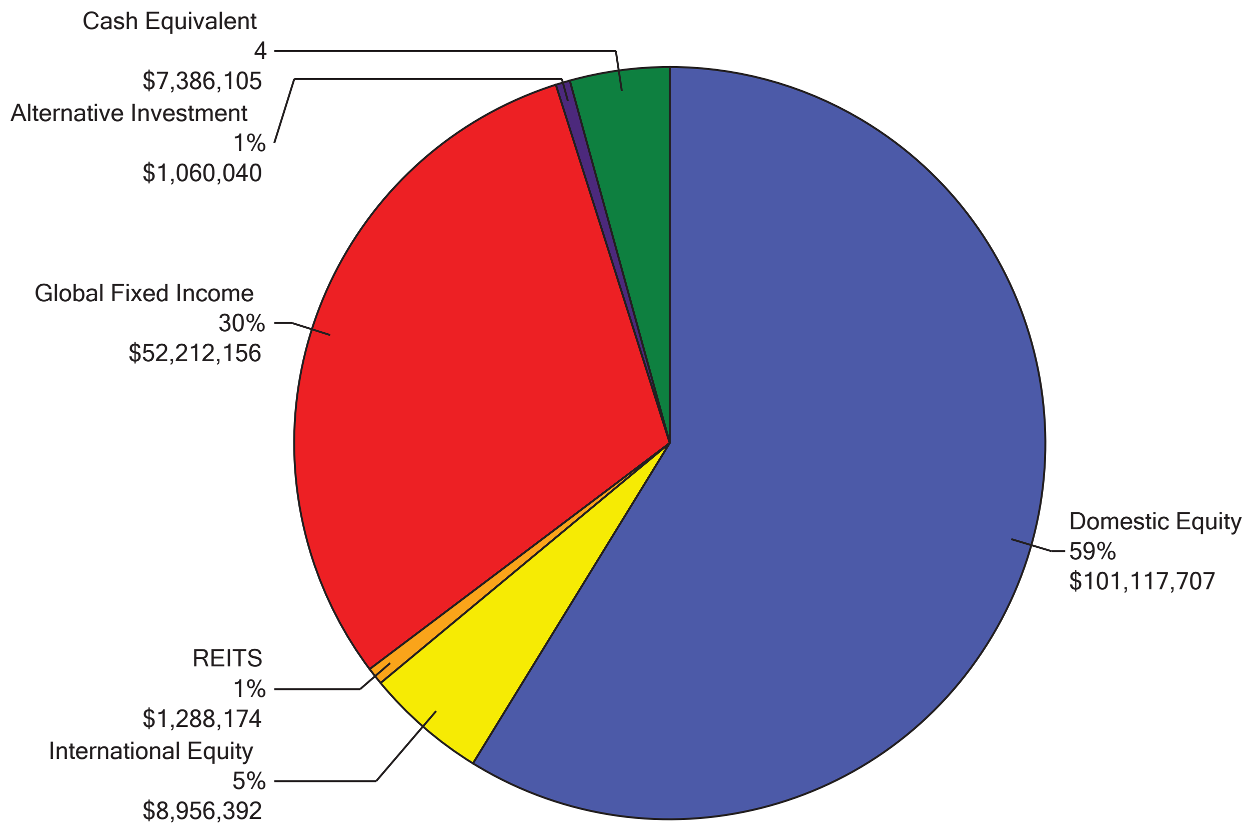
	Current Quarter	YTD	1 Year	3 Years	5 Years	10 Years
Change In Value						
Beginning Market Value	$206,325,739	$206,325,739	$201,193,241	$196,863,908	$211,181,277	$173,611,337
Net Contributions	($215,012)	($215,012)	($10,472,545)	($40,614,298)	($67,730,946)	($114,007,692)
Gain/Loss	($34,090,154)	($34,090,154)	($18,700,123)	$15,770,963	$28,570,241	$112,416,928
Ending Market Value	**$172,020,573**	**$172,020,573**	**$172,020,573**	**$172,020,573**	**$172,020,573**	**$172,020,573**

The Policy Index is comprised of 40% Russell 3000 Index, 19% MSCI ACWI ex US (Net), 29% Barclays U.S. Intm Gov/Credit Bond Index, 7% MSCI REIT, and 5% 90 Day T-Bills.

Source: InvestmentMetrics / Paris

Asset Allocation - Total Fund

Total Market Value: $172,020,573

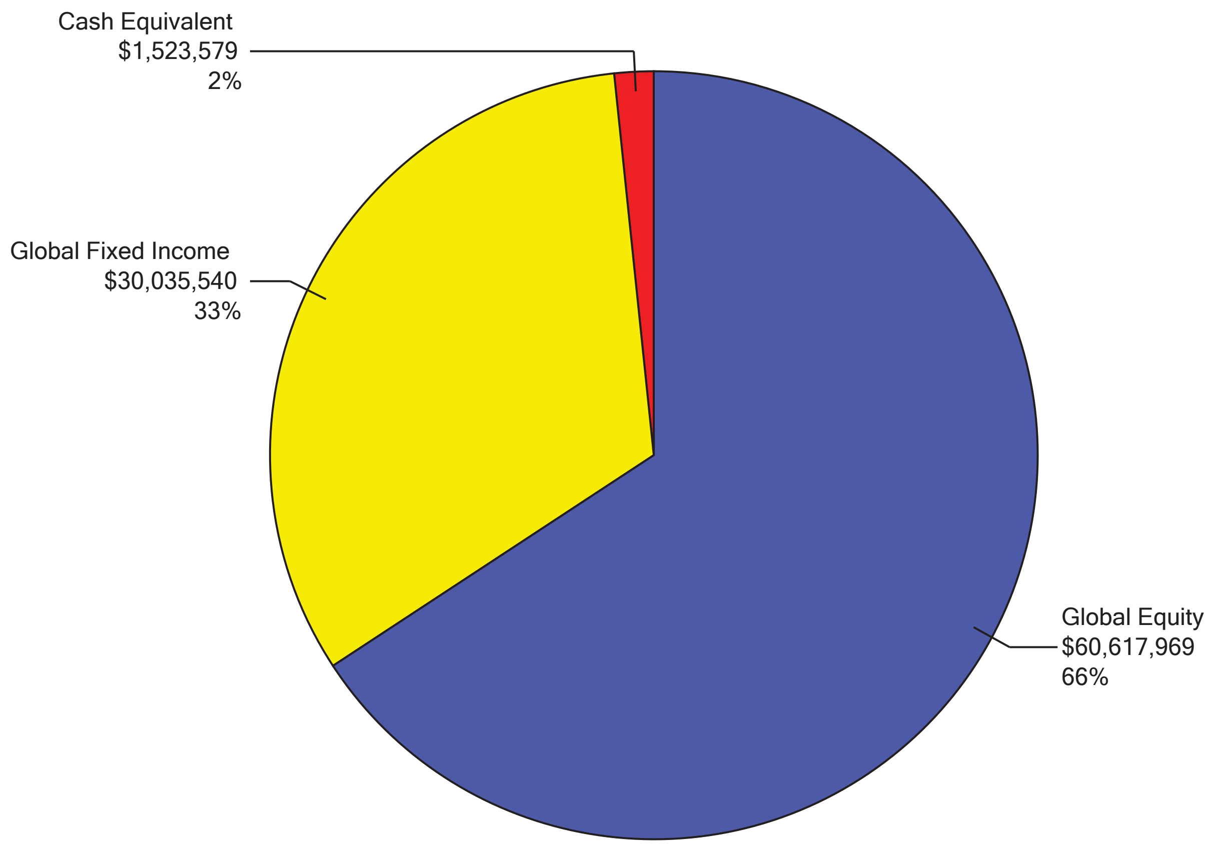


Source: InvestmentMetrics / Paris

Graystone Consulting℠

Asset Allocation - UBS

Total Market Value: $92,177,087

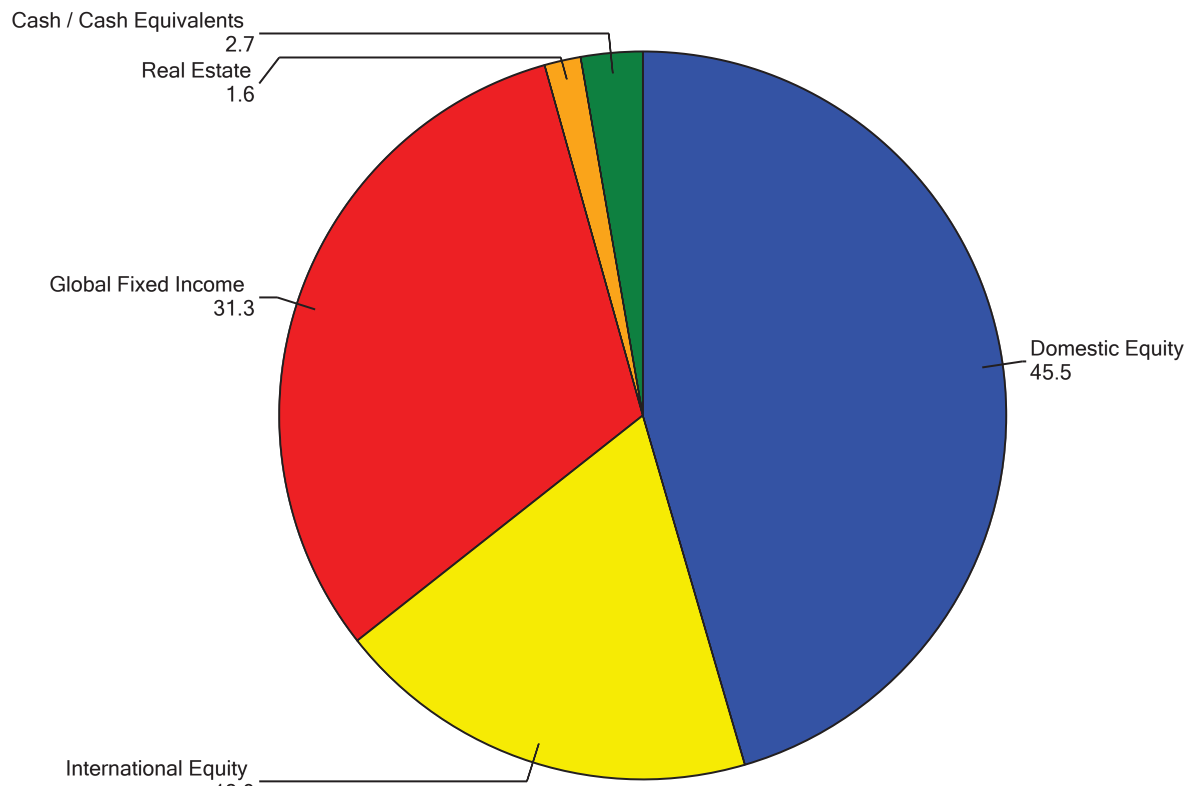


Source: InvestmentMetrics / Paris

Asset Allocation - Morgan Stanley / Graystone

City of Troy Employees Retirement System | As of March 31, 2020

Total Market Value: $79,843,486



	Market Value ($)	Allocation (%)
Domestic Equity	36,303,599	45.5
International Equity	15,102,303	18.9
Global Fixed Income	24,958,228	31.3
Real Estate	1,288,174	1.6
Cash / Cash Equivalents	2,191,183	2.7

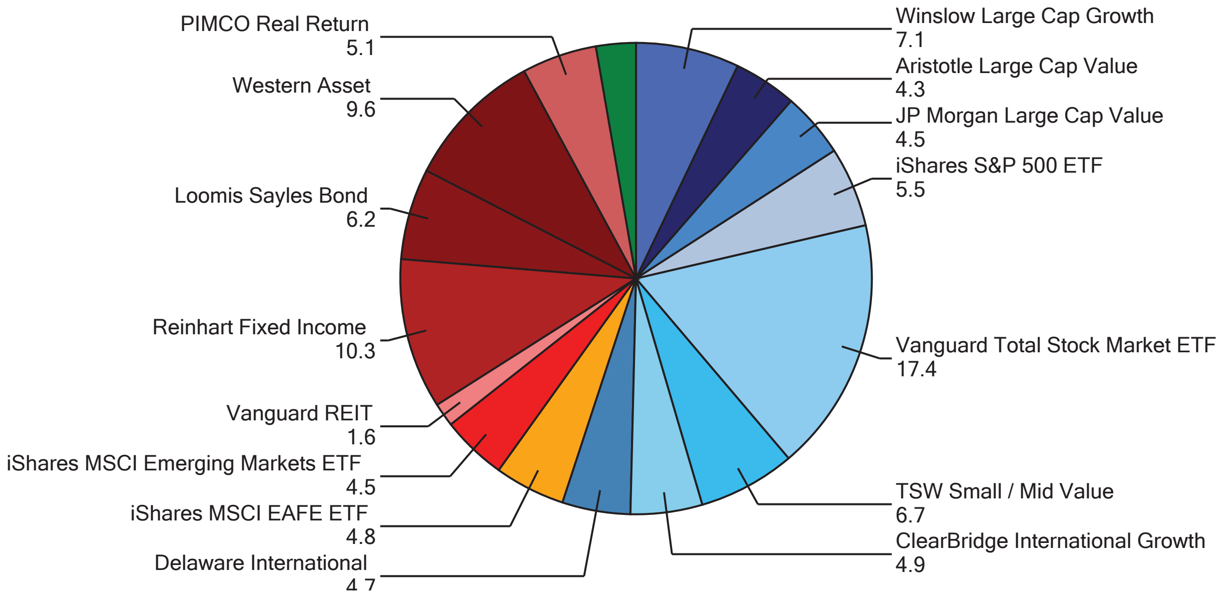
Source: InvestmentMetrics / Paris

Graystone Consulting℠

Asset Allocation - Manager (Morgan Stanley / Graystone)

City of Troy Employees Retirement System | As of March 31, 2020

Total Market Value: $79,843,486



	Market Value ($)	Allocation (%)
Winslow Large Cap Growth	5,663,239	7.1
Aristotle Large Cap Value	3,459,471	4.3
JP Morgan Large Cap Value	3,553,674	4.5
iShares S&P 500 ETF	4,380,397	5.5
Vanguard Total Stock Market ETF	13,920,733	17.4
TSW Small / Mid Value	5,326,085	6.7
ClearBridge International Growth	3,922,910	4.9
Delaware International	3,731,758	4.7
iShares MSCI EAFE ETF	3,861,630	4.8
iShares MSCI Emerging Markets ETF	3,586,005	4.5
Vanguard REIT	1,288,174	1.6
Reinhart Fixed Income	8,246,183	10.3
Loomis Sayles Bond	4,986,599	6.2
Western Asset	7,632,473	9.6
PIMCO Real Return	4,092,973	5.1
Cash / Cash Equivalents	2,191,183	2.7

Source: InvestmentMetrics / Paris

Graystone Consulting℠

Manager Performance - Morgan Stanley / Graystone

City of Troy Employees Retirement System — As of March 31, 2020

	Current Quarter	YTD	1 Year	2 Years	3 Years	Since Inception	Inception Date
Morgan Stanley / Graystone Composite - Gross	-17.48	-17.48	-9.75	-3.73	0.71	3.17	May -14
Morgan Stanley / Graystone Composite - Net	-17.56	-17.56	-10.08	-4.09	0.31	2.78	May -14
Policy Index (MS)	*-14.38*	*-14.38*	*-5.95*	*-0.33*	*2.74*	*4.21*	
Global Equities							
Winslow Large Cap Growth	-12.08	-12.08	0.28	6.77	13.03	10.94	Oct -14
Russell 1000 Growth	*-14.10*	*-14.10*	*0.91*	*6.67*	*11.32*	*11.06*	
Aristotle Large Cap Value	N/A	N/A	N/A	N/A	N/A	N/A	Apr -20
Russell 1000 Value	*-26.73*	*-26.73*	*-17.17*	*-6.44*	*-2.18*	*N/A*	
JP Morgan Large Cap Value	N/A	N/A	N/A	N/A	N/A	N/A	Apr -20
Russell 1000 Value	*-26.73*	*-26.73*	*-17.17*	*-6.44*	*-2.18*	*N/A*	
iShares S&P 500 ETF	-19.60	-19.60	-7.01	N/A	N/A	-5.20	Sep -18
S&P 500 Total Return	*-19.60*	*-19.60*	*-6.98*	*0.92*	*5.10*	*-5.16*	
Vanguard Total Stock Market ETF	-20.89	-20.89	-9.26	-0.63	3.99	6.53	Oct -14
MSCI US Broad Market	*-21.06*	*-21.06*	*-9.34*	*-0.70*	*3.92*	*6.54*	
TSW Small / Mid Value	-36.43	-36.43	-30.95	-16.80	-10.73	-1.69	Oct -14
Russell 2500 Value	*-34.64*	*-34.64*	*-28.60*	*-14.73*	*-8.40*	*-0.36*	
ClearBridge International Growth	-17.70	-17.70	N/A	N/A	N/A	-8.60	Sep -19
MSCI EAFE Net	*-22.83*	*-22.83*	*-14.38*	*-9.13*	*-1.82*	*-14.13*	
MSCI EAFE Gr Net	*-17.51*	*-17.51*	*-5.84*	*-3.49*	*2.98*	*-9.52*	
Delaware International	-25.04	-25.04	N/A	N/A	N/A	-14.52	Sep -19
MSCI EAFE Net	*-22.83*	*-22.83*	*-14.38*	*-9.13*	*-1.82*	*-14.13*	
MSCI EAFE VL Net	*-28.20*	*-28.20*	*-22.76*	*-14.80*	*-6.65*	*-18.85*	
iShares Developed Mkts ETF	-22.86	-22.86	-14.46	-9.19	-1.89	1.51	Oct -15
MSCI EAFE Net	*-22.83*	*-22.83*	*-14.38*	*-9.13*	*-1.82*	*1.59*	
iShares Emerging Mkt ETF	-23.69	-23.69	-18.14	-13.12	-2.19	0.25	Sep -16
MSCI EM Net	*-23.60*	*-23.60*	*-17.69*	*-12.70*	*-1.62*	*0.83*	

The Policy Index is comprised of 40% Russell 3000 Index, 19% MSCI ACWI ex US (Net), 29% Barclays U.S. Intm Gov/Credit Bond Index, 7% MSCI REIT, and 5% 90 Day T-Bills.
Returns for periods greater than one year are annualized.Returns are expressed as percentages.
Source: InvestmentMetrics / Paris

Manager Performance - Morgan Stanley / Graystone

City of Troy Employees Retirement System — As of March 31, 2020

	Current Quarter	YTD	1 Year	2 Years	3 Years	Since Inception	Inception Date
Vanguard REIT	-24.11	-24.11	-16.60	0.07	-1.48	3.77	Oct -14
MSCI REIT Gross	*-26.99*	*-26.99*	*-20.99*	*-2.33*	*-3.02*	*2.94*	

The Policy Index is comprised of 40% Russell 3000 Index, 19% MSCI ACWI ex US (Net), 29% Barclays U.S. Intm Gov/Credit Bond Index, 7% MSCI REIT, and 5% 90 Day T-Bills.
Returns for periods greater than one year are annualized.Returns are expressed as percentages.
Source: InvestmentMetrics / Paris

Manager Performance - Morgan Stanley / Graystone

City of Troy Employees Retirement System — As of March 31, 2020

	Current Quarter	YTD	1 Year	2 Years	3 Years	Since Inception	Inception Date
Global Fixed Income							
Reinhart Intermediate Fixed Income	2.66	2.66	6.65	5.48	3.84	2.97	Sep -14
BC Intermediate Gov/Credit	*2.40*	*2.40*	*6.88*	*5.55*	*3.79*	*2.80*	
Loomis Sayles Bond	-11.75	-11.75	-6.39	-2.30	-0.21	0.31	Jul -14
Barclays Aggregate	*3.15*	*3.15*	*8.93*	*6.68*	*4.82*	*3.55*	
PIMCO Real Return	0.75	0.75	5.50	3.96	2.93	2.69	Jul -15
BC TIPS	*1.69*	*1.69*	*6.85*	*4.76*	*3.46*	*3.04*	
Western Asset	N/A	N/A	N/A	N/A	N/A	N/A	Apr -20
Barclays Aggregate	*3.15*	*3.15*	*8.93*	*6.68*	*4.82*	*N/A*	

The Policy Index is comprised of 40% Russell 3000 Index, 19% MSCI ACWI ex US (Net), 29% Barclays U.S. Intm Gov/Credit Bond Index, 7% MSCI REIT, and 5% 90 Day T-Bills.
Returns for periods greater than one year are annualized.Returns are expressed as percentages.
Source: InvestmentMetrics / Paris

Graystone Consulting℠

Manager Performance - UBS

City of Troy Employees Retirement System							As of March 31, 2020
	Current Quarter	YTD	1 Year	2 Years	3 Years	Since Inception	Inception Date
UBS Composite - Gross	-16.26	-16.26	-6.83	1.27	4.82	7.33	Oct -91
NAIC	-21.40	-21.40	-12.02	1.44	5.37	7.68	Jan -14
ERS	-14.76	-14.76	-5.33	1.25	4.69	5.00	Jan -14
Global Equities							
SPDR S&P 500 ETF (SPY)	-19.50	-19.50	-6.96	0.89	5.04	4.94	Mar -17
S&P 500 Total Return	*-19.60*	*-19.60*	*-6.98*	*0.92*	*5.10*	*5.00*	
Vanguard Mid Cap Value ETF (VOE)	-31.38	-31.38	N/A	N/A	N/A	-31.38	Jan -20
Russell Midcap Value	*-31.71*	*-31.71*	*-24.13*	*-11.65*	*-5.97*	*-31.71*	
iShares Russell 2000 ETF (IWM)	-30.62	-30.62	-24.04	-11.98	-4.67	0.82	Jul -14
Russell 2000	*-30.61*	*-30.61*	*-23.99*	*-11.93*	*-4.64*	*0.81*	
American Funds World G&I (CWGIX)	-20.39	-20.39	-11.05	-5.54	1.29	6.31	Dec -10
MSCI AC World Net	*-21.37*	*-21.37*	*-11.25*	*-4.58*	*1.50*	*6.10*	
American Funds New World (NEWFX)	-22.18	-22.18	-12.76	-7.30	1.42	3.76	Dec -15
MSCI EM Net	*-23.60*	*-23.60*	*-17.69*	*-12.70*	*-1.62*	*3.35*	
American Funds EuroPacific (AEPGX)	-22.51	-22.51	-13.03	-9.09	-0.07	3.85	Feb -00
MSCI EAFE Net	*-22.83*	*-22.83*	*-14.38*	*-9.13*	*-1.82*	*2.30*	
Columbia Seligman C & I (SLMCX)	-19.73	-19.73	0.96	4.00	9.97	8.83	Jan -99
Lipper Science & Technology	*-14.97*	*-14.97*	*-1.20*	*4.65*	*12.11*	*6.35*	
MFS New Discovery Valu (NDVAX)	-34.36	-34.36	-23.92	-10.18	N/A	-8.53	Nov -17
Russell 2500 VL	*-34.64*	*-34.64*	*-28.60*	*-14.73*	*-8.40*	*-12.02*	
MFS Value (MEIAX)	-23.82	-23.82	-12.33	-4.25	N/A	-3.34	Nov -17
Russell 1000 VL	*-26.73*	*-26.73*	*-17.17*	*-6.44*	*-2.18*	*-4.74*	
Virtus KAR Sm-Cap Growth (PSGAX)	-17.32	-17.32	-5.27	7.83	17.57	17.31	Mar -17
Russell 2500 GR	*-23.22*	*-23.22*	*-14.40*	*-4.05*	*3.35*	*3.50*	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.
Source: InvestmentMetrics / Paris

Manager Performance - UBS

City of Troy Employees Retirement System							As of March 31, 2020
	Current Quarter	YTD	1 Year	2 Years	3 Years	Since Inception	Inception Date
TCW Emerging Markets (TGINX)	-19.20	-19.20	N/A	N/A	N/A	-17.40	Nov -19
JPM EMBI Global	*-11.76*	*-11.76*	*-5.28*	*-0.97*	*0.44*	*-10.25*	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.
Source: InvestmentMetrics / Paris

Graystone Consulting℠

Manager Performance - UBS

City of Troy Employees Retirement System							As of March 31, 2020
	Current Quarter	YTD	1 Year	2 Years	3 Years	Since Inception	Inception Date
Global Fixed Income							
iShares TIPS ETF (TIP)	1.67	1.67	6.71	4.62	3.33	3.21	Mar -17
BC Global Inf Linked US TIPS	*1.69*	*1.69*	*6.85*	*4.78*	*3.46*	*3.34*	
AB High Income (AGDAX)	-18.71	-18.71	-12.79	-6.33	-3.21	2.06	Dec -12
Citi High Yield Market	*-13.09*	*-13.09*	*-7.64*	*-1.12*	*0.47*	*3.45*	
BlackRock Strategic Income (BASIX)	-5.92	-5.92	-1.31	-0.07	1.11	1.62	Mar -14
BC Universal	*1.30*	*1.30*	*7.15*	*5.83*	*4.38*	*3.61*	
BlackRock High Yield Bond (BHYAX)	-13.54	-13.54	-7.19	-1.52	0.34	3.55	Dec -12
Citi High Yield Market	*-13.09*	*-13.09*	*-7.64*	*-1.12*	*0.47*	*3.45*	
Loomis Investment Grade Bond (LIGRX)	-2.83	-2.83	2.33	2.48	2.96	1.69	Jul -14
Barclays Govt/Credit Bond	*3.37*	*3.37*	*9.82*	*7.12*	*5.17*	*3.75*	
Met West Total Return Bond (MWTRX)	2.18	2.18	7.93	6.19	4.41	3.08	Dec -14
Barclays Aggregate	*3.15*	*3.15*	*8.93*	*6.68*	*4.82*	*3.47*	
Thornburg Limited Term Income (THIFX)	-0.67	-0.67	2.60	3.08	2.37	2.37	Apr -17
BC Agg Intm Tr	*2.49*	*2.49*	*6.88*	*5.60*	*3.87*	*3.87*	

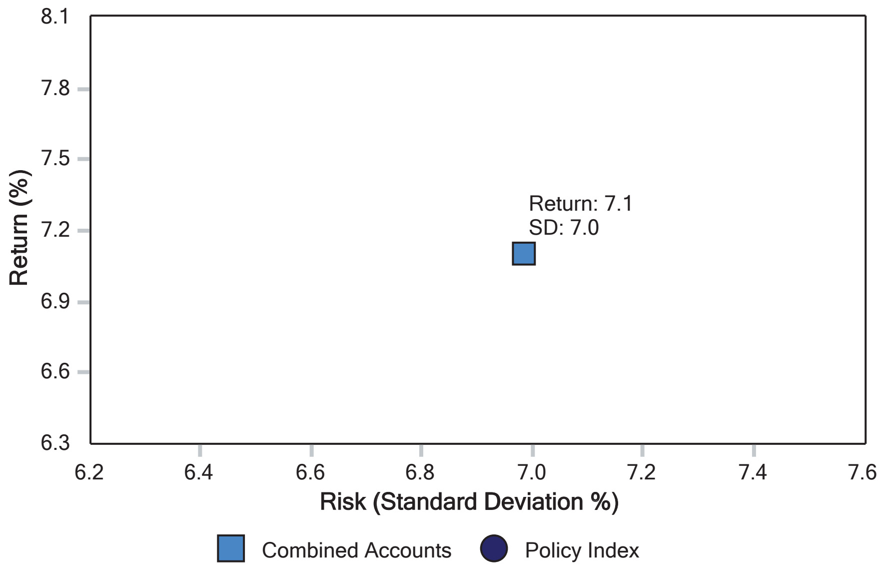
Returns for periods greater than one year are annualized.
Returns are expressed as percentages.
Source: InvestmentMetrics / Paris

Graystone Consulting℠

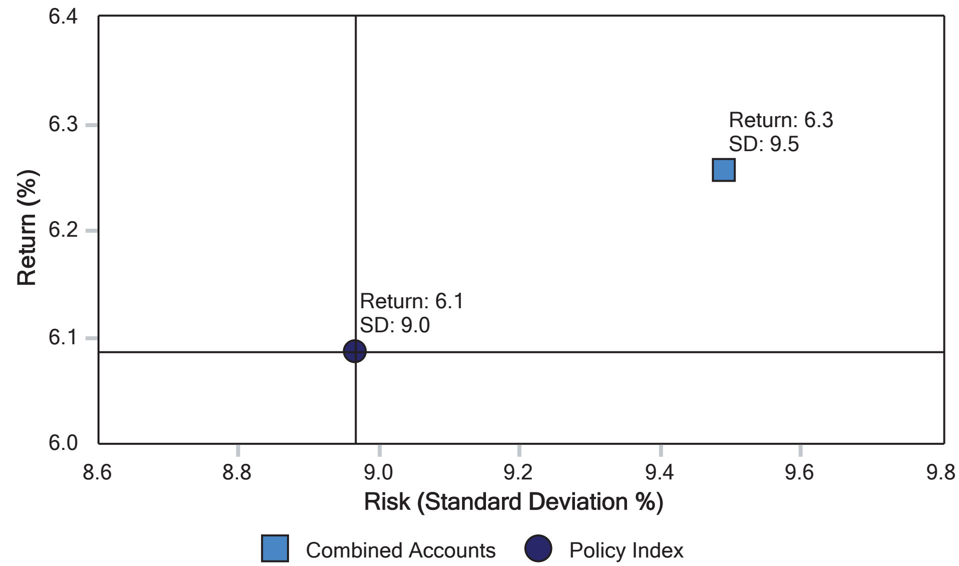
Total Fund Risk / Return Analysis

City of Troy Employees Retirement System | As of March 31, 2020

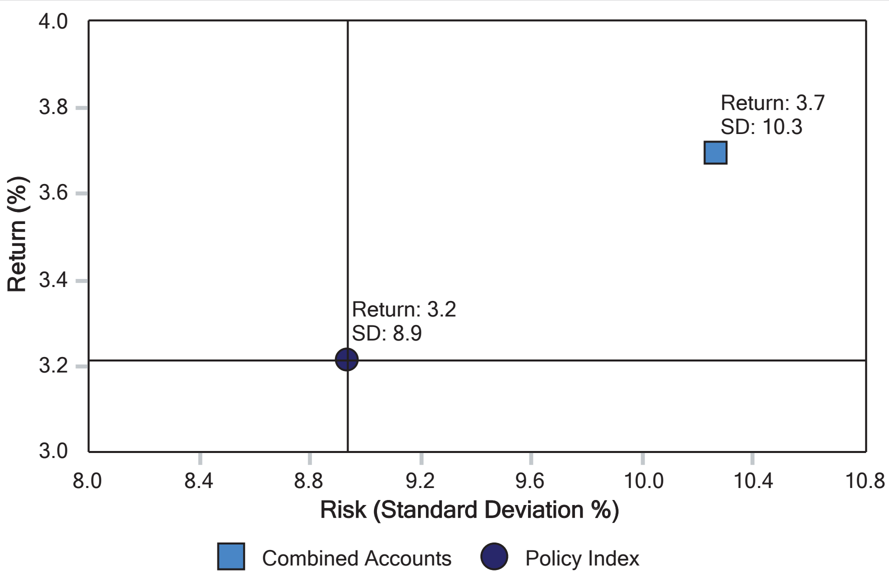
Since Inception



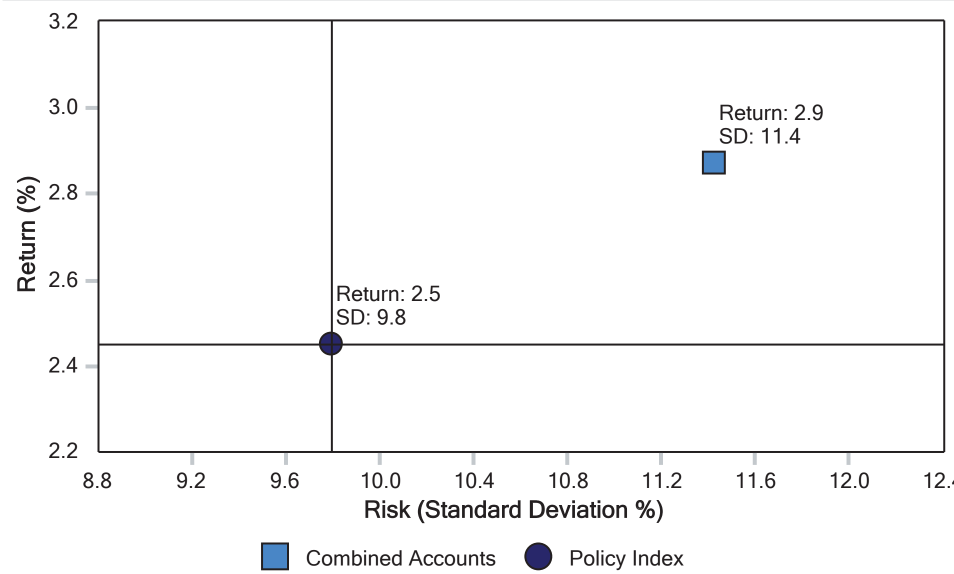
10 Years



5 Years



3 Years



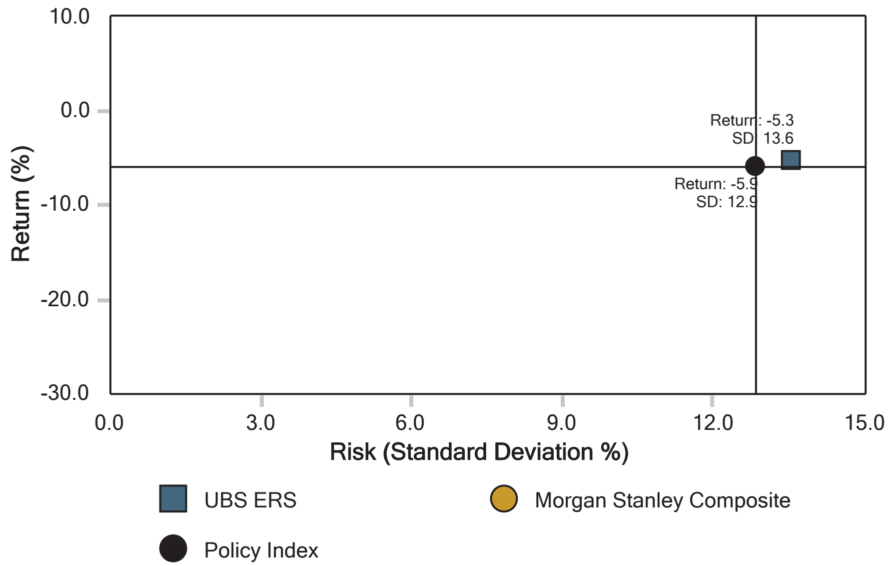
Source: InvestmentMetrics / Paris

Graystone Consulting℠

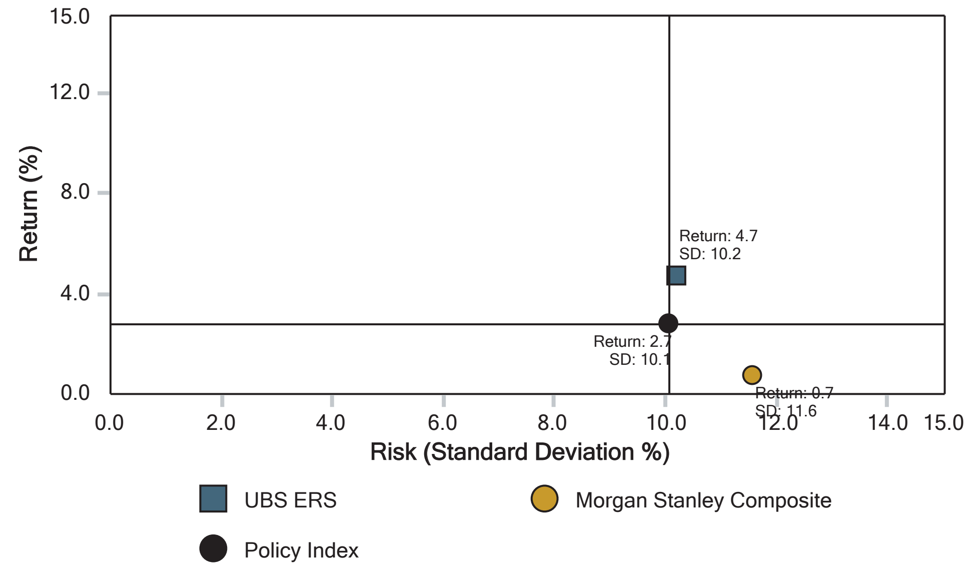
Total Fund Risk / Return Analysis

City of Troy Employees Retirement System | As of March 31, 2020

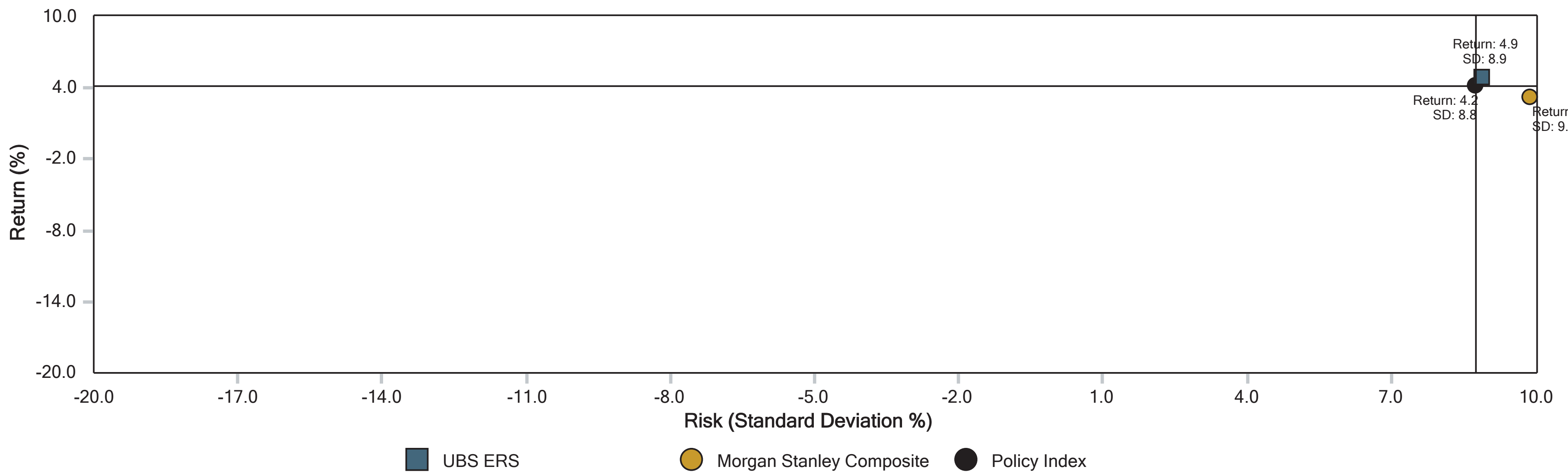
1 Year



3 Years



Since MS Inception

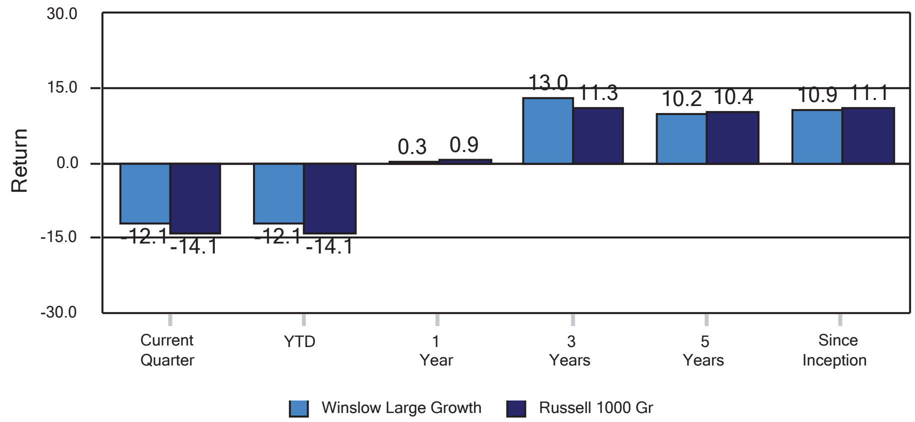


Source: InvestmentMetrics / Paris

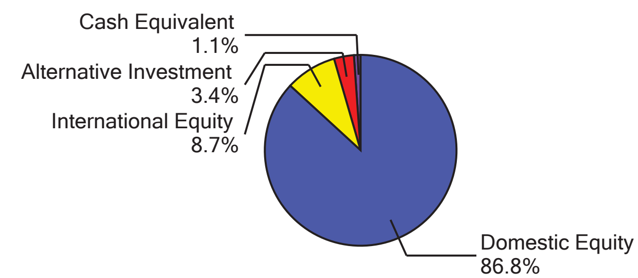
Winslow Large Growth

City of Troy Employees Retirement System — As of March 31, 2020

Comparative Performance



Asset Allocation by Segment



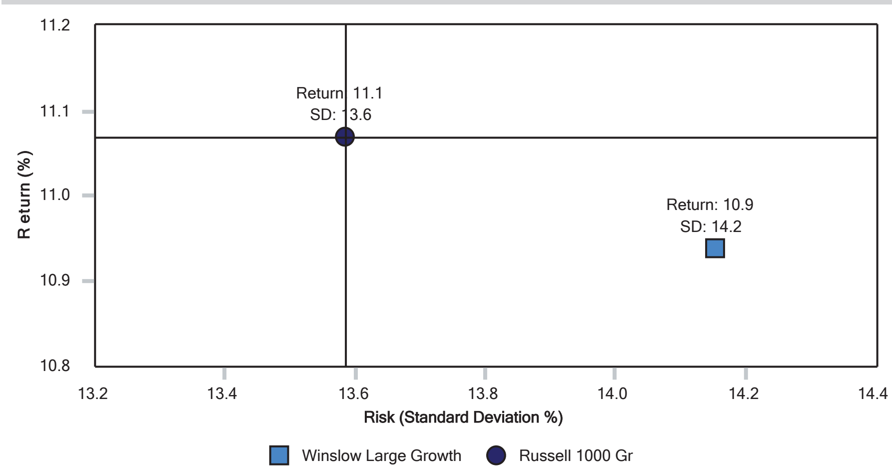
Historical Statistics

	Cumulative Return	Alpha	Beta	Sharpe Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown	Best Quarter	Worst Quarter	Information Ratio	Consistency	Tracking Error	Inception Date
Winslow Large Growth	77.0	-0.1	1.0	0.7	100.1	100.5	-15.7	16.8	-15.7	0.0	48.5	3.7	Oct -14
Russell 1000 Gr	78.1	0.0	1.0	0.8	100.0	100.0	-16.0	16.1	-15.9	N/A	0.0	0.0	Oct -14
90-Day T-Bills	*5.8*	*1.0*	*0.0*	*N/A*	*3.0*	*-2.1*	*0.0*	*0.6*	*0.0*	*-0.8*	*34.8*	*13.6*	*Oct -14*

Gain/Loss Summary

	Current Quarter	YTD	Since Inception	Inception Date
Winslow Large Growth				Oct -14
Beginning Market Value	$6,444,069	$6,444,069	$6,088,457	
Net Contributions	($2,905)	($2,905)	($4,627,778)	
Gain/Loss	($777,925)	($777,925)	$4,202,560	
Ending Market Value	$5,663,239	$5,663,239	$5,663,239	

Risk and Return - Since Inception



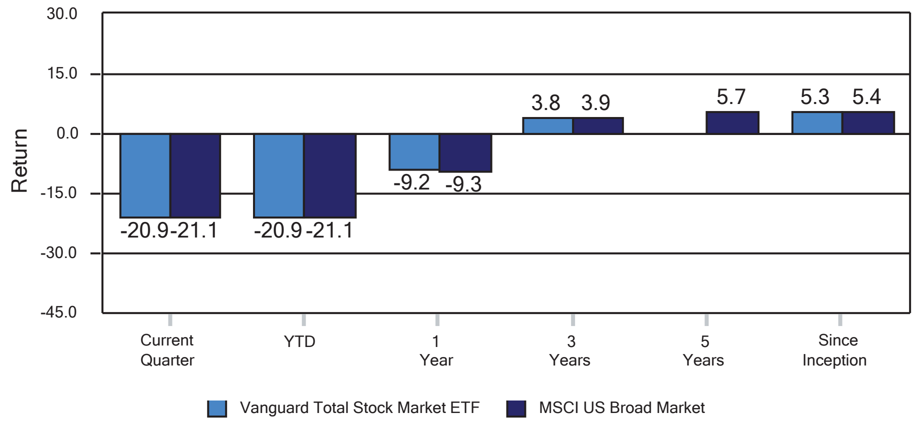
Source: InvestmentMetrics / Paris

Graystone Consulting℠

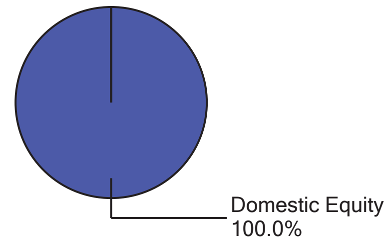
Vanguard Total Stock Market ETF

City of Troy Employees Retirement System | As of March 31, 2020

Comparative Performance



Asset Allocation by Segment



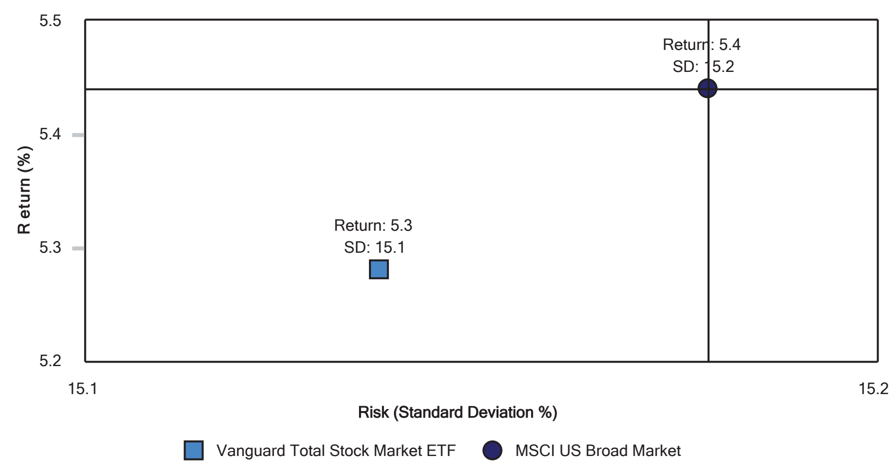
Historical Statistics

	Cumulative Return	Alpha	Beta	Sharpe Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown	Best Quarter	Worst Quarter	Information Ratio	Consistency	Tracking Error	Inception Date
Vanguard Total Stock Market ETF	18.2	-0.1	1.0	0.3	99.0	99.6	-20.9	14.0	-20.9	-0.4	46.2	0.4	Jan -17
MSCI US Broad Market	18.8	0.0	1.0	0.3	100.0	100.0	-21.1	14.1	-21.1	N/A	0.0	0.0	Jan -17
90-Day T-Bills	*5.4*	*1.6*	*0.0*	*N/A*	*5.2*	*-2.6*	*0.0*	*0.6*	*0.1*	*-0.3*	*25.6*	*15.2*	*Jan -17*

Gain/Loss Summary

	Current Quarter	YTD	Since Inception	Inception Date
Vanguard Total Stock Market ETF				Jan -17
Beginning Market Value	$17,668,997	$17,668,997	$18,118,386	
Net Contributions	($66,261)	($66,261)	($7,918,070)	
Gain/Loss	($3,682,002)	($3,682,002)	$3,720,416	
Ending Market Value	$13,920,733	$13,920,733	$13,920,733	

Risk and Return - Since Inception



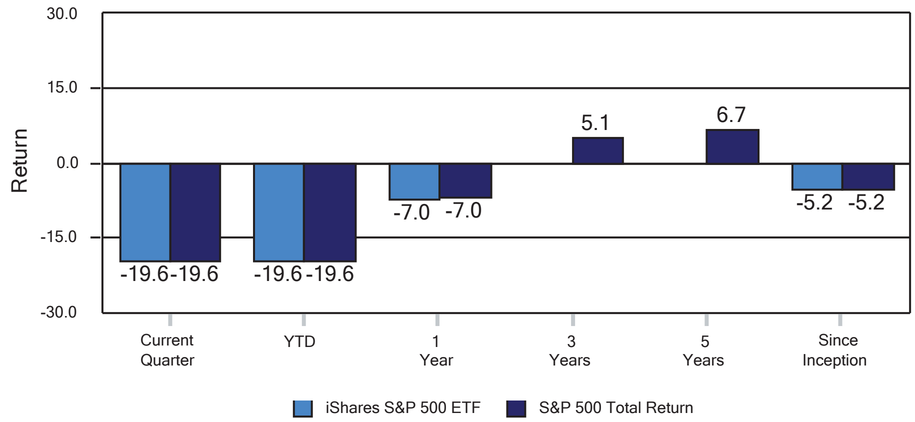
Source: InvestmentMetrics / Paris

Graystone Consulting℠

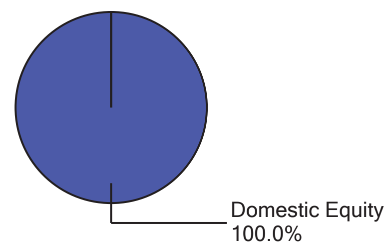
iShares S&P 500 ETF

City of Troy Employees Retirement System — As of March 31, 2020

Comparative Performance



Asset Allocation by Segment



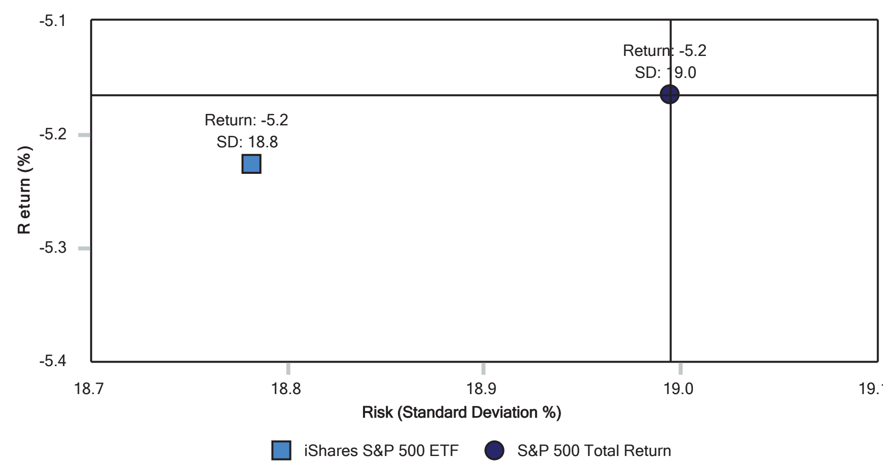
Historical Statistics

	Cumulative Return	Alpha	Beta	Sharpe Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown	Best Quarter	Worst Quarter	Information Ratio	Consistency	Tracking Error	Inception Date
iShares S&P 500 ETF	**-8.1**	**-0.1**	**1.0**	**-0.3**	**98.2**	**98.8**	**-19.6**	**13.5**	**-19.6**	**-0.2**	**47.4**	**0.6**	**Sep -18**
S&P 500 Total Return	-8.1	0.0	1.0	-0.3	100.0	100.0	-19.6	13.6	-19.6	N/A	0.0	0.0	Sep -18
90-Day T-Bills	*3.4*	*2.1*	*0.0*	*N/A*	*5.6*	*-2.6*	*0.0*	*0.6*	*0.4*	*0.3*	*36.8*	*19.0*	*Sep -18*

Gain/Loss Summary

	Current Quarter	YTD	Since Inception	Inception Date
iShares S&P 500 ETF				**Sep -18**
Beginning Market Value	$5,479,564	$5,479,564	$5,191,395	
Net Contributions	($25,960)	($25,960)	($443,064)	
Gain/Loss	($1,073,208)	($1,073,208)	($367,934)	
Ending Market Value	**$4,380,397**	**$4,380,397**	**$4,380,397**	

Risk and Return - Since Inception



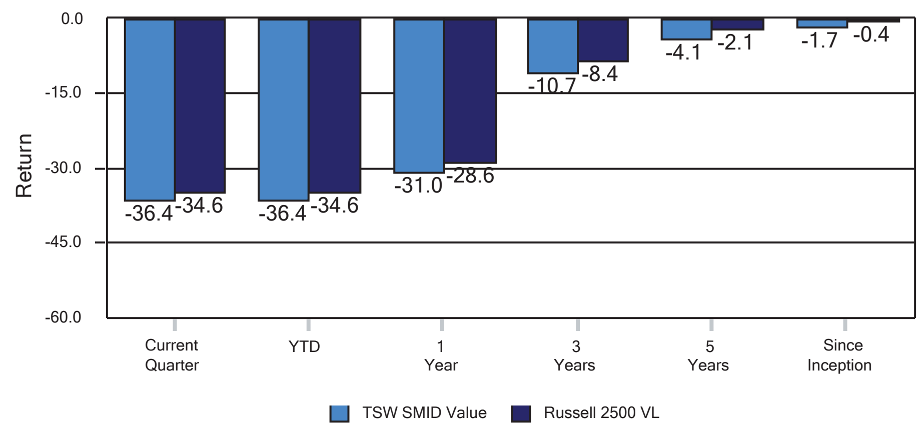
Source: InvestmentMetrics / Paris

Graystone Consulting℠

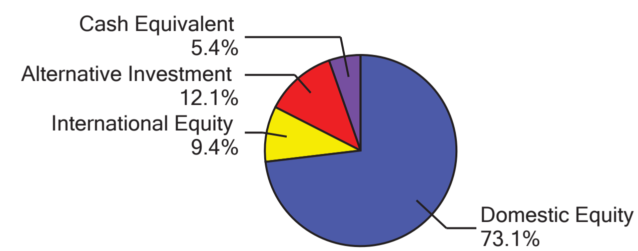
TSW SMID Value

City of Troy Employees Retirement System | As of March 31, 2020

Comparative Performance



Asset Allocation by Segment



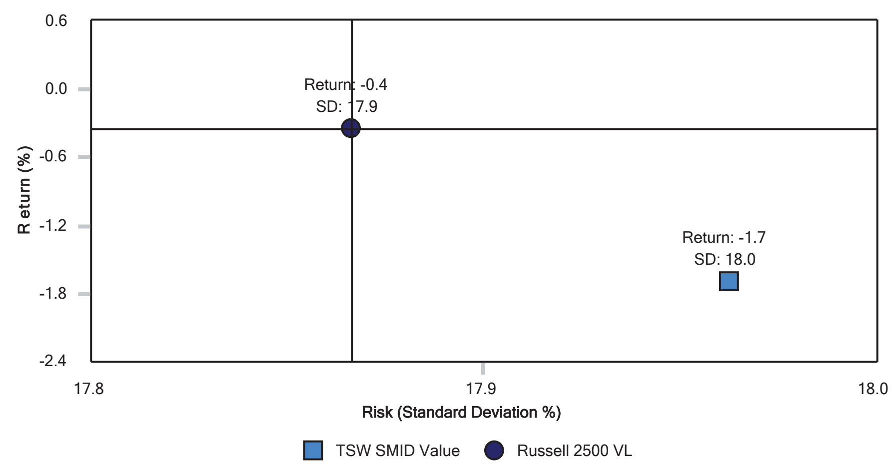
Historical Statistics

	Cumulative Return	Alpha	Beta	Sharpe Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown	Best Quarter	Worst Quarter	Information Ratio	Consistency	Tracking Error	Inception Date
TSW SMID Value	-9.0	-1.2	1.0	-0.1	88.1	93.6	-36.4	12.7	-36.4	-0.3	54.5	4.3	Oct -14
Russell 2500 VL	-1.9	0.0	1.0	0.0	100.0	100.0	-34.6	13.3	-34.6	N/A	0.0	0.0	Oct -14
90-Day T-Bills	*5.8*	*1.0*	*0.0*	*N/A*	*3.1*	*-1.8*	*0.0*	*0.6*	*0.0*	*0.0*	*34.8*	*17.9*	*Oct -14*

Gain/Loss Summary

	Current Quarter	YTD	Since Inception	Inception Date
TSW SMID Value				Oct -14
Beginning Market Value	$8,381,914	$8,381,914	$5,146,333	
Net Contributions	($3,705)	($3,705)	$644,256	
Gain/Loss	($3,052,124)	($3,052,124)	($464,503)	
Ending Market Value	**$5,326,085**	**$5,326,085**	**$5,326,085**	

Risk and Return - Since Inception



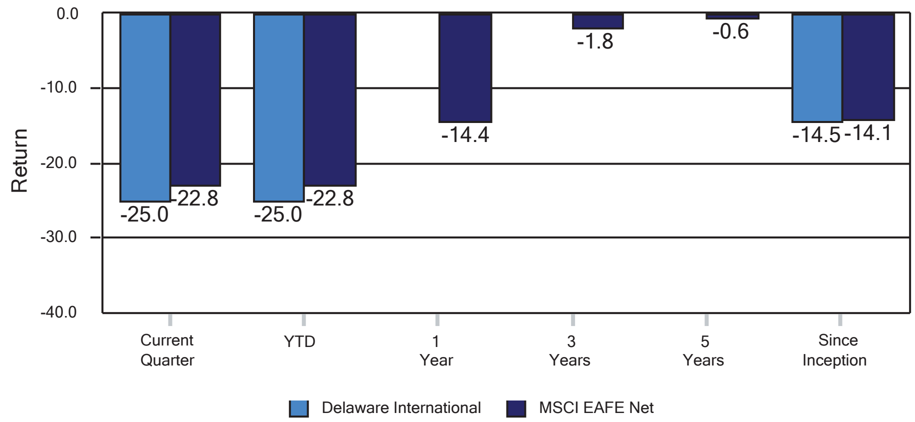
Source: InvestmentMetrics / Paris

Graystone Consulting℠

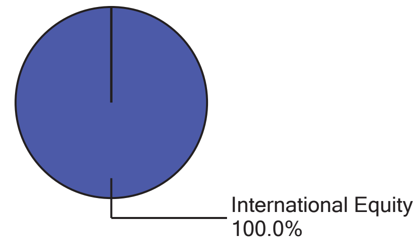
Delaware International

City of Troy Employees Retirement System | As of March 31, 2020

Comparative Performance



Asset Allocation by Segment



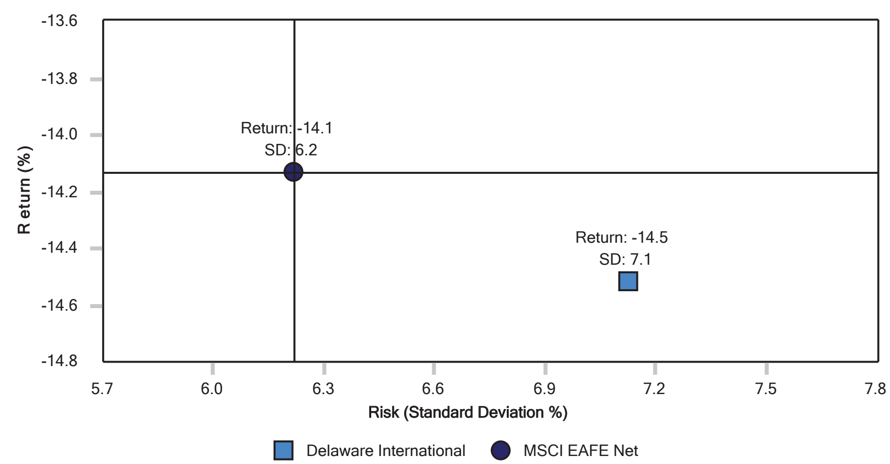
Historical Statistics

	Cumulative Return	Alpha	Beta	Sharpe Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown	Best Quarter	Worst Quarter	Information Ratio	Consistency	Tracking Error	Inception Date
Delaware International	-14.5	0.2	1.1	-0.3	123.7	110.3	-25.0	9.6	-25.0	0.0	57.1	1.8	Sep -19
MSCI EAFE Net	-14.1	0.0	1.0	-0.3	100.0	100.0	-22.8	8.2	-22.8	N/A	0.0	0.0	Sep -19
90-Day T-Bills	*1.0*	*0.1*	*0.0*	*N/A*	*5.8*	*-1.6*	*0.0*	*0.5*	*0.4*	*0.3*	*42.9*	*6.2*	*Sep -19*

Gain/Loss Summary

	Current Quarter	YTD	Since Inception	Inception Date
Delaware International				Sep -19
Beginning Market Value	$4,981,567	$4,981,567	$4,583,093	
Net Contributions	($2,768)	($2,768)	($239,063)	
Gain/Loss	($1,247,040)	($1,247,040)	($612,271)	
Ending Market Value	**$3,731,758**	**$3,731,758**	**$3,731,758**	

Risk and Return - Since Inception



Source: InvestmentMetrics / Paris

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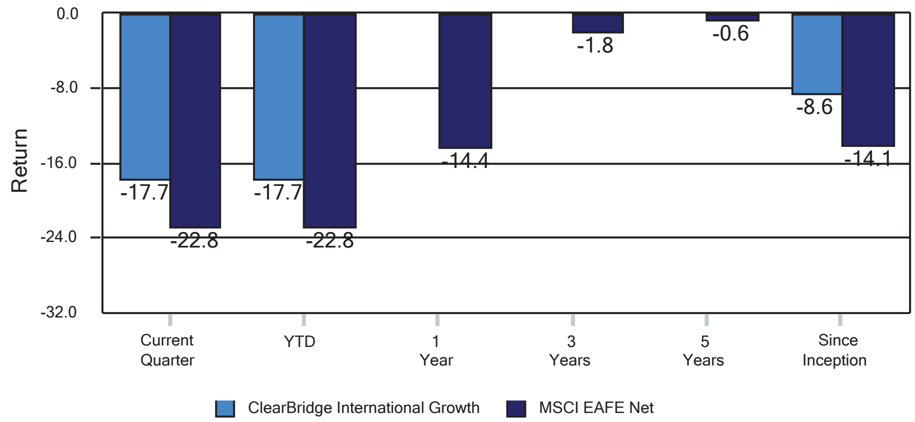
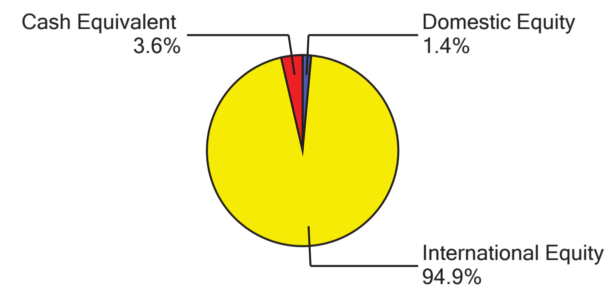
ClearBridge International Growth

City of Troy Employees Retirement System | As of March 31, 2020

Comparative Performance



Asset Allocation by Segment



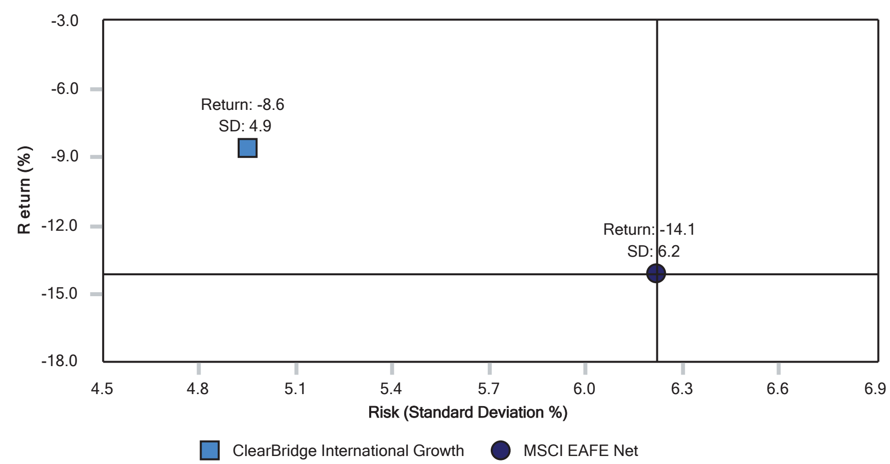
Historical Statistics

	Cumulative Return	Alpha	Beta	Sharpe Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown	Best Quarter	Worst Quarter	Information Ratio	Consistency	Tracking Error	Inception Date
ClearBridge International Growth	-8.6	0.4	0.8	-0.3	98.3	76.4	-17.7	9.5	-17.7	0.5	57.1	1.5	Sep -19
MSCI EAFE Net	-14.1	0.0	1.0	-0.3	100.0	100.0	-22.8	8.2	-22.8	N/A	0.0	0.0	Sep -19
90-Day T-Bills	*1.0*	*0.1*	*0.0*	*N/A*	*5.8*	*-1.6*	*0.0*	*0.5*	*0.4*	*0.3*	*42.9*	*6.2*	*Sep -19*

Gain/Loss Summary

	Current Quarter	YTD	Since Inception	Inception Date
ClearBridge International Growth				Sep -19
Beginning Market Value	$4,770,237	$4,770,237	$4,532,710	
Net Contributions	($3,388)	($3,388)	($253,230)	
Gain/Loss	($843,938)	($843,938)	($356,570)	
Ending Market Value	$3,922,910	$3,922,910	$3,922,910	

Risk and Return - Since Inception



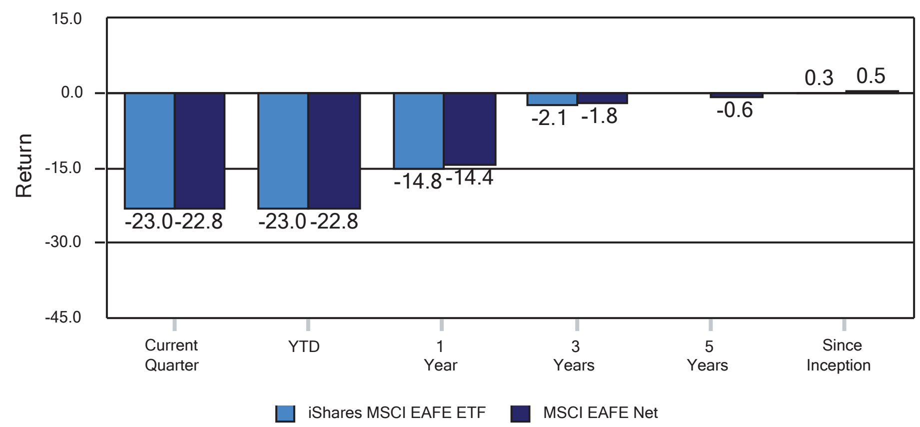
Source: InvestmentMetrics / Paris

Graystone Consulting[SM]

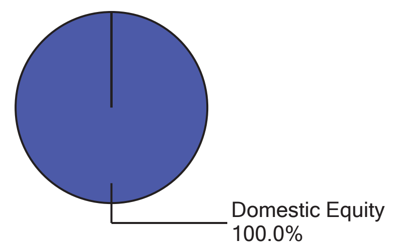
iShares MSCI EAFE ETF

City of Troy Employees Retirement System | As of March 31, 2020

Comparative Performance



Asset Allocation by Segment



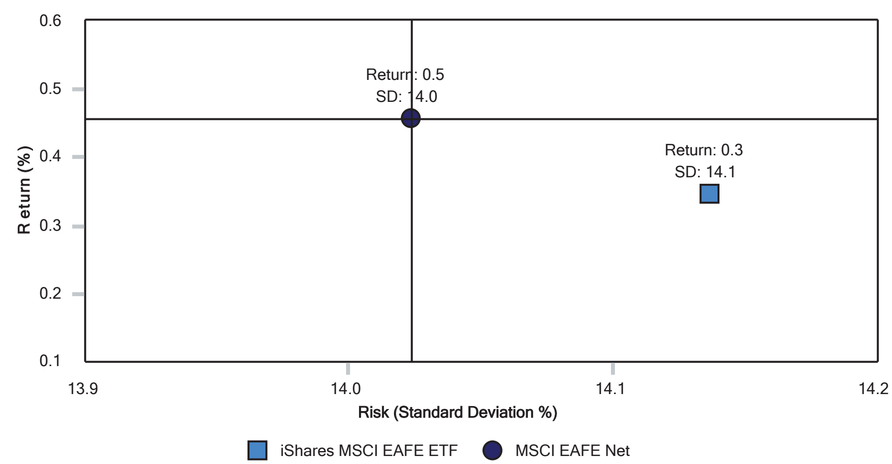
Historical Statistics

	Cumulative Return	Alpha	Beta	Sharpe Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown	Best Quarter	Worst Quarter	Information Ratio	Consistency	Tracking Error	Inception Date
iShares MSCI EAFE ETF	**1.1**	**-0.1**	**1.0**	**0.0**	**98.7**	**99.2**	**-23.0**	**10.3**	**-23.0**	**-0.1**	**41.0**	**1.6**	**Jan -17**
MSCI EAFE Net	1.5	0.0	1.0	0.0	100.0	100.0	-22.8	10.0	-22.8	N/A	0.0	0.0	Jan -17
90-Day T-Bills	*5.4*	*1.6*	*0.0*	*N/A*	*4.6*	*-4.2*	*0.0*	*0.6*	*0.1*	*0.0*	*41.0*	*14.1*	*Jan -17*

Gain/Loss Summary

	Current Quarter	YTD	Since Inception	Inception Date
iShares MSCI EAFE ETF				Jan -17
Beginning Market Value	$5,015,929	$5,015,929	$3,157,542	
Net Contributions	-	-	$876,906	
Gain/Loss	($1,154,299)	($1,154,299)	($172,819)	
Ending Market Value	**$3,861,630**	**$3,861,630**	**$3,861,630**	

Risk and Return - Since Inception

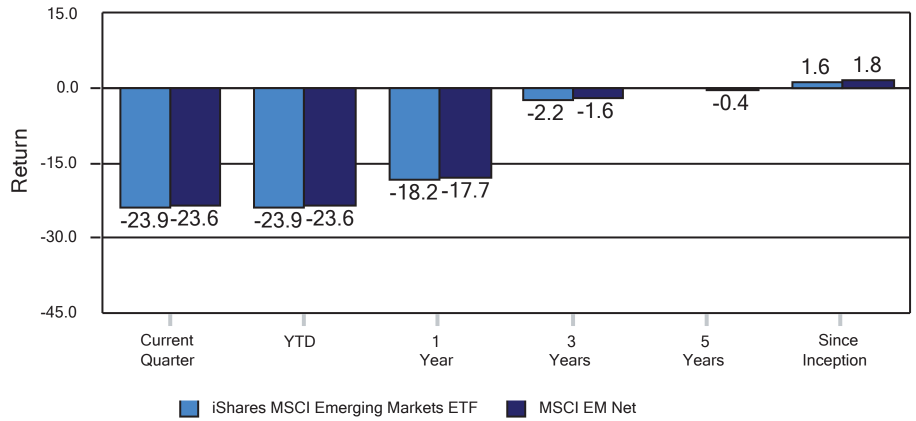


Source: InvestmentMetrics / Paris

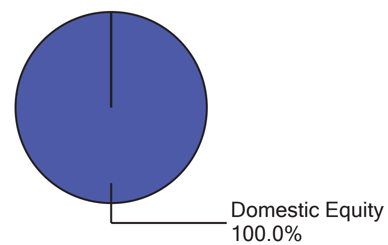
Graystone Consulting℠

iShares MSCI Emerging Markets ETF

Comparative Performance



Asset Allocation by Segment



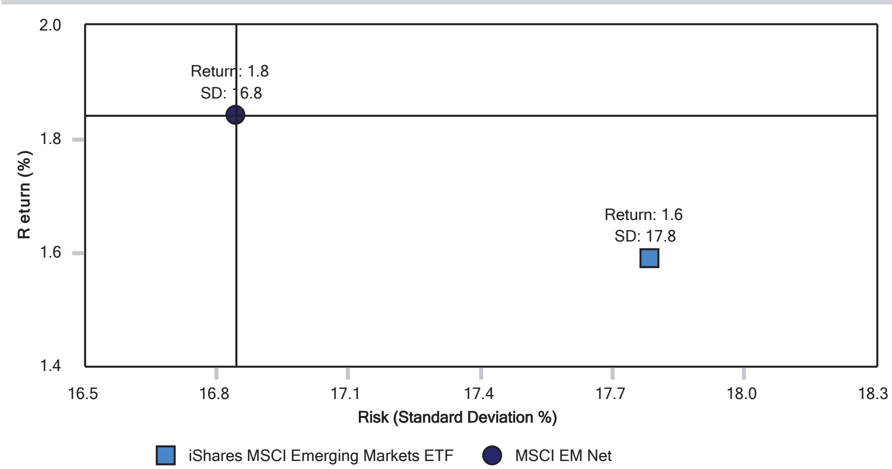
Historical Statistics

	Cumulative Return	Alpha	Beta	Sharpe Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown	Best Quarter	Worst Quarter	Information Ratio	Consistency	Tracking Error	Inception Date
iShares MSCI Emerging Markets ETF	5.3	-0.2	1.0	0.1	103.4	104.4	-29.6	12.5	-23.9	0.0	43.6	3.4	Jan -17
MSCI EM Net	6.1	0.0	1.0	0.1	100.0	100.0	-28.7	12.4	-23.6	N/A	0.0	0.0	Jan -17
90-Day T-Bills	*5.4*	*1.7*	*0.0*	*N/A*	*3.4*	*-3.8*	*0.0*	*0.6*	*0.1*	*-0.1*	*43.6*	*16.9*	*Jan -17*

Gain/Loss Summary

	Current Quarter	YTD	Since Inception	Inception Date
iShares MSCI Emerging Markets ETF				Jan -17
Beginning Market Value	$4,714,446	$4,714,446	$2,145,413	
Net Contributions	-	-	$1,575,801	
Gain/Loss	($1,128,441)	($1,128,441)	($135,209)	
Ending Market Value	**$3,586,005**	**$3,586,005**	**$3,586,005**	

Risk and Return - Since Inception



Source: InvestmentMetrics / Paris

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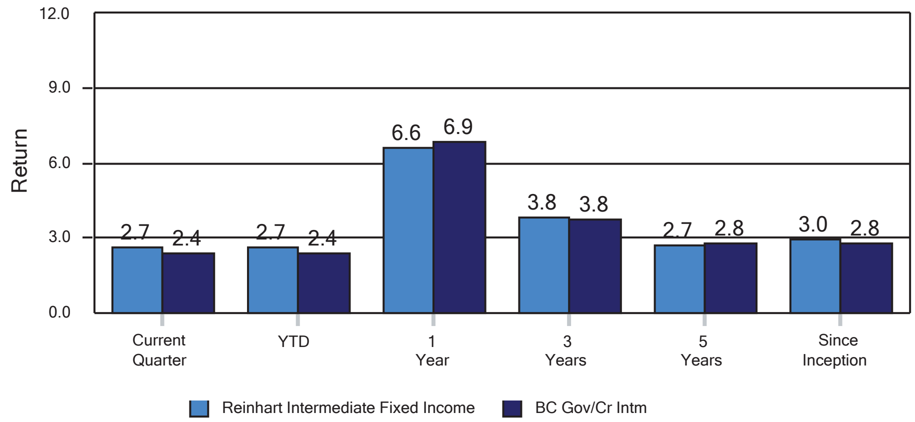
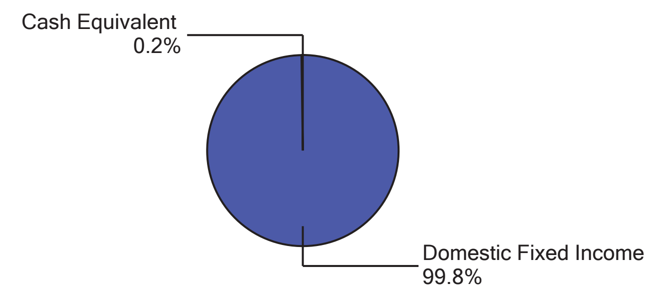
Reinhart Intermediate Fixed Income

Comparative Performance



Asset Allocation by Segment



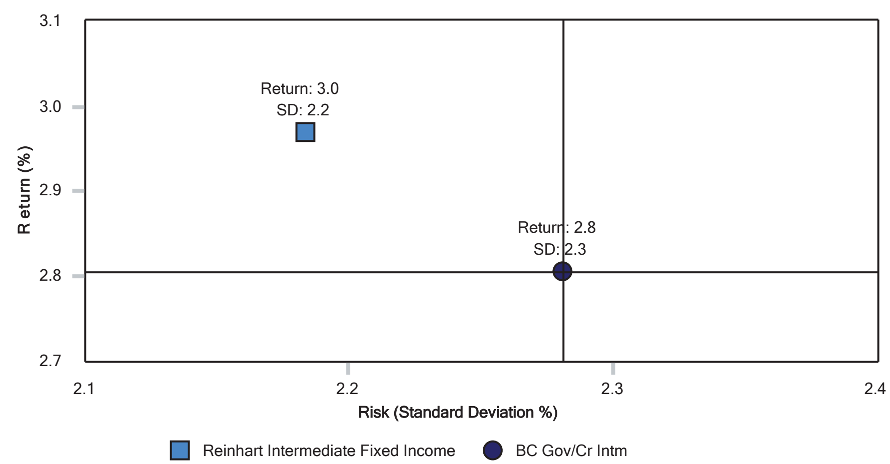
Historical Statistics

	Cumulative Return	Alpha	Beta	Sharpe Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown	Best Quarter	Worst Quarter	Information Ratio	Consistency	Tracking Error	Inception Date
Reinhart Intermediate Fixed Income	17.7	0.5	0.9	0.9	97.5	84.6	-3.1	2.7	-1.7	0.2	62.7	0.8	Sep -14
BC Gov/Cr Intm	16.7	0.0	1.0	0.8	100.0	100.0	-2.3	3.0	-2.1	N/A	0.0	0.0	Sep -14
90-Day T-Bills	*5.8*	*0.9*	*0.0*	*N/A*	*14.3*	*-19.9*	*0.0*	*0.6*	*0.0*	*-0.8*	*46.3*	*2.2*	*Sep -14*

Gain/Loss Summary

	Current Quarter	YTD	Since Inception	Inception Date
Reinhart Intermediate Fixed Income				**Sep -14**
Beginning Market Value	$8,034,320	$8,034,320	$6,604,737	
Net Contributions	($1,960)	($1,960)	$467,692	
Gain/Loss	$213,822	$213,822	$1,173,753	
Ending Market Value	**$8,246,183**	**$8,246,183**	**$8,246,183**	

Risk and Return - Since Inception

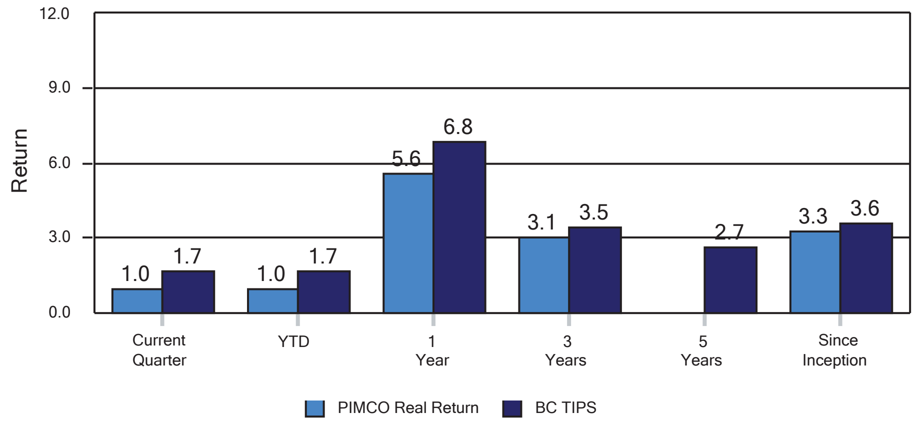


Source: InvestmentMetrics / Paris

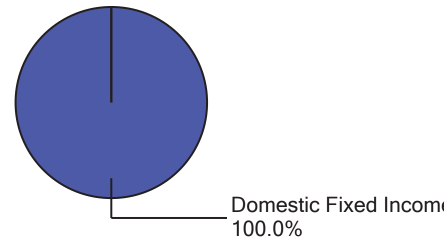
PIMCO Real Return

City of Troy Employees Retirement System | As of March 31, 2020

Comparative Performance



Asset Allocation by Segment



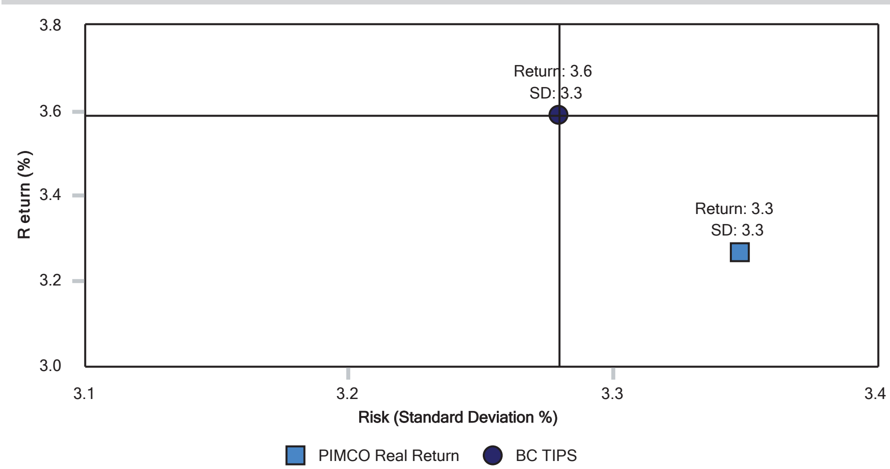
Historical Statistics

	Cumulative Return	Alpha	Beta	Sharpe Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown	Best Quarter	Worst Quarter	Information Ratio	Consistency	Tracking Error	Inception Date
PIMCO Real Return	11.0	-0.3	1.0	0.5	95.4	100.4	-2.7	3.7	-2.0	-0.3	46.2	0.9	Jan -17
BC TIPS	12.1	0.0	1.0	0.6	100.0	100.0	-2.5	3.9	-2.0	N/A	0.0	0.0	Jan -17
90-Day T-Bills	*5.4*	*1.6*	*0.0*	*N/A*	*17.3*	*-16.7*	*0.0*	*0.6*	*0.1*	*-0.6*	*33.3*	*3.3*	*Jan -17*

Gain/Loss Summary

	Current Quarter	YTD	Since Inception	Inception Date
PIMCO Real Return				Jan -17
Beginning Market Value	$4,054,366	$4,054,366	$2,644,274	
Net Contributions	-	-	$1,069,766	
Gain/Loss	$38,606	$38,606	$378,933	
Ending Market Value	**$4,092,973**	**$4,092,973**	**$4,092,973**	

Risk and Return - Since Inception



Source: InvestmentMetrics / Paris

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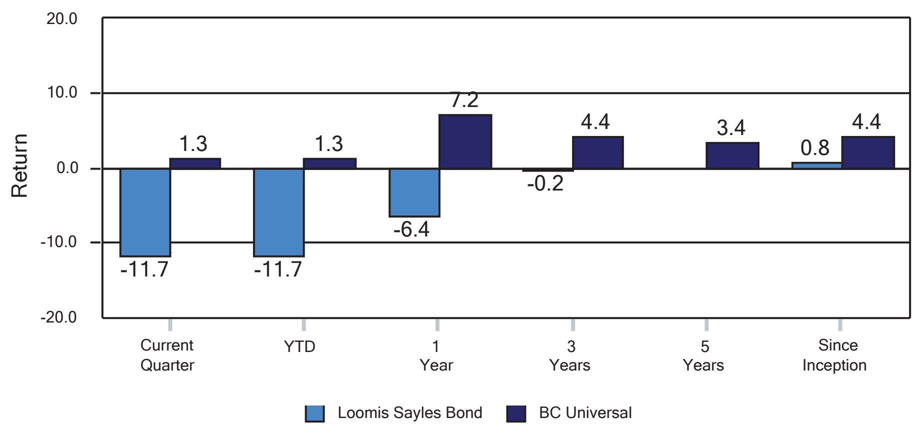
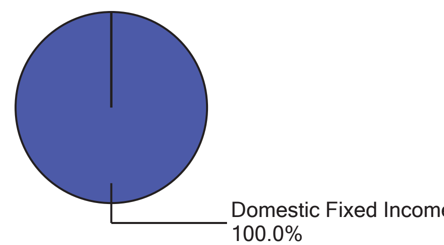
Loomis Sayles Bond

City of Troy Employees Retirement System — **As of March 31, 2020**

Comparative Performance



Asset Allocation by Segment



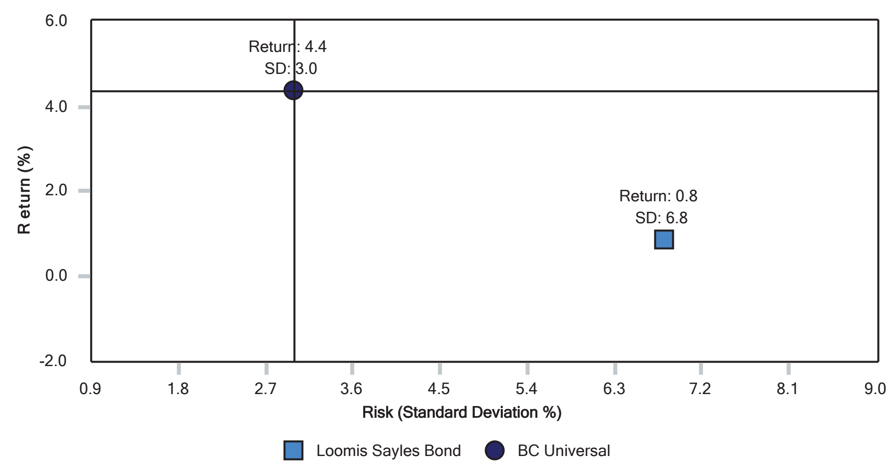
Historical Statistics

	Cumulative Return	Alpha	Beta	Sharpe Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown	Best Quarter	Worst Quarter	Information Ratio	Consistency	Tracking Error	Inception Date
Loomis Sayles Bond	2.7	-3.0	0.9	-0.1	63.4	141.2	-11.9	5.2	-11.7	-0.5	48.7	6.2	Jan -17
BC Universal	15.0	0.0	1.0	0.9	100.0	100.0	-2.2	4.0	-1.5	N/A	0.0	0.0	Jan -17
90-Day T-Bills	*5.4*	*1.6*	*0.0*	*N/A*	*17.6*	*-22.7*	*0.0*	*0.6*	*0.1*	*-0.9*	*38.5*	*3.0*	*Jan -17*

Gain/Loss Summary

	Current Quarter	YTD	Since Inception	Inception Date
Loomis Sayles Bond				Jan -17
Beginning Market Value	$5,650,312	$5,650,312	$5,616,682	
Net Contributions	-	-	($800,000)	
Gain/Loss	($663,713)	($663,713)	$169,917	
Ending Market Value	**$4,986,599**	**$4,986,599**	**$4,986,599**	

Risk and Return - Since Inception



Source: InvestmentMetrics / Paris

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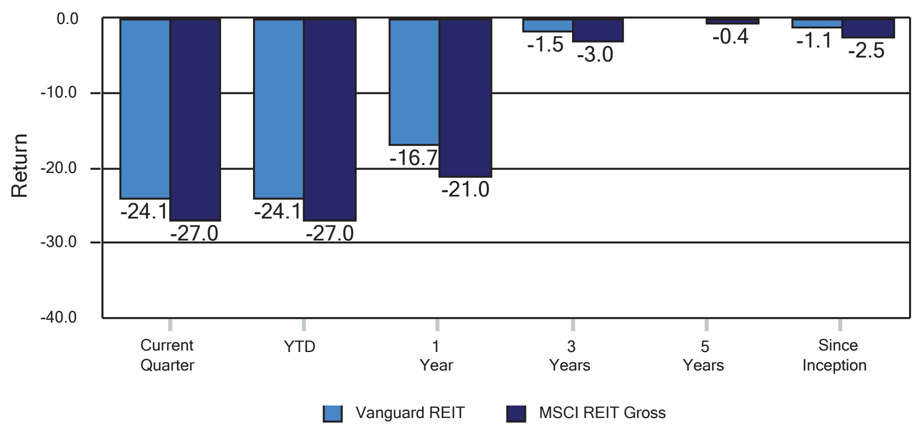
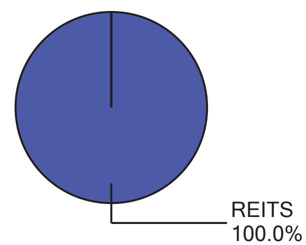
Vanguard REIT

City of Troy Employees Retirement System | As of March 31, 2020

Comparative Performance



Asset Allocation by Segment



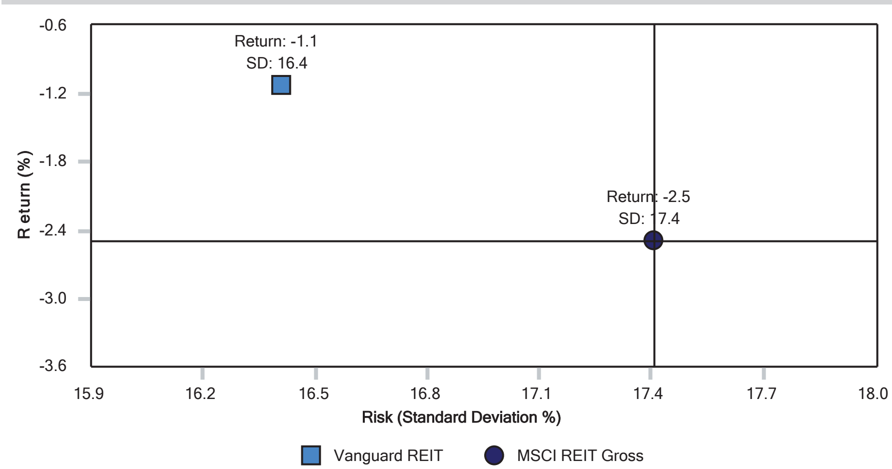
Historical Statistics

	Cumulative Return	Alpha	Beta	Sharpe Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown	Best Quarter	Worst Quarter	Information Ratio	Consistency	Tracking Error	Inception Date
Vanguard REIT	-3.6	1.1	0.9	-0.1	98.7	92.6	-25.0	17.4	-24.1	0.7	51.3	1.8	Jan -17
MSCI REIT Gross	-7.9	0.0	1.0	-0.1	100.0	100.0	-28.6	16.3	-27.0	N/A	0.0	0.0	Jan -17
90-Day T-Bills	*5.4*	*1.6*	*0.0*	*N/A*	*5.5*	*-3.2*	*0.0*	*0.6*	*0.1*	*0.1*	*43.6*	*17.4*	*Jan -17*

Gain/Loss Summary

	Current Quarter	YTD	Since Inception	Inception Date
Vanguard REIT				Jan -17
Beginning Market Value	$1,711,233	$1,711,233	$1,522,018	
Net Contributions	($11,949)	($11,949)	($199,852)	
Gain/Loss	($411,111)	($411,111)	($33,992)	
Ending Market Value	$1,288,174	$1,288,174	$1,288,174	

Risk and Return - Since Inception



Source: InvestmentMetrics / Paris

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Performance Appendix

Performance Data below is net of fees. Please see the Morgan Stanley Smith Barney LLC Form ADV Part 2 Brochure for advisory accounts and/or any applicable brokerage account trade confirmation statements for a full disclosure of the applicable charges, fees and expenses. Your Financial Advisor will provide those documents to you upon request.

Account Name	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Aristotle	--	--	--	--	--	--	--	04/01/2020
ClearBridge International Growth	-17.76	-17.76	--	--	--	--	-8.88	09/01/2019
Delaware International	-25.21	-25.21	--	--	--	--	-14.83	09/01/2019
JP Morgan	--	--	--	--	--	--	--	04/01/2020
Loomis Sayles Bond	-11.75	-11.75	-6.42	-0.23	--	--	0.81	12/01/2016
PIMCO Real Return	0.95	0.95	5.58	3.06	--	--	3.18	12/01/2016
Reinhart Intermediate Fixed Income	2.56	2.56	6.23	3.42	2.32	--	2.58	09/01/2014
TSW SMID Value	-36.62	-36.62	-31.61	-11.58	-4.87	--	-2.49	10/01/2014
UBS ERS	-14.76	-14.76	-5.33	4.69	4.72	--	5.00	01/01/2014
UBS NAIC	-21.40	-21.40	-12.02	5.37	5.59	--	7.67	01/01/2014
Vanguard REIT	-24.09	-24.09	-16.68	-1.48	--	--	-0.49	12/01/2016
Vanguard Total Stock Market ETF	-20.87	-20.87	-9.16	3.81	--	--	5.34	12/01/2016
Western Asset	--	--	--	--	--	--	--	04/01/2020
Winslow Large Growth	-12.22	-12.22	-0.49	12.04	9.37	--	10.13	10/01/2014
iShares MSCI EAFE ETF	-23.01	-23.01	-14.82	-2.14	--	--	0.65	12/01/2016
iShares MSCI Emerging Markets ETF	-23.94	-23.94	-18.16	-2.20	--	--	1.90	12/01/2016
iShares S&P 500 ETF	-19.62	-19.62	-7.03	--	--	--	-4.05	08/01/2018

All performance above are Time Weighted(TWR) performance

Glossary of Terms

Active Contribution Return: The gain or loss percentage of an investment relative to the performance of the investment benchmark.

Active Exposure: The percentage difference in weight of the portfolio compared to its policy benchmark.

Active Return: Arithmetic difference between the manager's return and the benchmark's return over a specified time period.

Actual Correlation: A measure of the correlation (linear dependence) between two variables X and Y, with a value between +1 and -1 inclusive. This is also referred to as coefficient of correlation.

Alpha: A measure of a portfolio's time weighted return in excess of the market's return, both adjusted for risk. A positive alpha indicates that the portfolio outperformed the market on a risk-adjusted basis, and a negative alpha indicates the portfolio did worse than the market.

Best Quarter: The highest quarterly return for a certain time period.

Beta: A measure of the sensitivity of a portfolio's time weighted return (net of fees) against that of the market. A beta greater than 1.00 indicates volatility greater than the market.

Consistency: The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.

Core: Refers to an investment strategy mandate that is blend of growth and value styles without a pronounced tilt toward either style.

Cumulative Selection Return (*Cumulative Return*): Cumulative investment performance over a specified period of time.

Distribution Rate: The most recent distribution paid, annualized, and then divided by the current market price. Distribution rate may consist of investment income, short-term capital gains, long-term capital gains,

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and/or return of capital.

Down Market Capture: The ratio of average portfolio returns over the benchmark during periods of negative benchmark return. Lower values indicate better product performance.

Downside Risk: A measure similar to standard deviation, but focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. The higher the value, the more risk the product has.

Downside Semi Deviation: A statistical calculation that measures the volatility of returns below a minimum acceptable return. This return measure isolates the negative portion of volatility: the larger the number, the greater the volatility.

Drawdown: A drawdown is the peak-to-trough decline during a specific period of an investment, fund or commodity.

Excess over Benchmark: The percentage gain or loss of an investment relative to the investment's benchmark.

Excess Return: Arithmetic difference between the manager's return and the risk-free return over a specified time period.

Growth: A diversified investment strategy which includes investment selections that have capital appreciation as the primary goal, with little or no dividend payouts. These strategies can include reinvestment in expansion, acquisitions, and/or research and development opportunities.

Growth of Dollar: The aggregate amount an investment has gained or lost over a certain time period, also referred to as Cumulative Return, stated in terms of the amount to which an initial dollar investment would have grown over the given time period.

Investment Decision Process (IDP): A model for structuring the investment process and implementing the correct attribution methodologies. The IDP includes every decision made concerning the division of the assets under management over the various asset categories. To analyze each decision's contribution to the total return, a modeling approach must measure the marginal value of every individual decision. In this respect, the hierarchy of the decisions becomes very important. We therefore use the IDP model, which serves as a proper foundation for registering the decisions and relating them to each other.

Information Ratio: Measured by dividing the active rate of return by the tracking error. The higher the Information Ratio, the more value-added contribution by the manager.

Jensen's Alpha: The Jensen's alpha measure is a risk-adjusted performance measure that represents the average return on a portfolio or investment above or below that predicted by the capital asset pricing model (CAPM) given the portfolio's or investment's beta and the average market return. This metric is also commonly referred to as alpha..

Kurtosis: A statistical measure that is used to describe the distribution, or skewness, of observed data around the mean, sometimes referred to as the volatility of volatility.

Maximum Drawdown: The drawdown is defined as the percent retrenchment from a fund's peak to the fund's trough value. It is in effect from the time the fund's retrenchment begins until a new fund high is reached. The maximum drawdown encompasses both the period from the fund's peak to the fund's valley (length), and the time from the fund's valley to a new fund high (recovery). It measures the largest percentage drawdown that has occurred in any fund's data record.

Modern Portfolio Theory (MPT): An investment analysis theory on how risk-averse investors can construct portfolios to optimize or maximize expected return based on a given level of market risk, emphasizing that risk is an inherent part of higher reward.

Mutual Fund (MF): An investment program funded by shareholders that trade in diversified holdings and is professionally managed.

Peer Group: A combination of funds that share the same investment style combined as a group for comparison purposes.

Peer/ Plan Sponsor Universe: A combination of asset pools of total plan investments by specific sponsor and plan types for comparison purposes.

Performance Ineligible Assets: Performance returns are not calculated for certain assets because accurate valuations and transaction data for these assets are not processed or maintained by us. Common examples of these include life insurance, some annuities and some assets held externally.

Performance Statistics: A generic term for various measures of investment performance measurement terms.

Portfolio Characteristics: A generic term for various measures of investment portfolio characteristics.

Preferred Return: A term used in the private equity (PE) world, and also referred to as a "Hurdle Rate." It refers to the threshold return that the limited partners of a private equity fund must receive, prior to the PE firm receiving its carried interest or "carry."

Ratio of Cumulative Wealth: A defined ratio of the Cumulative Return of the portfolio divided by the Cumulative Return of the benchmark for a certain time period.

Regression Based Analysis: A statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables

Residual Correlation: Within returns-based style analysis, residual correlation refers to the portion of a strategy's return pattern that cannot be explained by its correlation to the asset-class benchmarks to which it is being compared.

Return: A rate of investment performance for the specified period.

Rolling Percentile Ranking: A measure of an investment portfolio's ranking versus a peer group for a specific rolling time period (i.e. Last 3 Years, Last 5 years, etc.).

R-Squared: The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

SA/CF (Separate Account/Comingled Fund): Represents an acronym for Separate Account and Commingled Fund investment vehicles.

Sector Benchmark: A market index that serves as a proxy for a sector within an asset class.

Sharpe Ratio: Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance results in.

Standard Deviation: A statistical measure of the range of a portfolio's performance; the variability of a return around its average return over a specified time period.

Total Fund Benchmark: The policy benchmark for a complete asset pool that could consist of multiple investment mandates.

Total Fund Composite: The aggregate of multiple portfolios within an asset pool or household.

Tracking Error: A measure of standard deviation for a portfolio's investment performance, relative to the performance of an appropriate market benchmark.

Treynor Ratio: A ratio that divides the excess return (above the risk free rate) by the portfolio's beta to arrive at a unified measure of risk adjusted return. It is generally used to rank portfolios, funds and benchmarks. A higher ratio is indicative of higher returns per unit of market risk. This measurement can help determine if the portfolio is reaching its goal of increasing returns while managing market risk.

Up Market Capture: The ratio of average portfolio returns over the benchmark during periods of positive benchmark return. Higher values indicate better product performance.

Upside Semi Deviation: A statistical calculation that measures the volatility of returns above an acceptable return. This return measure isolates the positive portion of volatility: the larger the number, the greater the volatility.

Value: A diversified investment strategy that includes investment selections which tend to trade at a lower price relative to its dividends, earnings, and sales. Common attributes are stocks that include high dividend, low price-to-book ratio, and/or low price-to-earnings ratio.

Worst Quarter: The lowest rolling quarterly return for a certain time period.

Information Disclosures

Performance results are annualized for time periods greater than one year and include all cash and cash equivalents, realized and unrealized capital gains and losses, and dividends, interest and income. The investment results depicted herein represent historical performance. As a result of recent market activity, current performance may vary from the figures shown. Past performance is not a guarantee of future results.

Please see the Morgan Stanley Smith Barney LLC Form ADV Part 2 Brochure for advisory accounts and/or any applicable brokerage account trade confirmation statements for a full disclosure of the applicable charges, fees and expenses. Your Financial Advisor will provide those documents to you upon request.

Benchmark indices and blends included in this material are for informational purposes only, are provided solely as a comparison tool and may not reflect the underlying composition and/or investment objective(s) associated with the account(s). Indices are unmanaged and not available for direct investment. Index returns do not take into account fees or other charges. Such fees and charges would reduce performance.

The performance data shown reflects past performance, which does not guarantee future results. Investment return and principal will fluctuate so that an investor's shares when redeemed may be worth more or less than original cost. Please note, current performance may be higher or lower than the performance data shown. For up to date month-end performance information, please contact your Financial Advisor or visit the funds' company website.

Investors should carefully consider the fund's investment objectives, risks, charges and expenses before investing. The prospectus and, if available the summary prospectus, contains this and other information that should be read carefully before investing. Investors should review the information in the prospectus carefully. To obtain a prospectus, please contact your Financial Advisor or visit the funds' company website.

Past performance is no guarantee of future results.

Investing involves market risk, including possible loss of principal. **Growth investing** does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. **Value investing** involves the risk that the market may not recognize that securities are undervalued and they may not appreciate as anticipated. **Small and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. The securities of small capitalization companies may not trade as readily as, and be subject to higher volatility than those of larger, more established companies. **Bond funds** and bond holdings have the same interest rate, inflation and credit risks that are associated with the underlying bonds owned by the funds. The return of principal in bond funds, and in funds with significant bond holdings, is not guaranteed. **International securities'** prices may carry additional risks, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes and differences in financial and accounting standards. International investing may not be for everyone. These risks may be magnified in emerging markets. **Alternative investments**, including private equity funds, real estate funds, hedge funds, managed futures funds, and funds of hedge funds, private equity, and managed futures funds, are speculative and entail significant risks that can include losses due to leveraging or\other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and risks associated with the operations, personnel and processes of the advisor. **Master Limited Partnerships** (MLPs) are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk; and MLP interests in the real estate sector are subject to special risks, including interest rate and property value fluctuations, as well as risks related to general and economic conditions. Because of their narrow focus, MLPs maintain exposure to price volatility of commodities and/or underlying assets and tend to be more volatile than investments that diversify across many sectors and companies. MLPs are also subject to additional risks including: investors having limited control and rights to vote on matters affecting the MLP, limited access to capital, cash flow risk, lack of liquidity, dilution risk, conflict of interests, and limited call rights related to acquisitions.

Mortgage backed securities also involve prepayment risk, in that faster or slower prepayments than expected on underlying mortgage loans can dramatically alter the yield-to-maturity of a mortgage-backed security and prepayment risk includes the possibility that a fund may invest the proceeds at generally lower interest rates.

Tax managed funds may not meet their objective of being tax-efficient.

Real estate investments are subject to special risks, including interest ra as well as risks related to general and economic conditions. **High yield** fixed income securities, also known as "junk bonds", are considered speculative, involve greater risk of default and tend to be more volatile than investment grade fixed income securities.

Credit quality is a measure of a bond issuer's creditworthiness, or ability to repay interest and principal to bondholders in a timely manner. The credit ratings shown are based on security rating as provided by Standard & Poor's, Moody's and/or Fitch, as applicable. Credit ratings are issued by the rating agencies for the underlying securities in the fund and not the fund itself, and the credit quality of the securities in the fund does not represent the stability or safety of the fund. Credit ratings shown range from AAA, being the highest, to D, being the lowest based on S&P and Fitch's classification (the equivalent of Aaa and C, respectively, by Moody(s). Ratings of BBB or higher by S&P and Fitch (Baa or higher by Moody's) are considered to be investment grade-quality securities. If two or more of the agencies have assigned different ratings to a security, the highest rating is applied. Securities that are not rated by all three agencies are listed as "NR".

"**Alpha tilt strategies** comprise a core holding of stocks that mimic a benchmark type index such as the S&P 500 to which additional securities are added to help tilt the fund toward potentially outperforming the market in an effort to enhance overall investment returns. Tilt strategies are subject to significant timing risk and could potentially expose investors to extended periods of underperformance."

Custom Account Index: The Custom Account Index is an investment benchmark based on your historical target allocations and/or manager selection that you may use to evaluate the performance of your account. The Custom Account index does take into consideration certain changes that may have occurred in your portfolio since the inception of your account, i.e., asset class and/or manager changes. However, in some circumstances, it may not be an appropriate benchmark for use with your specific account composition. For detailed report of the historical composition of this blend please contact your Financial Advisor.

Peer Groups

Peer Groups are a collection of similar investment strategies that essentially group investment products that share the same investment approach. Peer Groups are used for comparison purposes to compare and illustrate a clients investment portfolio versus its peer across various quantitative metrics like performance and risk. Peer Group comparison is conceptually another form of benchmark comparison whereby the actual investment can be ranked versus its peer across various quantitative metrics.

All Peer Group data are provided by Investment Metrics, LLC.

The URL below provides all the definitions and methodology about the various Peer Groups

https://www.invmetrics.com/style-peer-groups

Peer Group Ranking Methodology

A percentile rank denotes the value of a product in which a certain percent of observations fall within a peer group. The range of percentile rankings is between 1 and 100, where 1 represents a high statistical value and 100 represents a low statistical value.

The 30th percentile, for example, is the value in which 30% of the highest observations may be found, the 65th percentile is the value in which 65% of the highest observations may be found, and so on.

Percentile rankings are calculated based on a normalized distribution ranging from 1 to 100 for all products in each peer group, where a ranking of 1 denotes a high statistical value and a ranking of 100 denotes a low statistical value. It is important to note that the same ranking methodology applies to all statistics, implying that a ranking of 1 will always mean highest value across all statistics.

For example, consider a risk/return assessment using standard deviation as a measure of risk. A percentile ranking equal to 1 for return denotes highest return, whereas a percentile ranking of 1 for standard deviation denotes highest risk among peers.

In addition, values may be used to demonstrate quartile rankings. For example, the third quartile is also known as the 75th percentile, and the median is the 50th percentile.

Alternatives

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Alternatives may be either traditional alternative investment vehicles or non-traditional alternative strategy vehicles. Traditional alternative investment vehicles may include, but are not limited to, Hedge Funds, Fund of Funds (both registered and unregistered), Exchange Funds, Private Equity Funds, Private Credit Funds, Real Estate Funds, and Managed Futures Funds. Non-traditional alternative strategy vehicles may include, but are not limited to, Open or Closed End Mutual Funds, Exchange-Traded and Closed-End Funds, Unit Investment Trusts, exchange listed Real Estate Investment Trusts (REITs), and Master Limited Partnerships (MLPs). These non-traditional alternative strategy vehicles also seek alternative-like exposure but have significant differences from traditional alternative investment vehicles. Non-traditional alternative strategy vehicles may behave like, have characteristics of, or employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives, and options, which can increase volatility and the risk of investment loss. Characteristics such as correlation to traditional markets, investment strategy, and market sector exposure can play a role in the classification of a traditional security being classified as alternative.

Traditional alternative investment vehicles are illiquid and usually are n valuation provided will be as of the most recent date available and will be included in summaries of your assets. Such valuation may not be the most recent provided by the fund in which you are invested. No representation is made that the valuation is a market value or that the interest could be liquidated at this value. We are not required to take any action with respect to your investment unless valid instructions are received from you in a timely manner. Some positions reflected herein may not represent interests in the fund, but rather redemption proceeds withheld by the issuer pending final valuations which are not subject to the investment performance of the fund and may or may not accrue interest for the length of the withholding. Morgan Stanley does not engage in an independent valuation of your alternative investment assets. Morgan Stanley provides periodic information to you including the market value of an alternative investment vehicle based on information received from the management entity of the alternative investment vehicle or another service provider.

Traditional alternative investment vehicles often are speculative and include a high degree of risk. . Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to:• Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices;• Lack of liquidity in that there may be no secondary market for a fund;• Volatility of returns;• Restrictions on transferring interests in a fund;• Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized;• Absence of information regarding valuations and pricing;• Complex tax structures and delays in tax reporting;• Less regulation and higher fees than mutual funds; and• Risks associated with the operations, personnel, and processes of the manager. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund.

Indices are unmanaged and investors cannot directly invest in them. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Past performance is no guarantee of future results. Actual results may vary. Diversification does not assure a profit or protect against loss in a declining market. Any performance or related information presented has not been adjusted to reflect the impact of the additional fees paid to a placement agent by an investor (for Morgan Stanley placement clients, a one-time upfront Placement Fee of up to 3%, and for Morgan Stanley investment advisory clients, an annual advisory fee of up to 2.5%), which would result in a substantial reduction in the returns if such fees were incorporated.

For most investment advisory clients, the program account will be charged an asset-based wrap fee every quarter ("the Fee"). In general, the Fee covers investment advisory services and reporting. In addition to the Fee, clients will pay the fees and expenses of any funds in which their account is invested. Fund fees and expenses are charged directly to the pool of assets the fund invests in and impact the valuations. Clients must understand that these fees and expenses are an additional cost and will not be included in the Fee amount in the account statements.

As fees are deducted quarterly, the compounding effect will be to increase the impact of the fees by an amount directly related to the gross account performance. For example, for an account with an initial value of $100,000 and a 2.5% annual fee, if the gross performance is 5% per year over a three year period, the compounding effect of the fees will result in a net annual compound rate of return of approximately 2.40% per year over a three year period, and the total value of the client's portfolio at the end of the three year period would be approximately $115,762.50 without the fees and $107,372.63 with the fees. Please see the applicable Morgan Stanley Smith Barney LLC Form ADV Part 2A for more information including a description of the fee schedule. It is available at www.morganstanley.com/ADV <http://www.morganstanley.com/ADV> <http://www.morganstanley.com/ADV> or from your Financial Advisor/Private Wealth Advisor.

Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley does not provide tax or legal advice. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank.

SIPC insurance does not apply to precious metals, other commodities, or traditional alternative investments.

Money Market Funds

You could lose money in Money Market Funds. Although MMFs classified as government funds (i.e., MMFs that invest 99.5% of total assets in cash and/or securities backed by the U.S government) and retail funds (i.e., MMFs open to natural person investors only) seek to preserve value at $1.00 per share, they cannot guarantee they will do so. The price of other MMFs will fluctuate and when you sell shares they may be worth more or less than originally paid. MMFs may impose a fee upon sale or temporarily suspend sales if liquidity falls below required minimums. During suspensions, shares would not be available for purchases, withdrawals, check writing or ATM debits. A MMF investment is not insured or guaranteed by the Federal Deposit Insurance Corporation or other government agency.

Graystone Consulting℠
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Custom Report

Prepared on May 13, 2020 for:

CITY OF TROY EMPLOYEES RET SYS

CITY OF TROY EMPLOYEES RET SYS
C/O LISA R BURNHAM
ETF COMPLETION PORTFOLIO
500 W BIG BEAVER ROAD
TROY MI 48084-5254

TABLE OF CONTENTS

Please review the disclosures and definitions throughout this Document.
Various sub-sections of this Document may not contain information on all accounts/positions covered in this Document.

ACCOUNT(S) INCLUDED IN THIS REPORT

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CITY OF TROY EMPLOYEES RET SYS — Reporting Currency: USD

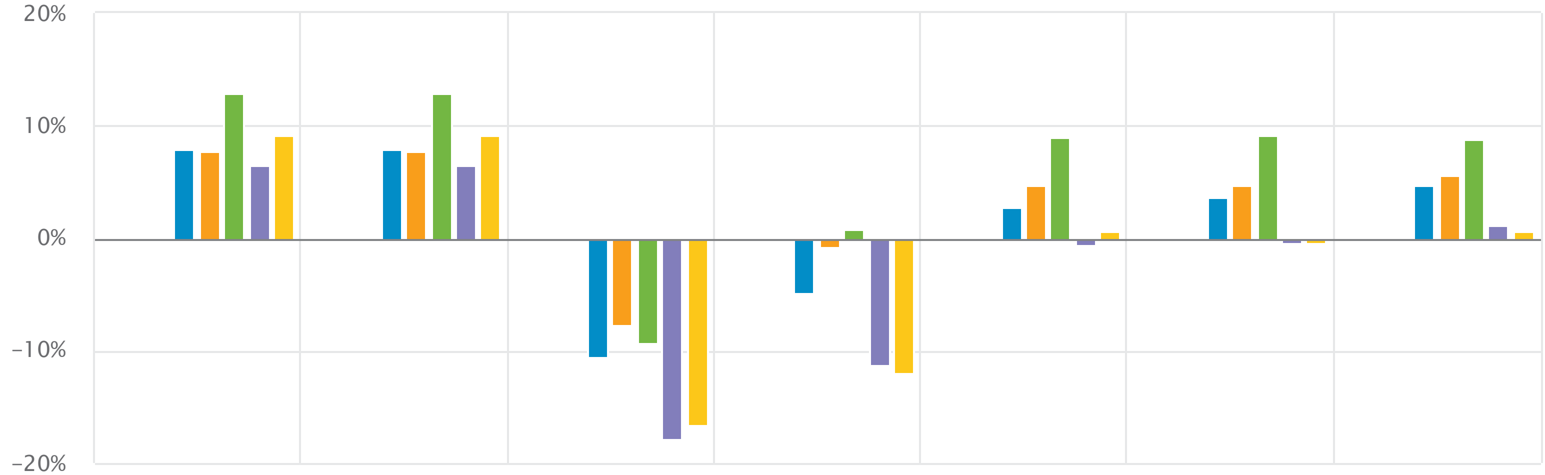
MORGAN STANLEY WEALTH MANAGEMENT

Account Name and Address	Account Type/ Manager Name	Advisory/ Brokerage	Account Number	Date Opened	Date Closed	Performance (%) Inception - 05/12/20	Total Value ($) 05/12/20	% of Portfolio 05/12/20
Artistotle LCV 500 W BIG BEAVER RD TROY	Aristotle Value Equity	Advisory	333-XXX476	03/17/20	-	19.07	3,790,527.29	4.45
CG ADVISOR 500 W BIG BEAVER ROAD TROY	Consulting Group Advisor	Advisory	333-XXX267	06/02/14	-	4.63	41,146,901.30	48.25
CIC ETF COMPLETION PORTF. 500 W BIG BEAVER ROAD TROY	ICS - ETF Completion Portfolio	Advisory	333-XXX421	02/15/08	-	10.02	97.69	0.00
Clearbridge - INTERNATIONAL 500 W BIG BEAVER ROAD TROY	ClearBridge Intl Growth ADR	Advisory	333-XXX829	08/21/19	-	-0.32	4,248,497.38	4.98
Delaware - INTERNATIONAL 500 W BIG BEAVER ROAD TROY	Delaware/Mondrian Intl ADR	Advisory	333-XXX153	09/08/14	-	-1.75	3,799,395.68	4.46
DELAWARE - LARGE VALUE 500 W BIG BEAVER ROAD TROY	AAA	Advisory	333-XXX149	09/08/14	-	-	0.00	0.00
JPMorgan LCV 500 W BIG BEAVER RD TROY	JP Morgan Equity Income	Advisory	333-XXX475	03/17/20	-	19.39	3,799,506.53	4.46
REINHART - FIXED 500 W BIG BEAVER ROAD TROY	Reinhart Partners - Active Interm Duration	Advisory	333-XXX268	06/02/14	-	2.80	8,368,999.98	9.81
TSW - SMID VALUE 500 W BIG BEAVER ROAD TROY	Thompson Seigel SMid Val	Advisory	333-XXX152	09/08/14	-	-2.04	5,779,983.92	6.78
WAMCO CPFI 500 W BIG BEAVER RD TROY	Western Core Plus Fixed Income	Advisory	333-XXX474	03/17/20	-	3.69	7,742,150.37	9.08
WINSLOW - LARGE GROWTH 500 W BIG BEAVER ROAD TROY	Winslow Large Cap Growth	Advisory	333-XXX148	09/08/14	-	12.28	6,599,849.14	7.74
Morgan Stanley Wealth Management Total							**85,275,909.28**	**100.00**
Total Portfolio							**85,275,909.28**	**100.00**

TIME WEIGHTED PERFORMANCE SUMMARY

CITY OF TROY EMPLOYEES RET SYS | As of April 30, 2020 | Reporting Currency: USD

RETURN % (GROSS AND NET OF FEES) VS. BENCHMARKS (ANNUALIZED)



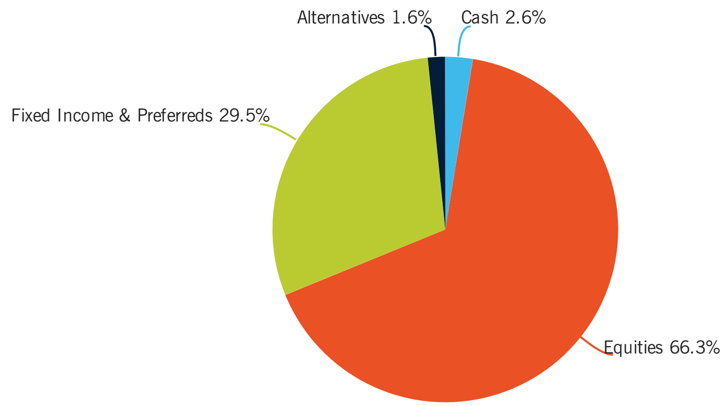
	Month to Date 03/31/20 - 04/30/20	Quarter to Date 03/31/20 - 04/30/20	Year to Date 12/31/19 - 04/30/20	Last 12 Months 04/30/19 - 04/30/20	Last 3 Years 04/30/17 - 04/30/20	Last 5 Years 04/30/15 - 04/30/20	Performance Inception 02/22/08 - 04/30/20
Beginning Total Value ($)	79,848,432.39	79,848,432.39	96,256,829.02	97,590,148.42	79,814,482.38	76,328,032.66	75.00
Net Contributions/Withdrawals ($)	33,945.61	33,945.61	121,964.66	-6,990,000.48	-303,497.45	-4,160,491.64	52,671,302.04
Investment Earnings ($)	6,356,881.84	6,356,881.84	-10,139,533.84	-4,360,888.10	6,728,274.91	14,071,718.82	33,567,882.80
Ending Total Value ($)	86,239,259.84	86,239,259.84	86,239,259.84	86,239,259.84	86,239,259.84	86,239,259.84	86,239,259.84
Return % (Gross of Fees)	8.02	8.02	-10.38	-4.46	3.15	4.09	4.96
Return % (Net of Fees)	7.96	7.96	-10.52	-4.92	2.71	3.67	4.75
Troy ERS Policy (%)	7.73	7.73	-7.75	-0.72	4.76	4.70	5.59
S&P 500 Total Return (%)	12.82	12.82	-9.29	0.86	9.04	9.12	8.85
MSCI EAFE Net (%)	6.46	6.46	-17.84	-11.32	-0.58	-0.17	1.21
MSCI EM Net (%)	9.16	9.16	-16.60	-11.98	0.57	-0.10	0.58
Barclays Aggregate (%)	1.78	1.78	4.98	10.82	5.17	3.80	4.33
60% ACWI / 40% Citi WGBI (%)	6.90	6.90	-6.39	0.63	4.71	4.09	4.12

The investment returns shown on this page are time-weighted measurements which exclude the effect of the timing and amount of your contributions and withdrawals.

ASSET ALLOCATION

CITY OF TROY EMPLOYEES RET SYS | As of April 30, 2020 | Reporting Currency: USD

ASSET ALLOCATION - ASSET CLASS



ASSET ALLOCATION

	Total Value ($) 04/30/2020	% of Portfolio 04/30/2020
Cash	2,207,290.93	2.6
Equities	57,148,045.35	66.3
Fixed Income & Preferreds	25,469,734.37	29.5
Alternatives	1,403,620.62	1.6
TOTAL PORTFOLIO	**86,228,691.27**	**100.0**

Total Value and % of Portfolio are based on US Dollar values.

CITY OF TROY EMPLOYEES RET SYS | As of April 30, 2020 | Reporting Currency: USD

TIME WEIGHTED PERFORMANCE DETAIL

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RETURN % (GROSS AND NET OF FEES) VS. BENCHMARKS

Account Name/ Benchmark	Account Number	Performance Inception Date	Total Value ($) 04/30/20	% Of Portfolio 04/30/20	Net/ Gross (Of Fees)	Month to Date (%) 03/31/20 - 04/30/20	Quarter to Date (%) 03/31/20 - 04/30/20	Year to Date (%) 12/31/19 - 04/30/20	Last 12 Months (%) 04/30/19 - 04/30/20	Last 3 Years (%) 04/30/17 - 04/30/20	Last 5 Years (%) 04/30/15 - 04/30/20	Performance Inception (%) to 04/30/20
ADVISORY		**02/22/08**	**86,224,691.86**	**99.98**		**7.95**	**7.95**	**-9.26**	**-3.62**	**3.03**	**3.80**	**4.80**
CITY OF TROY EMPLOYEES RET SYS (Consulting Group Advisor) - CG ADVISOR	333-XXX267	06/03/14	41,539,766.92	48.17	NET	8.40	8.40	-6.91	-0.74	4.34	4.84	4.83
					GROSS	8.43	8.43	-6.84	-0.56	4.49	5.01	5.01
Troy CGA Index Blend						7.29	7.29	-6.95	0.25	4.57	4.17	4.31
CITY OF TROY EMPLOYEES RET SYS (Reinhart Partners - Active Interm Duration) - REINHART - FIXED	333-XXX268	08/22/14	8,378,222.26	9.72	NET	1.56	1.56	4.16	7.81	3.80	2.68	2.84
					GROSS	1.66	1.66	4.37	8.27	4.21	3.09	3.24
BC Gov/Cr Intm						1.41	1.41	3.84	8.17	4.06	3.06	3.03
CITY OF TROY EMPLOYEES RET SYS (Western Core Plus Fixed Income) - WAMCO CPFI	333-XXX474	03/23/20	7,779,241.89	9.02	NET	1.92	1.92	4.19	-	-	-	4.19
					GROSS	1.95	1.95	4.23	-	-	-	4.23
Barclays Aggregate						1.78	1.78	4.97	-	-	-	4.97
CITY OF TROY EMPLOYEES RET SYS (Winslow Large Cap Growth) - WINSLOW - LARGE GROWTH	333-XXX148	09/11/14	6,467,710.62	7.50	NET	14.15	14.15	0.20	9.60	15.91	12.39	11.96
					GROSS	14.23	14.23	0.44	10.52	16.86	13.20	12.77
Russell 1000 Gr						14.80	14.80	-1.39	10.81	15.68	13.33	13.27
CITY OF TROY EMPLOYEES RET SYS (Thompson Seigel SMid Val) - TSW - SMID VALUE	333-XXX152	09/11/14	6,113,470.95	7.09	NET	14.72	14.72	-27.29	-24.08	-7.53	-1.98	-1.08
					GROSS	14.81	14.81	-27.01	-23.30	-6.69	-1.20	-0.28
Russell 2500 VL						13.22	13.22	-26.00	-21.87	-4.49	0.61	0.98
CITY OF TROY EMPLOYEES RET SYS (ClearBridge Intl Growth ADR) - Clearbridge - INTERNATIONAL	333-XXX829	08/27/19	4,252,510.49	4.93	NET	8.35	8.35	-10.90	-	-	-	-0.22
					GROSS	8.43	8.43	-10.77	-	-	-	0.15
MSCI EAFE Net						6.46	6.46	-17.84	-	-	-	-7.23
CITY OF TROY EMPLOYEES RET SYS (JP Morgan Equity Income) - JPMorgan LCV	333-XXX475	03/23/20	3,922,003.83	4.55	NET	10.36	10.36	23.47	-	-	-	23.47
					GROSS	10.39	10.39	23.52	-	-	-	23.52
Russell 1000 VL						11.24	11.24	24.80	-	-	-	24.80
CITY OF TROY EMPLOYEES RET SYS (Aristotle Value Equity) - Artistotle LCV	333-XXX476	03/23/20	3,887,202.01	4.51	NET	12.36	12.36	22.34	-	-	-	22.34
					GROSS	12.39	12.39	22.38	-	-	-	22.38
Russell 1000 VL						11.24	11.24	24.80	-	-	-	24.80
CITY OF TROY EMPLOYEES RET SYS (Delaware/Mondrian Intl ADR) - Delaware - INTERNATIONAL	333-XXX153	09/10/14	3,884,465.20	4.50	NET	4.04	4.04	-22.18	-16.52	-4.52	-2.71	-1.38
					GROSS	4.12	4.12	-21.95	-15.40	-3.52	-1.86	-0.56
MSCI EAFE Net						6.46	6.46	-17.84	-11.32	-0.58	-0.17	0.23

The investment returns shown on this page are time-weighted measurements which exclude the effect of the timing and amount of your contributions and withdrawals.
Year to Date(YTD), Quarter to Date(QTD) and Month to Date(MTD): Returns are for the period in which position or account was open.

TIME WEIGHTED PERFORMANCE DETAIL

CITY OF TROY EMPLOYEES RET SYS | **As of April 30, 2020 | Reporting Currency: USD**

RETURN % (GROSS AND NET OF FEES) VS. BENCHMARKS (Continued)

Account Name/ Benchmark	Account Number	Performance Inception Date	Total Value ($) 04/30/20	% Of Portfolio 04/30/20	Net/ Gross (Of Fees)	Month to Date (%) 03/31/20 - 04/30/20	Quarter to Date (%) 03/31/20 - 04/30/20	Year to Date (%) 12/31/19 - 04/30/20	Last 12 Months (%) 04/30/19 - 04/30/20	Last 3 Years (%) 04/30/17 - 04/30/20	Last 5 Years (%) 04/30/15 - 04/30/20	Performance Inception (%) to 04/30/20
CITY OF TROY EMPLOYEES RET SYS (ICS - ETF Completion Portfolio) - CIC ETF COMPLETION PORTF.	333-XXX421	02/22/08	97.68	0.00	NET	0.01	0.01	0.15	1.06	1.16	0.66	10.05
					GROSS	0.00	0.00	0.11	1.04	1.23	0.74	10.14
FTSE Treasury Bill 3 Month						0.08	0.08	0.47	1.92	1.75	1.14	0.63
BROKERAGE		**09/11/14**	**14,567.98**	**0.02**		**152.17**	**152.17**	**351.90**	**380.07**	**79.18**	**45.73**	**40.61**
CITY OF TROY EMPLOYEES RET SYS (AAA) - DELAWARE - LARGE VALUE	333-XXX149	09/11/14	14,567.98	0.02	NET	152.17	152.17	351.90	380.07	79.18	45.73	40.61
					GROSS	217.22	217.22	470.17	509.10	95.06	53.70	47.54
Russell 1000 VL						11.24	11.24	-18.49	-10.99	1.42	3.90	4.10

The investment returns shown on this page are time-weighted measurements which exclude the effect of the timing and amount of your contributions and withdrawals.
Year to Date(YTD), Quarter to Date(QTD) and Month to Date(MTD): Returns are for the period in which position or account was open.

DISCLOSURES

Explanatory Notes and Disclosures: This document is designed to assist you and your Financial Advisor in understanding portfolio positions, composition and subsets thereof. It is designed solely for your individual use, is for informational purposes only and is not intended as an offer or solicitation with respect to the purchase or sale of any security. Do not take action relying on this information without confirming its accuracy and completeness. Please read carefully all accompanying notes and disclosures provided in this Document.
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Investment, insurance and annuity products offered through Morgan Stanley Smith Barney LLC are: NOT FDIC INSURED | MAY LOSE VALUE | NOT BANK GUARANTEED | NOT A BANK DEPOSIT | NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY
Graystone Consulting is a business of Morgan Stanley.

Additional information about your Floating Rate Notes: For floating rate securities, the estimated accrued interest and estimated annual income are based on the current floating coupon rate and may not reflect historic rates within the accrual period.

Important Information About Auction Rate Securities: For certain Auction Rate Securities there is no or limited liquidity. Therefore, the price(s) for these Auction Rate Securities are indicated as not available by a dash "-". There can be no assurance that a successful auction will occur or that a secondary market exists or will develop for a particular security.

Important Pricing Information: Prices of securities not actively traded may not be available, and are indicated by a dash "-".

Asset Classification: We classify assets based on general characteristics such as: income generation, underlying capital structure, or exposure to certain market sectors. As many assets contain characteristics of more than one asset class, allocations may be under or over inclusive. These classifications do not constitute a recommendation and may differ from the classification of instruments for regulatory or tax purposes. In addition, the Other asset class contains securities that are not included in the various asset class classifications. This can include, but is not limited to, non-traditional investments such as some Equity Unit Trusts, Index Options and Structured Investments issued outside of Morgan Stanley. Additionally, investments for which we are unable to procure market data to properly classify them will appear in the Other category.

Morgan Stanley Wealth Management: Morgan Stanley Wealth Management (custodian type "Morgan Stanley Wealth Management") is a registered trade name of Morgan Stanley Smith Barney LLC.

Additional information about your Structured Products: Structured Investments are complex products and may be subject to special risks, which may include, but are not limited to: loss of initial investment; issuer credit risk and price volatility resulting from any actual or anticipated changes to issuer's and/or guarantor's credit ratings or credit spreads; limited or no appreciation and limits on participation in any appreciation of underlying asset(s); risks associated with the underlying reference asset(s); no periodic payments; call prior to maturity; early redemption fees for market linked deposits; lower interest rates and/or yield compared to conventional debt with comparable maturity; unique tax implications; limited or no secondary market; and conflicts of interest due to affiliation, compensation or other factors which could adversely affect market value or payout to investors. Investors also should consider the concentration risk of owning the related security and their total exposure to any underlying asset.

Morgan Stanley & Co.: Morgan Stanley & Co. LLC ("Morgan Stanley & Co.") is an affiliate of Morgan Stanley Smith Barney LLC ("Morgan Stanley Wealth Management") and both are subsidiaries of

Morgan Stanley, the financial holding company. Morgan Stanley & Co. values shown on your Morgan Stanley Wealth Management statement may differ from the values shown in your official Morgan Stanley & Co. statement due to, among other things, different reporting methods, delays, market conditions and interruptions. The information shown is approximate and subject to updating, correction and other changes. Information being reported by Morgan Stanley Wealth Management on assets held by other custodians, which are related to Income, Performance, Tax Lots, Total Cost, Target Asset Allocation, Asset Classification and Gain/Loss may differ from that information provided by the custodian. In performance calculations, the inception date will align with the first date on which Morgan Stanley Wealth Management received account information from the custodian. If there are discrepancies between your official Morgan Stanley & Co. account statement and your Morgan Stanley Wealth Management supplemental client report, rely on the official Morgan Stanley & Co. account statement.

External Accounts: "External" generally refers to accounts, assets, and/or liabilities that you hold with other financial institutions and/or which may be custodied outside of Morgan Stanley (whose subsidiaries include Morgan Stanley Smith Barney LLC and Morgan Stanley & Co.) ("External Accounts"). External Accounts are not under administration or management at Morgan Stanley and are not reflected in your Morgan Stanley account statements. Information related to External Accounts is provided solely as a service to you and your Financial Advisor/Private Wealth Advisor. The information reference is based upon information provided by external sources which we believe to be reliable. However, we do not independently verify this information. As such, we do not warrant or guarantee that such information is accurate or timely, and any such information may be incomplete or condensed.
Information related to Income, Performance, Tax Lots, Total Cost, Target Asset Allocation, Asset Classification and Gain/Loss may differ from the information provided by your custodian. External information presented herein is subject to, and does not supersede, the confirmations and account statements provided by your custodian. Values shown in an account statement from your custodian may differ from the values shown here due to, among other things, different reporting methods, delays, market conditions and interruptions. If there are discrepancies between your custodian's official account statement and this material, rely on the custodian's official account statement. We are not obligated to notify you or your Financial Advisor/Private Wealth Advisor if information changes. In performance calculations, the inception date referenced will reflect the first date on which Morgan Stanley received account information from the custodian. If information on an External Account cannot be reported, it will be noted.
Assets not custodied with Morgan Stanley are not covered by SIPC protection at Morgan Stanley or by additional protection under Morgan Stanley's excess insurance coverage plans. However, these assets may be subject to SIPC coverage at the entity at which they are custodied.

Timing of Feeds: Account and Position data for Morgan Stanley & Co. and External Accounts is obtained from sources that we believe to be reliable. However, Morgan Stanley Wealth management does not guarantee its accuracy or timeliness as such information may be incomplete, condensed, or based on differing points of time. Please refer to the "Last Update Date" for information regarding when the data was last refreshed. You should not take any action relying upon this information without confirming its accuracy and completeness.

Timing of Feeds - FX Market: The FX market rate used to convert non-US Dollar values to US Dollars is as of the previous business day's close. For the current FX rates, please contact your Financial Advisor.

Manually Added assets: "Manually Added" generally refers to accounts, assets, and/or liabilities, as applicable, that you hold with other financial institutions and/or which may be custodied outside of Morgan Stanley (whose subsidiaries include Morgan Stanley Smith Barney LLC and Morgan Stanley & Co.) ("Manually Added External Accounts"). The Manually Added External Accounts referenced are generally not held with Morgan Stanley and are not under administration or management at Morgan Stanley. Information about such Manually Added External Accounts is manually inputted, updated and maintained solely by you and/or your Financial Advisor/Private Wealth Advisor. Morgan Stanley may include information about these Manually Added External Accounts solely as a service to you and your Financial Advisor/Private Wealth Advisor. We do not independently verify any information related to your Manually Added External Accounts. As such, we do not warrant or guarantee that such information is accurate or timely, and any such information may be incomplete or condensed.Valuations and other information about these assets may be provided by you and/or your Financial Advisor/Private Wealth Advisor and are generally based upon estimates. The information is used for position, asset allocation, and product allocation reporting purposes but is not, however, reflected in your Morgan Stanley account statements. Income values, including Estimated Annual Income and Projected Income, are not calculated for Manually Added External Accounts. The information being reported by Morgan Stanley on Manually Added External Accounts related to Performance, Tax Lots, Total Cost, Target Asset Allocation, Asset Classification and Gain/Loss may differ from the information provided to you by the custodian of those assets. If there are discrepancies between your custodian’s official account statement and this material, rely on the custodian’s official account statement. The inception date referenced in this view will reflect the date on which information about the Manually Added External Accounts was input by you and/or your Financial Advisor/Private Wealth Advisor. If information on a Manually Added asset cannot be reported, it will be noted.
Assets not custodied with Morgan Stanley are not covered by SIPC protection at Morgan Stanley or by additional protection under Morgan Stanley’s excess insurance coverage plans. However, these assets may be subject to SIPC coverage at the entity at which they are custodied.

Performance: Performance results are annualized for time periods greater than one year and include all cash and cash equivalents, realized and unrealized capital gains and losses, dividends, interest and income. Depending on the opening or closing date of the account or position, the performance referenced may be for a portion of the time period identified. The investment results depicted herein represent historical performance. As a result of recent market activity, current performance may vary from the figures shown. Please contact your Financial Advisor for up-to-date performance information. Past performance is not a guarantee of future results. Quotations of performance appearing in this report may include performance experienced in legacy accounts which have been closed and purged, and as such are not included on the Accounts Included in This Report page.

Market values used for performance calculation do not include Performance Ineligible Assets and thus may differ from asset allocation market values. Common examples of Performance Ineligible Assets include life insurance and annuities as well as Manually Added and External accounts, assets and liabilities.
Unless otherwise indicated, performance is a composite calculation of the entire portfolio and may include brokerage and investment advisory accounts as well as assets for different accounts included in this report. The accounts included in the composite may have (or have had) different investment objectives and strategies, been subject to different restrictions, and incurred different types of fees, markups, commissions and other charges. Accordingly, performance results may blend the performance of assets and strategies that may not have been available in all of the accounts at all times during the reporting period. In addition, accounts in the composite may have changed from brokerage to advisory or vice versa. Accounts may also have moved from one advisory program to another (including from a discretionary program to a non-discretionary program).
For Morgan Stanley Smith Barney LLC accounts, performance information may cover the full history of the account(s) or just the performance of an account(s) since the inception of the current program(s). Performance results on individual accounts will vary and may differ from the composite returns. Your Financial Advisor can provide you with individual account portfolio composition and performance information. For investment advisory accounts, please see the Morgan Stanley Smith Barney LLC Form ADV Part 2 or applicable disclosure brochure and any applicable brokerage commission and/or fee schedule for a full disclosure of fees and expenses. Your Financial Advisor will provide those documents to you upon request. For brokerage accounts, please speak to your Financial Advisor for more information on commissions and other account fees and expenses.
Performance inception date does not necessarily correspond to the account opening date. Where multiple accounts are included in performance calculations, the inception date is the oldest performance inception. Performance data may not be available for all periods as some accounts included in performance may have more recent performance inception dates. Consequently, the actual performance for a group of accounts may differ from reported performance. Please ask your Financial Advisor for the performance inception date for each account.

Gross of Fees: The impact of program fees can be material. These program fees are deducted based on your billing cycle and may have a compounding effect on performance. As fees are deducted periodically throughout the year, the compounding effect may increase the impact of the fees by an amount directly related to the gross account performance.

Indices: Benchmark indices and blends included in this material are for informational purposes only, are provided solely as a comparison tool and may not reflect the underlying composition and/or investment objective(s) associated with the account(s). In some circumstances, the benchmark index may not be an appropriate benchmark for use with the specific composite portfolio. For instance, an index may not take into consideration certain changes that may have occurred in the portfolio since the inception of the account(s), (e.g., changes from a brokerage to an advisory account or from one advisory program to another, asset class changes, or index changes for individual managers). The volatility of the index used for comparison may be materially different from that of the performance shown. Indices are unmanaged and not available for direct investment. Index returns do not take into account fees or other charges. Such fees and charges would reduce performance. Please see the Benchmark Definitions section of this material for additional information on the indices used for comparison.

Additional information about your Alternative Investments: Your interests in Alternative Investments, which may have been purchased through us, are generally not held here, and are generally not covered by SIPC. The information provided to you: 1) is included as a service to you, and certain transactions may not be reported; 2) is derived from you or another external source for which we are not responsible, and may have been modified to take into consideration capital calls or distributions to the extent applicable; 3) may not reflect actual shares, share prices, or values; 4) may include invested or distributed amounts in addition to a fair value estimate; and 5) should not be relied upon for tax reporting purposes. Notwithstanding the foregoing, 1) to the extent this report displays Alternative Investment positions within a Morgan Stanley Individual Retirement Account ("IRA"), such positions are held by Morgan Stanley Smith Barney LLC as the custodian of your Morgan Stanley IRA; and 2) if your Alternative Investment position(s) is held by us and is registered pursuant to the Securities Act of 1933, as amended, your Alternative Investment position(s) is covered by SIPC.

Alternatives may be either traditional alternative investment vehicles or non-traditional alternative strategy vehicles. Traditional alternative investment vehicles may include, but are not limited to, Hedge Funds, Fund of Funds (both registered and unregistered), Exchange Funds, Private Equity Funds, Private Credit Funds, Real Estate Funds, and Managed Futures Funds. Non-traditional alternative strategy vehicles may include, but are not limited to, Open or Closed End Mutual Funds, Exchange-Traded and Closed-End Funds, Unit Investment Trusts, exchange listed Real Estate Investment Trusts (REITs), and Master Limited Partnerships (MLPs). These non-traditional alternative strategy vehicles also seek alternative-like exposure but have significant differences from traditional alternative investment vehicles. Non-traditional alternative strategy vehicles may behave like, have characteristics of, or employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives, and options, which can increase volatility and the risk of investment loss. Characteristics such as correlation to traditional markets, investment strategy, and market sector exposure can play a role in the classification of a traditional security being classified as alternative.

Traditional alternative investment vehicles are illiquid and usually are not valued daily. The estimated valuation provided will be as of the most recent date available and will be included in summaries of your assets. Such valuation may not be the most recent provided by the fund in which you are invested. No representation is made that the valuation is a market value or that the interest could be liquidated at this value. We are not required to take any action with respect to your investment unless valid instructions are received from you in a timely manner. Some positions reflected herein may not represent interests in the fund, but rather redemption proceeds withheld by the issuer pending final valuations which are not subject to the investment performance of the fund and may or may not accrue interest for the length of the withholding. Morgan Stanley does not engage in an independent valuation of your alternative investment assets. Morgan Stanley provides periodic information to you including the market value of an alternative investment vehicle based on information received from the management entity of the alternative investment vehicle or another service provider.

It is important to note in this report that Morgan Stanley makes a distinction between Alternative Investment products, and products classified as Alternatives by their asset class. Morgan Stanley categorizes traditional and non-traditional alternative investment vehicles under the category "Alternatives" in asset classification based view. For product based views, traditional alternative investments vehicles are classified under the category "Other"; this differs from your official Morgan Stanley account statement, which categorizes traditional alternative investment vehicles such as Hedge Funds under the category "Alternative Investments". Non-traditional alternative strategy vehicles are classified based on their investment type, such as Mutual Fund or Exchange-Traded Funds within both this report and your Morgan Stanley account statement.

Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank.

SMA/WRAP Fee: Overlay Managers or Executing Sub-Managers ("managers") in some of Morgan Stanley's Separately Managed Account ("SMA") programs may affect transactions through broker-dealers other than Morgan Stanley or our affiliates. If your manager trades with another firm, you may be assessed costs by the other firm in addition to Morgan Stanley's fees. Those costs will be included in the net price of the security, not separately reported on trade confirmations or account statements. Certain managers have historically directed most, if not all, of their trades to outside firms. Information provided by managers concerning trade execution away from Morgan Stanley is summarized at: www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf. For more information on trading and costs, please refer to the ADV Brochure for your program(s), available at www.morganstanley.com/ADV, or contact your Financial Advisor/Private Wealth Advisor.

GENERAL DEFINITIONS

Dollar-Weighted Return (Internal Rate of Return): A return calculation that measures the actual performance of a portfolio over the reporting period. Since dollar weighted returns include the impact of client contributions and withdrawals, they should not be compared to market indices or used to evaluate the performance of a manager, but can be used to evaluate progress toward investment goals.

Gross of Fees: Performance results depicted as "gross" of fees do not reflect the deduction of any wrap fee, investment management fee, trade commissions, and/or other account fees. Your actual returns are lower after deducting these expenses. Please see the Morgan Stanley Smith Barney LLC Form ADV Part 2 Brochure for advisory accounts and/or any applicable brokerage account trade confirmation statements for a full disclosure of the applicable charges, fees and expenses. Your Financial Advisor will provide those documents to you upon request.

Investment Earnings: A combination of the income received and total portfolio value increase or decrease, excluding net contributions and withdrawals, over the reporting period.

Net Contributions/Withdrawals: The net value of cash and securities contributed to or withdrawn from the account(s) during the reporting period. Net contributions and withdrawals may include advisory fees for advisory accounts.

Net of Fees: Performance results depicted as "net" of fees shall mean that any wrap fee, investment management fees, trade commissions, and/or other account fees have been deducted. Any other fees or expenses associated with the account, such as third party custodian fees, may not have been deducted. Please see the Morgan Stanley Smith Barney LLC Form ADV Part 2 Brochure for advisory accounts and/or any applicable brokerage account trade confirmation statements for a full disclosure of the applicable charges, fees and expenses. Your Financial Advisor will provide those documents to you upon request.

Time-Weighted Return: A return calculation that measures the investment performance of a portfolio over the reporting period. Time weighted returns do not include the impact of client contributions and withdrawals and therefore, may not reflect the actual rate of return the client received. Time weighted returns isolate investment actions and can be compared to benchmarks and used to evaluate the performance of a manager.

Total Value: "Total Value" represents the Market Value of the portfolio or Asset Class referenced and includes the accrual of interest and dividends. Total Value in the Asset Allocation view prior to January 2014 does not reflect the accrual of interest and dividends. Total Value for Morgan Stanley & Co. and External accounts also does not include accrued interest and dividends.

BENCHMARK DEFINITIONS

60% ACWI / 40% Citi WGBI: The current allocation is comprised of 40.00% Citi WGBI Unhedged, 60.00% MSCI AC World Net.

Troy ERS Policy: The current allocation is comprised of 29.00% BC Gov/Cr Intm, 5.00% FTSE Treasury Bill 3 Month, 19.00% MSCI ACWI Ex USA NR USD, 7.00% MSCI REIT Gross, 40.00% Russell 3000.

Troy CGA Index Blend: The current allocation is comprised of 8.00% BC TIPS, 11.00% Barclays Govt/Credit Bond, 3.00% FTSE Treasury Bill 3 Month, 9.00% BC Universal, 57.00% MSCI AC World Net, 7.00% BC Multiverse Hedged Index, 5.00% MSCI REIT Net.

Citi WGBI Unhedged: Citi World Government Bond Index is a market capitalization-weighted index consisting of the government bond markets of certain countries. Country eligibility is determined based on market capitalization and investability criteria. All issues have a remaining maturity of at least one year.

MSCI AC World Net: The MSCI ACWI Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The MSCI ACWI consists of 46 country indexes comprising 23 developed and 23 emerging market country indexes. The developed market country indexes included are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States. The emerging market country indexes included are: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates (as of June 2014). Net total return indices reinvest dividends after the deduction of withholding taxes, using (for international indices) a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.

FTSE Treasury Bill 3 Month: Equal dollar amounts of three-month Treasury bills are purchased at the beginning of each of three consecutive months. As each bill matures, all proceeds are rolled over or reinvested in a new three-month bill. The income used to calculate the monthly return is derived by subtracting the original amount invested from the maturity value. The yield curve average is the basis for calculating the return on the index. The index is rebalanced monthly by market capitalization. The 90-Day Treasury Bill is a short-term obligation issued by the United States government. T-bills are purchased at a discount to the full face value, and the investor receives the full value when they mature. The difference of discount is the interest earned. T-bills are issued in denominations of $10,000 auction and $1,000 increments thereafter.

BC TIPS: The Barclays U.S. TIPS Index is an unmanaged market index comprised of all U.S. Treasury Inflation Protected Securities rated investment grade (Baa3 or better), have at least one year to final maturity, and at least $250 million par amount outstanding.

MSCI REIT Gross: The MSCI US REIT Index is a free float-adjusted market capitalization weighted index that is comprised of equity REITS that are included in the MSCI US Investable Market 2500 Index, with the exception of specialty equity REITs that do not generate a majority of their revenue and income from real estate rental and leasing operations. The index represents approximately 85% of the US REIT universe.

MSCI EAFE Net: The MSCI EAFE Index -Europe, Australasia, Far East - is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US and Canada. The MSCI EAFE Index consists of the following 21 developed market country indexes: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom (as of June 2014). Net total return indices reinvest dividends after the deduction of withholding taxes, using (for international indices) a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.

MSCI EM Net: The MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. The MSCI Emerging Markets Index consists of the following 23 emerging market country indexes: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates (as of June 2014). Net total return indices reinvest dividends after the deduction of withholding taxes, using (for international indices) a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.

MSCI ACWI Ex USA NR USD: The MSCI ACWI Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The MSCI ACWI consists of 46 country indexes comprising 23 developed and 23 emerging market country indexes. The developed market country indexes included are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States. The emerging market country indexes included are: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates (as of June 2014). This index is excluding the United States. Performance is showing net withholding tax. Net total return indices reinvest dividends after the deduction of withholding taxes, using (for international indices) a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.

S&P 500 Total Return: The S&P 500 has been widely regarded as the best single gauge of the large cap U.S. equities market since the index was first published in 1957. The index has over $5.58 trillion benchmarked, with index assets comprising approximately $1.31 trillion of this total. The index includes 500 leading companies in leading industries of the U.S. economy, capturing 75% coverage of U.S.

equities. This index includes dividend reinvestment.

Russell 2500 VL: The Russell 2500 Value Index is representative of the U.S. market for smaller to medium capitalization stocks containing those companies in the Russell 2500 Index with lower price-to-book ratios and lower forecasted growth.

Russell 1000 Gr: The Russell 1000 Growth Index is representative of the U.S. market for large capitalization stocks containing those companies in the Russell 1000 Index with higher price-to-book ratios and higher forecasted growth.

Russell 1000 VL: The Russell 1000 Value Index is representative of the U.S. market for large capitalization stocks containing those companies in the Russell 1000 Index with lower price-to-book ratios and lower forecasted growth.

BC Gov/Cr Intm: The Barclays Government/Credit Bond Index contains bonds that are investment grade and that have at least one year to maturity. The Barclays Intermediate Government/Credit Bond Index is composed primarily of bonds covered by the Barclays Government/Credit Bond Index with maturities between one and 9.99 years.

Russell 3000: The Russell 3000 Index measures the performance of the 3,000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market.

BC Universal: The BC U.S. Universal is a combination of indices. It includes the following indices: BC Aggregate; Corporate High Yield; Eurodollar (Ex-Aggregate); Emerging Markets (Ex-Aggregate/Eurodollar); 144A (Ex-Aggregate), and Commercial Mortgage Backed Securities (CMBS). Each asset class is subject to minimum outstanding size threshold. These thresholds usually increase with the expansion of average issue size. All securities must be dominated in U.S. dollars. All issues must be fixed rate, with the exception of certain emerging-market debt bearing a floating-rate coupon. All securities and certificates must have a remaining maturity of at least one year. There are no rating constraints. Municipal debt, private placements, and non-dollar-denominated issues are excluded.

MSCI REIT Net: The MSCI US REIT Index is a free float-adjusted market capitalization weighted index that is comprised of equity REITS that are included in the MSCI US Investable Market 2500 Index, with the exception of specialty equity REITs that do not generate a majority of their revenue and income from real estate rental and leasing operations. The index represents approximately 85% of the US REIT universe.

Barclays Govt/Credit Bond: The Barclays Government/Credit Bond Index contains bonds that are investment grade and that have at least one year to maturity.

BC Multiverse Hedged Index: The Barclays Capital Multiverse Index provides a broad-based measure of the international fixed-income bond market. The index represents the union of the Global Aggregate and Global High Yield indices. In this sense, we use the term (Multiverse) to refer to the concept of multiple universes in a single marco index. Hedged.

Barclays Aggregate: The Barclays US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency).

City of Troy Employees' Retirement System
5/12/2020

Asset Class	Mandate	Market Value	Portfolio %	Policy Target	Value at Policy Target	Rebalance	Value after Reallocation	% After Reallocation	% Over (Under)	$ Value Over (Under)
Global Equities (40% - 70%)		**$56,311,988.05**	**66.1%**	**59.0%**	**$50,284,462.19**	**$0**	**$56,311,988.05**	**66.1%**	**7.1%**	**$6,027,525.86**
Domestic Equities (30% - 50%)		**$40,414,188.53**	**47.4%**	**40.0%**	**$34,091,160.80**	**$0**	**$40,414,188.53**	**47.4%**	**7.4%**	**$6,323,027.73**
Winslow	Domestic Large Cap Growth Equity	$6,597,890.22	7.7%			$0	$6,597,890.22	7.7%		
JP Morgan Equity Income	Domestic Large Cap Value Equity	$3,792,372.10	4.4%			$0	$3,792,372.10	4.4%		
Aristotle	Domestic Large Cap Value Equity	$3,788,145.80	4.4%			$0	$3,788,145.80	4.4%		
iShares S&P 500 (IVV)	Domestic Large Cap Core Equity	$4,873,191.44	5.7%			$0	$4,873,191.44	5.7%		
Thompson Siegel	Domestic Smid Cap Value	$5,774,521.17	6.8%			$0	$5,774,521.17	6.8%		
Vanguard Total Market (VTI)	Domestic Large Cap Equity	$15,588,067.80	18.3%			$0	$15,588,067.80	18.3%		
International Equities (4% - 24%)		**$15,897,799.52**	**18.7%**	**19.0%**	**$16,193,301.38**	**$0**	**$15,897,799.52**	**18.7%**	**-0.3%**	**($295,501.86)**
ClearBridge International Growth	International Equity	$4,241,349.77	5.0%			$0	$4,241,349.77	5.0%		
Delaware International Value	International Equity	$3,775,473.63	4.4%			$0	$3,775,473.63	4.4%		
iShares MSCI EAFE (EFA)	International Equity	$4,050,160.38	4.8%			$0	$4,050,160.38	4.8%		
iShares Emerging Mkts. (EEM)	Emerging Markets Equity	$3,830,815.74	4.5%			$0	$3,830,815.74	4.5%		
Fixed Income (25% - 50%)		**$25,421,961.05**	**29.8%**	**29.0%**	**$24,716,091.58**	**$0**	**$25,421,961.05**	**29.8%**	**0.8%**	**$705,869.47**
Reinhart Inter Gov / Credit	Domestic Fixed Income	$8,368,999.97	9.8%			$0	$8,368,999.97	9.8%		
Western Core Plus	Domestic Fixed Income	$7,742,150.36	9.1%			$0	$7,742,150.36	9.1%		
Loomis Sayles Bond (LSBDX)	Domestic Fixed Income	$5,091,471.81	6.0%			$0	$5,091,471.81	6.0%		
PIMCO Real Return (PRLPX)	Domestic Fixed Income	$4,219,338.91	5.0%			$0	$4,219,338.91	5.0%		
Real Estate (0% - 9%)		**$1,300,898.68**	**1.5%**	**7.0%**	**$5,965,953.14**	**$0**	**$1,300,898.68**	**1.5%**	**-5.5%**	**($4,665,054.46)**
Vanguard REIT (VNQ)	REIT	$1,300,898.68	1.5%			$0	$1,300,898.68	1.5%		
Cash (0% - 10%)		**$2,193,054.23**	**2.6%**	**5.0%**	**$4,261,395.10**	**$0**	**$2,193,054.23**	**2.6%**	**-2.4%**	**($2,068,340.87)**
Cash - Cont/ Distr	Cash	$97.69	0.0%			$0	$97.69	0.0%		
Cash -Managed & ETF / MF Accounts	Cash	$2,192,956.54	2.6%			$0	$2,192,956.54	2.6%		
Combined Accounts		**$85,227,902.01**	**100.0%**	**100.0%**	**$85,227,902.01**	**$0**	**$85,227,902.01**	**100.0%**		

Source: Morgan Stanley

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City of Troy Employees' Retirement System
5/12/2020

Asset Class	Mandate	Market Value	Portfolio %	Policy Target	Value at Policy Target	Rebalance	Value after Reallocation	% After Reallocation	% Over (Under)	$ Value Over (Under)
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Domestic Equities (30% - 50%)		**$40,414,188.53**	**47.4%**	**40.0%**	**$34,091,160.80**	**$0**	**$40,414,188.53**	**47.4%**	**7.4%**	**$6,174,648.44**
Winslow	Domestic Large Cap Growth Equity	$6,597,890.22	7.7%			$0	$6,597,890.22	7.7%		
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ClearBridge International Growth	International Equity	$4,241,349.77	5.0%			$0	$4,241,349.77	5.0%		
Delaware International Value	International Equity	$3,775,473.63	4.4%			$0	$3,775,473.63	4.4%		
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Reinhart Inter Gov / Credit	Domestic Fixed Income	$8,368,999.97	9.8%			$0	$8,368,999.97	9.8%		
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Vanguard REIT (VNQ)	REIT	$1,300,898.68	1.5%			$0	$1,300,898.68	1.5%		
Cash (0% - 10%)		**$2,193,054.23**	**2.6%**	**5.0%**	**$4,261,395.10**	**$2,000,000**	**$2,193,054.23**	**2.6%**	**-2.4%**	**($2,019,804.16)**
Cash - Cont/ Distr	Cash	$97.69	0.0%			$0	$97.69	0.0%		
Cash -Managed & ETF / MF Accounts	Cash	$2,192,956.54	2.6%			$0	$2,192,956.54	2.6%		
Combined Accounts		**$85,227,902.01**	**100.0%**	**100.0%**	**$85,227,902.01**	**$0**	**$83,227,902.01**	**97.7%**		

Source: Morgan Stanley

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Monthly Perspectives

Prepared on April 16, 2020

TABLE OF CONTENTS

Please review the disclosures and definitions throughout this Document.
Various sub-sections of this Document may not contain information on all accounts/positions covered in this Document.

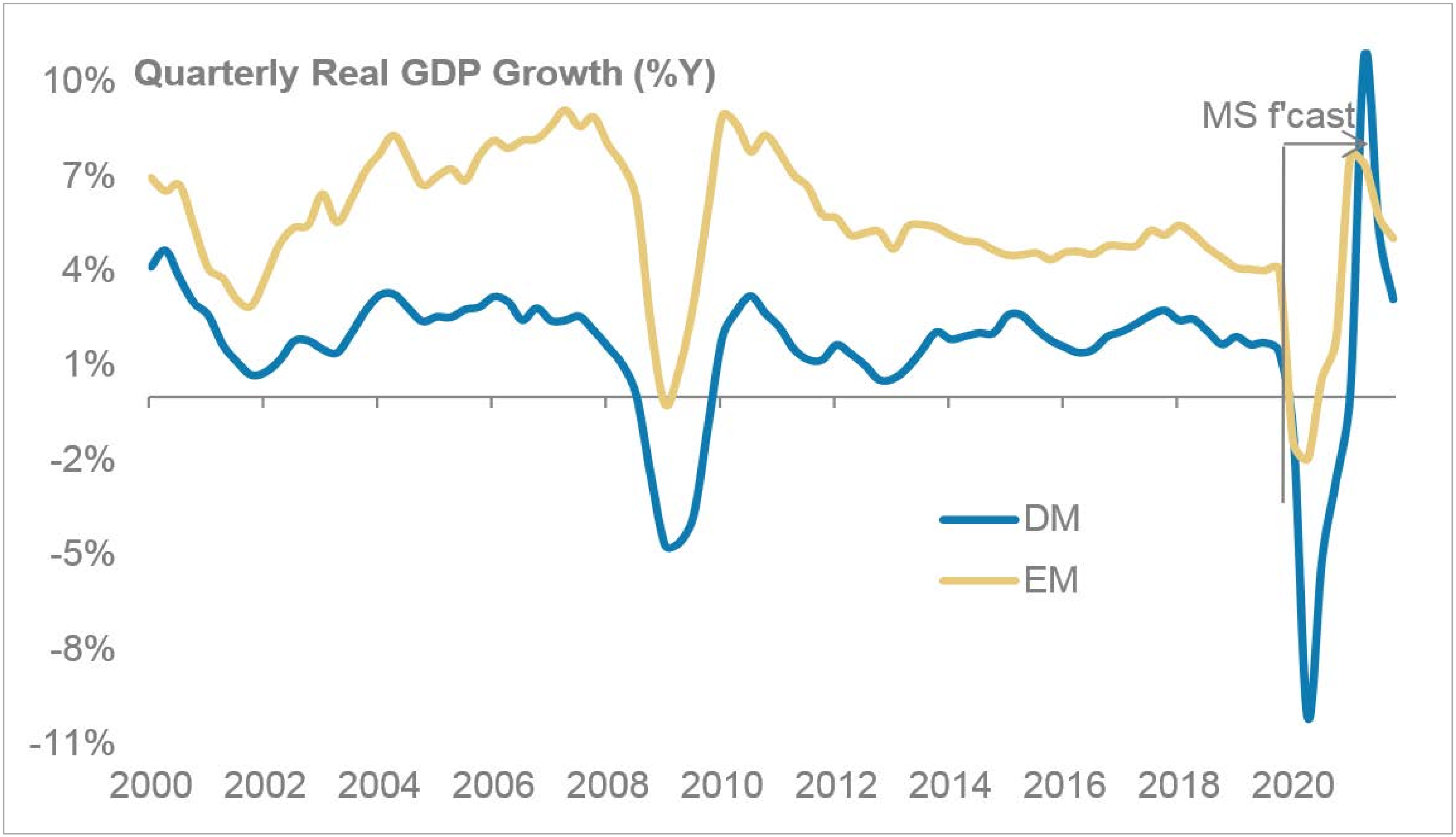
Bear Markets Have *Ended* With Recessions; Secular Bull Market Should Resume

As of April 14, 2020

- **As in the past, the cyclical bear market appears to be *ending* with a recession.** Our view is that the cyclical bear market began 2 years ago. The recession itself may be the moment of recognition for investors. Bear markets have typically ended with a recession, and we see no reason why this time would be different. The risk-reward of investing is usually best when uncertainty is highest and concern is greatest. That period was in March as levered players sold investments at low prices—the mirror image of 4Q2019 when they bought at high prices.
- **Recessions typically alternate between the consumer and corporate channels.** Every recession is unique, but the conditions must be in place for one to happen and that usually means excess leverage. This time that leverage was in the corporate, rather than the consumer sector and in the "shadow" banks rather than the regulated financial institutions. With the consumer constituting 70% of the economy and the banking sector unimpaired, this recession may end up being much less damaging in the end than 2008-2009.
- **The trigger for this recession is unique, but so is the policy response.** With this recession centered around a health crisis, the policy response has been unprecedented, particularly as it relates to fiscal stimulus. Based on already-passed legislation, the fiscal deficit in the US will likely approach 20% this year, twice the level ever witnessed during peacetime. This stimulus is directed right at the consumer and small/medium businesses, which we think can be disproportionate beneficiaries.
- **Financial repression is alive and well.** The Fed's action has also been unprecedented as it has offered unlimited Quantitative Easing (QE). Perhaps more importantly, and different from prior QE programs, the Fed has decided to intervene directly into credit markets with their purchases, including high yield. This is a whole new level of financial repression, in our view, and suggests risk premiums may not stay elevated for long, even as uncertainty about the economy and corporate earnings remains extreme.
- **Time to employ a recession playbook.** While it's difficult to do, investors must embrace the end of the cycle and look forward to the beginning of a new one. This means not only taking on more risk at the asset class level—i.e., stocks over bonds—but also at the style and factor level—i.e., cyclicals over defensives, small over large and low over high quality.
- **Inflation is the key to the secular bull market for stocks and secular bear market for bonds**. The shift in policy from monetary to fiscal dominance is something we have been waiting for to make a more aggressive call on inflation. A US recession was a necessary condition for this outcome, and now we have it. The health crisis nature of this event further supports the outcome. Finally, we remind investors about the other inflationary trends that were well established before this recession began—populism, nationalism, de-globalization, and a growing backlash to the dollar as the world's only reserve currency.
- **We recommend being overweight equities and credit, underweight interest rate risk—i.e., duration.** We also recommend owning some commodities as another inflation hedge. Avoid profitless growth stocks and pure bond proxies/defensives. Cash is no longer king with front-end rates at zero and unlikely to rise anytime soon.

Source: Morgan Stanley & Co. US Equity Strategy Research

Deepest Recession Since WWII, but Potentially the Sharpest Recovery, Too



Source: Morgan Stanley & Co. Research as of April 8, 2020

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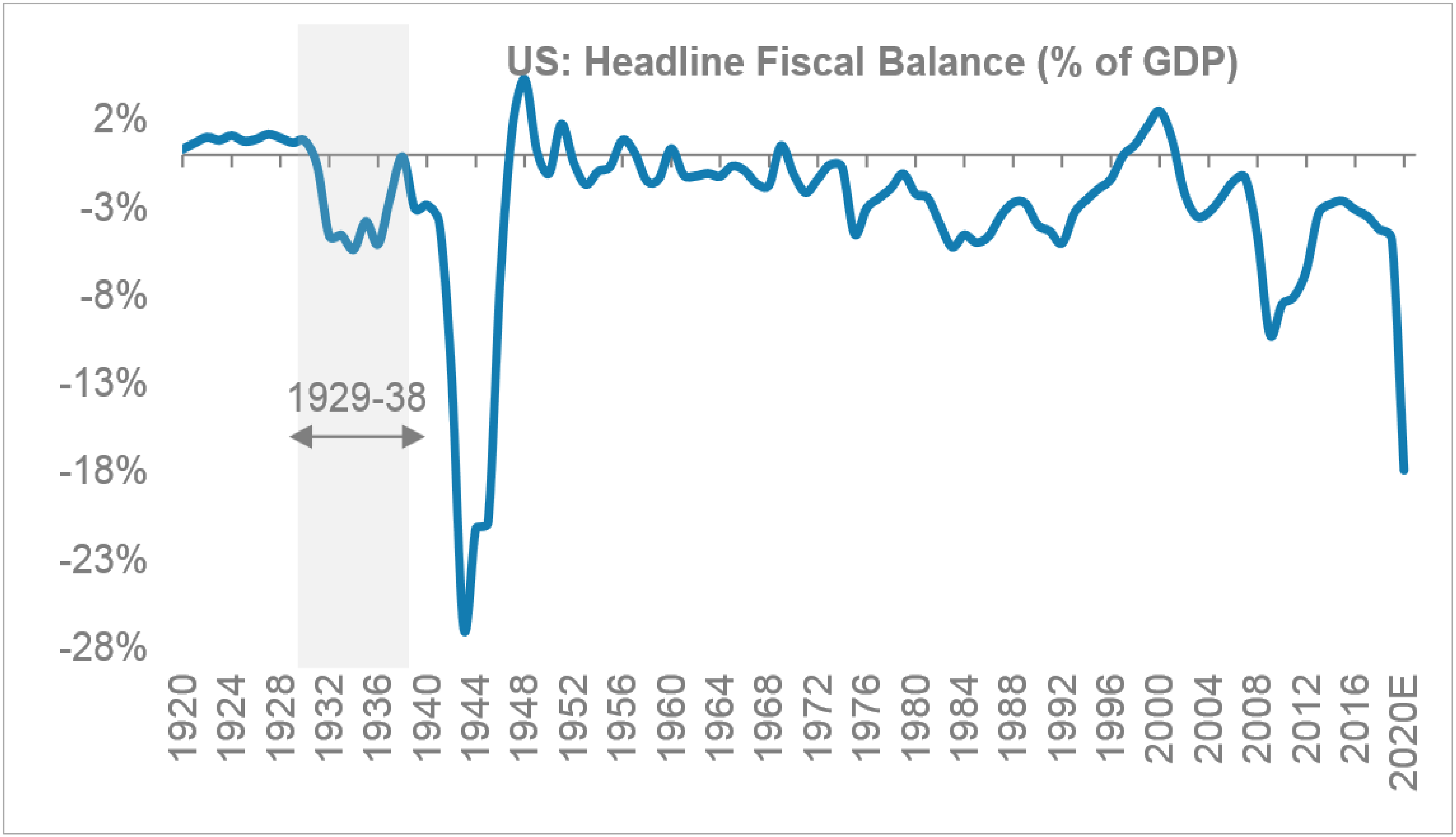
Policy Response Much Greater Now Than During Great Depression…



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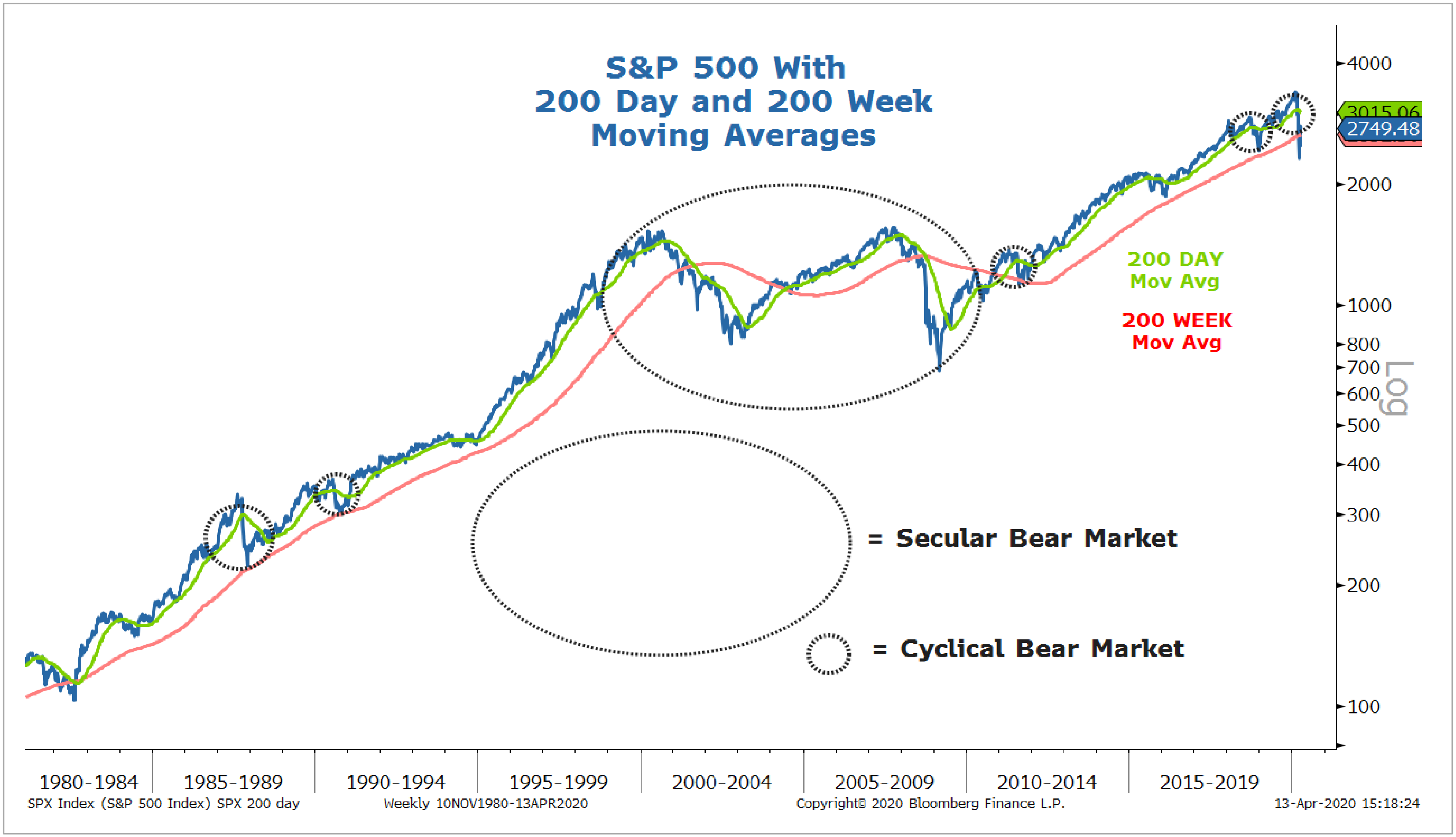
...Leaving the *Secular* Bull Market Intact (in Nominal Terms)



Source: Bloomberg, Morgan Stanley & Co. Research as of April 13, 2020

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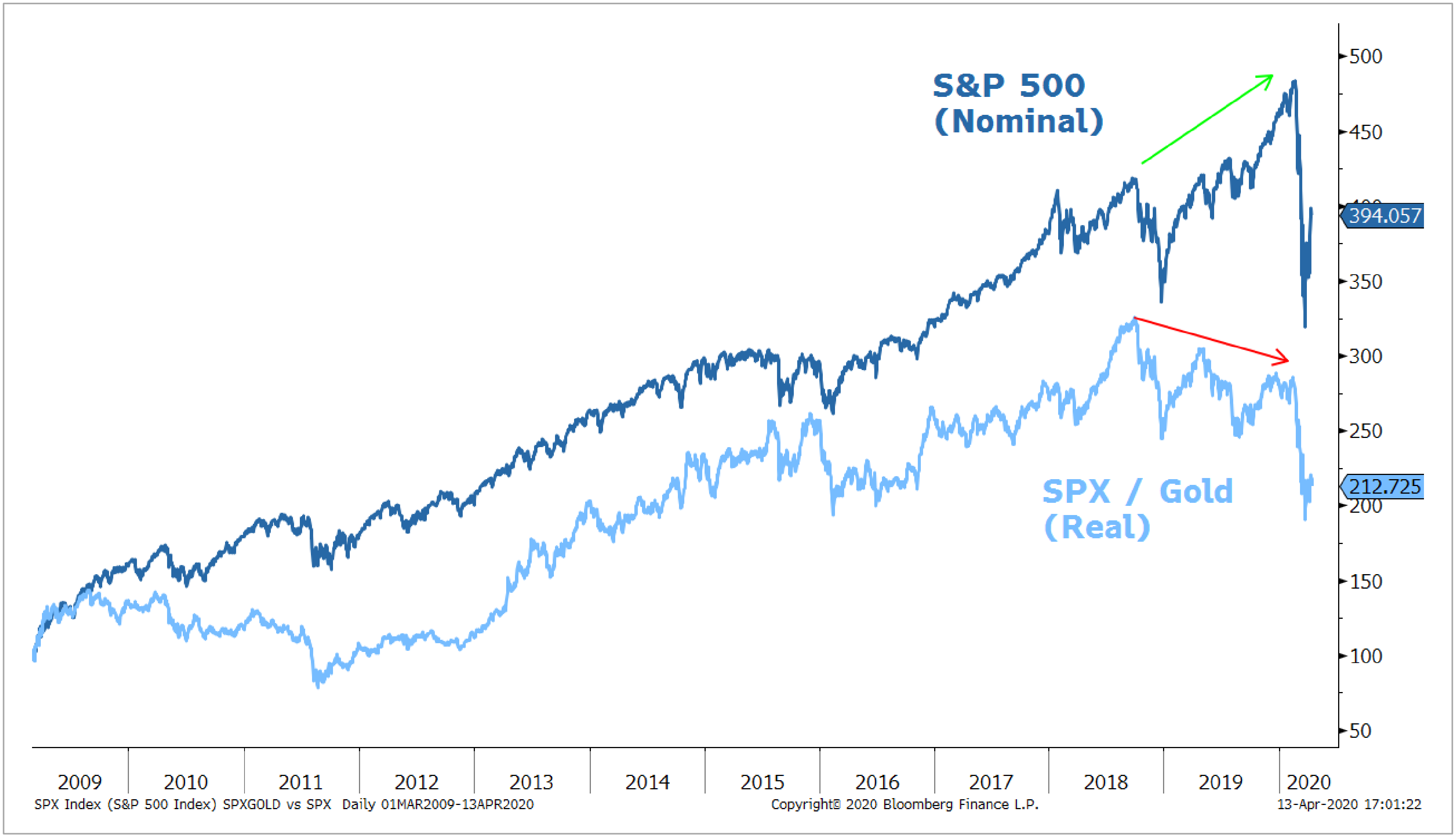
Nominal SPX Back in Gear with Real SPX, and Outperforming…Reflation?



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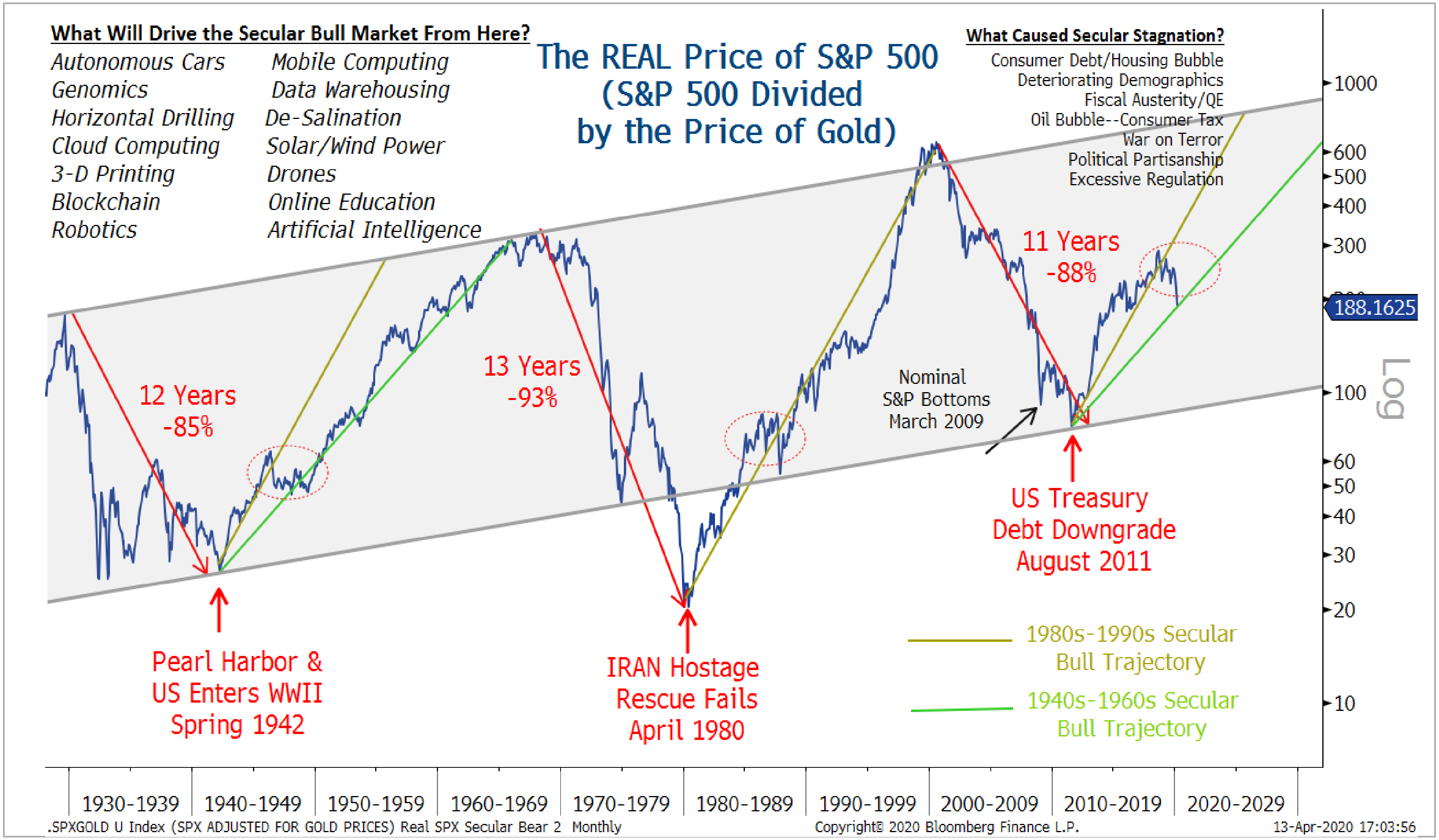
Our Multi-Year Consolidation Now Looks Finished; Secular Bull Should Resume



Source: Bloomberg, Morgan Stanley & Co. Research as of April 13, 2020

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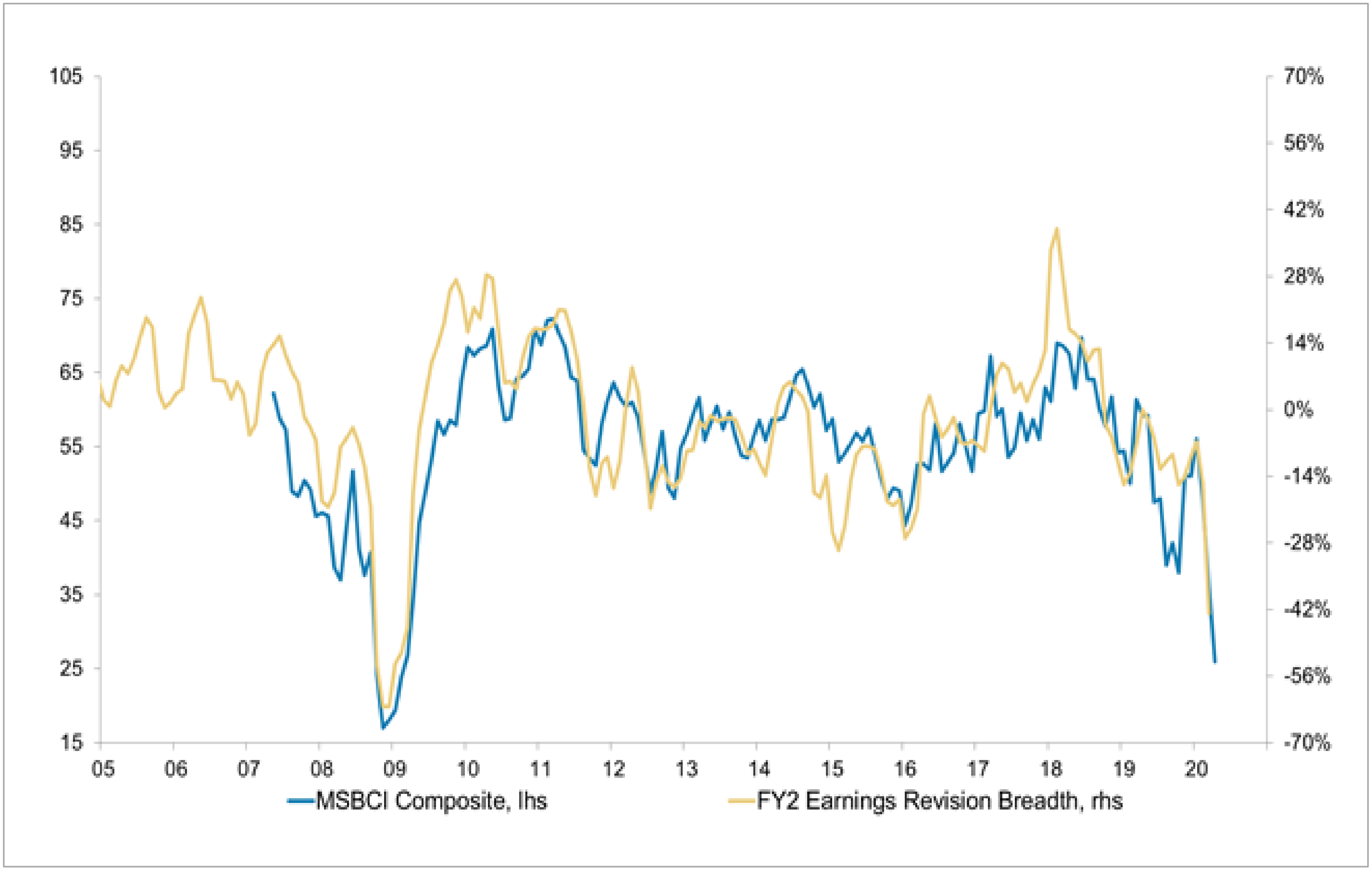
Earnings Revision Breadth Appears on Track to Trough in April



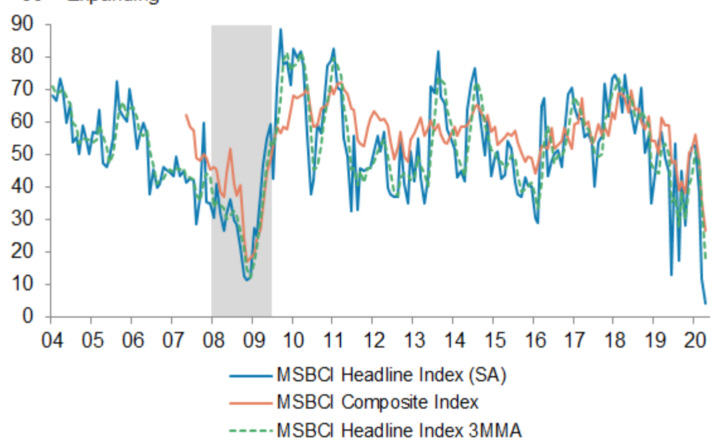
Source: FactSet, Morgan Stanley & Co. Research as of April 10, 2020. Earnings revisions breadth is defined as the number of positive analyst revisions minus the number of negative analyst revisions divided by the total number of revisions.

Morgan Stanley Business Conditions Index May Be Troughing Now

	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20	Apr 20
Morgan Stanley Business Conditions Index (seasonally adjusted)	**28**	**48**	**52**	**53**	**38**	**12**	**4**
MSBCI (3-month moving average)	30	41	43	51	48	34	18
Morgan Stanley Business Conditions Index	26	53	52	57	41	11	4
Manufacturing Subindex	25	40	42	50	0	5	11
Services Subindex	27	58	57	60	50	15	0
Price Index	63	47	45	54	41	66	40
Prices Paid Index	57	47	38	50	25	48	35
Composite MSBCI	**38**	**51**	**51**	**56**	**48**	**36**	**26**
Advance Bookings Index	13	64	63	64	67	10	7
Credit Conditions Index	53	56	58	61	64	39	15
Business Conditions Expectations Index	24	58	45	61	55	22	48
Hiring Index	50	39	50	54	23	46	37
Hiring Plans Index	53	39	45	50	36	48	30
Capex Plans Index	44	44	45	46	41	55	26
Memo: % reporting increase over previous 3 months							
Hiring	18	22	29	43	9	25	17
Hiring Plans	24	22	20	29	9	18	4
Capex Plans	6	6	10	7	0	25	9

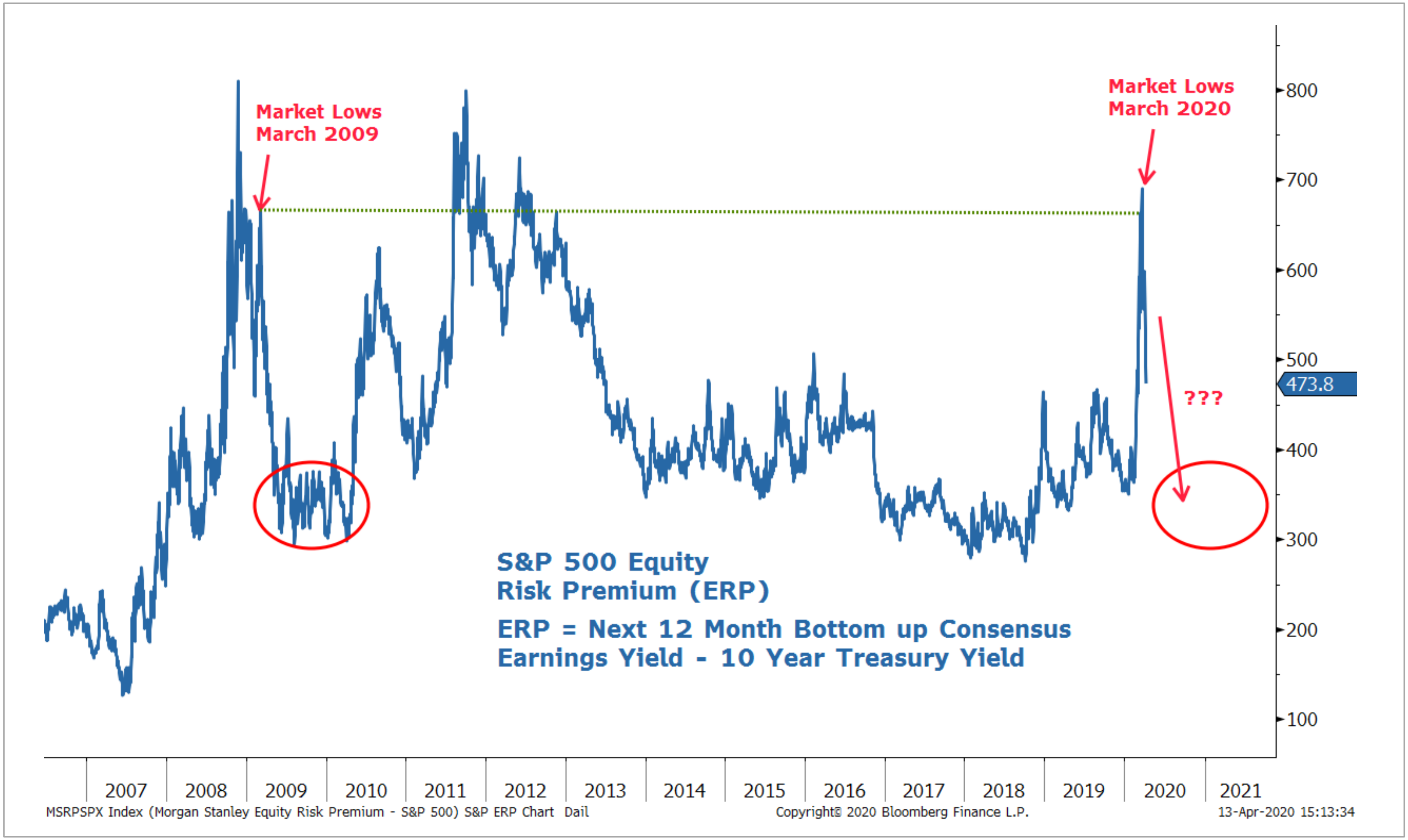
Note: Headline index seasonally adjusted, all else not seasonally adjusted.
Source: Morgan Stanley Research

Morgan Stanley Business Conditions Index
+50 = Expanding



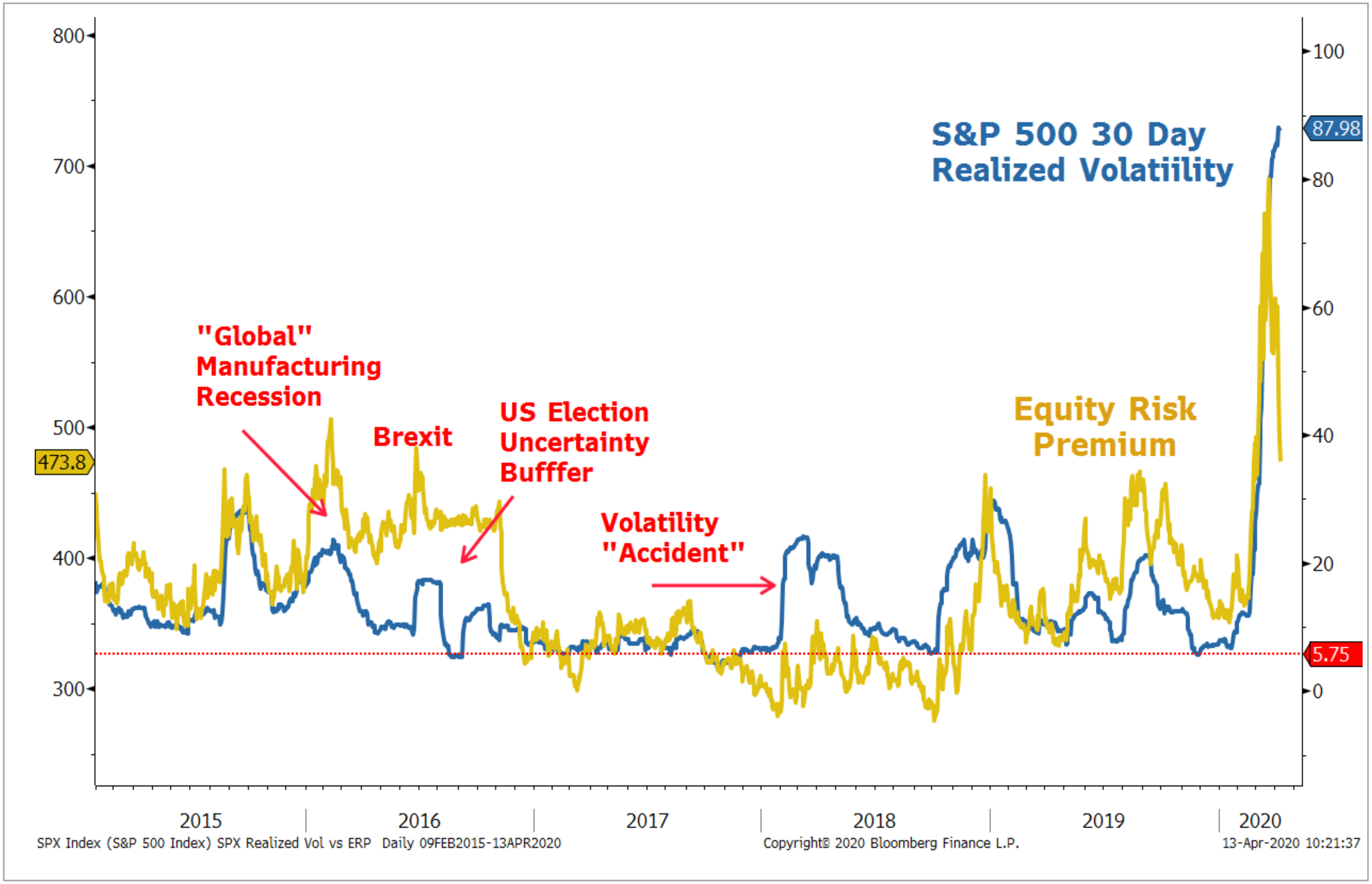
Source: Morgan Stanley & Co. Research as of April 9, 2020

If We Follow Similar Pattern to 2009, ERP Can Still Fall Significantly



Source: Bloomberg, Morgan Stanley & Co. Research as of April 13, 2020. Earnings revisions breadth is defined as the number of positive analyst revisions minus the number of negative analyst revisions divided by the total number of revisions.

Equity Risk Premium Is Leading Volatility, Which Is Likely to Fall From Here



Source: Bloomberg, Morgan Stanley & Co. Research as of April 13, 2020. Earnings revisions breadth is defined as the number of positive analyst revisions minus the number of negative analyst revisions divided by the total number of revisions.

Equity Risk Premium Framework Suggests Higher Multiples Possible

NTM S&P PE Sensitivity - ERP & 10 Yr Yield

10Y Yield	Equity Risk Premium (bps) 300	325	350	375	400	500	550
0.50	28.6	26.7	25.0	23.5	22.2	18.2	**16.7**
0.75	26.7	25.0	23.5	22.2	21.1	17.4	16.0
1.00	25.0	23.5	22.2	21.1	20.0	**16.7**	15.4
1.25	23.5	22.2	21.1	20.0	**19.0**	16.0	14.8
1.50	22.2	21.1	20.0	**19.0**	18.2	15.4	14.3
1.75	21.1	20.0	**19.0**	18.2	17.4	14.8	13.8
2.00	20.0	**19.0**	18.2	17.4	16.7	14.3	13.3
2.25	**19.0**	18.2	17.4	16.7	16.0	13.8	12.9

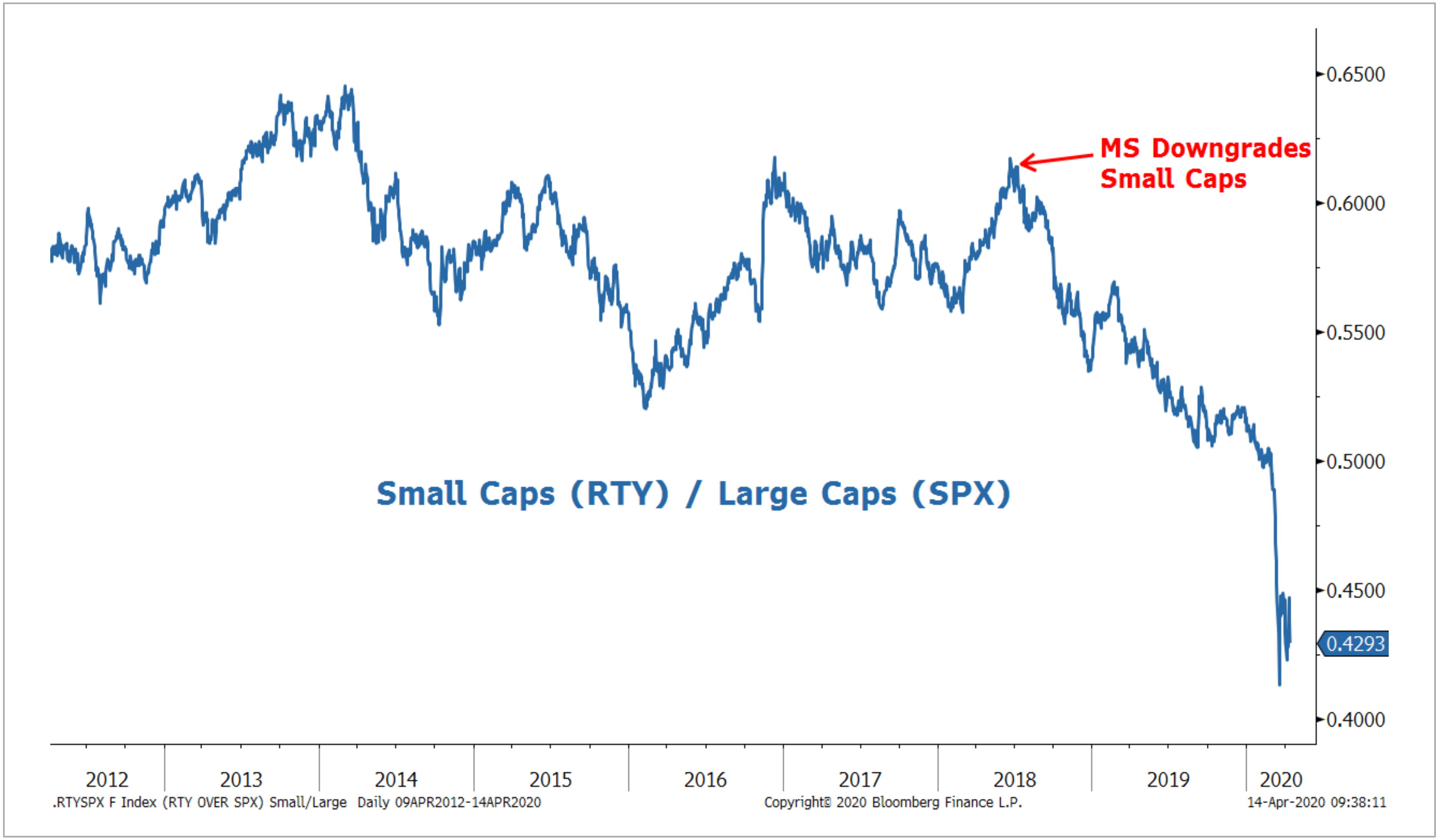
Source: Bloomberg, Morgan Stanley & Co. Research as of April 13, 2020. Earnings revisions breadth is defined as the number of positive analyst revisions minus the number of negative analyst revisions divided by the total number of revisions.

Our Bear/Base/Bull Targets for S&P 500 are 2,500/3,000/3,250

Index	Current Price	MS Forecast Dec-20 (% to Current)	MS Forecast (Old) (% to Current)	MS Tgt Fwd P/E Dec-20	Current Fwd P/E	MS Top-Down Base Case EPS/Growth			Consensus Forecast EPS/Growth		
						2019	2020	2021	2019	2020	2021
Bull	2,790	3,250	3,000	19.1x	17.8x	$163	$142	$170	$163	$150	$177
		16%	8%			0.4%	-13.0%	20.0%	0.4%	-7.8%	17.7%
Base	2,790	3,000	2,700	19.1x	17.8x	$163	$130	$156	$163	$150	$177
		8%	-3%			0.4%	-20.0%	20.0%	0.4%	-7.8%	17.7%
Bear	2,790	2,500	2,400	16.7x	17.8x	$163	$119	$149	$163	$150	$177
		-10%	-14%			0.4%	-27.0%	25.0%	0.4%	-7.8%	17.7%

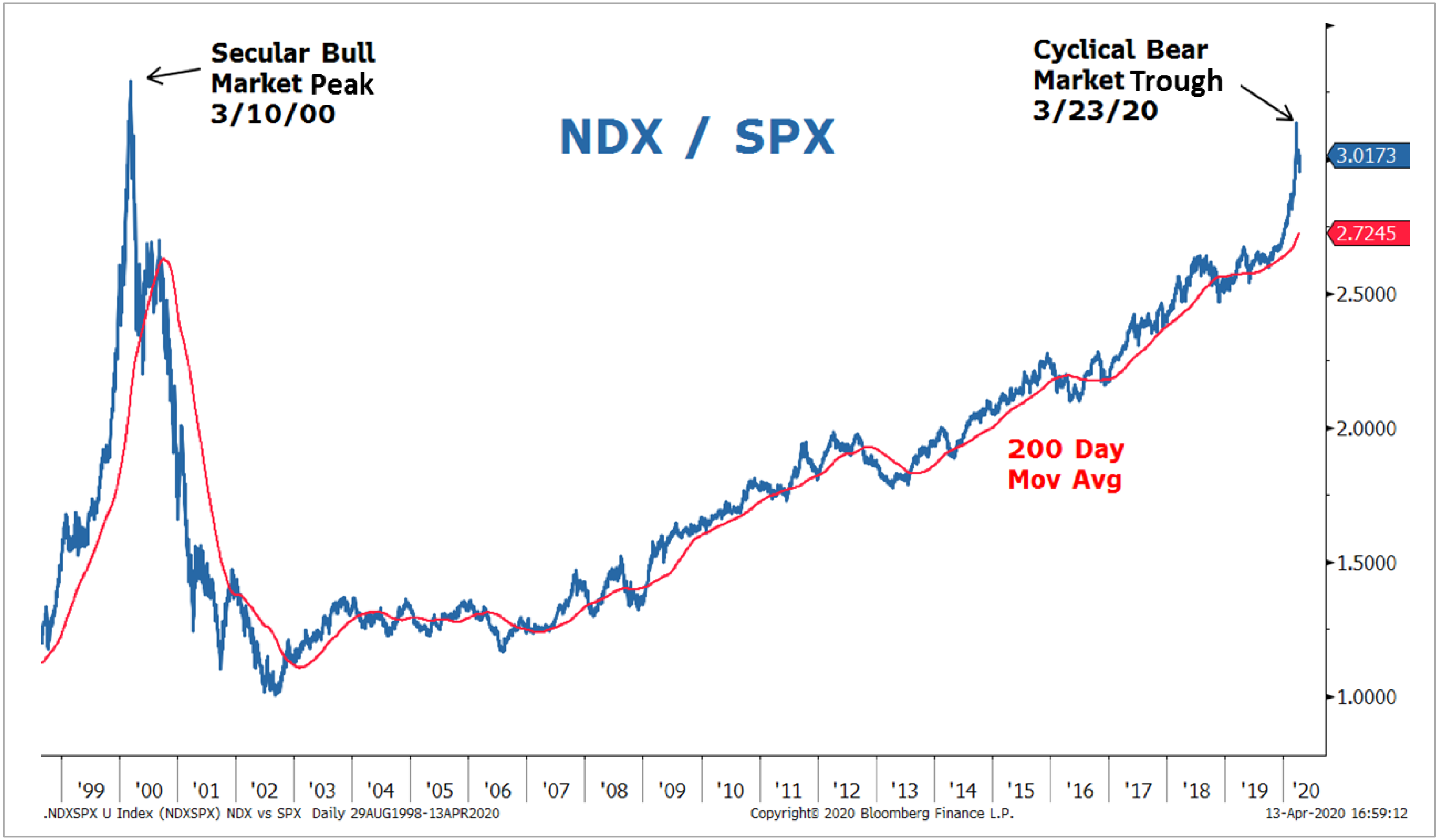
Source: Bloomberg, Morgan Stanley & Co. Research as of April 13, 2020. Earnings revisions breadth is defined as the number of positive analyst revisions minus the number of negative analyst revisions divided by the total number of revisions.

Small-Cap Underperformance Has Been Historic. Time to Buy



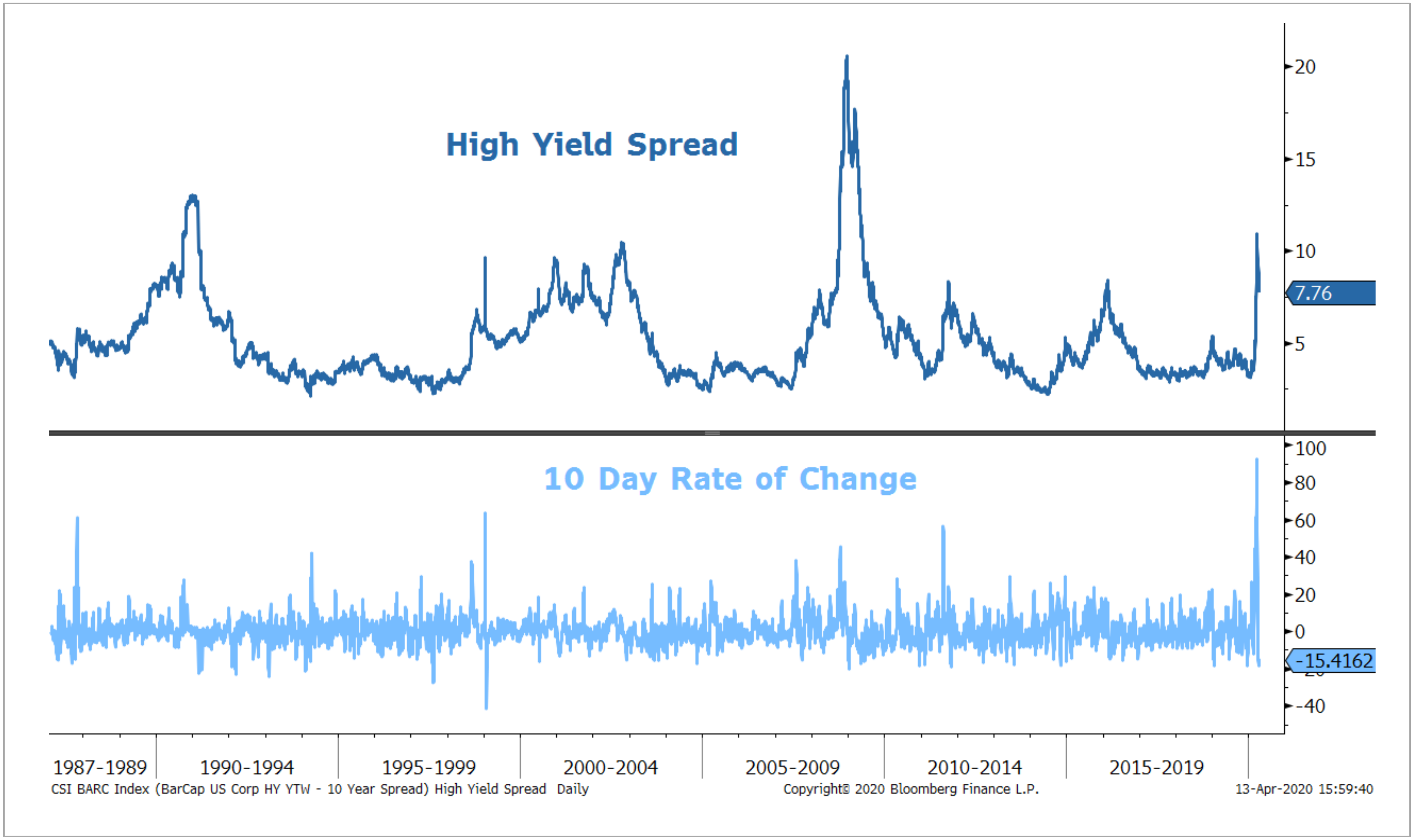
Source: Bloomberg, Morgan Stanley & Co. Research as of April 14, 2020

Nasdaq Relative Performance May Have Peaked with Market Trough



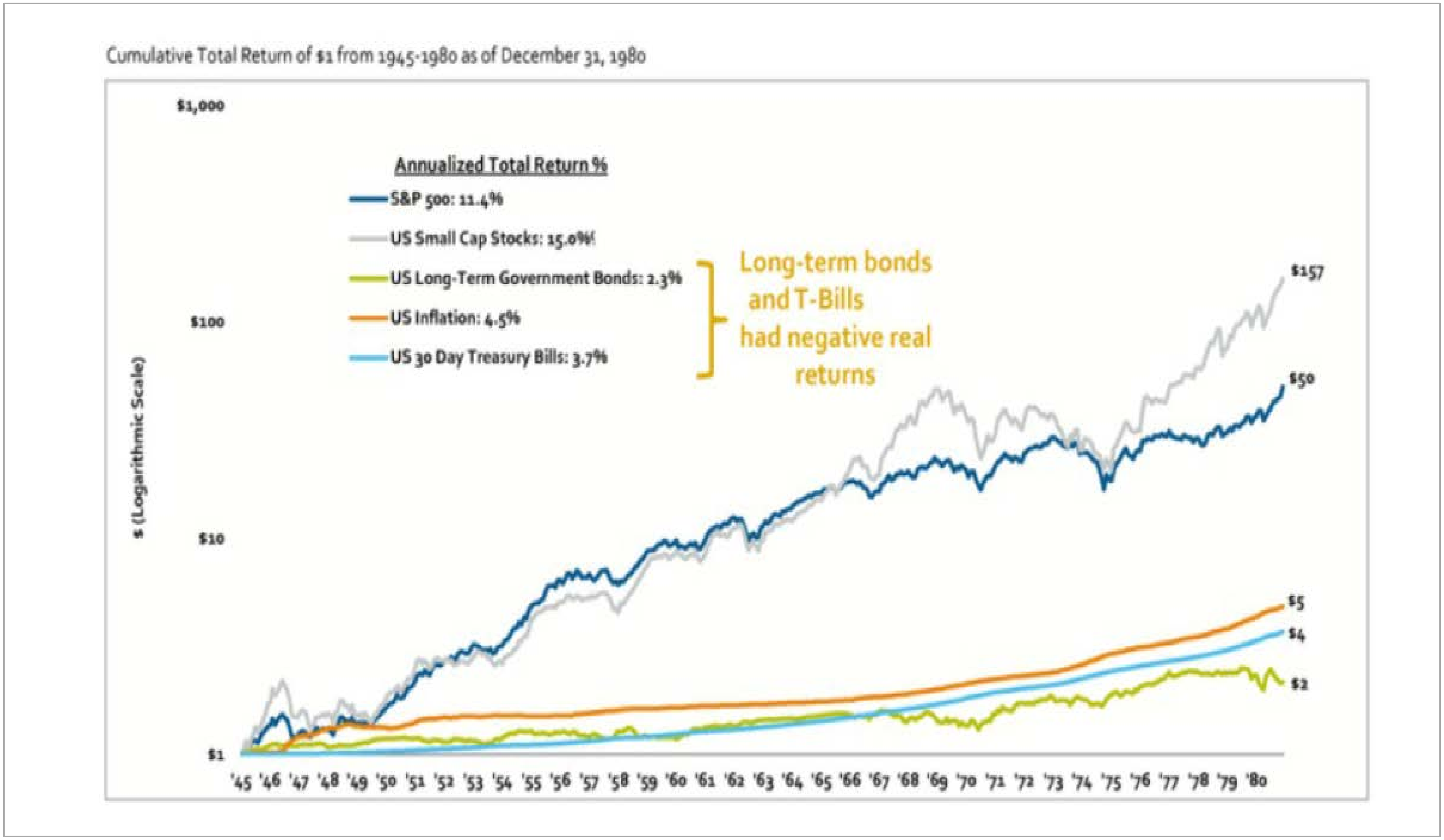
Source: Bloomberg, Morgan Stanley & Co. Research as of April 13, 2020

High Yield Spreads Have Reached Historic Levels—That's the Time to BUY



Source: Bloomberg, Morgan Stanley & Co. Research as of April 13, 2020

Bonds Could Be Embarking on an Upward Trajectory if Inflation Returns



Source: FactSet, Morgan Stanley Wealth Management Global Investment Committee

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Global Investment Manager Analysis (GIMA) Focus List, Approved List and Tactical Opportunities List; Watch Policy. GIMA uses two methods to evaluate investment products in applicable advisory programs: **Focus** (and investment products meeting this standard are described as being on the Focus List) and **Approved** (and investment products meeting this standard are described as being on the Approved List). In general, Focus entails a more thorough evaluation of an investment product than Approved. Sometimes an investment product may be evaluated using the Focus List process but then placed on the Approved List instead of the Focus List. Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status). GIMA has a '**Watch**" policy and may describe a Focus List or Approved List investment product as being on "Watch" if GIMA identifies specific areas that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the investment product becoming "Not Approved." The Watch period depends on the length of time needed for GIMA to conduct its evaluation and for the investment manager or fund to address any concerns. Certain investment products on either the Focus List or Approved List may also be recommended for the **Tactical Opportunities List** based in part on tactical opportunities existing at a given time. The investment products on the Tactical Opportunities List change over time. For more information on the Focus List, Approved List, Tactical Opportunities List and Watch processes, please see the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management. Your Financial Advisor or Private Wealth Advisor can also provide upon request a copy of a publication entitled "Manager Selection Process."

The **Global Investment Committee** is a group of seasoned investment professionals who meet regularly to discuss the global economy and markets. The committee determines the investment outlook that guides our advice to clients. They continually monitor developing economic and market conditions, review tactical outlooks and recommend model portfolio weightings, as well as produce a suite of strategy, analysis, commentary, portfolio positioning suggestions and other reports and broadcasts.

The GIC Asset Allocation Models are not available to be directly implemented as part of an investment advisory service and should not be regarded as a recommendation of any Morgan Stanley investment advisory service. The GIC Asset Allocation Models do not represent actual trading or any type of account or any type of investment strategies and none of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, advisory fees, fund expenses) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models which, when compounded over a period of years, would decrease returns.

Adverse Active Alpha (AAA) is a patented screening and scoring process designed to help identify high-quality equity and fixed income managers with characteristics that may lead to future outperformance relative to index and peers. While highly ranked managers performed well as a group in our Adverse Active Alpha model back tests, not all of the managers will outperform. Please note that this data may be derived from back-testing, which has the benefit of hindsight. In addition, highly ranked managers can have differing risk profiles that might not be suitable for all investors. Our view is that Adverse Active Alpha is a good starting point and should be used in conjunction with other information. Morgan Stanley Wealth Management's qualitative and quantitative investment manager due diligence process are equally important factors for investors when considering managers for use through an investment advisory program. Factors including, but not limited to, manager turnover and changes to investment process can partially or fully negate a positive Adverse Active Alpha ranking. Additionally, highly ranked managers can have differing risk profiles that might not be suitable for all investors. For more information on AAA, please see the Adverse Active Alpha Ranking Model and Selecting Managers with Adverse Active Alpha whitepapers. The whitepaper are available from your Financial Advisor or Private Wealth Advisor. ADVERSE ACTIVE ALPHA is a registered service mark of Morgan Stanley and/or its affiliates. U.S. Pat. No. 8,756,098 applies to the Adverse Active Alpha system and/or methodology.

The Global Investment Manager Analysis (GIMA) Services Only Apply to Certain Investment Advisory Programs GIMA evaluates certain investment products for the purposes of some – but not all – of Morgan Stanley Smith Barney LLC's investment advisory programs (as described in more detail in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management). If you do not invest through one of these investment advisory programs, Morgan Stanley Wealth Management is not obligated to provide you notice of any GIMA Status changes even though it may give notice to clients in other programs.

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Morgan Stanley charges each fund family we offer a mutual fund support fee, also called a "revenue-sharing payment," on client account holdings in fund families according to a tiered rate that increases along with the management fee of the fund so that lower management fee funds pay lower rates than those with higher management fees.

Consider Your Own Investment Needs: The model portfolios and strategies discussed in the material are formulated based on general client characteristics including risk tolerance. This material is not intended to be a client-specific suitability analysis or recommendation, or offer to participate in any investment. Therefore, clients should not use this profile as the sole basis for investment decisions. They should consider all relevant information, including their existing portfolio, investment objectives, risk tolerance, liquidity needs and investment time horizon. Such a suitability determination may lead to asset allocation results that are materially different from the asset allocation shown in this profile. Talk to your Financial Advisor about what would be a suitable asset allocation for you, whether CGCM is a suitable program for you.

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Please consider the investment objectives, risks, fees, and charges and expenses of mutual funds, ETFs, closed end funds, unit investment trusts, and variable insurance products carefully before investing. The prospectus contains this and other information about each fund. To obtain a prospectus, contact your Financial Advisor or Private Wealth Advisor or visit the Morgan Stanley website at www.morganstanley.com (unsafe:http://<span class=link>www.morganstanley.com/)**. Please read it carefully before investing.**

An investment in a money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the Fund seeks to preserve the value of your investment at $1.00 per share, it is possible to lose money by investing in the fund.

The type of mutual funds and ETFs discussed in this presentation utilizes nontraditional or complex investment strategies and/or derivatives. Examples of these types of funds include those that utilize one or more of the below noted investment strategies or categories or which seek exposure to the following markets: (1) commodities (e.g., agricultural, energy and metals), currency, precious metals; (2) managed futures; (3) leveraged, inverse or inverse leveraged; (4) bear market, hedging, long-short equity, market neutral; (5) real estate; (6) volatility (seeking exposure to the CBOE VIX Index). Investors should keep in mind that while mutual funds and ETFs may, at times, utilize nontraditional investment options and strategies, they should not be equated with unregistered privately offered alternative investments. Because of regulatory limitations, mutual funds and ETFs that seek alternative-like investment exposure must utilize a more limited investment universe. As a result, investment returns and portfolio characteristics of alternative mutual funds and ETFs may vary from traditional hedge funds pursuing similar investment objectives. Moreover, traditional hedge funds have limited liquidity with long "lock-up" periods allowing them to pursue investment strategies without having to factor in the need to meet client redemptions and ETFs trade on an exchange. On the other hand, mutual funds typically must meet daily client redemptions. This differing liquidity profile can have a material impact on the investment returns generated by a mutual or ETF pursuing an alternative investing strategy compared with a traditional hedge fund pursuing the same strategy.

Nontraditional investment options and strategies are often employed by a portfolio manager to further a fund's investment objective and to help offset market risks. However, these features may be complex, making it more difficult to understand the fund's essential characteristics and risks, and how it will perform in different market environments and over various periods of time. They may also expose the fund to increased volatility and unanticipated risks particularly when used in complex combinations and/or accompanied by the use of borrowing or "leverage."

KEY ASSET CLASS CONSIDERATIONS AND OTHER RISKS

Investing in the markets entails the risk of market volatility. The value of all types of investments, including stocks, mutual funds, exchange-traded funds ("ETFs"), closed-end funds, and unit investment trusts, may increase or decrease over varying time periods. To the extent the investments depicted herein represent **international securities**, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in **emerging markets and frontier markets**. **Small- and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small- and mid-capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies. The value of **fixed income securities** will fluctuate and, upon a sale, may be worth more or less than their original cost or maturity value. Bonds are subject to interest rate risk, call risk, reinvestment risk, liquidity risk, and credit risk of the issuer. **High yield bonds** are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. In the case of **municipal bonds**, income is generally exempt from federal income taxes. Some income may be subject to state and local taxes and to the federal alternative minimum tax. Capital gains, if any, are subject to tax. **Treasury Inflation Protection Securities' (TIPS)** coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation. There is no guarantee that investors will receive par if TIPS are sold prior to maturity. The returns on a portfolio consisting primarily of **environmental, social, and governance-aware investments ("ESG")** may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client's account will be managed as described herein. **Options** and margin trading involve substantial risk and are not suitable for all investors. Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, **closed-end funds** may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance and potential leverage. Closed-end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange. NAV is total assets less total liabilities divided by the number of shares outstanding. At the time an investor purchases shares of a closed-end fund, shares may have a market price that is above or below NAV. Portfolios that invest a large percentage of assets in only one industry **sector** (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors.

Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; Risks associated with the operations, personnel, and processes of the manager; and Risks associated with cybersecurity. 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These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Individual funds have specific tax risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Wealth Management and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley Wealth Management or any of its affiliates, (3) are not guaranteed by Morgan Stanley Wealth Management and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Wealth Management is a registered broker-dealer, not a bank. 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Investment products in this category may employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives and options, which can increase volatility and the risk of investment loss. Alternative investments are not suitable for all investors. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

A majority of Alternative Investment managers reviewed and selected by GIMA pay or cause to be paid an ongoing fee for distribution from their management fees to Morgan Stanley Wealth Management in connection with Morgan Stanley Wealth Management clients that purchase an interest in an Alternative Investment and in some instances pay these fees on the investments held by advisory clients. Morgan Stanley Wealth Management rebates such fees that are received and attributable to an investment held by an advisory client and retains the fees paid in connection with investments held by brokerage clients. Morgan Stanley Wealth Management has a conflict of interest in offering alternative investments because Morgan Stanley Wealth Management or our affiliates, in most instances, earn more money in your account from your investments in alternative investments than from other investment options.

It should be noted that the majority of hedge fund indexes are comprised of hedge fund manager returns. This is in contrast to traditional indexes, which are comprised of individual securities in the various market segments they represent and offer complete transparency as to membership and construction methodology. As such, some believe that hedge fund index returns have certain biases that are not present in traditional indexes. Some of these biases inflate index performance, while others may skew performance negatively. However, many studies indicate that overall hedge fund index performance has been biased to the upside. Some studies suggest performance has been inflated by up to 260 basis points or more annually depending on the types of biases included and the time period studied. Although there are numerous potential biases that could affect hedge fund returns, we identify some of the more common ones throughout this paper.

Self-selection bias results when certain manager returns are not included in the index returns and may result in performance being skewed up or down. Because hedge funds are private placements, hedge fund managers are able to decide which fund returns they want to report and are able to opt out of reporting to the various databases. Certain hedge fund managers may choose only to report returns for funds with strong returns and opt out of reporting returns for weak performers. Other hedge funds that close may decide to stop reporting in order to retain secrecy, which may cause a downward bias in returns.

Survivorship bias results when certain constituents are removed from an index. This often results from the closure of funds due to poor performance, "blow ups," or other such events. As such, this bias typically results in performance being skewed higher. As noted, hedge fund index performance biases can result in positive or negative skew. However, it would appear that the skew is more often positive. While it is difficult to quantify the effects precisely, investors should be aware that idiosyncratic factors may be giving hedge fund index returns an artificial "lift" or upwards bias.

Hedge Funds of Funds and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax-inefficient investing and delays in distributing important tax information. Categorically, hedge funds and funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns. An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. An investment in a **target date portfolio** is subject to the risks attendant to the underlying funds in which it invests, in these portfolios the funds are the Consulting Group Capital Market funds. A target date portfolio is geared to investors who will retire and/or require income at an approximate year. The portfolio is managed to meet the investor's goals by the pre-established year or "target date." A target date portfolio will transition its invested assets from a more aggressive portfolio to a more conservative portfolio as the target date draws closer. An investment in the target date portfolio is not guaranteed at any time, including, before or after the target date is reached. **Managed futures** investments are speculative, involve a high degree of risk, use significant leverage, are generally illiquid, have substantial charges, subject investors to conflicts of interest, and are suitable only for the risk capital portion of an investor's portfolio. Managed futures investments do not replace equities or bonds but rather may act as a complement in a well diversified portfolio. Managed Futures are complex and not appropriate for all investors. **Rebalancing** does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy.

Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets. Past performance is no guarantee of future results. Actual results may vary.

Tax laws are complex and subject to change. Morgan Stanley Smith Barney LLC ("Morgan Stanley"), its affiliates and Morgan Stanley Financial Advisors and Private Wealth Advisors do not provide tax or legal advice and are not "fiduciaries" (under ERISA, the Internal Revenue Code or otherwise) with respect to the services or activities described herein except as otherwise provided in writing by Morgan Stanley and/or as described at www.morganstanley.com/disclosures/dol (unsafe:http://<span class=link>www.morganstanley.com/disclosures/dol). Individuals are encouraged to consult their tax and legal advisors (a) before establishing a retirement plan or account, and (b) regarding any potential tax, ERISA and related consequences of any investments made under such plan or account.

Annuities and insurance products are offered in conjunction with Morgan Stanley Smith Barney LLC's licensed insurance agency affiliates.

Indices are unmanaged and investors cannot directly invest in them. They are not subject to expenses or fees and are often comprised of securities and other investment instruments the liquidity of which is not restricted. A particular investment product may consist of securities significantly different than those in any index referred to herein. Composite index results are shown for illustrative purposes only, generally do not represent the performance of a specific investment, may not, for a variety of reasons, be a suitable comparison or benchmark for a particular investment and may not necessarily reflect the actual investment strategy or objective of a particular investment. Consequently, comparing an investment to a particular index may be of limited use.

This material is not a financial plan and does not create an investment advisory relationship between you and your Morgan Stanley Financial Advisor. We are not your fiduciary either under the Employee Retirement Income Security Act of 1974 (ERISA) or the Internal Revenue Code of 1986, and any information in this report is not intended to form the primary basis for any investment decision by you, or an investment advice or recommendation for either ERISA or Internal Revenue Code purposes. Morgan Stanley Private Wealth Management will only prepare a financial plan at your specific request using

Private Wealth Management approved financial planning signature.

We may act in the capacity of a broker or that of an advisor. As your broker, we are not your fiduciary and our interests may not always be identical to yours. Please consult with your Private Wealth Advisor to discuss our obligations to disclose to you any conflicts we may from time to time have and our duty to act in your best interest. We may be paid both by you and by others who compensate us based on what you buy. Our compensation, including that of your Private Wealth Advisor, may vary by product and over time.

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For index, indicator and survey definitions referenced in this report please visit the following: https://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions (unsafe:https://<span class=link>www.morganstanley.com/wealth-investmentsolutions/wmir-definitions)
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GLOBAL INVESTMENT COMMITTEE (GIC) ASSET ALLOCATION MODELS: The Asset Allocation Models are created by Morgan Stanley Wealth Management's GIC.
HYPOTHETICAL MODEL PERFORMANCE (GROSS): Hypothetical model performance results do not reflect the investment or performance of an actual portfolio following a GIC Strategy, but simply reflect actual historical performance of selected indices on a real-time basis over the specified period of time representing the GIC's strategic and tactical allocations as of the date of this report. The past performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation or trading strategy. Hypothetical performance results do not represent actual trading and are generally designed with the benefit of hindsight. Actual performance results of accounts vary due to, for example, market factors (such as liquidity) and client-specific factors (such as investment vehicle selection, timing of contributions and withdrawals, restrictions and rebalancing schedules). Clients would not necessarily have obtained the performance results shown here if they had invested in accordance with any GIC Asset Allocation Model for the periods indicated. Despite the limitations of hypothetical performance, these hypothetical performance results allow clients and Financial Advisors to obtain a sense of the risk/return trade-off of different asset allocation constructs. The hypothetical performance results in this report are calculated using the returns of benchmark indices for the asset classes, and not the returns of securities, fund or other investment products. Models may contain allocations to Hedge Funds, Private Equity and Private Real Estate. The benchmark indices for these asset classes are not issued on a daily basis. When calculating model performance on a day for which no benchmark index data is issued, we have assumed straight line growth between the index levels issued before and after that date.

FEES REDUCE THE PERFORMANCE OF ACTUAL ACCOUNTS: None of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, fees) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models. The GIC Asset Allocation Models and any model performance included in this presentation are intended as educational materials. Were a client to use these models in connection with investing, any investment decisions made would be subject to transaction and other costs which, when compounded over a period of years, would decrease returns. Information regarding Morgan Stanley's standard advisory fees is available in the Form ADV Part 2, which is available at www.morganstanley.com/adv. The following hypothetical illustrates the compound effect fees have on investment returns: For example, if a portfolio's annual rate of return is 15% for 5 years and the account pays 50 basis points in fees per annum, the gross cumulative five-year return would be 101.1% and the five-year return net of fees would be 96.8%. Fees and/or expenses would apply to clients who invest in investments in an account based on these asset allocations, and would reduce clients' returns. The impact of fees and/or expenses can be material.

Variable annuities are long-term investments designed for retirement purposes and may be subject to market fluctuations, investment risk, and possible loss of principal. All guarantees, including optional benefits, are based on the financial strength and claims-paying ability of the issuing insurance company and do not apply to the underlying investment options. Optional riders may not be able to be purchased in combination and are available at an additional cost. Some optional riders must be elected at time of purchase. Optional riders may be subject to specific limitations, restrictions, holding periods, costs, and expenses as specified by the insurance company in the annuity contract. If you are investing in a **variable annuity** through a tax-advantaged retirement plan such as an IRA, you will get no additional tax advantage from the variable annuity. Under these circumstances, you should only consider buying a variable annuity because of its other features, such as lifetime income payments and death benefits protection. Taxable distributions (and certain deemed distributions) are subject to ordinary income tax and, if taken prior to age 59½, may be subject to a 10% federal income tax penalty. Early withdrawals will reduce the death benefit and cash surrender value.

Equity securities may fluctuate in response to news on companies, industries, market conditions and general economic environment. **Ultrashort-term fixed income** asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

Master Limited Partnerships (MLPs) are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk. Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk. The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value. MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV, and, as a result, the MLP fund's after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

Investing in commodities entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention. **Physical precious metals** are non-regulated products. Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be suitable for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor.

REITs investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions. Risks of **private real estate** include: illiquidity; a long-term investment horizon with a limited or nonexistent secondary market; lack of transparency; volatility (risk of loss); and leverage. Principal is returned on a monthly basis over the life of a **mortgage-backed security.** Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. **Asset-backed securities** generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments.

Yields are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision. **Credit ratings** are subject to change. **Duration**, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. The majority of $25 and $1000 par **preferred securities** are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per $25 or $1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price. The initial interest rate on a **floating-rate security** may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security's underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk. The market value of **convertible bonds** and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield. Some $25 or $1000 **par preferred securities** are QDI (Qualified Dividend Income) eligible. Information on QDI eligibility is obtained from third party sources. The dividend income on QDI eligible preferreds qualifies for a reduced tax rate. Many traditional 'dividend paying' perpetual preferred securities (traditional preferreds with no maturity date) are QDI eligible. In order to qualify for the preferential tax treatment all qualifying preferred securities must be held by investors for a minimum period – 91 days during a 180 day window period, beginning 90 days before the ex-dividend date.

Companies paying **dividends** can reduce or cut payouts at any time.

Nondiversification: For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio's overall value to decline to a greater degree than a less concentrated portfolio. The **indices selected by Morgan Stanley Wealth Management** to measure performance are representative of broad asset classes. Morgan Stanley Wealth Management retains the right to change representative indices at any time. Because of their narrow focus, **sector investments** tend to be more volatile than investments that diversify across many sectors and companies.

Growth investing does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. **Value investing** does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.
Any type of **continuous or periodic investment plan** does not assure a profit and does not protect against loss in declining markets. Since such a plan involves continuous investment in securities regardless of fluctuating price levels of such securities, the investor should consider his financial ability to continue his purchases through periods of low price levels.

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Morgan Stanley

WEALTH MANAGEMENT

INVESTMENT STRATEGY

Global Investment Committee | May 2020

On the Markets

The Grand Reopening

Michael Wilson
Chief Investment Officer
Chief US Equity Strategist
Morgan Stanley & Co. LLC

Everything goes in cycles, and the US economy is no exception. Ironically, in January some pundits were suggesting the business cycle may have been repealed. Three months later, we find ourselves in the steepest recession on record. Most will blame this recession exclusively on the coronavirus, but that was just the trigger. This recession was already coming our way thanks to the excesses that had been building for years.

Much like business cycles ebb and flow, the excesses tend to alternate between the consumer and corporate segments of the economy. The recent cycle's excesses were centered on the corporate sector, with company debt reaching all-time highs. In an era of secular stagnation, companies were happy to lever up in an effort to generate better earnings growth. At the same time, consumers were less willing to take on too much debt given their disastrous experience with the housing bubble. Instead, consumers delevered by choosing to pay down debt and to save more.

What this means is that consumers may be in a better position to recover from this recession than the last one. Furthermore, with the trigger of this recession centered on a health crisis, the policy response has been unprecedented and directed right at the consumer. We believe such an outcome is bullish for stocks as this recession proves to be quite deep but shorter-lived than is typical.

Many states have begun to roll out their reopening plans. Whether these moves prove to be premature remains to be seen, but it will likely be very difficult to have another national lockdown even if COVID-19 returns. Instead, it's more likely we will learn to live with the virus and protect the most vulnerable members of our communities while keeping the economy in operation.

This means that the stay-at-home winners may no longer be the place to be. Instead, back-to-work beneficiaries could be better opportunities. Thus I have been recommending early-cycle stocks that would likely benefit most from an economic recovery—specifically, housing, leisure, travel, restaurants, branded apparel and banks. I would also include materials and industrial stocks that would benefit from a potential infrastructure spending bill. Finally, small- and mid-sized company stocks tend to fare better than larger ones as an expansion begins. All told, I remain bullish on recovery from what could be the steepest recession on record. I suggest you buy the dips and focus on the past cycle's underperformers as they are more likely to outperform in this new economic cycle and likely bull market. ■

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CROSS-ASSET STRATEGY

Short-Term Pain for Long-Term Gain

Andrew Sheets, Chief Cross-Asset Strategist, Morgan Stanley & Co.

Late last year, I met with the pension fund for a physicians' association in the western US. I've been thinking a lot about that meeting recently, especially when some aspect of the market, or working from home, is particularly frustrating. However disrupted things may seem at the moment, they pale in comparison to what those in medicine, services and other fields at the front line of the response to COVID-19 are going through. So, this seems like a good time to emphasize a key part of our view: What's best for fighting the pandemic, the health of the economy and the market may be the same thing: making sure the reopening of the economy is done right.

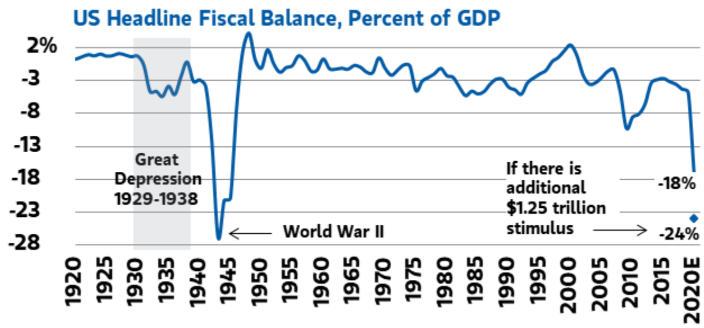
UNFOLDING PROCESS. In thinking about the path for the economy, Morgan Stanley's economists and health care analysts have been working together. Matthew Harrison, Morgan Stanley & Co.'s lead biotechnology analyst, has written about what is needed for sustainable "reopening" for the economy (see page 3). We see the process unfolding in waves, starting in midsummer. Even then, however, the return to work will be slow. Our economists do not expect to see prerecession US or global growth until the fourth quarter of 2021.

When the discussion turns to markets, however, it is often presented as a trade-off: The faster the reopening, the less pressure on earnings, defaults and asset prices. We disagree with this framing.

WORST HAS PASSED. If you give investors confidence that the worst is behind them, history suggests they can put up with quite a bit of bad news. We think this is especially true for credit spreads and levels of volatility, which often hit their worst levels several months before the trough in economic data—and even farther ahead of things returning to "normal." If, as we forecast, April and May represent the low of economic activity in the US, a market low in March would be consistent with past patterns of market anticipation.

Indeed, the best times to invest are often when a weak economy creates lower prices. We hear investor concerns about a coming rise in default rates and large declines in earnings, but credit spreads have tended to improve well ahead of the peak in default rates—which is why my colleague Srikanth Sankaran is overweight corporate credit. Similarly, Michael Wilson, MS & Co.'s chief investment officer and chief US equity strategist, recently raised his year-end target for the S&P 500 to 3,000 from 2,750. Both are reasons why we think equity volatility can fall further from here.

In Fighting the Recession, the Fiscal Deficit Could Become the Worst Since World War II



Source: BEA, the Historical Statistics of the United States, Morgan Stanley Research as of April 15, 2020

FORGIVING POOR DATA. We think this applies even though the current quarter looks to be the worst quarter for economic activity in any investor's lifetime. As long as investors are confident that the next quarter is a little better, and the path from there is improving, we think markets will be more forgiving of poor data.

Importantly, this thinking is predicated on April and May being the low for US and global economic activity. In the US, at least, the Federal Reserve's balance sheet expansion should help keep interest rates low and provide liquidity. Fiscal stimulus has been aggessive, too, so much that the US fiscal deficit is now expected to widen to 18% of GDP, the largest reading since World War II (see chart). However, reopening the economy before the key medical prerequisites are in place would inject significantly more uncertainty over whether the worst for the economy is behind us by the end of the second quarter. Such a scenario would pose a clear risk to our positive bias toward current markets.

NO TRADE-OFF. In short, we don't see a trade-off between what's required to control coronavirus cases and a better long-run impact for markets and the economy. More than 100 years ago, the same appeared to be true. In a March 27 article for Liberty Street Economics, a blog published by the Federal Reserve Bank of New York, authors Sergio Correia, Stephan Luck and Emil Verner examined the responses of different cities to the 1918 pandemic. The conclusion is striking: Cities that implemented stronger social distancing measures ultimately saw higher levels of industrial production. Fighting the pandemic and protecting the economy were one and the same. To wit, in 1918, the Dow Jones Industrial Average rose 10%.

Today's challenges are serious and scary, but also surmountable. What's best for fighting the pandemic, protecting the economy and supporting the market may actually be one and the same. Draw a line under the worst of the crisis, and investors can sail through the squall. ■

HEALTH POLICY

A Prescription for Getting the US Back to Work

Matthew Harrison, Biotechnology Analyst, Morgan Stanley & Co.

We see a slow return to work, with US cases peaking mid-May and social distancing reductions in June as diagnostic/serology testing becomes widely available and hospital capacity is extended. Variable levels of social distancing will remain until a vaccine is publically accessible in the spring of 2021.

TWO PEAKS. In our view, the US is likely to experience two peaks—one for the coastal regions and one for the interior. While we anticipated an initial peak in mid-April for the cities with the first outbreaks, we see a second peak from interior regions of the country pushing the ultimate US peak to mid-May (see chart). We expect some resumed activity in the coastal regions earlier, but we believe governors will be hesitant to broadly relax social distancing rules until the immediate threat of imported cases is diminished, and resumptions will be limited until there is a full US peak.

Our view of a peak in mid-May could be underappreciated by the market. Importantly, investors should expect social distancing to wax and wane during the next year to contain "hot spots" before a vaccine becomes widely available. Three critical criteria must be met prior to resuming activity:

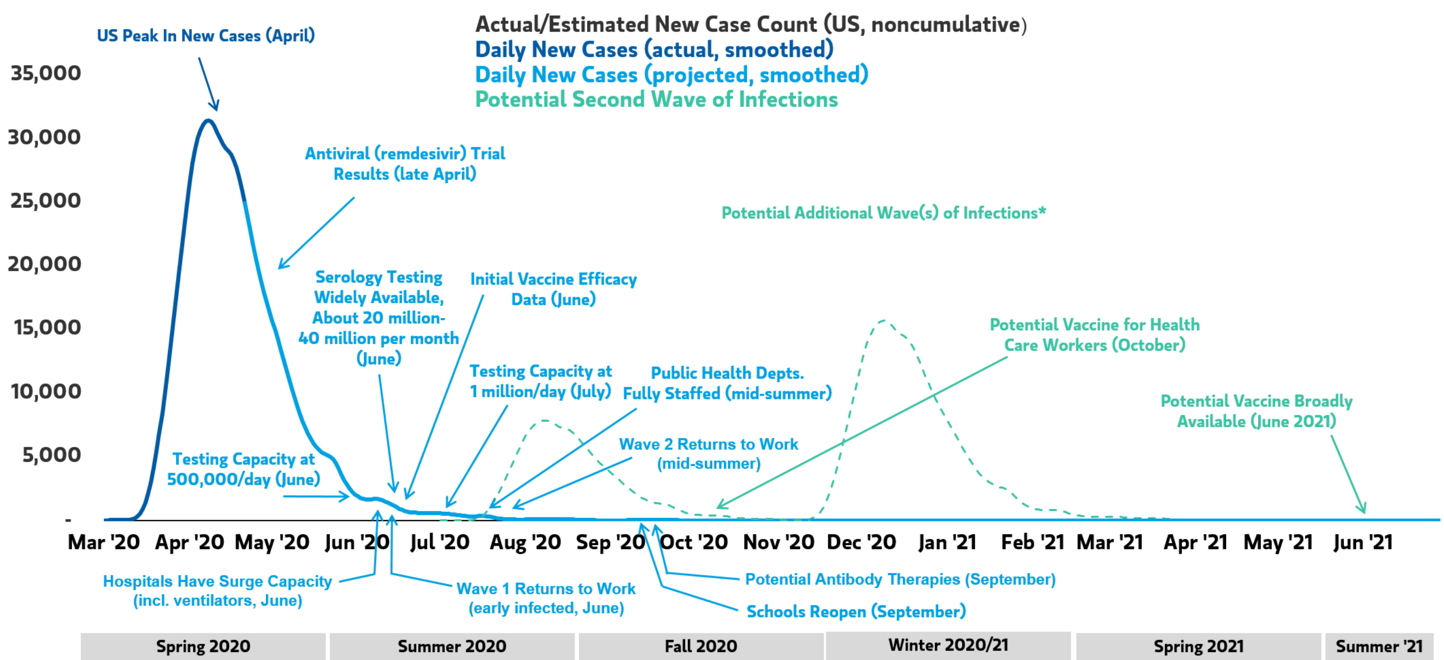
(1) A peak in mortality. While new cases will peak first, we do not believe governors are likely to allow any meaningful resumption until cumulative mortality peaks, which lags new cases by about 20 days. This suggests nominal resumption could begin in June.

(2) Expanded health infrastructure. States will need to have appropriate public health infrastructure and testing capacity to allow for surveillance of new hot spots, which we also expect in June. The CDC currently maintains a flu surveillance network, which tracks annual influenza activity. We believe a national surveillance system of a similar scale will be required to track COVID-19.

(3) Testing. Both testing for active infection to find hot spots before they turn into full-blown outbreaks and testing blood to understand the current outbreak are important. We believe the US could reach about 1 million tests per day by July, which we believe is the minimum necessary to provide appropriate sentinel surveillance in the population. That said, we could expect social distancing to turn on and off as additional waves of infection materialize.

COME BACK IN STAGES. Coming back to work is likely to happen in stages, with reduced staffing in offices. We believe the first wave to return will be those who have recovered from the virus (positive serology) and the young and healthy. We see a maximum of 50% of employees being allowed back in the office over the summer months. We do argue that schools should be reopened for the fall, as kids do not appear to be significant vectors for disease spread. Importantly,

A Projected Timeline and Milestones for a Return to Work in the US



*Timing and size of additional waves are illustrative as they are hard to predict. We would expect the earliest a second wave to occur is four to six weeks after a reopening.
Source: Morgan Stanley Research as of April 23, 2020

investors should expect new waves of infection to arrive, as early as this fall.

Those new waves will require variable levels of social distancing that are turned on or off depending on the level of the outbreak. The reason we highlight the need for an effective COVID-19 surveillance network is that the scope of these outbreaks can be minimized if they are discovered early. South Korea's handling of its outbreak is a prime example of this potential. Overall, investors should prepare for reduced levels of activity until there is a vaccine and should expect social distancing to be reenacted as hot spots develop over the next one to two years.

DRUG PIPELINE. The drug pipeline presents the only near-term opportunity to meaningfully alter the speed of resumption. Ahead of full availability of a vaccine, promising antivirals and antibody therapies will be in development through the late summer. We believe at least some of these drugs can be successful and help turn severe cases into more mild forms of the disease. Such a success could reduce the potential strain on hospitals and allow public health officials to support a broader reopening of the economy ahead of a vaccine's availability.

We highlight that key data points from China can provide a benchmark for a resumption in activities. Importantly, the US will lag China for several reasons. China's peak new cases occurred on Feb. 3; 80% of hotels reopened as of Feb. 27, 99% of businesses resumed some form of activity as of March 17 and 73% of restaurants reopened as of March 18. About half of metro riders resumed travel as of March 26. China's economy reached about 80% of prior production levels about 40 days from the peak. ■

MARKETS

Stocks Are on the Path to Recovery

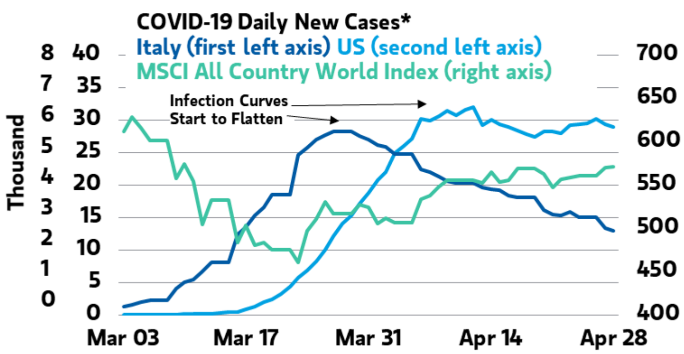
Zachary Apoian, Investment Strategist, Morgan Stanley Wealth Management
JinJin Zhang, Associate, Morgan Stanley Wealth Management

COVID-19's unending interruption to our once normal way of life continues. US cases climbed to 1,005,147 by April 28, up from 122,653 one month prior and a mere 16 two months before. To slow this unrelenting spread, much of our country has remained under stay-at-home orders that severely confine normal activity. Economic consequences have been severe. Over 30 million people, or more than 18% of the US labor force, have filed for unemployment since March 14, erasing a decade's worth of job creation.

Yet in this uncertain environment, astoundingly, markets have found reason to rally. The S&P 500 Index, after closing on March 23 at a loss of 34% from the Feb. 19 all-time high, stocks rallied sharply, recovering more than about 60% of these losses in about a month.

Why have markets rallied as economies remain at an indefinite standstill? Here we explore several drivers of this recent strength. In short, markets are wired to seek opportunities. Today, this translates to a willingness to hold through the current turbulence in order to benefit from the eventual recovery whose foundation we believe has been laid. While we all must remain vigilant to protect both our personal and portfolio health, the path to a recovery does appear to be taking shape. ■

The COVID-19 Infection Curve Has Started to Flatten

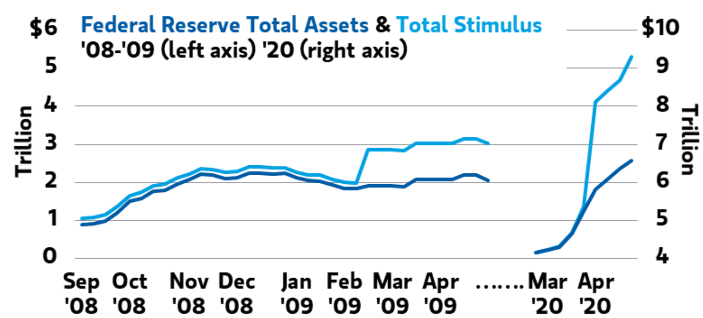


*New cases are the average daily cases over the prior week.
Source: CDC, FactSet as of April 28, 2020

The ability to contain and control COVID-19 is essential to any normalization. While total numbers of cases in the US continue to rise, global equity markets have applauded that the rate of spread does appear to be slowing, particularly in the hardest-hit areas (see chart). Markets have confirmed the importance of stopping COVID-19's spread. Notably, global equities bottomed in late March when Italy's daily new cases started to peak and many US states instituted social distancing and other mitigation measures that had shown to be effective in flattening the curve. In China and South Korea, where the spread occurred earlier, similar measures, coupled with mass testing, have all but halted the growth of new cases. While the markets have applauded containment, restarting economies poses a challenge. Harsh restrictions have been frustrating and economic damage has been severe. However, a premature or imprudent relaxation of containment policies has the potential to reignite growth of infections and pose further economic setbacks that could become more difficult to cure.

US Policymakers Take Aggressive and Unprecedented Actions

Seeking to limit the potential fallout from the economically disruptive mitigation measures, policymakers have acted to bridge the gap until economies can be reopened. These actions have been taken at a greater speed and magnitude than even the then-unprecedented steps taken in 2008 (see chart). On the monetary front, the Federal Reserve has taken its benchmark rate to near zero, begun purchasing a broad array of securities and opened a lending program to support the economy. Under these measures, the Fed balance sheet has so far expanded by $2 trillion in the past two months, compared with about $1 trillion over six months in the financial crisis. Congress has also passed fiscal stimulus far outpacing measures taken during the financial crisis. We project the total impact of these steps may reach nearly half the annual economic output of the US economy. The size and breadth of this response, plus potential for more if the economy continues to falter, has helped soothe anxieties and fuel an eventual recovery.



Source: Federal Reserve Economic Data as of April 22, 2020

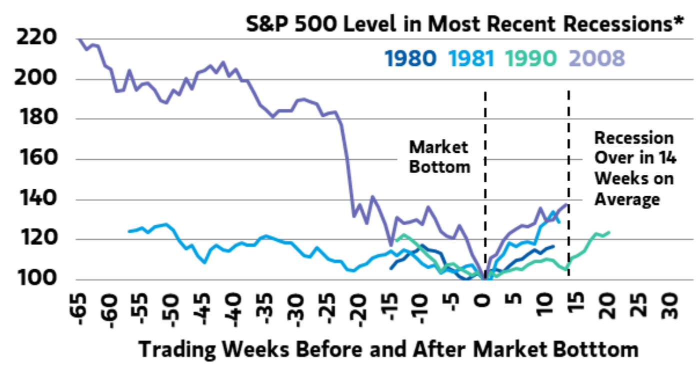
Along With Uncertainties Come Attractive Opportunities

Source: FactSet as of April 28, 2020

It is hard to imagine a more uncertain scenario for earnings than an indefinite halt of economic activity. Even so, investors have shown willingness to accept these risks to own stocks at sufficiently attractive valuations. Here we measure valuations with the forward price/earnings (P/E) ratio—or the value of a company as a multiple of the next year's projected earnings. The fears and outsized impact of COVID-19 in March drove the P/E down to 13 from 18, well below the 10-year average of 15 and beneath the 13.5 reached in December 2018 (see chart). Though circumstances have remained dire, investors have actively responded to this opportunity with anxiety of not missing out on further recovery. Since then, valuations have returned to above pre-COVID levels, driven by expectations of an eventual return to more normal earnings growth. The bottom line: Investors have shown a willingness to look beyond even today's difficulties when valuations are compelling.

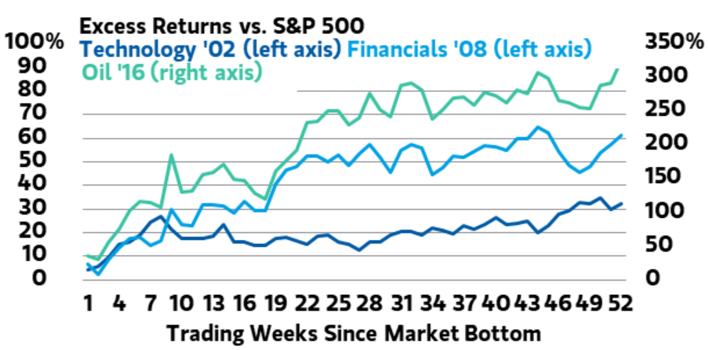
Stocks Don't Wait for the Economy to Recover

In time, the current period will likely be officially classified as a recession, something the spikes in unemployment and declines in activity all but render obvious. Though the economy's sudden stop has dragged down equity prices, we would not expect markets to stall their recovery awaiting a recovery in the economy. For example, in 10 of the past 11 recessions, stocks have bottomed before the recession ended. In the past 30 years, markets have begun their recovery by an average of 14 weeks prior to when economic growth again resumed (see chart). Similar to valuations, markets constantly anticipate developments, looking to seize opportunities presented by today's green shoots that have the potential to flourish tomorrow.



*The 2002 recession is excluded because stock market bottomed after the recession ended.
Source: FactSet as of April 28, 2020

Strength Has Historically Emerged From Stressful Periods



Source: FactSet as of April 28, 2020

The magnitude of the current downturn has created stress among a broad swath of industries. Not surprisingly, most notable losses are in the companies most hurt by the COVID-19 mitigation measures: those tied closely to physical locations, those with complex supply chains and those highly sensitive to economic growth. In spite of today's difficulties, we do not believe this period spells the end of hotels or shopping malls—in fact, based on history, such periods of stress may actually strengthen these industries. That may appear counterintuitive, but market corrections help consolidate industries: Inefficient companies exit, leaders rise to a more dominant competitive position and those left are better able to innovate through any structural challenges. Evidence for this is the 2001 technology bubble, the 2008-2009 financial crisis and the 2016 oil-price correction, as the most-damaged industries outperformed in the year following the market bottom (see chart).

GLOBAL MACRO

Stuck in the Middle of Two

Matthew Hornbach, Global Head of Macro Strategy, Morgan Stanley & Co.

Usually interest rate and currency investors only have to deal with one event at a time, and in one country at a time. Sometimes it's a central bank easing program, and other times it's a government fiscal stimulus package. Even during normal times, investors debate the extent to which markets appropriately discount events like these and sometimes even debate how and when markets are supposed to do the discounting.

The procyclical US fiscal stimulus delivered in the 2017 Tax Cuts and Jobs Act (TCJA) is a perfect example. It occurred as the Federal Reserve was tightening, raising the fed funds rate gradually and predictably. Into the end of 2017, when the stimulus passed, and throughout most of 2018, investors worried about the impact of greater government bond supply on US Treasury yields.

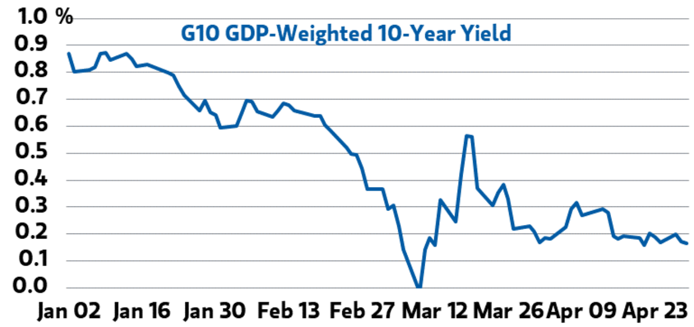
Throughout 2018, we thought market prices had already discounted the fiscal deficit and, as such, investors were better served by focusing on other factors that could move markets. In particular, we thought that, by the end of 2017, the rates market had priced in the expected increase in supply—well before the US Treasury delivered any of the additional supply. Furthermore, we thought that markets priced in the expected economic impact of the tax cuts in early 2018.

BREAKING NEW GROUND. In retrospect, the environment that allowed us to analyze the situation pales in comparison with the complexity of the present. For the past two months, global central banks have eased monetary policy and governments have eased fiscal policy simultaneously. For both central banks and governments, these programs broke new ground in spirit, size and pace.

How are investors meant to navigate the push and pull of fiscal stimulus versus monetary stimulus in the developed markets? Fiscal stimulus, all else being equal, should raise expectations for growth and inflation, put upward pressure on both real and nominal interest rates, on breakeven inflation rates and strengthen the value of the currency. Monetary stimulus, on the other hand, should put downward pressure on real rates, put upward pressure on breakeven inflation rates and weaken the currency.

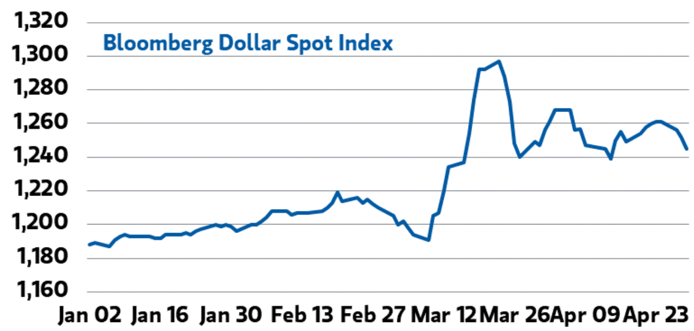
When both monetary policy and fiscal policy are at play, in different sizes, in different regions and at the same time, there is complexity everywhere. This complexity has manifested itself in volatile, but surprisingly range-bound, rates and currency markets. Many charts now show a sideways consolidation of prices after an extremely volatile first half of March.

G10 Yield Has Moved Sideways for the Past Month



Source: Morgan Stanley Research, Bloomberg as of April 29, 2020

After Surging in March, US Dollar Settles Down



Source: Morgan Stanley Research, Bloomberg as of April 29, 2020

SIDEWAYS MARKETS. In rates markets, where the impact of fiscal policy and monetary policy is most clear-cut, we've seen yields across G10 markets move in a sideways range over the past month (see chart, top). The tilt of the consolidation—toward lower yields—reflects the direction of the initial impulse that began in February.

Similarly, the US dollar's value has moved sideways over the past month; However, the tilt of the consolidation—toward a weaker dollar—has been against the impulsive move higher in March (see chart, bottom). In both cases, the tilt of these consolidations reflects the power of central bank intervention in bond markets.

For bond yields, we think the downward tilt in the consolidation reflects the view that central banks will remove more government bond supply than fiscal authorities will provide. For the US dollar, we think the downward tilt reflects the view that the Fed will buy more bonds than other central banks, thereby increasing the supply of dollars by more than other central banks increase the supply of other currencies. In what follows, we discuss how markets price each factor—fiscal policy and monetary policy—using the US and its markets as a guide.

Fiscal to the Left of Me …

Expectations for changes in fiscal policy can affect expectations for changes in government bond supply, real growth and inflation. Changes in those expectations haven an impact on the direction of interest rates—both those usually controlled by the Fed directly and those usually not. In developed economies with monetary systems similar to the US, expectations for higher fiscal deficits bring with them expectations for higher government bond supply, real growth and inflation.

So how do these expectations affect prices in the bond market? In our view, markets are forward-looking discounting machines. The rates market prices in changes in supply as investor expectations form for those changes much more so than when fiscal authorities actually deliver the supply. As for the expected economic effects of fiscal policy, we think the market prices them in thereafter.

ADJUSTING EXPECTATIONS. As investors adjust expectations, their behavior changes such that, by the time the supply actually arrives, investors are prepared to take it down. Of course, this holds only as long as the size of the eventual supply meets those previously formed expectations. This forward-looking aspect of investor behavior makes analyzing the effect of government bond supply on yields difficult. For example, the US deficit in 2019 was larger than usual, but Treasury yields fell dramatically that year.

Wanting to better capture the impact of government bond supply on yields, we would rather analyze how expectations for supply change over time instead of changes in supply itself. Alas, we can't find data that captures expectations for government bond supply because it doesn't exist. We only have data on actual supply and its changes over time. One model for how the bond market incorporates expectations looks at the deficit/GDP ratio and 10-year yields five years forward. Based on an expected increase of 11 percentage points in the deficit/GDP ratio in 2020-2021, the model projects the forward rate to be 275 basis points higher. Instead, since early February, the forward rate was down about 75 basis points.

… QE to the Right

Why did the rate go down? Look to the Fed. As the Fed aggressively lowered the fed funds rate by 150 basis points in March, market expectations built for the Fed to begin QE—and that sent yields lower. Expectations for Quantitative Easing (QE) play an important role in the movement of Treasury yields, given how much they have fallen in the face of expectations for massive Treasury supply. Those expectations haven't fully formed yet, given the lingering uncertainties.

How big will the fiscal deficit—including the CARES Act and the automatic, countercyclical stabilizers—actually be? And how will the US Treasury finance it? And how, when, and will the Fed transition its Treasury QE program—currently focused on market functioning and liquidity—into one more focused on easing financial conditions?

ECONOMIC IMPACT. Once these questions are answered, what will the economic impact of it all be? Naturally, the expectations that drive market prices can change as facts change, and those changes will affect prices again. As initial assessments of fiscal and monetary policy change based on new guidance or actions from fiscal and monetary authorities, investors adjust positions in markets. It's par for the course to see economic data surprises catalyze adjustments to previously held views.

Adding further complexity to the effects of fiscal and monetary stimulus on yields is the expected economic effect. An easing of monetary policy, or an easing of fiscal policy, should have implications for the economic outlook and, thus, implications for Treasury yields. Both fiscal and monetary stimulus should raise expectations for growth and inflation, all else equal being, and lead to upward pressure on interest rates. But when?

In addition, the expected economic effect of the CARES Act is to fill in the growth and inflation holes created by the COVID-19 recession. These holes are of unknown depth, given uncertainty around the length of time social distancing measures and lockdowns will be in place. As such, for now we think the bond market will continue to focus on the expected supply effect of the CARES Act. ■

MUNICIPAL BONDS

Muni Market Stabilizes, Giving Investors a Chance to Upgrade

Daryl Helsing, CFA, Associate, Morgan Stanley Wealth Management
Matthew Gastall, Investment Strategist, Morgan Stanley Wealth Management

After experiencing acute weakness in March, the broader municipal bond market staged an impressive rebound in recent weeks, supported by unprecedented fiscal and monetary support. In March, the 10-year AAA yield peaked at 2.79%, the highest since autumn 2018; by April 27, bonds rallied enough to send it back to 1.28%—lower, in fact, from where it began the year.

Market volatility has settled down to some extent as money flow to and from municipal bond funds has become more balanced, ending a six-week stretch of outflows, with some weeks recording near the largest on record. With technical pressures having abated, at least for now, COVID-19's impact on the credit of issuers has come into focus (see table).

BUDGET REVISIONS. Numerous state and local governments, including some of the most adversely affected, have recently revised budget projections to account for the disruption caused by the coronavirus shutdown. Some have included significant reductions in various tax revenues, as well as higher liabilities as a result of job losses. Operating and nonoperating revenues of various sectors will also be challenged by subdued economic activity with health care, transportation, higher education and tourism-related areas particularly vulnerable. S&P now has a negative outlook for all US public finance sectors, after recently updating several to negative based on the likely recession brought on by COVID-19. This means the probability of ratings downgrades has risen across the market.

Just as the prevalence of the virus varies greatly from state to state and city to city, so too does the expected economic impact. It is also important to consider the disparate financial position issuers were in prior to the onset of the crisis. The credit quality of municipal issuers before the crisis will be an important determinant of their ability to weather the storm and the speed and extent to which they can recover. On a positive note, state governments in aggregate have amassed "rainy day" fund balances significantly over the past cycle, which was, up until recently, the longest recorded economic expansion in US history.

SAFETY PREFERRED. The market's preference for safety has been manifested in the outperformance of higher-rated bonds. The greater vulnerability of lower-rated credits has led to spread widening across rating tiers. While the valuations of many AAA/AA-rated bonds have fully recovered from the recent bout of volatility, there are many A/BBB-rated bonds that remain near their lows, with some even experiencing further weakness during the recent period of broader market healing.

Muni Sector Outlooks and Recommended Rating Parameters

Sector	Minimum Rating*	Comments
State GO/State Appropriated	Aa2/AA	Pension, OPEB, COVID-19 challenges exist; state and local tax (SALT) headwinds remain; volatility/downgrades continue, so be selective
Local GO	Aa1/AA+	State-aid, pension, SALT challenges; COVID risks possibly lower, but notable; focus on high quality
Essential Services (water and sewer)	Aa3/AA-	Essential-purpose highly beneficial, where applicable; capital needs may create select challenges
US Public Power	Aa3/AA-	Favored as their revenues are noncyclical; evolving power markets and regulation may create select challenges
State Housing Finance Agencies	Aa2/AA	Exposed to housing momentum; diversified business models; COVID and recession risks; SALT challenges in high-tax states
Higher Education	Aa2/AA	We recommend higher-rated, well-established due to student selectivity, price sensitivity and select COVID risks
Transportation	Aa1/AA+	Considerable COVID and recession challenges; focus on issuers with high stable-credit qualities
Not-for-Profit Hospitals	Aa2/AA	Maintain focus on highest-rated, largest systems; sector risks include COVID, ACA and Medicaid expansion challenges
Tax-Secured/Dedicated-Tax	Aa2/AA	Often less political, but COVID challenge notable; stick with high-quality tax bonds with no commingling of revenues

*Moody's/S&P ratings; minimum suggested credit rating for buy-and-hold accounts
Source: Morgan Stanley Wealth Management Municipal Research as of April 30, 2020

Due to the uneven impact of COVID-19 on issuer credit, there will likely be greater performance dispersion across the market relative to before the pandemic, which was characterized by historic credit spread compression. As the economic fallout becomes more apparent in coming months, periods of volatility may erupt creating market dislocation, as was the case in March. The importance of issuer and security selection has been validated by recent market experience.

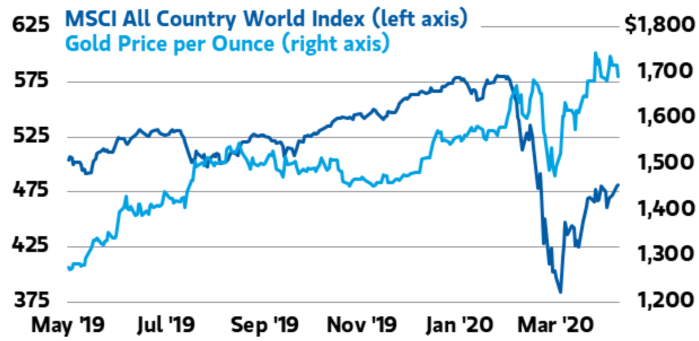
STAY SHORT. Fundamental concerns and potential downgrades will need to be monitored moving forward, but it's important to keep in mind that high-quality municipals have been traditionally viewed as flight-to-quality instruments for buy-and-hold investors. We suggest that buyers keep to short-term bonds, with a focus on prerefunded AA-rated or higher-quality state general obligation bonds, and highly rated essential-service revenue bonds—think water, sewer and electric.

Given the market stabilization that's taken place, we recommend investors use the current environment as an opportunity to complete portfolio cleanup trades, if and where appropriate. Though the yield curve has steepened and credit spreads have widened modestly, most metrics remain below their historical averages. In fact, current dynamics may still offer one of the more advantageous periods throughout the past decade to upgrade accounts from both a credit and interest rate perspective. ■

Short Takes

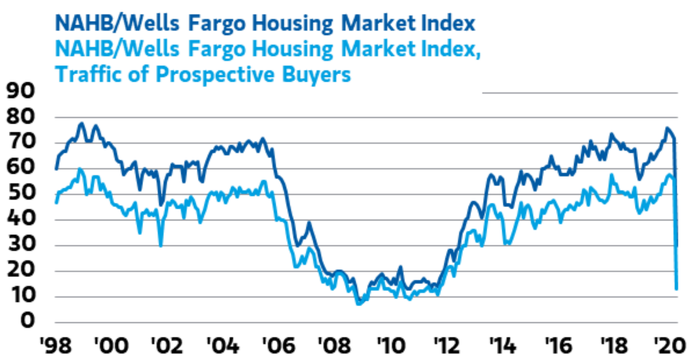
Gold and Global Equities Rarely Travel Together, but They Are Moving in Tandem Right Now

Gold and global equities, which are typically uncorrelated in the short term, have recently started moving in tandem as global stocks rallied 25% from their late-March low (see chart). While not entirely uncorrelated over the long term, the 20-year stock-bond correlation of 0.11 highlights the portfolio diversification benefits that gold can provide investors in the intermediate term. Heading into March, a rare confluence of factors, namely the coronavirus pandemic and liquidity-driven panic selling, were balanced, albeit with a lag, by global central bank measures to bolster the economy. Easy monetary policy and fiscal coordination aided a rebound in global equities, while simultaneously lifting precious metals. With the unprecedented global monetary and fiscal stimulus, the positive relationship between stocks and gold could become even tighter. While the aggressive stimulus can be seen as putting a floor under stock prices, it also raises concerns about inflation. Gold has historically been considered a hedge against inflation.–*Chris Baxter*



Note: Gold price is the spot price from the London Bullion Market Association.
Source: Bloomberg as of April 28, 2020

Homebuilders' Confidence Index Suffered the Biggest One-Month Drop in 30 Years

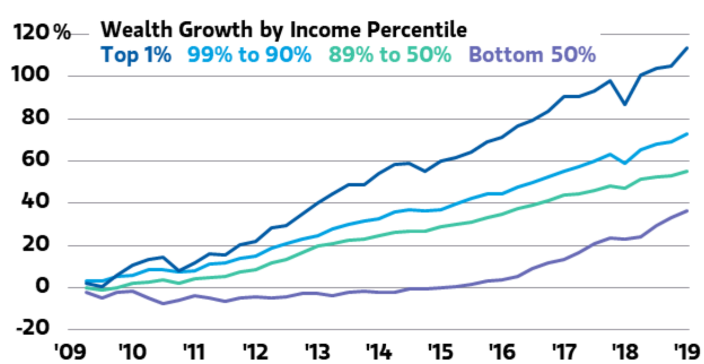


Source: Bloomberg as of April 15, 2020

It was only December 2019 when the NAHB/Wells Fargo Housing Market Index hit 76, its highest level since 1998 (see chart). The builders' confidence was buoyed by low mortgage rates, easy credit and low unemployment. Since then, the COVID-19 pandemic, a sudden-stop recession and a bear market in equities have deflated builder bullishness. In April, the index dropped to 30 from March's 72, or 58%. In the same period, an index tracking prospective buyers' traffic plunged 77%. Meanwhile, the supply side is also affected as construction is not considered essential in many states. As consumers delay home purchases, housing will remain under pressure, with some stability possible with an expected recovery in economic activity later this year.—*Vibhor Dave*

Half of US Households Missed Out on the Past Decade's Capital Markets Returns

Capital markets returns have been robust in the past decade—13.5% annualized return for the S&P 500 in the 10 years ending Dec. 31, 2019—yet these gains in wealth went to relatively few, according to Federal Reserve data (see chart). The top 1% by income saw nearly 8% annualized growth in wealth since 2010. In contrast, the bottom 50% had only 3% growth. This disparity was likely caused by the difference in investable assets, which is less among lower-income households. For this reason, households below the 50% threshold have significantly less savings to help them cope with unexpected medical expenses or sudden unemployment, as is the situation for many caused by the pandemic shutdown. The good news is that most of these taxpayers will get stimulus checks.—*Nick Lentini*



Source: Federal Reserve as of Dec. 31, 2019

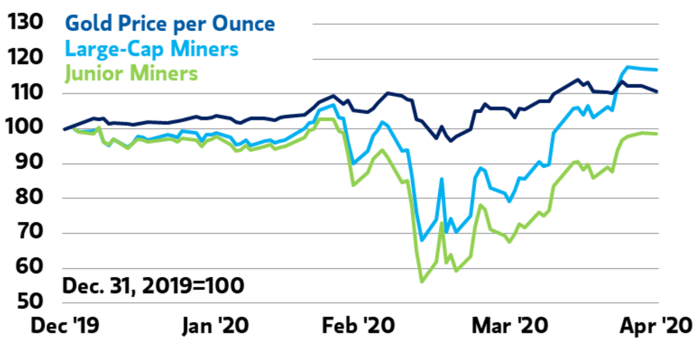
ALTERNATIVES

Gold's Return Can Vary Depending How You Own It

Gray Perkins, Associate, Morgan Stanley Wealth Management
John Duggan, Investment Strategist, Morgan Stanley Wealth Management

So far in this tumultuous year, exposure to gold has mostly served investors well. Under the surface, however, depending on how investors owned the yellow metal—via either bullion, large-cap miners or junior miners—the experience may have been a bumpy one. With a variety of exchange-traded funds (ETFs) available for all three types, it's important for investors to understand their differences and how those dissimilarities have affected recent performance (see chart). Furthermore, in our view, the variable return paths underline potential advantages of taking a multipronged approach.

After Steep Declines, Large-Cap Miners Are Edging Out Gold, but Junior Miners Are Still Lagging



Note: Gold price is the spot price from the London Bullion Market Association; indexes for large-cap and junior miners levels are based on composites of US-listed ETFs. are composites of listed US exchange-traded funds.
Source: Bloomberg as of April 29, 2020

Bullion-based ETFs, backed by physical gold, are among the most liquid choices and have dependable records of matching spot prices. Still, they come with certain trade-offs, including subjecting investors to a collectibles tax. ETFs focused on gold miners arguably have fewer quirks due to their more simplistic approach of holding shares of individual mining companies. Since the Federal Reserve's policy shift in 2018's fourth quarter, gold prices, and thus bullion-backed ETFs, have marched higher, albeit with brief bouts of weakness.

"SAFE HAVEN" TRADE. Turning to 2020, an overall dovish environment has persisted, as markets reacted to fears over the impact of COVID-19. These events spurred investors to seek gold for its "safe haven" attributes and the tendency for spot prices to move inversely to real interest rates. Additionally, a substantial amount of global government debt had low-to-negative yields, which made them less attractive alternatives than in prior crises. To be sure, gold prices are not immune to volatility. After climbing to $1,684 per ounce in early March, prices corrected and returns briefly turned negative for the year to date due to a widespread liquidity crunch. Prices have since recovered, with bullion-backed ETFs recently notching fresh seven-year highs.

While the gold price has been generally resilient this year, ETFs holding gold mining stocks sold off sharply in March, with returns temporarily declining well beyond those of bullion-based funds. This divergence can be attributed to several factors, including: investors were quick to shun more cyclical industries when the breadth of the economic downturn became apparent; mining stocks are equities, too, and the group declines in sympathy with broader equity indexes; and the complications around the spread of COVID-19, including social distancing, have forced mines across the globe to close, thereby limiting near-term revenues. Despite these setbacks, over longer periods of bullion strength, returns have actually tilted in miners' favor as they tend to be leveraged to spot prices. Recently, as bullion has recovered, miners have trended upward with large-cap mining ETFs now outstripping bullion returns for the year to date.

JUNIOR MINERS. Though they have rallied recently, junior miners—companies roughly $2 billion or less in market capitalization—still have negative returns for the year to date. In addition to more closely shadowing small-cap stocks, which have lagged large caps meaningfully in 2020, junior gold miner indexes are typically more geographically diverse than their larger-cap peers. Some tend to have less US exposure and greater allocations to countries such as Australia, Russia and South Africa, all of which have hampered the junior indexes and ETFs at times this year. Additionally, junior miner indexes tend to tilt more strongly toward exploration companies, which are riskier than more diversified operations and can increase beta.

As gold spot prices flirt with record highs, investors may be revisiting or considering allocations. Indeed, Susan Bates, Morgan Stanley & Co.'s global commodity strategist, has a positive outlook for the precious metal this year. She expects global monetary easing to support prices well after the economic impact from COVID-19 has waned. However, her forecast of $1,725 per ounce for the first quarter of 2021 is only slightly above the current spot price of $1,703 (as of April 29). Importantly, Bates projects a longer-term price decline, as witnessed in 2013, once widespread Quantitative Easing is retracted. As such, we suggest investors take a diversified approach to gold. In the near term, we believe mining-focused ETFs could outperform if they participate in cyclical momentum. That said, while we are likely beholden to central bank easing for now, when this support is eventually withdrawn, we'd expect the historically less volatile bullion-backed ETFs to have less severe drawdowns than their mining peers. ■

Q&A

Hard-Hit European Stock Markets May Offer Opportunities

Europe wasn't the first continent to be hit by the coronavirus, but its markets are among the globe's hardest hit. Some stocks have sunk to 20-year lows, and therein lies opportunities, says Sarah Ketterer, CEO of Causeway Capital Management. "There will be companies that come out of this crisis limping along as we've seen in Japan over decades," she explains. "Then others will use this crisis to make some major changes. They won't let the crisis go to waste and they will come out of this stronger." Ketterer recently spoke with Sachin Manchanda, head of global equity model portfolios for Morgan Stanley Wealth Management, about why she believes bottom-up stock selection and an active approach is critical right now. The following is an edited version of their conversation.

SACHIN MANCHANDA (SM): How do you view COVID-19's economic impact on Europe?

SARAH KETTERER (SK): The macro situation is dire. There's no doubt about that. European banks are telling us that they're expecting a double-digit percentage shrink in GDP growth for the full-year 2020, with perhaps as much as 10% in Germany, 15% in Italy and somewhere between those two for the rest of the Continent. The UK may be in that range as well.

While the banks are preparing for a terrible situation, it's now being mitigated by huge public policy stimulus, and they expect a very considerable recovery. I don't know if you call that V-shaped or U-shaped, but it's something that investors should be able to take advantage of.

These macroeconomic forecasts are more conservative than those of the IMF. The reason why the banks are doing that is because they represent the financing part of Europe, and being ultraconservative serves them well. They plan appropriately because the equity market is making the assumption that banks are going to need to raise capital. That's certainly the way the banks are trading. They've been abysmal.

Europe is a region that very much depends on its small companies getting the financing they need. It is effectively a constellation of 25 million to 30 million small-to-medium-sized enterprises (SMEs) with less than 250 employees—and the vast majority of them are tiny, with fewer than nine employees, and they are not listed. So what really drives the European economy isn't the listed European companies.

Both individual governments and, in particular, the European Central Bank, have stepped up in ways that I think are commensurate what the Federal Reserve has done in the US. They've moved very quickly to infuse liquidity into this SME sector and to avoid insolvency.

SM: Are you seeing signs of recovery anywhere?

SK: Europe is ahead of the US with the virus and is coming out sooner. We see in Spain, for example, that manufacturing and construction work resumed as recently as mid April. Austria began to allow shops to reopen in early April. In Italy, bookshops, laundries, stationers, children's clothing stores—they all reopened on a trial basis in mid April. Denmark opened elementary schools.

The next wave will be Norway and Switzerland, where they're going to start opening schools, and then Germany, Iceland and France. France is locked down until May 11, but they're watching the rest of Europe because—to the degree that they can reopen without additional outbreaks—no country wants to drag its feet. The shutdown is very costly for governments and, ultimately, taxpayers, so the sooner they can open economies the better.

SM: How has this pandemic affected the investment landscape?

SK: This crisis brought a certain amount of market pessimism that washed over listed European companies and reached every market in every region. The areas particularly hard-hit —as it became apparent that COVID-19 was not going to be confined to Asia—were travel and leisure, retail, airlines, homebuilders, autos and banks.

I can make a very strong argument that many, if not all of these companies and their industries and respective sectors, are better positioned in this crisis than they were in the global financial crisis of 2008. Yet, they trade at lower valuation multiples than they did then. In some cases, we saw stocks go to 20-year lows.

The number of companies that value investors are able to buy today, which weren't available as recently as just two months ago, is quite extraordinary. These companies are generally multinational, so their livelihoods are not entirely dependent on the European economy, with one exception: listed European banks, for whom the domestic economies are very important. The banks are some of the most hard-hit stocks in Europe. So, if the recovery forecasts are anywhere near reality in 2021, they may present some of the most attractive opportunities.

SM: We know that European banks have suspended their dividends. Why do you think the sector looks attractive?

SK: History shows us the best time to own banks anywhere in the developed world is at the bottom of a recession—because they tend to be the most economically sensitive sector. Remember, too, banking is a financially geared model, with a small amount of equity for a large amount of assets. So, to the degree that the environment is going to improve and the market senses this, equity markets discount economic recovery before we see it in the data—and banks tend to do phenomenally well.

The MSCI Europe Banks Index is now lower than it was in the worst days of the 2008 global financial crisis, which, by the way, was catalyzed by banks. Now, the banks' Tier 1 capital ratio—which indicates their financial strength, or their total amount of equity capital as a percentage of risk-weighted assets—is at an all-time high. The gap between European banks' market cap and the amount of equity they have (Tier 1 capital ratio), which European regulators have been working for years to shore up, is absolutely enormous.

So between that and the state aid that's flowing fast and furiously, if it plays out as we expect, this could be the biggest banking boom recovery we've ever seen in the history of capital markets. After that, I'd want to sell them, dividends or no dividends, because it's a very cyclical business.

SM: What other characteristics are you looking for when determining potential winners?

SK: Everybody wants quality. Who wants garbage? But the key is what you pay for it. In an environment of uncertainty—having no idea how long this will last, or if there will be recurrences of the virus and if vaccines will be delayed further than early 2021—you need companies to be able to stay in business. So what we're looking for is, number one, financial strength.

We're also looking for experienced management teams that know exactly how to manage their businesses, how to market their products and how to attract and energize the consumer.

In this environment of constantly being undermined by new technologies, we look for companies that can innovate, and then we consider corporate governance, management that has focused attention on their shareholders.

Lastly, one more thing that I think is also critical, is that the companies be at the tail end of their capital expenditure cycle. We want to invest in companies that have already built the plant and bought the equipment they need to produce what they planned for this part of the cycle. The reason why this is so essential is because when freecash flow starts to rise again, a good part of that cash often gets returned to shareholders in the form of dividends and share repurchases. The capital return story has definitely been delayed by the coronavirus, but we believe it will be back in force as early as next year.

SM: Do you see a "survival of the fittest" scenario playing out?

SK: The losing companies are those with poor financial strength or weak balance sheets; these are the companies that have had to go to their lenders and take down more lines of credit—if they can get them.

What you want are companies that have scale. This is particularly true for the deeply cyclical stocks. You want to own the lowest-cost producer or manufacturer. It's crucial, because if they're not going out of business, the competitors are going to be hurt to the point at which they can't compete.

The ones that can't keep up are in a liquidity panic—and they're evident across every sector and industry. This sell-off has given us a chance to find more companies that operate with few competitors, or oligopolies that have desirable competitive moats, which might be, in this concept of quality, one of the most important characteristics.

SM: How might the current crisis affect Brexit?

SK: We don't hear much about Brexit, but we have the same opinion we've had for a couple of years: Politicians do what is necessary to get themselves reelected. The UK has plenty of challenges right now, as does Continental Europe. We're convinced that the two sides will reach an agreement or there will be another deferral and they'll give each other six more months.

SM: What are you watching that might make this picture look less rosy?

SK: There has been a lot of indiscriminant trading. What I mean by that is valuation doesn't appear to matter to support the buying or the selling. This could be a function of interest rates falling even further, but it's hard to say exactly what's causing this. Maybe it's the greater influence of passive investing or the increase in algorithmic trading.

As a value investor in particular, you have to believe that fundamentals will assert themselves. That also means that all of this extremely loose monetary policy doesn't end up artificially incentivizing risk-taking and creating distortions.

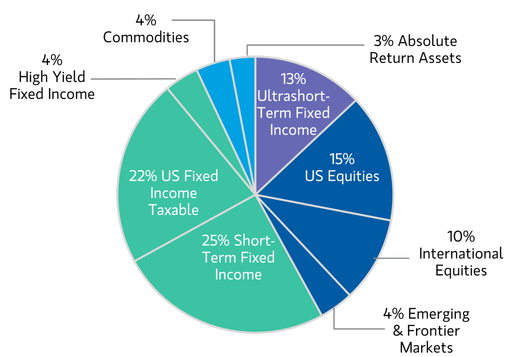
Ultimately, we need to avoid deflation. That's the biggest threat hanging out there. It's not Brexit or Angela Merkel being angry with President Macron. It's all to do with prices falling, which is devastating for financial institutions. It's also terrible for economies and it sort of takes the whole "time value of money" concept and tosses it on its head. You have to believe that money is worth more now than the identical sum in the future. That's just critical to investing. ■

Sarah Ketterer is not an employee of Morgan Stanley Wealth Management or its affiliates. Opinions expressed by her are her own and may not necessarily reflect those of Morgan Stanley Wealth Management or its affiliates.

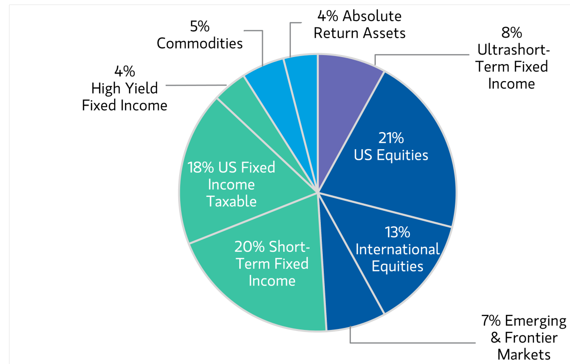
Global Investment Committee Tactical Asset Allocation

The Global Investment Committee provides guidance on asset allocation decisions through its various models. The five models below are recommended for investors with up to $25 million in investable assets. They are based on an increasing scale of risk (expected volatility) and expected return.

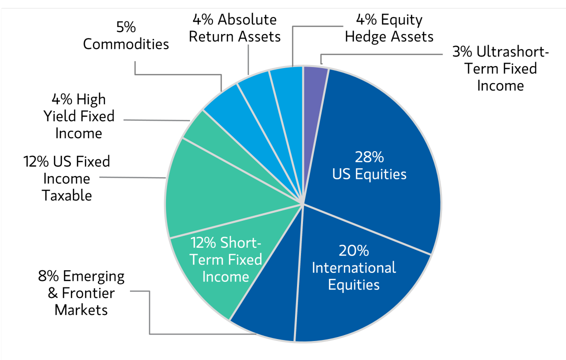
Wealth Conservation



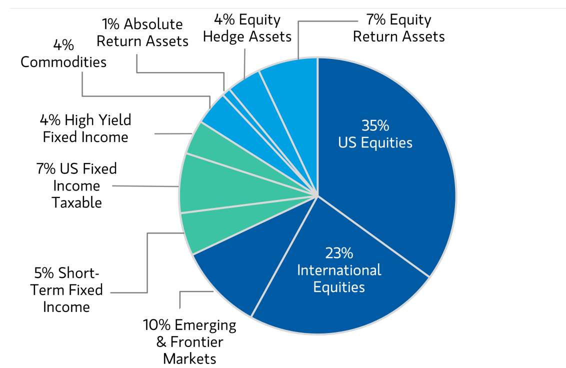
Income



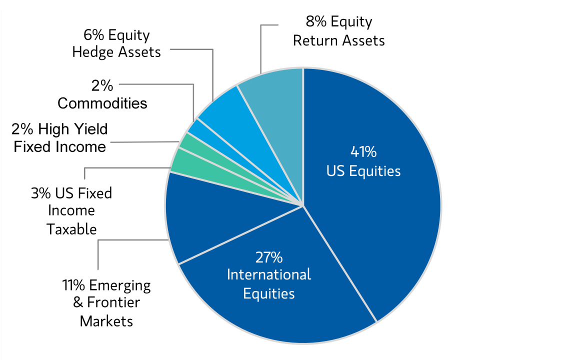
Balanced Growth



Market Growth



Opportunistic Growth



Key

- Ultrashort-Term Fixed Income
- Fixed Income & Preferreds
- Equities
- Alternatives

Source: Morgan Stanley Wealth Management GIC as of April 30, 2020

The Global Investment Committee provides guidance on asset allocation decisions through its various models. The five models below are recommended for investors with over $25 million in investable assets. They are based on an increasing scale of risk (expected volatility) and expected return.

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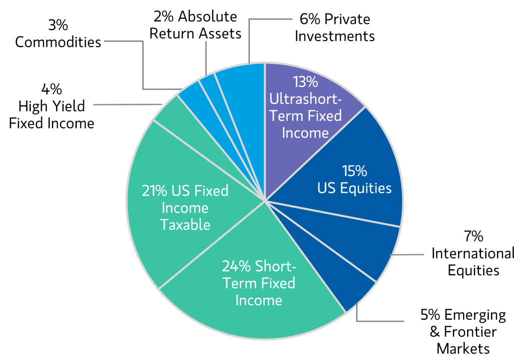

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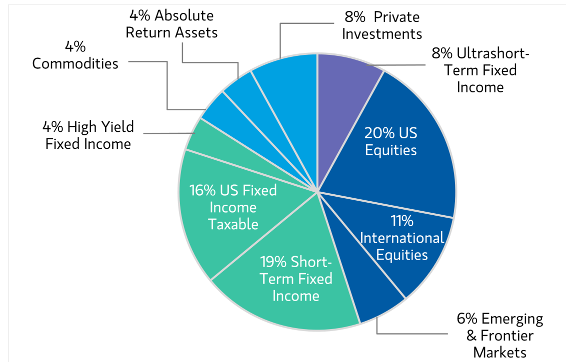

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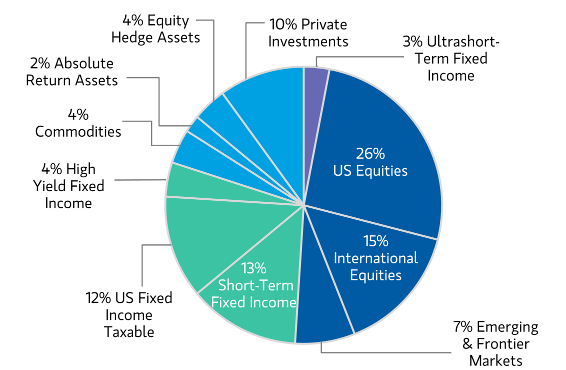
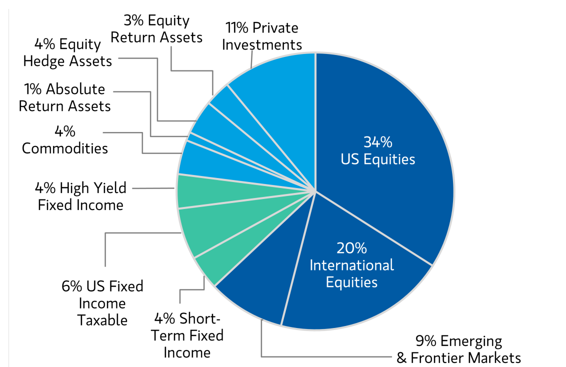


Market Growth



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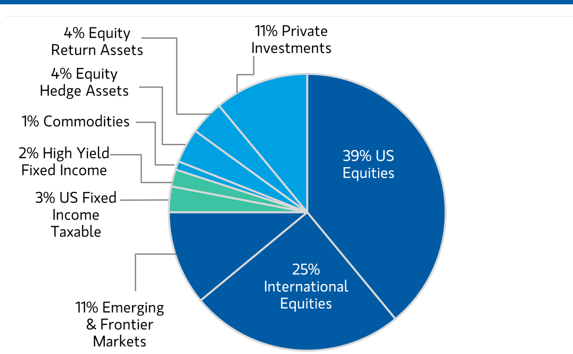

Key

- Ultrashort-Term Fixed Income
- Fixed Income & Preferreds
- Equities
- Alternatives

Source: Morgan Stanley Wealth Management GIC as of April 30, 2020

Tactical Asset Allocation Reasoning

Global Equities	Relative Weight Within Equities	
US	Market Weight	Global stock markets have entered a bear market on concerns about the negative growth impact of the coronavirus. Although we expect US and global recessions in the second quarter of 2020, our base case is that recent extraordinary policy actions from both central banks and national governments will help cushion the economic impact. Markets are already pricing the most likely scenarios. We recently upgraded our exposure to large-cap growth and small- and mid-cap equities, believing that active stock pickers have a good entry point over the next several months
International Equities (Developed Markets)	Overweight	We maintain a positive bias for Japanese and European equity markets. Recent bear market sell-offs have created extreme valuations and, as in the US, policymakers look to be ready to provide policy stabilizers. A global recovery in the second half coupled with US-dollar depreciation from crisis level highs are likely to provide the catalysts
Emerging Markets	Overweight	China was the first country to enter the COVID-19 crisis and appears poised to be the first out. Resumption of economic activity during the second quarter should jump-start global growth, especially given huge government stimulus programs. Ample liquidity from the Fed and a weakening dollar should catalyze investor interest. China stands to gain the most from US tariff rollbacks and global trade dynamics should improve. Valuations are attractive and local central banks should be able to maintain accommodation and stimulus. For most countries, especially China, the collapse in oil prices is material tailwind for consumer purchasing power
Global Fixed Income	**Relative Weight Within Fixed Income**	
US Investment Grade	Market Weight	We have recommended shorter-duration* (maturities) since March 2018 given the extremely low yields and potential capital losses associated with rising interest rates from such low levels and had been pairing that position with a large exposure to long-term US Treasuries to hedge what we expected would be a modest correction in stocks. With long-term Treasury yields bottoming for the cycle, we recently sold that position and resumed a benchmark exposure to duration. Recent dislocation of investment grade credit spreads and market illiquidity have created opportunities. Fed programs aimed at backstopping this market give reason to be an active bond selector
International Investment Grade	Underweight	Negative interest rates suggest that this is not a preferred asset class for US-dollar clients at this time. Actively managed funds may provide very patient, risk tolerant clients with income opportunities in select corporate credits
Inflation-Protection Securities	Underweight	The “sudden stop” recession has caused a severe pricing of real interest rates, pushing them negative and near all-time lows. In the near term, upside is limited
High Yield	Overweight	High yield bonds remain at the epicenter of the dual risks from COVID-19 and the collapse in oil prices from the failure of OPEC negotiations. In our view, some of the most extreme risks have been discounted, especially in light of unprecedented monetary and fiscal policy intervention aimed not only at market liquidity but in bridging cash flow requirements. It’s time to ease in opportunistically using active managers
Alternative Investments	**Relative Weight Within Alternative Investments**	
REITs	Underweight	Real estate investment trusts (REITs) have performed very well as global growth slowed and interest rates fell. However, REITs remain expensive and are vulnerable to credit risks. We will revisit our position as nominal GDP troughs and/or valuations become more attractive
Commodities	Overweight	The “sudden stop” global recession has driven commodities such as oil to multidecade lows. The rush to the safety of the US dollar, which is near multiyear high, has exacerbated these dynamics. While we recognize the complexity of the geopolitical issues that surround oil, we believe that on a six-to-12-month basis the outlook for the global economy and overall demand improves materially. Thus, we suggest risk-oriented clients to establish exposure to the broad diversified asset class through the use of active managers. Pure passive exposure is not advised
Hedged Strategies (Hedge Funds and Managed Futures)	Overweight	The bear market associated with COVID-19 has driven volatility to historic extremes and led to wide dispersion in price performance and stock-level idiosyncratic risk. These factors tend to create a constructive environment for hedge fund managers who are good stock-pickers and can use leverage and risk management techniques to amplify returns. We prefer very active and fundamental strategies, especially equity long/short

*For more about the risks to Duration, please see the Risk Considerations section beginning on page 18 of this report.
Source: Morgan Stanley Wealth Management GlC as of April 30, 2020

Disclosure Section

The **Global Investment Committee (GIC)** is a group of seasoned investment professionals from Morgan Stanley & Co. and Morgan Stanley Wealth Management who meet regularly to discuss the global economy and markets. The committee determines the investment outlook that guides our advice to clients. They continually monitor developing economic and market conditions, review tactical outlooks and recommend asset allocation model weightings, as well as produce a suite of strategy, analysis, commentary, portfolio positioning suggestions and other reports and broadcasts.

Zachary Apoian, Chris Baxter, Vibhor Dave, John Duggan, Matthew Gastall, Matthew Harrison, Daryl Helsing, Nick Lentini, Sachin Manchanda, Gray Perkins and Jinjin Zhang are not members of the Global Investment Committee and any implementation strategies suggested have not been reviewed or approved by the Global Investment Committee.

Index Definitions

For index, indicator and survey definitions referenced in this report please visit the following: https://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions

Risk Considerations

Alternative Investments

The sole purpose of this material is to inform, and it in no way is intended to be an offer or solicitation to purchase or sell any security, other investment or service, or to attract any funds or deposits. Investments mentioned may not be appropriate for all clients. Any product discussed herein may be purchased only after a client has carefully reviewed the offering memorandum and executed the subscription documents. Morgan Stanley Wealth Management has not considered the actual or desired investment objectives, goals, strategies, guidelines, or factual circumstances of any investor in any fund(s). Before making any investment, each investor should carefully consider the risks associated with the investment, as discussed in the applicable offering memorandum, and make a determination based upon their own particular circumstances, that the investment is consistent with their investment objectives and risk tolerance.

Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are appropriate only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing.

Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing.

Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank.

Hypothetical Performance

General: Hypothetical performance should not be considered a guarantee of future performance or a guarantee of achieving overall financial objectives. Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets.

Hypothetical performance results have inherent limitations. The performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation.

Despite the limitations of hypothetical performance, these hypothetical performance results may allow clients and Financial Advisors to obtain a sense of the risk / return trade-off of different asset allocation constructs.

Investing in the market entails the risk of market volatility. The value of all types of securities may increase or decrease over varying time periods.

This analysis does not purport to recommend or implement an investment strategy. Financial forecasts, rates of return, risk, inflation, and other assumptions may be used as the basis for illustrations in this analysis. They should not be considered a guarantee of future performance or a guarantee of achieving overall financial objectives. No analysis has the ability to accurately predict the future, eliminate risk or guarantee investment results. As investment returns, inflation, taxes, and other economic conditions vary from the assumptions used in this analysis, your actual results will vary (perhaps significantly) from those presented in this analysis.

The assumed return rates in this analysis are not reflective of any specific investment and do not include any fees or expenses that may be incurred by investing in specific products. The actual returns of a specific investment may be more or less than the returns used in this analysis. The return assumptions are based on hypothetical rates of return of securities indices, which serve as proxies for the asset classes. Moreover, different forecasts may choose different indices as a proxy for the same asset class, thus influencing the return of the asset class.

An investment in a money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the Fund seeks to preserve the value of your investment at $1.00 per share, it is possible to lose money by investing in the fund.

ETF Investing

An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. Investing in an international ETF also involves certain risks and considerations not typically associated with investing in an ETF that invests in the securities of U.S. issues, such as political, currency, economic and market risks. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economics. ETFs investing in physical commodities and commodity or currency futures have special tax considerations. Physical commodities may be treated as collectibles subject to a maximum 28% long-term capital gains rates, while futures are marked-to-market and may be subject to a blended 60% long- and 40% short-term capital gains tax rate. Rolling futures positions may create taxable events. For specifics and a greater explanation of possible risks with ETFs¸ along with the ETF's investment objectives, charges and expenses, please consult a copy of the ETF's prospectus. Investing in sectors may be more volatile than diversifying across many industries. The investment return and principal value of ETF investments will fluctuate, so an investor's ETF shares (Creation Units), if or when sold, may be worth more or less than the original cost. ETFs are redeemable only in Creation Unit size through an Authorized Participant and are not individually redeemable from an ETF.

Investors should carefully consider the investment objectives and risks as well as charges and expenses of an exchange-traded fund or mutual fund before investing. The prospectus contains this and other important information about the mutual fund. To obtain a prospectus, contact your Financial Advisor or visit the mutual fund company's website. Please read the prospectus carefully before investing.

MLPs

Master Limited Partnerships (MLPs) are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk.

Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk.

The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value.

MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV; and, as a result, the MLP fund's after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

Duration

Duration, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. Generally, if interest rates rise, bond prices fall and vice versa. Longer-term bonds carry a longer or higher duration than shorter-term bonds; as such, they would be affected by changing interest rates for a greater period of time if interest rates were to increase. Consequently, the price of a long-term bond would drop significantly as compared to the price of a short-term bond.

International investing entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with **emerging markets** and **frontier markets**, since these countries may have relatively unstable governments and less established markets and economies.

Investing in currency involves additional special risks such as credit, interest rate fluctuations, derivative investment risk, and domestic and foreign inflation rates, which can be volatile and may be less liquid than other securities and more sensitive to the effect of varied economic conditions. In addition, international investing entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economies.

Managed futures investments are speculative, involve a high degree of risk, use significant leverage, have limited liquidity and/or may be generally illiquid, may incur substantial charges, may subject investors to conflicts of interest, and are usually appropriate only for the risk capital portion of an investor's portfolio. Before investing in any partnership and in order to make an informed decision, investors should read the applicable prospectus and/or offering documents carefully for additional information, including charges, expenses, and risks. Managed futures investments are not intended to replace equities or fixed income securities but rather may act as a complement to these asset categories in a diversified portfolio.

Investing in commodities entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention.

Physical precious metals are non-regulated products. Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. If sold in a declining market, the price you receive may be less than your original investment. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be appropriate for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor. The Securities Investor Protection Corporation ("SIPC") provides certain protection for customers' cash and securities in the event of a brokerage firm's bankruptcy, other financial difficulties, or if customers' assets are missing. SIPC insurance does not apply to precious metals or other commodities.

Bonds are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or changes in the credit quality of the issuer. Bonds are subject to the credit risk of the issuer. This is the risk that the issuer might be unable to make interest and/or principal payments on a timely basis. Bonds are also subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate.

Bonds rated below investment grade may have speculative characteristics and present significant risks beyond those of other securities, including greater credit risk and price volatility in the secondary market. Investors should be careful to consider these risks alongside their individual circumstances, objectives and risk tolerance before investing in high-yield bonds. High yield bonds should comprise only a limited portion of a balanced portfolio.

Interest on municipal bonds is generally exempt from federal income tax; however, some bonds may be subject to the alternative minimum tax (AMT). Typically, state tax-exemption applies if securities are issued within one's state of residence and, if applicable, local tax-exemption applies if securities are issued within one's city of residence.

Treasury Inflation Protection Securities' (TIPS) coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation.

Ultrashort-term fixed income asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

Although they are backed by the full faith and credit of the U.S. Government as to timely payment of principal and interest, **Treasury Bills** are subject to interest rate and inflation risk, as well as the opportunity risk of other more potentially lucrative investment opportunities.

CDs are insured by the FDIC, an independent agency of the U.S. Government, up to a maximum of $250,000 (including principal and accrued interest) for all deposits held in the same insurable capacity (e.g. individual account, joint account, IRA etc.) per CD depository. Investors are responsible for monitoring the total amount held with each CD depository. All deposits at a single depository held in the same insurable capacity will be aggregated for the purposes of the applicable FDIC insurance limit, including deposits (such as bank accounts) maintained directly with the depository and CDs of the depository. For more information visit the FDIC website at www.fdic.gov.

The majority of $25 and $1000 par **preferred securities** are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per $25 or $1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price.

The initial interest rate on a **floating-rate security** may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security's underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk.

The market value of **convertible bonds** and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield.

Some $25 or $1000 par **preferred securities** are QDI (Qualified Dividend Income) eligible. Information on QDI eligibility is obtained from third party sources. The dividend income on QDI eligible preferreds qualifies for a reduced tax rate. Many traditional 'dividend paying' perpetual preferred securities (traditional preferreds with no maturity date) are QDI eligible. In order to qualify for the preferential tax treatment all qualifying preferred securities must be held by investors for a minimum period – 91 days during a 180 day window period, beginning 90 days before the ex-dividend date.

Principal is returned on a monthly basis over the life of a **mortgage-backed security.** Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. Yields and average lives are estimated based on prepayment assumptions and are subject to change based on actual prepayment of the mortgages in the underlying pools. The level of predictability of an MBS/CMO's average life, and its market price, depends on the type of MBS/CMO class purchased and interest rate movements. In general, as interest rates fall, prepayment speeds are likely to increase, thus shortening the MBS/CMO's average life and likely causing its market price to rise. Conversely, as interest rates rise, prepayment speeds are likely to decrease, thus lengthening average life and likely causing the MBS/CMO's market price to fall. Some MBS/CMOs may have "original issue discount" (OID). OID occurs if the MBS/CMO's original issue price is below its stated redemption price at maturity, and results in "imputed interest" that must be reported annually for tax purposes, resulting in a tax liability even though interest was not received. Investors are urged to consult their tax advisors for more information.

Rebalancing does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. Investors should consult with their tax advisor before implementing such a strategy.

Equity securities may fluctuate in response to news on companies, industries, market conditions and general economic environment.

Companies paying **dividends** can reduce or cut payouts at any time.

Value investing does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.

Growth investing does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations.

Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets.

REITs investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions.

Because of their narrow focus, **sector investments** tend to be more volatile than investments that diversify across many sectors and companies. **Technology stocks** may be especially volatile. Risks applicable to companies in the **energy and natural resources** sectors include commodity pricing risk, supply and demand risk, depletion risk and exploration risk.

Yields are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision.

Credit ratings are subject to change.

The **indices** are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment.

The **indices selected by Morgan Stanley Wealth Management** to measure performance are representative of broad asset classes. Morgan Stanley Smith Barney LLC retains the right to change representative indices at any time.

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City of Troy Employees Retirement Systems
Defined Benefit and NAIC
Performance Reporting

Portfolio Review
May 2020

Presented By:

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UBS Financial Services Inc.

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UBS

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ERS portfolio:

Current cash available of approximately $1,261,000 – hold in Institutional Money Market Fund for June distribution

Covered Call option recommendations – see attached

NAIC Portfolio:

Current cash available of approximately $282,000 – hold in Institutional Money Market Fund for June distribution

The NAIC portfolio holds the following stocks that are current sell recommendations by Investor Advisory Service (NAIC). UBS does not follow these companies:

Allegiant Travel – *Discount airline*

Eagle Bank – *Bank Holding Company*

IAA – *Auction services for damaged vehicles*

Nexstar Media – *TV Broadcasting and Media Company*

IDEX – *Applied solutions company*

Old Dominion Freight Line – *Trucking Company*

Should the board decide to sell the above holdings, the above sales would raise more than the amount needed to meet June distribution. We suggest excess proceeds be held in money market fund for December distribution.

If the above positions are not sold, we suggest meeting the additional June cash need ($457,000) by taking from Loomis Sayles Investment Grade Bond Fund held in the ERS portfolio.

City of Troy
Option Recommendations
May 2020

Calls

ABBOTT LABS	10 contracts (1000 shares) ABT Aug 110 @ $1.05
APPLE INC	13 contracts (1300 shares) AAPL Jul 370 @ $9.50
FASTENAL CO	30 contracts (3000 shares) FAST Nov 45 @ $1.05
GENERAL MILLS INC	10 contracts (1000 shares) GIS Jul 67.50 @ $1.10
ORACLE CORPORATION	10 contracts (1000 shares) ORCL Dec 62.50 @ $1.25
RIO TINTO PLC	20 contracts (2000 shares) RIO Oct 55 @ $1.05
TRACTOR SUPPLY CO	10 contracts (1000 shares) TSCO Jul 120 @ $1.05

All of the above option recommendations are within your investment policy statement guidelines.

Wealth Strategy Group
UBS Financial Services, Inc.

Rebecca Sorensen, CFP, CIMA
Sr. Vice President – Wealth Management
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Sr. Portfolio Manager

Market Review

May, 2020

Since we last met – Covid-19:

What does a recovery look like and how long will it take? This crisis will end. Some of the smartest people in the world are working tirelessly to find a vaccine or a cure. And the US has bounced back from previous pandemics (most long forgotten), wars, and economic crises.

The S&P was up 12.82% for the month of April – a significant increase from the lows of March. Market returns for the rest of this year and next will depend upon how quickly economic activity can normalize once the virus is contained and to the extent government stimulus is able to aid the economy. Another stimulus package is anticipated.

Approximately 3,000,000 more people filed for unemployment benefits the second week of May. This brings the total who have filed since the start of this pandemic to approximately 36,000,000. For comparison, roughly 8.7 million jobs were lost in the 2007-2009 recession.

To add to the pandemic woes, we are still in the midst of an election year and trade concerns – especially with China – continue. Volatility, while somewhat lessoned, is still with us, and will be for some time.

Interest rates are at an historical low – with short term government bonds yielding close to zero. The government's decision to buy back longer term bonds adds downward pressure on long-term rates. We expect the ten year treasury to trade at approximately 75 basis points at year end and for rates to stay low for the next several years. We see little risk of inflation.

Covid-19 will cause long lasting changes to our economy and our society. The regulatory environment has changed drastically in the last ten weeks when we consider unemployment provisions, massive government stimulus through low interest rate and forgivable loans, and the Fed's decision to purchase corporate and higher risk bonds.

Most publically traded companies will come out of this – some even better for it. Others will suffer and go out of business. We'll see a permanent shift in our labor market. Working from home has become acceptable and will likely continue. Companies may determine that they need fewer and smaller office buildings and that paying to fly employees around the country to meetings and conferences isn't really necessary. Those working from home are likely to dine out less and spend fewer dollars on clothing.

Covid-19 will bring about cultural change. While ride share programs like Uber and vacation rentals such as Airbnb are likely to continue, it may be a while before most people are comfortable sitting in a stranger's car or sleeping in somebody else's house. We may see less spending on travel and transportation. The cruise industry will not recover quickly.

Healthcare is changing. Telemedicine is here to stay. Health technology and genetic therapies are likely to benefit long term from the innovation that will result from this crisis.

Our economy will recover. The question is whether we have a V, U, or W shaped recovery. It's likely that where the virus goes, the economy will follow. We paint the timing of a recovery with a broad stroke. There are still many unknowns. We expect that growth for the second half of this year will be weak but positive. This assumes that testing and the virus is somewhat contained and that we don't see a Covid resurgence in the fall. Our hope is that growth will normalize by the 3rd quarter of 2021. Our research suggests that it may take a full six quarters before we get back to pre-Covid level of consumer spending.

Consumer spending could further decrease from where we are now as government stimulus dries up. Business spending tends to lag the overall economy. Companies are reluctant to spend when the economic future is unclear.

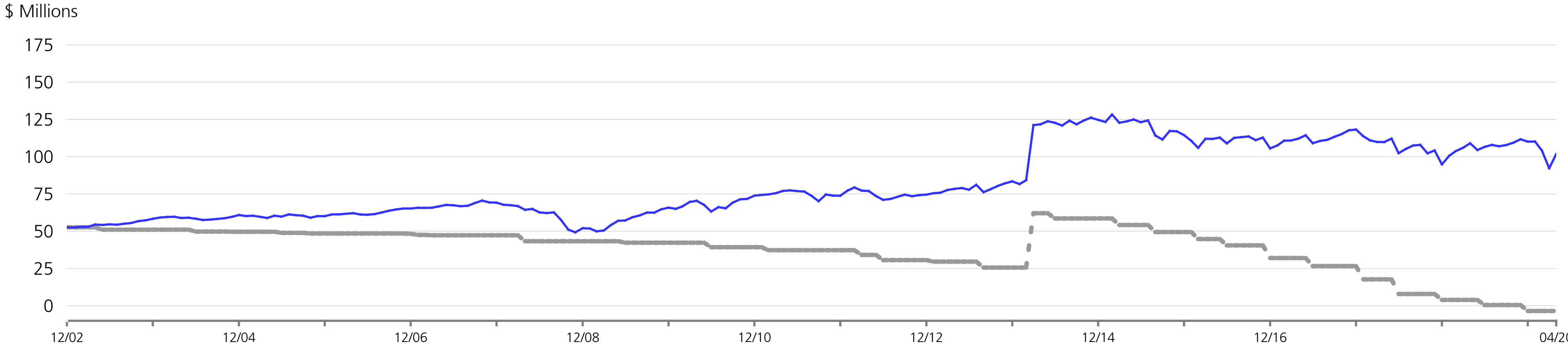
In general, we suggest that investors stay fully invested in a diversified portfolio, but are mindful of downside risk. Consider moving shorter term cash needs to the sidelines.

Longer Term – UBS has changed its Capital Market Assumptions (CMAs)

Looking forward over a full business cycle, our anticipated average annual equity returns are relatively unchanged from what they were previously, while our expectation for fixed income returns has declined significantly. Overall, our expected US fixed income returns have come down between 100 and 300 basis points, while equity returns have generally stayed the same. The most significant declines in fixed income expected returns are in longer maturity bonds, which we now expect will be negative over the next full cycle. Expected equity returns remain roughly unchanged on aggregate. We project approximately 7% total return annualized for global equities. Overall, expected returns for most traditional asset classes are either significantly or moderately below the historical levels realized over the last 15 years.

Sources of portfolio value

as of April 30, 2020



	MTD 03/31/2020 to 04/30/2020	YTD 12/31/2019 to 04/30/2020	1 Year 04/30/2019 to 04/30/2020	3 Years 04/30/2017 to 04/30/2020	5 Years 04/30/2015 to 04/30/2020	7 Years 04/30/2013 to 04/30/2020	10 Years 04/30/2010 to 04/30/2020	ITD 12/31/2002 to 04/30/2020
Opening value	**92,228,882.87**	**110,129,350.62**	**108,998,397.08**	**112,112,954.52**	**123,639,406.18**	**78,424,382.26**	**70,402,350.22**	**52,625,899.06**
Net deposits/withdrawals	0.00	0.00	-7,399,750.00	-35,509,643.20	-57,649,041.53	-33,113,104.07	-45,778,015.11	-56,113,044.04
Div./interest income	128,426.67	638,045.07	2,987,503.27	8,899,375.81	15,130,372.93	20,529,471.09	26,156,029.78	42,480,380.12
Change in accr. interest	2,413.20	2,874.12	-2,862.37	-3,236.34	-25,344.37	-26,141.53	-142,958.74	-546,089.22
Change in value	9,416,950.46	-8,993,596.60	-2,806,614.78	16,277,222.42	20,681,279.99	35,962,065.46	51,139,267.06	63,329,527.29
Closing value	**101,776,673.20**	**101,776,673.20**	**101,776,673.20**	**101,776,673.20**	**101,776,673.20**	**101,776,673.20**	**101,776,673.20**	**101,776,673.20**
Gross Time-weighted ROR	10.35	-7.57	0.03	7.99	6.87	8.09	8.65	7.72
Net Time-weighted ROR	10.35	-7.58	-0.08	7.84	6.74	7.97	8.55	7.66

Performance returns are annualized after 1 year. Net deposits and withdrawals include program and account fees.

Benchmarks - Annualized time-weighted returns

Consolidated Blended Index	8.22	-7.03	1.17	5.75	5.23	6.40	7.21	7.40
US Treasury Bill - 3 Mos	0.00	0.47	1.89	1.72	1.12	0.80	0.59	1.30
Barclays Agg Bond	1.78	4.98	10.84	5.17	3.79	3.30	3.96	4.37
MSCI Emerging Markets-PR	9.00	-17.02	-14.30	-1.84	-2.46	-1.65	-0.97	6.87
Russell 2000	13.74	-21.08	-16.39	-0.82	2.88	6.20	7.69	8.80
S&P 500	12.82	-9.29	0.86	9.04	9.11	11.21	11.68	9.35

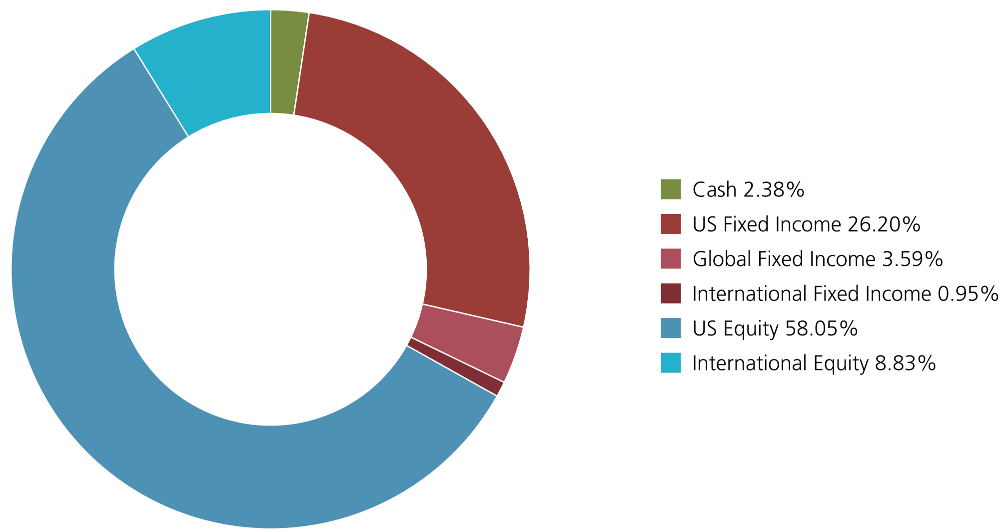
Consolidated Blended Index:**Start - Current:** 70% MSCI World; 30% Barclays Agg Bond
Past performance does not guarantee future results and current performance may be lower/higher than past data presented.

Asset allocation review

as of April 30, 2020

Summary of asset allocation

	Market value ($)	% of Portfolio
Cash	**2,421,694.95**	**2.38**
Cash	**2,421,694.95**	**2.38**
US	2,421,694.95	2.38
Fixed Income	**31,286,856.22**	**30.74**
US	**26,664,490.41**	**26.20**
US Fixed Income	18,500,458.22	18.17
Government	4,059,639.15	3.99
Corporate IG Credit	372,288.15	0.37
Corporate High Yield	3,732,104.89	3.67
Global	**3,651,850.54**	**3.59**
Global	3,651,850.54	3.59
International	**970,515.27**	**0.95**
International	113,028.25	0.11
Emerging Markets	857,487.02	0.84
Equity	**68,067,827.40**	**66.88**
US	**59,076,760.78**	**58.05**
US Equity	18,040.00	0.02
Large Cap	41,309,243.54	40.59
Mid Cap	13,778,142.40	13.54
Small Cap	3,971,334.84	3.90
Convertibles	0.00	0.00
International	**8,991,066.62**	**8.83**
International	2,208,147.86	2.17
Developed Markets	4,702,336.01	4.62
Emerging Markets	2,080,582.75	2.04
Commodities	**0.00**	**0.00**
Non-Traditional	**0.00**	**0.00**
Other	**294.64**	**0.00**
Other	**294.64**	**0.00**
Other	294.64	0.00
Total Portfolio	**$101,776,673.20**	**100%**



Asset allocation review - as of April 30, 2020 (continued)

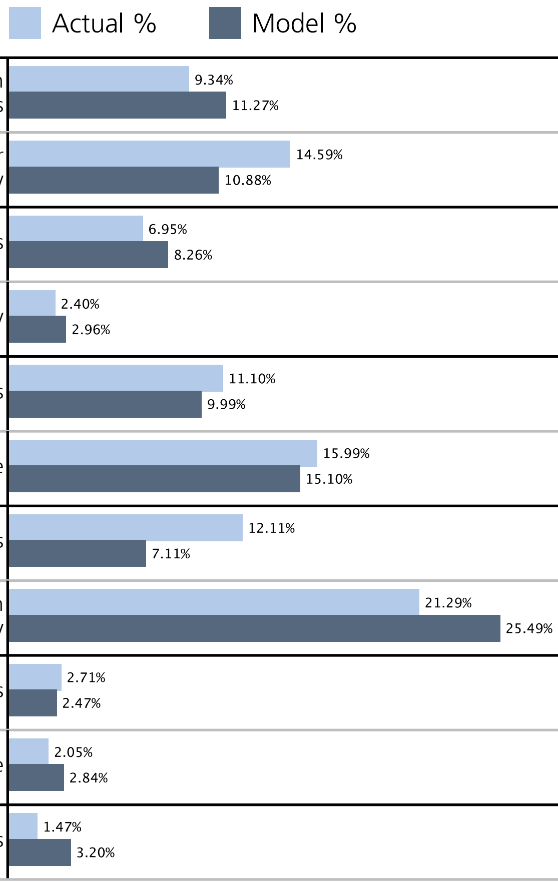
	Market value ($)	% of Portfolio

Balanced mutual funds represented in multiple asset classes based on Morningstar allocations

Equity sector analysis

as of April 30, 2020

Summary of equity sector analysis compared to S&P 500 index



	Value of equity ($)	Model value ($)	Gap ($)	Actual (%)	Model (%)	Gap (%)
Communication Services	6,362,552.21	7,675,056.11	-1,312,503.90	9.34%	11.27%	-1.93%
Consumer Discretionary	9,935,190.02	7,409,459.67	2,525,730.35	14.59%	10.88%	3.71%
Consumer Staples	4,730,321.46	5,625,196.41	-894,874.95	6.95%	8.26%	-1.31%
Energy	1,633,284.10	2,015,808.88	-382,524.78	2.40%	2.96%	-0.56%
Financials	7,560,943.65	6,803,354.97	757,588.68	11.10%	9.99%	1.11%
Health Care	10,888,832.70	10,283,349.36	605,483.34	15.99%	15.10%	0.89%
Industrials	8,244,443.50	4,842,027.41	3,402,416.09	12.11%	7.11%	5.00%
Information Technology	14,496,588.83	17,359,110.94	-2,862,522.11	21.29%	25.49%	-4.20%
Materials	1,848,592.43	1,682,110.79	166,481.64	2.71%	2.47%	0.24%
Real Estate	1,395,031.36	1,934,086.90	-539,055.54	2.05%	2.84%	-0.79%
Utilities	1,005,871.14	2,179,252.84	-1,173,381.70	1.47%	3.20%	-1.73%
Total classified equity	**$68,101,651.40**					
Unclassified Securities	-$33,824.00					

Rounding calculation may affect totals.

Equity sector analysis - as of April 30, 2020 (continued)

Detail of equity sector analysis

	Number of shares	Price on 04/30/2020 ($)	Value of equity ($/%)	Volatility/ 60-month beta	CIO GWM Recommendation	UBS Investment Research rating
Communication Services						
ALPHABET INC CL A CUSIP: 02079K305 Symbol: GOOGL	832.00	1,346.70	1,120,454.4 1.65%	Low	Most Preferred	Buy (Rating Exception)
ALPHABET INC CL C CUSIP: 02079K107 Symbol: GOOG	904.00	1,348.66	1,219,188.6 1.79%	Low	Most Preferred	Buy (Rating Exception)
AT&T INC CUSIP: 00206R102 Symbol: T	5,968.00	30.47	181,844.96 0.27%	Low	Most Preferred	Neutral (Rating Exception)
COMCAST CORP NEW CL A CUSIP: 20030N101 Symbol: CMCSA	10,600.00	37.63	398,878.00 0.59%	Low	Most Preferred	Neutral (Rating Exception)
FACEBOOK INC CL A CUSIP: 30303M102 Symbol: FB	4,000.00	204.71	818,840.00 1.20%	Low	Most Preferred	Buy (Rating Exception)
NEXSTAR MEDIA GROUP INC CL A CUSIP: 65336K103 Symbol: NXST	3,320.00	70.04	232,532.80 0.34%			
WALT DISNEY CO (HOLDING CO) DISNEY COM CUSIP: 254687106 Symbol: DIS	5,860.00	108.15	633,759.00 0.92%	Low	Bellwether	Neutral (Rating Exception)
MUTUAL FUNDS COMPONENT (for further details see last section of this report)			1,757,054.4 2.58%			
Total Communication Services			**$6,362,552.21** **9.34%**			
Consumer Discretionary						
AMAZON.COM INC CUSIP: 023135106 Symbol: AMZN	585.00	2,474.00	1,447,290.0 2.13%	Low	Most Preferred	Buy (Rating Exception)
BOOKING HLDGS INC CUSIP: 09857L108 Symbol: BKNG	200.00	1,480.57	296,114.00 0.43%	Medium		Neutral (Rating Exception)
CARMAX INC CUSIP: 143130102 Symbol: KMX	5,000.00	73.65	368,250.00 0.54%			
D R HORTON INC CUSIP: 23331A109 Symbol: DHI	7,000.00	47.22	330,540.00 0.49%		Most Preferred	
DAVE & BUSTERS ENTMT INC CUSIP: 238337109 Symbol: PLAY	5,000.00	14.64	73,200.00 0.11%			
GENTEX CORP CUSIP: 371901109 Symbol: GNTX	5,000.00	24.24	121,200.00 0.18%			
GENUINE PARTS CO CUSIP: 372460105 Symbol: GPC	3,000.00	79.28	237,840.00 0.35%			
LKQ CORP NEW CUSIP: 501889208 Symbol: LKQ	4,000.00	26.15	104,600.00 0.15%			
MCDONALDS CORP CUSIP: 580135101 Symbol: MCD	2,050.00	187.56	384,498.00 0.56%	Medium	Most Preferred	Neutral
O REILLY AUTOMOTIVE INC CUSIP: 67103H107 Symbol: ORLY	3,150.00	386.34	1,216,971.0 1.79%	Low		Buy
STARBUCKS CORP CUSIP: 855244109 Symbol: SBUX	11,280.00	76.73	865,514.40 1.27%	Medium	Bellwether	Neutral (Rating Exception)

Equity sector analysis - as of April 30, 2020 (continued)

	Number of shares	Price on 04/30/2020 ($)	Value of equity ($/%)	Volatility/ 60-month beta	CIO GWM Recommendation	UBS Investment Research rating
Consumer Discretionary						
TRACTOR SUPPLY COMPANY CUSIP: 892356106 Symbol: TSCO	13,000.00	101.43	1,318,590.0 1.94%	Low		Neutral
ULTA BEAUTY, INC CUSIP: 90384S303 Symbol: ULTA	1,000.00	217.92	217,920.00 0.32%	High		Buy
VF CORP CUSIP: 918204108 Symbol: VFC	1,400.00	58.10	81,340.00 0.12%	Medium	Bellwether	Neutral (Rating Exception)
YUM CHINA HLDGS INC CUSIP: 98850P109 Symbol: YUMC	20,000.00	48.46	969,200.00 1.42%	Low		Buy
YUM! BRANDS INC CUSIP: 988498101 Symbol: YUM	7,080.00	86.43	611,924.40 0.90%	Medium	Bellwether	Buy
MUTUAL FUNDS COMPONENT (for further details see last section of this report)			1,290,198.2 1.89%			
Total Consumer Discretionary			**$9,935,190.02** **14.59%**			
Consumer Staples						
CONAGRA BRANDS, INC. CUSIP: 205887102 Symbol: CAG	4,400.00	33.44	147,136.00 0.22%	Low		Buy (Rating Exception)
COSTCO WHOLESALE CORP CUSIP: 22160K105 Symbol: COST	3,660.00	303.00	1,108,980.0 1.63%	Low		Buy
DIAGEO PLC NEW GB SPON ADR CUSIP: 25243Q205 Symbol: DEO	1,000.00	138.65	138,650.00 0.20%	Low		Buy
GENL MILLS INC CUSIP: 370334104 Symbol: GIS	4,000.00	59.89	239,560.00 0.35%	Low		Neutral (Rating Exception)
PEPSICO INC CUSIP: 713448108 Symbol: PEP	5,000.00	132.29	661,450.00 0.97%	Low	Most Preferred	Neutral
PROCTER & GAMBLE CO CUSIP: 742718109 Symbol: PG	7,000.00	117.87	825,090.00 1.21%	Low	Most Preferred	Neutral
SMUCKER J M CO NEW CUSIP: 832696405 Symbol: SJM	3,000.00	114.91	344,730.00 0.51%			
WALMART INC CUSIP: 931142103 Symbol: WMT	1,050.00	121.55	127,627.50 0.19%	Low	Most Preferred	Neutral (Rating Exception)
MUTUAL FUNDS COMPONENT (for further details see last section of this report)			1,137,097.9 1.67%			
Total Consumer Staples			**$4,730,321.46** **6.95%**			

Equity sector analysis - as of April 30, 2020 (continued)

	Number of shares	Price on 04/30/2020 ($)	Value of equity ($/%)	Volatility/ 60-month beta	CIO GWM Recommendation	UBS Investment Research rating
Energy						
CHEVRON CORP			801,320.00	High	Most Preferred	Buy (Rating Exception)
CUSIP: 166764100 Symbol: CVX	8,710.00	92.00	1.18%			
ONEOK INC NEW			419,020.00	High		Buy (Rating Exception)
CUSIP: 682680103 Symbol: OKE	14,000.00	29.93	0.61%			
MUTUAL FUNDS COMPONENT			412,944.10			
(for further details see last section of this report)			0.61%			
Total Energy			**$1,633,284.10**			
			2.40%			
Financials						
BANK OF AMER CORP			794,852.50	Medium	Bellwether	Neutral (Rating Exception)
CUSIP: 060505104 Symbol: BAC	33,050.00	24.05	1.17%			
BLACKROCK INC			687,794.80	Low	Bellwether	Buy (Rating Exception)
CUSIP: 09247X101 Symbol: BLK	1,370.00	502.04	1.01%			
CHUBB LTD CHF			108,010.00	Low	Bellwether	Neutral (Rating Exception)
CUSIP: H1467J104 Symbol: CB	1,000.00	108.01	0.16%			
EAGLE BANCORP INC (MD)			175,400.00			
CUSIP: 268948106 Symbol: EGBN	5,000.00	35.08	0.26%			
EAST WEST BANCORP INC			192,885.00	Medium		Neutral (Rating Exception)
CUSIP: 27579R104 Symbol: EWBC	5,500.00	35.07	0.28%			
ESSENT GROUP LTD			273,200.00			
CUSIP: G3198U102 Symbol: ESNT	10,000.00	27.32	0.40%			
HARTFORD FINCL SERVICES GROUP INC			151,960.00	High		Buy (Rating Exception)
CUSIP: 416515104 Symbol: HIG	4,000.00	37.99	0.22%			
JPMORGAN CHASE & CO			191,520.00	Low	Bellwether	Neutral (Rating Exception)
CUSIP: 46625H100 Symbol: JPM	2,000.00	95.76	0.28%			
MARSH & MCLENNAN COS INC			684,229.90	Low	Bellwether	Buy (Rating Exception)
CUSIP: 571748102 Symbol: MMC	7,030.00	97.33	1.00%			
META FINANCIAL GROUP INC			92,100.00			
CUSIP: 59100U108 Symbol: CASH	5,000.00	18.42	0.14%			
SIGNATURE BANK NEW YORK N Y			267,950.00	Medium		Buy (Rating Exception)
CUSIP: 82669G104 Symbol: SBNY	2,500.00	107.18	0.39%			
TCF FINL CORP NEW			148,450.00	High		Buy (Rating Exception)
CUSIP: 872307103 Symbol: TCF	5,000.00	29.69	0.22%			
MUTUAL FUNDS COMPONENT			3,792,591.4			
(for further details see last section of this report)			5.57%			
Total Financials			**$7,560,943.65**			
			11.10%			

Equity sector analysis - as of April 30, 2020 (continued)

	Number of shares	Price on 04/30/2020 ($)	Value of equity ($/%)	Volatility/ 60-month beta	CIO GWM Recommendation	UBS Investment Research rating
Health Care						
ABBOTT LABS			1,129,852.2	Low		Buy
CUSIP: 002824100 Symbol: ABT	12,269.00	92.09	1.66%			
BRISTOL MYERS SQUIBB CO			243,240.00	Low		Neutral
CUSIP: 110122108 Symbol: BMY	4,000.00	60.81	0.36%			
CENTENE CORP			315,056.56			
CUSIP: 15135B101 Symbol: CNC	4,732.00	66.58	0.46%			
CIGNA CORP			77,137.32	Medium		Buy
CUSIP: 125523100 Symbol: CI	394.00	195.78	0.11%			
DANAHER CORP			1,798,060.0	Low		Buy (Rating Exception)
CUSIP: 235851102 Symbol: DHR	11,000.00	163.46	2.64%			
GILEAD SCIENCES INC			1,176,000.0	Low		Neutral
CUSIP: 375558103 Symbol: GILD	14,000.00	84.00	1.73%			
MEDTRONIC PLC			113,738.95	Medium		Buy
CUSIP: G5960L103 Symbol: MDT	1,165.00	97.63	0.17%			
MERCK & CO INC NEW COM			116,629.80	Low		Buy
CUSIP: 58933Y105 Symbol: MRK	1,470.00	79.34	0.17%			
PFIZER INC			383,600.00	Low		Neutral
CUSIP: 717081103 Symbol: PFE	10,000.00	38.36	0.56%			
STRYKER CORP			2,423,590.0	Medium		Neutral (Rating Exception)
CUSIP: 863667101 Symbol: SYK	13,000.00	186.43	3.56%			
SUPERNUS PHARMACEUTICALS INC			175,500.00			
CUSIP: 868459108 Symbol: SUPN	7,500.00	23.40	0.26%			
THERMO FISHER SCIENTIFIC INC			148,932.60	Low		Buy
CUSIP: 883556102 Symbol: TMO	445.00	334.68	0.22%			
UNITEDHEALTH GROUP INC			163,783.20	Medium		Neutral
CUSIP: 91324P102 Symbol: UNH	560.00	292.47	0.24%			
VARIAN MEDICAL SYSTEMS INC			343,140.00	Medium		Buy
CUSIP: 92220P105 Symbol: VAR	3,000.00	114.38	0.50%			
MUTUAL FUNDS COMPONENT			2,280,572.0			
(for further details see last section of this report)			3.35%			
Total Healthcare			**$10,888,832.70**			
			15.99%			
Industrials						
AECOM			105,154.00	High		Buy
CUSIP: 00766T100 Symbol: ACM	2,900.00	36.26	0.15%			
AIR LEASE CORP CL A			104,600.00			
CUSIP: 00912X302 Symbol: AL	4,000.00	26.15	0.15%			
ALLEGIANT TRAVEL CO			196,200.00			
CUSIP: 01748X102 Symbol: ALGT	2,500.00	78.48	0.29%			
AMETEK INC (NEW)			209,675.00			
CUSIP: 031100100 Symbol: AME	2,500.00	83.87	0.31%			
CARRIER GLOBAL CORP			16,470.30			
CUSIP: 14448C104 Symbol: CARR	930.00	17.71	0.02%			

Equity sector analysis - as of April 30, 2020 (continued)

	Number of shares	Price on 04/30/2020 ($)	Value of equity ($/%)	Volatility/ 60-month beta	CIO GWM Recommendation	UBS Investment Research rating
Industrials						
FASTENAL CO CUSIP: 311900104 Symbol: FAST	32,000.00	36.22	1,159,040.0 1.70%			
GENL DYNAMICS CORP CUSIP: 369550108 Symbol: GD	5,200.00	130.62	679,224.00 1.00%	Low	Bellwether	Neutral (Rating Exception)
IAA INC CUSIP: 449253103 Symbol: IAA	5,000.00	38.60	193,000.00 0.28%			
IDEX CORP CUSIP: 45167R104 Symbol: IEX	5,250.00	153.63	806,557.50 1.18%			
KAR AUCTION SVCS INC CUSIP: 48238T109 Symbol: KAR	5,000.00	14.98	74,900.00 0.11%			
LOCKHEED MARTIN CORP CUSIP: 539830109 Symbol: LMT	320.00	389.06	124,499.20 0.18%	Low	Most Preferred	Buy
OLD DOMINION FREIGHT LINES INC CUSIP: 679580100 Symbol: ODFL	3,150.00	145.29	457,663.50 0.67%			
OTIS WORLDWIDE CORP CUSIP: 68902V107 Symbol: OTIS	465.00	50.91	23,673.15 0.03%			
PATRICK INDUST INC CUSIP: 703343103 Symbol: PATK	8,000.00	41.22	329,760.00 0.48%			
RAYTHEON TECHNOLOGIES CORP CUSIP: 75513E101 Symbol: RTX	930.00	64.81	60,273.30 0.09%	Medium	Most Preferred	Buy
ROPER TECHNOLOGIES INC CUSIP: 776696106 Symbol: ROP	4,000.00	341.03	1,364,120.0 2.00%			
SENSATA TECHNOLOGIES HLDG PLC EUR CUSIP: G8060N102 Symbol: ST	5,000.00	36.38	181,900.00 0.27%			
WATSCO INC CUSIP: 942622200 Symbol: WSO	1,000.00	160.99	160,990.00 0.27%			
MUTUAL FUNDS COMPONENT (for further details see last section of this report)			1,996,743.5 2.93%			
Total Industrials			**$8,244,443.50** **12.11%**			
Information Technology						
APPLE INC CUSIP: 037833100 Symbol: AAPL	9,375.00	293.80	2,754,375.0 4.04%	Low	Bellwether	Buy (Rating Exception)
AUTOMATIC DATA PROCESSNG INC CUSIP: 053015103 Symbol: ADP	2,000.00	146.69	293,380.00 0.43%			
COGNEX CORP CUSIP: 192422103 Symbol: CGNX	8,000.00	55.24	441,920.00 0.65%	Medium		Neutral (Rating Exception)
F5 NETWORKS INC CUSIP: 315616102 Symbol: FFIV	5,800.00	139.26	807,708.00 1.19%			
FABRINET CUSIP: G3323L100 Symbol: FN	4,000.00	62.75	251,000.00 0.37%			
GLOBAL PAYMENTS INC CUSIP: 37940X102 Symbol: GPN	5,000.00	166.02	830,100.00 1.22%	Medium		Buy

Equity sector analysis - as of April 30, 2020 (continued)

	Number of shares	Price on 04/30/2020 ($)	Value of equity ($/%)	Volatility/ 60-month beta	CIO GWM Recommendation	UBS Investment Research rating
Information Technology						
MICROSOFT CORP CUSIP: 594918104 Symbol: MSFT	900.00	179.21	161,289.00 0.24%	Low	Most Preferred	Buy
ORACLE CORP CUSIP: 68389X105 Symbol: ORCL	5,000.00	52.97	264,850.00 0.39%	Low	Most Preferred	Neutral (Rating Exception)
PALO ALTO NETWORKS INC CUSIP: 697435105 Symbol: PANW	1,250.00	196.51	245,637.50 0.36%	Medium	Most Preferred	Buy
SAMSUNG ELECTRS LTD GDR (EACH REP 25 COM STK KRW100) REG. S *GB LINE* CUSIP: 7960509A2 Symbol:	170.00	1,025.89	174,401.98 0.26%			
SKYWORKS SOLUTIONS INC CUSIP: 83088M102 Symbol: SWKS	4,000.00	103.88	415,520.00 0.61%	Medium		Neutral (Rating Exception)
VISA INC CL A CUSIP: 92826C839 Symbol: V	12,000.00	178.72	2,144,640.0 3.14%	Low	Most Preferred	Neutral (Rating Exception)
MUTUAL FUNDS COMPONENT (for further details see last section of this report)			5,711,767.3 8.39%			
Total Information Technology			**$14,496,588.83** **21.29%**			
Materials						
LINDE PLC EUR CUSIP: G5494J103 Symbol: LIN	5,000.00	183.99	919,950.00 1.35%	Low	Most Preferred	Buy
RIO TINTO PLC SPON ADR CUSIP: 767204100 Symbol: RIO	7,000.00	46.19	323,330.00 0.47%	Low		Neutral (Rating Exception)
MUTUAL FUNDS COMPONENT (for further details see last section of this report)			605,312.43 0.89%			
Total Materials			**$1,848,592.43** **2.71%**			
Real Estate						
AMERICAN TOWER CORP REIT CUSIP: 03027X100 Symbol: AMT	1,000.00	238.00	238,000.00 0.35%	Low	Most Preferred	Buy (Rating Exception)
CROWN CASTLE INTL CORP REIT CUSIP: 22822V101 Symbol: CCI	2,700.00	159.43	430,461.00 0.63%	Low	Bellwether	Neutral (Rating Exception)
REALTY INCOME CORP MD SBI CUSIP: 756109104 Symbol: O	5,000.00	54.92	274,600.00 0.41%			
MUTUAL FUNDS COMPONENT (for further details see last section of this report)			451,970.36 0.66%			
Total Real Estate			**$1,395,031.36** **2.05%**			

Equity sector analysis - as of April 30, 2020 (continued)

	Number of shares	Price on 04/30/2020 ($)	Value of equity ($/%)	Volatility/ 60-month beta	CIO GWM Recommendation	UBS Investment Research rating
Utilities						
DUKE ENERGY CORP NEW CUSIP: 26441C204 Symbol: DUK	3,041.00	84.66	257,451.06 0.37%	Low		Buy
MUTUAL FUNDS COMPONENT (for further details see last section of this report)			748,420.08 1.10%			
Total Utilities			**$1,005,871.14** **1.47%**			
Total classified equity			**$68,101,651.40**			
Unclassified Securities						
CALL BANK OF AMER CORP DUE 09/18/20 35.000 052591 CUSIP: 99UBBQBB0 Symbol: BAC	-30.00	11.00	-330.00 0.00%	Medium	Bellwether	Neutral (Rating Exception)
CALL BRISTOL MYERS SQUIB DUE 06/19/20 105.000 100 +CASH 053082 CUSIP: 99UBAQ8B5 Symbol: BMY1	-10.00	1,072.50	-10,725.00 -0.02%			
CALL CHEVRON CORP DUE 12/18/20 125.000 0926P3 CUSIP: 99UBBC536 Symbol: CVX	-17.00	120.00	-2,040.00 0.00%	High	Most Preferred	Buy (Rating Exception)
CALL COMCAST CORP NEW CL DUE 06/19/20 50.000 026263 CUSIP: 99UBAXEN7 Symbol: CMCSA	-18.00	2.00	-36.00 0.00%	Low	Most Preferred	Neutral (Rating Exception)
CALL CONAGRA BRANDS, INC DUE 06/19/20 32.000 101290 CUSIP: 99UBBYLK2 Symbol: CAG	-14.00	252.50	-3,535.00 -0.01%	Low		Buy (Rating Exception)
CALL COSTCO WHOLESALE CO DUE 06/19/20 330.000 0929G5 CUSIP: 99UBBQEK7 Symbol: COST	-10.00	345.00	-3,450.00 -0.01%	Low		Buy
CALL DANAHER CORP DUE 06/19/20 175.000 126250 CUSIP: 99UBBX6E5 Symbol: DHR	-10.00	300.00	-3,000.00 0.00%	Low		Buy (Rating Exception)
CALL DUKE ENERGY CORP NE DUE 01/15/21 105.000 119MG4 CUSIP: 99UBAL1G2 Symbol: DUK	-10.00	120.00	-1,200.00 0.00%	Low		Buy
CALL GENL DYNAMICS CORP DUE 08/21/20 205.000 174360 CUSIP: 99UBB1AK6 Symbol: GD	-10.00	15.00	-150.00 0.00%	Low	Bellwether	Neutral (Rating Exception)
CALL GENUINE PARTS CO DUE 05/15/20 115.000 181455 CUSIP: 99UBBQKD6 Symbol: GPC	-10.00	6.00	-60.00 0.00%			
CALL GLOBAL PAYMENTS INC DUE 05/15/20 200.000 1848N3 CUSIP: 99UBBQMR3 Symbol: GPN	-20.00	105.00	-2,100.00 0.00%	Medium		Buy
CALL HARTFORD FINCL SERV DUE 01/15/21 70.000 1988E4 CUSIP: 99UBBAGZ7 Symbol: HIG	-10.00	28.00	-280.00 0.00%	High		Buy (Rating Exception)

Equity sector analysis - as of April 30, 2020 (continued)

	Number of shares	Price on 04/30/2020 ($)	Value of equity ($/%)	Volatility/ 60-month beta	CIO GWM Recommendation	UBS Investment Research rating
Unclassified Securities						
CALL IDEX CORP DUE 07/17/20 185.000 223085 CUSIP: 99UBBQM02 Symbol: IEX	-20.00	100.00	-2,000.00 0.00%			
CALL JPMORGAN CHASE & CO DUE 06/19/20 140.000 241JP2 CUSIP: 99UBBPTC1 Symbol: JPM	-10.00	6.00	-60.00 0.00%	Low	Bellwether	Neutral (Rating Exception)
CALL LINDE PLC EUR DUE 07/17/20 230.000 2621Y8 CUSIP: 99UBBU346 Symbol: LIN	-10.00	55.00	-550.00 0.00%	Low	Most Preferred	Buy
CALL MARSH & MCLENNAN CO DUE 07/17/20 125.000 275603 CUSIP: 99UBBV8H0 Symbol: MMC	-20.00	135.00	-2,700.00 0.00%	Low	Bellwether	Buy (Rating Exception)
CALL MCDONALDS CORP DUE 06/19/20 230.000 279676 CUSIP: 99UBBW524 Symbol: MCD	-10.00	19.00	-190.00 0.00%	Medium	Most Preferred	Neutral
CALL O REILLY AUTOMOTIVE DUE 05/15/20 510.000 350B81 CUSIP: 99UBBQN76 Symbol: ORLY	-5.00	200.00	-1,000.00 0.00%	Low		Buy
CALL ONEOK INC NEW DUE 07/17/20 80.000 3496G4 CUSIP: 99UBAV0A4 Symbol: OKE	-10.00	15.00	-150.00 0.00%	High		Buy (Rating Exception)
CALL PALO ALTO NETWORKS DUE 06/19/20 280.000 361DG0 CUSIP: 99UBBCUK0 Symbol: PANW	-2.00	28.00	-56.00 0.00%	Medium	Most Preferred	Buy
CALL PEPSICO INC DUE 07/17/20 155.000 368024 CUSIP: 99UBAQYN0 Symbol: PEP	-10.00	38.00	-380.00 0.00%	Low	Most Preferred	Neutral
CALL PFIZER INC DUE 06/19/20 39.000 370011 CUSIP: 99UBBAG20 Symbol: PFE	-20.00	108.00	-2,160.00 0.00%	Low		Neutral
CALL PROCTER & GAMBLE CO DUE 07/17/20 140.000 383601 CUSIP: 99UBBQOG5 Symbol: PG	-30.00	26.00	-780.00 0.00%	Low	Most Preferred	Neutral
CALL SMUCKER J M CO NEW DUE 01/15/21 130.000 4258Y5 CUSIP: 99UBBC569 Symbol: SJM	-10.00	415.00	-4,150.00 -0.01%			
CALL STARBUCKS CORP DUE 07/17/20 100.000 509736 CUSIP: 99UBBQO67 Symbol: SBUX	-22.00	16.00	-352.00 0.00%	Medium	Bellwether	Neutral (Rating Exception)
CALL VF CORP DUE 05/15/20 97.500 488984 CUSIP: 99UBBCZ09 Symbol: VFC	-4.00	50.00	-200.00 0.00%	Medium	Bellwether	Neutral (Rating Exception)
CALL YUM CHINA HLDGS INC DUE 07/17/20 50.000 518NY1 CUSIP: 99UBAYRO9 Symbol: YUMC	-30.00	240.00	-7,200.00 -0.01%	Low		Buy
CALL YUM! BRANDS INC DUE 07/17/20 115.000 5175J8 CUSIP: 99UBAWGN7 Symbol: YUM	-20.00	10.00	-200.00 0.00%	Medium	Bellwether	Buy
ESCROW ALTABA INC CUSIP: 021ESC017 Symbol:	3,000.00	0.00	0.00 0.00%			
ESCROW GENERAL MTRS CORP 6.250% SER C DUE 07/15/33 CALLBL CONV CUSIP: 370ESC717 Symbol:	20,000.00	0.00	0.00 0.00%			

Equity sector analysis - as of April 30, 2020 (continued)

	Number of shares	Price on 04/30/2020 ($)	Value of equity ($/%)	Volatility/ 60-month beta	CIO GWM Recommendation	UBS Investment Research rating
Unclassified Securities						
PUT WALT DISNEY CO (HOL DUE 06/19/20 97.500 129488 CUSIP: 99UBBQB20 Symbol: DIS	-10.00	283.00	-2,830.00 0.00%	Low	Bellwether	Neutral (Rating Exception)
RTS BRISTOL-MYERS SQUIBB CO CUSIP: 110122157 Symbol: BMYRT	4,000.00	4.51	18,040.00 0.03%			
Total Unclassified Securities			**-$33,824.00 -0.05%**			
Total equity			**$68,067,827.40**			

Balanced mutual funds represented in multiple asset classes based on Morningstar allocations.

Rounding calculation may affect totals.

Blended investments included in this report

	Quantity	Price on 04/30/2020 ($)	Market value on 04/30/2020 ($)	Equity market value on 04/30/2020 ($)	Volatility/ 60-month beta	CIO GWM Recommendation	UBS Investment Research rating
AMER FUNDS CAPITAL WORLD GROWTH & INCOME FUND CL A CUSIP: 140543109 Symbol: CWGIX (91.4% Equity)	27,416.07	45.37	1,243,867.14	1,136,894.66			
AMER FUNDS NEW WORLD FUND CLASS F2 CUSIP: 649280823 Symbol: NFFFX (87.88% Equity)	11,692.50	60.10	702,718.95	617,549.32			
AMERICAN FUNDS EURO PACIFIC GROWTH FUND CL A CUSIP: 298706102 Symbol: AEPGX (90.67% Equity)	62,662.75	47.02	2,946,402.69	2,671,502.77			
AMERICAN FUNDS NEW WORLD FUND CL A CUSIP: 649280104 Symbol: NEWFX (87.88% Equity)	35,550.20	60.25	2,141,899.55	1,882,301.07			
COLUMBIA SELIGMAN COMMUNICATION AND INFORMATION FUND A CUSIP: 19766H429 Symbol: SLMCX (98.94% Equity)	56,228.39	73.28	4,120,416.27	4,076,739.87			
ISHARES RUSSELL 2000 ETF CUSIP: 464287655 Symbol: IWM (99.58% Equity)	8,758.00	130.31	1,141,254.98	1,136,461.70			
MFS NEW DISCOVERY VALUE FUND CLASS A CUSIP: 55278M100 Symbol: NDVAX (97.86% Equity)	94,191.60	12.51	1,178,336.93	1,153,120.46			
MFS VALUE FUND CLASS A CUSIP: 552983801 Symbol: MEIAX (97.87% Equity)	107,098.80	37.29	3,993,714.10	3,908,648.00			
SPDR S&P 500 ETF TR CUSIP: 78462F103 Symbol: SPY (99.5% Equity)	2,304.00	290.48	669,265.92	665,919.58			
VANGUARD MID-CAP VALUE ETF CUSIP: 922908512 Symbol: VOE (99.88% Equity)	7,580.00	91.56	694,024.80	693,191.98			
VIRTUS KAR SMALL-CAP GROWTH FUND CLASS A CUSIP: 92828N627 Symbol: PSGAX (94.52% Equity)	62,843.63	37.75	2,372,347.03	2,242,342.54			

Bond summary

as of April 30, 2020

Bond overview

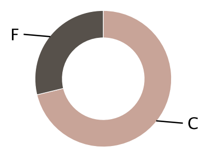
Total quantity	467,000
Total market value	$509,658.02
Total accrued interest	$13,081.17
Total market value plus accrued interest	$522,739.19
Total estimated annual bond interest	$29,956.35
Average coupon	7.04%
Average current yield	5.88%
Average yield to maturity	0.84%
Average yield to worst	0.84%
Average modified duration	1.63
Average effective maturity	1.85

Investment type allocation

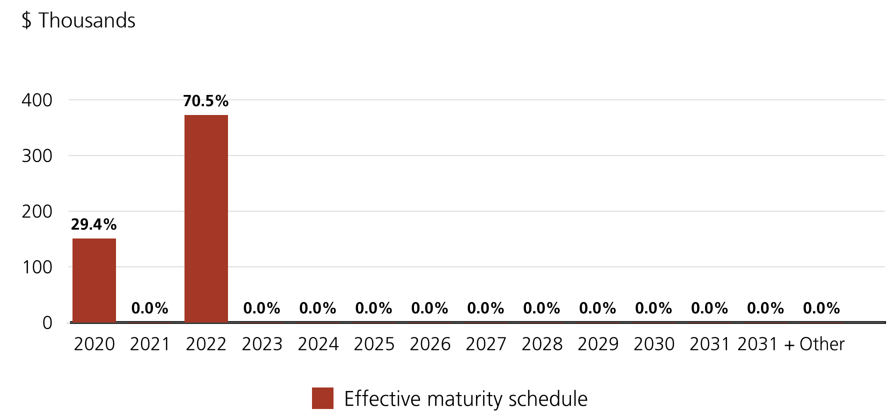
Investment type	Taxable ($)	Tax-exempt / deferred ($)	Total ($)	% of bond port.
Certificates of deposit	0.00	150,451.05	150,451.05	28.78
U.S. corporates	0.00	372,288.14	372,288.14	71.22
Total	**$0.00**	**$522,739.19**	**$522,739.19**	**100%**

Credit quality of bond holdings

	Effective credit rating	Issues	Value on 04/30/2020 ($)	% of port.
A	Aaa/AAA/AAA	0	0.00	0.00
B	Aa/AA/AA	0	0.00	0.00
C	A/A/A	1	372,288.14	70.52
D	Baa/BBB/BBB	0	0.00	0.00
E	Non-investment grade	0	0.00	0.00
F	Certificate of deposit	2	150,451.05	29.48
G	Not rated	1	0.00	0.00
Total		**4**	**$522,739.19**	**100%**



Bond maturity schedule



Cash, mutual funds and some preferred securities are not included.

Includes all fixed income securities in the selected porfolio. Average yields and durations exclude Structured Product, Pass-Through, Perpetual Preferred, and Foreign securities.

Bond holdings

as of April 30, 2020

Summary of bond holdings

Maturity Year	Issues	Quantity	Est. annual income ($)	Current yield (%)	Yield to maturity (%)	Yield to worst (%)	Modified duration	Adjusted cost basis ($)	Unrealized gain/loss ($)	Mkt. value ($)	% of bond portfolio maturing
2020	2	150,000	1,875.00	1.25%	0.34 %	0.34 %	0.17	150,000	240.50	150,451.05	29.48%
2021	0	0			NA	NA	NA				
2022	1	297,000	28,081.35	7.81%	1.05 %	1.05 %	2.24	293,625	65,792.52	372,288.14	70.52%
2023	0	0			NA	NA	NA				
2024	0	0			NA	NA	NA				
2025	0	0			NA	NA	NA				
2026	0	0			NA	NA	NA				
2027	0	0			NA	NA	NA				
2028	0	0			NA	NA	NA				
2029	0	0			NA	NA	NA				
2030	0	0			NA	NA	NA				
2031	0	0			NA	NA	NA				
2032	0	0			NA	NA	NA				
2033	1	20,000	0.00	0.00%	NA	NA	NA	496,763	-496,763.00	0.00	
2034	0	0			NA	NA	NA				
2035	0	0			NA	NA	NA				
2036	0	0			NA	NA	NA				
2037	0	0			NA	NA	NA				
2038	0	0			NA	NA	NA				
2039	0	0			NA	NA	NA				
2040	0	0			NA	NA	NA				
2041	0	0			NA	NA	NA				
2042	0	0			NA	NA	NA				
2043	0	0			NA	NA	NA				
2044	0	0			NA	NA	NA				
2045	0	0			NA	NA	NA				
2046	0	0			NA	NA	NA				
2047	0	0			NA	NA	NA				
2048	0	0			NA	NA	NA				
2049	0	0			NA	NA	NA				
2049 +	0	0			NA	NA	NA				
Other	0	0			NA	NA	NA				
Total	**4**	**467,000**	**$29,956.35**	**5.88%**	**0.84 %**	**0.84 %**	**1.63**	**$940,388.00**	**$-430,729.98**	**$522,739.19**	

Includes all fixed-rate securities in the selected portfolio. Average yields and durations exclude Structured Product, Pass-Through, Perpetual Preferred, and Foreign securities.

Details of bond holdings

	Effective rating/ Underlying rating (Mdy/Fitch/S&P)	Quantity	Coupon	Effective maturity	Call date/ Call price ($)	Est. annual income ($)/ Curr. yield (%)	YTM (%)/ YTW (%)	Modified duration	Adjusted cost basis ($)/ Unreal. g/l ($)	Market price ($)	Mkt. value ($)/ Accr. interest ($)	% of bond port.
Total Bond Portfolio		**467,000**	**7.04%**	**03/05/2022**	**NA**	**$29,956.35** **5.88%**	**0.84%** **0.84%**	**1.63**	**$940,388.00** **$-430,729.98**	**NA**	**$509,658.02** **$13,081.17** **$522,739.19**	**100%**

Maturing 2020	Effective rating/ Underlying rating (Mdy/Fitch/S&P)	Quantity	Coupon	Effective maturity	Call date/ Call price ($)	Est. annual income ($)/ Curr. yield (%)	YTM (%)/ YTW (%)	Modified duration	Adjusted cost basis ($)/ Unreal. g/l ($)	Market price ($)	Mkt. value ($)/ Accr. interest ($)	% of bond port.
VALLEY NATL BANK NJ US RT 01.1000% MAT 07/01/20 FIXED RATE CD /NJ CUSIP: 919853FW6 Initial Purchase Date: 03/25/2020 Original Maturity: 07/01/2020	CD	100,000	1.10%	07/01/2020		1,100.00 1.10%	0.34% 0.34%	0.16	100,000.00 129.00	100.129	100,129.00 87.40	19.65%
VERITEX CMNTY BK N TX US RT 01.5500% MAT 07/06/20 FIXED RATE CD /TX CUSIP: 923450CA6 Initial Purchase Date: 02/27/2020 Original Maturity: 07/06/2020	CD	50,000	1.55%	07/06/2020		775.00 1.55%	0.33% 0.33%	0.18	50,000.00 111.50	100.223	50,111.50 123.15	9.83%
Total 2020		**150,000**	**1.25%**	**07/03/2020**		**$1,875.00** **1.25%**	**0.34%** **0.34%**	**0.17**	**$150,000.00** **$240.50**		**$150,240.50** **$210.55**	**29.48%**

Maturing 2022	Effective rating/ Underlying rating (Mdy/Fitch/S&P)	Quantity	Coupon	Effective maturity	Call date/ Call price ($)	Est. annual income ($)/ Curr. yield (%)	YTM (%)/ YTW (%)	Modified duration	Adjusted cost basis ($)/ Unreal. g/l ($)	Market price ($)	Mkt. value ($)/ Accr. interest ($)	% of bond port.
COMCAST CABLE 09.455% 111522 DTD111802 FC051503 COMMUNICATION CUSIP: 00209TAB1 Initial Purchase Date: 02/13/1992 Original Maturity: 11/15/2022	A3/A-/A- NR/NR/NR	297,000	9.46%	11/15/2022		28,081.35 7.81%	1.05% 1.05%	2.24	293,625.00 65,792.52	121.016	359,417.52 12,870.62	70.52%
Total 2022		**297,000**	**9.46%**	**11/15/2022**		**$28,081.35** **7.81%**	**1.05%** **1.05%**	**2.24**	**$293,625.00** **$65,792.52**		**$359,417.52** **$12,870.62**	**70.52%**

Includes all fixed-rate securities in the selected portfolio. Average yields and durations exclude Structured Product, Pass-Through, Perpetual Preferred, and Foreign securities.

Bond holdings - as of April 30, 2020 (continued)

	Effective rating/ Underlying rating (Mdy/Fitch/S&P)	Quantity	Coupon	Effective maturity	Call date/ Call price ($)	Est. annual income ($)/ Curr. yield (%)	YTM (%)/ YTW (%)	Modified duration	Adjusted cost basis ($)/ Unreal. g/l ($)	Market price ($)	Mkt. value ($)/ Accr. interest ($)	% of bond port.
Maturing 2033												
ESCROW GENERAL MTRS CORP 6.250% SER C DUE 07/15/33 CALLBL CONV /DE CUSIP: 370ESC717 Initial Purchase Date: 07/10/2003 Original Maturity: 07/15/2033	NR/NR/NR NR/NR/NR	20,000		07/15/2033	07/15/2033 25.00		NA NA	NA	496,763.00 -496,763.00	0.000	0.00 0.00	0.00%
Total 2033		**20,000**	**0.00%**	**07/15/2033**		**$0.00** **0.00%**	**NA** **NA**	**NA**	**$496,763.00** **$-496,763.00**		**$0.00** **$0.00**	**0.00%**

	Effective rating/ Underlying rating (Mdy/Fitch/S&P)	Quantity	Coupon	Effective maturity	Call date/ Call price ($)	Est. annual income ($)/ Curr. yield (%)	YTM (%)/ YTW (%)	Modified duration	Adjusted cost basis ($)/ Unreal. g/l ($)	Market price ($)	Mkt. value ($)/ Accr. interest ($)	% of bond port.
Total Bond Portfolio		**467,000**	**7.04%**	**03/05/2022**	**NA**	**$29,956.35** **5.88%**	**0.84%** **0.84%**	**1.63**	**$940,388.00** **$-430,729.98**	**NA**	**$509,658.02** **$13,081.17** **$522,739.19**	**100%**

Includes all fixed-rate securities in the selected portfolio. Average yields and durations exclude Structured Product, Pass-Through, Perpetual Preferred, and Foreign securities.

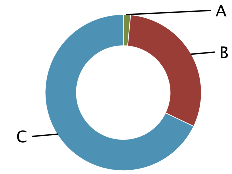
Portfolio holdings

as of April 30, 2020

Summary of Portfolio Holdings

	Cost basis ($)	Value on 04/30/2020 ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Portfolio
A Cash	**1,530,867.07**	**1,530,867.07**	**0.00**	**0.00%**	**15,475.76**	**1.01%**	**1.51%**
Cash	1,530,867.07	1,530,867.07	0.00	0.00%	15,475.76	1.01%	1.51%
US	1,530,867.07	1,530,867.07	0.00	0.00%	15,475.76	1.01%	1.51%
B Fixed Income	**32,345,111.73**	**31,158,402.33**	**-1,186,709.40**	**-3.67%**	**1,018,170.72**	**3.27%**	**30.61%**
US	27,415,824.37	26,649,064.77	-766,759.60	-2.80%	854,523.98	3.21%	26.18%
US Fixed Income	18,713,285.08	18,485,032.59	-228,252.49	-1.22%	497,753.03	2.69%	18.15%
Government	3,830,530.19	4,059,639.15	229,108.96	5.98%	78,537.53	1.93%	3.99%
Corporate IG Credit	293,625.00	372,288.14	78,663.14	26.79%	28,081.35	7.81%	0.37%
Corporate High Yield	4,578,384.10	3,732,104.89	-846,279.21	-18.48%	250,152.07	6.70%	3.67%
Global	3,907,676.54	3,651,850.54	-255,826.00	-6.55%	116,101.29	3.18%	3.59%
Global	3,907,676.54	3,651,850.54	-255,826.00	-6.55%	116,101.29	3.18%	3.59%
International	1,021,610.82	857,487.02	-164,123.80	-16.07%	47,545.45	5.54%	0.84%
Emerging Markets	1,021,610.82	857,487.02	-164,123.80	-16.07%	47,545.45	5.54%	0.84%
C Equity	**42,245,526.96**	**69,087,403.80**	**26,841,876.84**	**63.54%**	**1,048,935.13**	**1.52%**	**67.88%**
US	30,134,763.40	55,448,468.26	25,313,704.86	84.00%	890,007.25	1.61%	54.48%
US Equity	9,200.00	18,040.00	8,840.00	96.09%	0.00	0.00%	0.02%
Large Cap	17,170,045.66	38,592,355.92	21,422,310.26	124.77%	604,083.37	1.57%	37.91%
Mid Cap	6,518,287.55	10,691,940.60	4,173,653.05	64.03%	221,164.82	2.07%	10.51%
Small Cap	5,940,467.19	6,146,131.74	205,664.55	3.46%	64,759.06	1.05%	6.04%
Convertibles	496,763.00	0.00	-496,763.00	-100.00%	0.00	0.00%	0.00%
Global	4,121,783.44	5,364,283.42	1,242,499.97	30.14%	24,126.14	0.45%	5.27%
Global	4,121,783.44	5,364,283.42	1,242,499.97	30.14%	24,126.14	0.45%	5.27%
International	7,988,980.12	8,274,652.12	285,672.01	3.58%	134,801.74	1.63%	8.13%
International	84,933.90	251,000.00	166,066.10	195.52%	0.00	0.00%	0.25%
Developed Markets	5,012,224.72	5,004,631.64	-7,593.07	-0.15%	97,572.69	1.95%	4.91%
Emerging Markets	2,891,821.50	3,019,020.48	127,198.98	4.40%	37,229.05	1.23%	2.97%
D Commodities	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00%**	**0.00%**
E Non-Traditional	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00%**	**0.00%**
F Other	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00%**	**0.00%**
Total Portfolio	**$76,121,505.76**	**$101,776,673.20**	**$25,655,167.44**	**33.70%**	**$2,082,581.60**	**2.05%**	**100%**

Balanced mutual funds represented in multiple asset classes based on Morningstar allocations



Details of portfolio holdings

	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of asset class	% of Portfolio
Total Portfolio	**$76,121,505.76**	**$101,776,673.20**	**$25,655,167.44**	**33.70%**	**$2,082,581.60**	**2.05%**	**100%**	**100%**

Cash	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Cash	% of Portfolio
Cash											
US											
LIQUID ASSETS GOVT FUND CUSIP: 90262Y307 Symbol: MMLIRA	1,529,285.67	1.00	1.00	1,529,285.67	1,529,285.67	0.00	0.00%	15,475.76	1.01%	99.90%	1.50%
USD CASH	1,581.40	2.00	1.00	1,581.40	1,581.40	0.00	0.00%	0.00	0.00%	0.10%	0.01%
Total US				**$1,530,867.07**	**$1,530,867.07**	**$0.00**	**0.00%**	**$15,475.76**	**1.01%**	**100.00%**	**1.51%**
Total Cash				**$1,530,867.07**	**$1,530,867.07**	**$0.00**	**0.00%**	**$15,475.76**	**1.01%**	**100.00%**	**1.51%**
Total Cash				**$1,530,867.07**	**$1,530,867.07**	**$0.00**	**0.00%**	**$15,475.76**	**1.01%**	**100.00%**	**1.51%**

Fixed Income	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Fixed Income	% of Portfolio
US											
US Fixed Income											
LOOMIS SAYLES INVESTMENT GRADE BOND FUND CLASS A CUSIP: 543487144 Symbol: LIGRX Initial purchase date: Jun 13, 2014 Client investment: $7,097,012.03 Reinvested dividends: $1,758,109.83 Investment return: $1,180,228.37 (16.63%)	732,499.15	12.09	11.30	8,855,121.86	8,277,240.40	-577,881.47	-6.53%	260,696.45	3.15%	26.57%	8.12%
METROPOLITAN WEST TOTAL RETURN BOND FUND CUSIP: 592905103 Symbol: MWTRX Initial purchase date: Nov 14, 2014 Client investment: $3,587,358.91 Reinvested dividends: $680,997.18 Investment return: $891,198.61 (24.84%)	393,892.48	10.84	11.37	4,268,356.09	4,478,557.52	210,201.43	4.92%	106,779.17	2.38%	14.37%	4.40%

Portfolio holdings - as of April 30, 2020 (continued)

Fixed Income	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Fixed Income	% of Portfolio
US											
THORNBURG LIMITED TERM INCOME FD CLASS A CUSIP: 885215509 Symbol: THIFX Initial purchase date: Mar 09, 2017 Client investment: $5,020,625.28 Reinvested dividends: $419,181.85 Investment return: $558,158.34 (11.12%)	409,001.73	13.30	13.64	5,439,807.13	5,578,783.62	138,976.49	2.55%	128,402.41	2.30%	17.90%	5.48%
VALLEY NATL BANK NJ US RT 01.1000% MAT 07/01/20 FIXED RATE CD CUSIP: 919853FW6 Symbol: ZBDIH Initial purchase date: Mar 25, 2020	100,000.00	100.00	100.13	100,000.00	100,216.40	216.40	0.22%	1,100.00	1.10%	0.32%	0.10%
VERITEX CMNTY BK N TX US RT 01.5500% MAT 07/06/20 FIXED RATE CD CUSIP: 923450CA6 Symbol: ZBBMU Initial purchase date: Feb 27, 2020	50,000.00	100.00	100.22	50,000.00	50,234.65	234.65	0.47%	775.00	1.55%	0.16%	0.05%
Total US Fixed Income				**$18,713,285.08**	**$18,485,032.59**	**$-228,252.49**	**-1.22%**	**$497,753.03**	**2.69%**	**59.33%**	**18.15%**
Government											
ISHARES TIPS BOND ETF CUSIP: 464287176 Symbol: TIP Initial purchase date: Feb 16, 2017 Client investment: $3,689,182.34 Reinvested dividends: $141,347.85 Investment return: $370,456.81 (10.04%)	33,465.00	114.46	121.31	3,830,530.19	4,059,639.15	229,108.96	5.98%	78,537.53	1.93%	13.03%	3.99%
Total Government				**$3,830,530.19**	**$4,059,639.15**	**$229,108.96**	**5.98%**	**$78,537.53**	**1.93%**	**13.03%**	**3.99%**
Corporate IG Credit											
COMCAST CABLE 09.455% 111522 DTD111802 FC051503 COMMUNICATION CUSIP: 00209TAB1 Initial purchase date: Feb 13, 1992	297,000.00	98.86	121.02	293,625.00	372,288.14	78,663.14	26.79%	28,081.35	7.81%	1.19%	0.37%
Total Corporate IG Credit				**$293,625.00**	**$372,288.14**	**$78,663.14**	**26.79%**	**$28,081.35**	**7.81%**	**1.19%**	**0.37%**
Corporate High Yield											
AB HIGH INCOME FUND CLASS A CUSIP: 01859M101 Symbol: AGDAX Initial purchase date: Nov 16, 2012 Client investment: $1,109,241.65 Reinvested dividends: $1,187,862.27 Investment return: $634,645.77 (57.21%)	256,077.45	8.97	6.81	2,297,103.92	1,743,887.42	-553,216.50	-24.08%	133,250.64	7.64%	5.60%	1.72%

Portfolio holdings - as of April 30, 2020 (continued)

Fixed Income	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Fixed Income	% of Portfolio
US											
BLACKROCK HIGH YIELD BOND PORTFOLIOA CUSIP: 09260B663 Symbol: BHYAX Initial purchase date: Nov 16, 2012 Client investment: $1,215,925.43 Reinvested dividends: $1,065,354.75 Investment return: $772,292.04 (63.51%)	288,147.46	7.92	6.90	2,281,280.18	1,988,217.47	-293,062.71	-12.85%	116,901.42	5.88%	6.38%	1.95%
Total Corporate High Yield				**$4,578,384.10**	**$3,732,104.89**	**$-846,279.21**	**-18.48%**	**$250,152.07**	**6.70%**	**11.98%**	**3.67%**
Total US				**$27,415,824.37**	**$26,649,064.77**	**$-766,759.60**	**-2.80%**	**$854,523.98**	**3.21%**	**85.53%**	**26.18%**
Global											
Global											
BLACKROCK STRATEGIC INCOME OPPORTUNITIES PORTFOLIOA CUSIP: 09260B416 Symbol: BASIX Initial purchase date: Feb 13, 2014 Client investment: $3,141,350.15 Reinvested dividends: $766,326.39 Investment return: $510,500.39 (16.25%)	382,793.56	10.21	9.54	3,907,676.54	3,651,850.54	-255,826.00	-6.55%	116,101.29	3.18%	11.72%	3.59%
Total Global				**$3,907,676.54**	**$3,651,850.54**	**$-255,826.00**	**-6.55%**	**$116,101.29**	**3.18%**	**11.72%**	**3.59%**
Total Global				**$3,907,676.54**	**$3,651,850.54**	**$-255,826.00**	**-6.55%**	**$116,101.29**	**3.18%**	**11.72%**	**3.59%**
International											
Emerging Markets											
TCW EMERGING MARKETS INCOME FUND CLASS N CUSIP: 87234N351 Symbol: TGINX Initial purchase date: Oct 09, 2019 Client investment: $1,000,075.00 Reinvested dividends: $21,535.82 Investment return: $-142,587.98 (-14.26%)	95,915.77	10.65	8.94	1,021,610.82	857,487.02	-164,123.80	-16.07%	47,545.45	5.54%	2.75%	0.84%
Total Emerging Markets				**$1,021,610.82**	**$857,487.02**	**$-164,123.80**	**-16.07%**	**$47,545.45**	**5.54%**	**2.75%**	**0.84%**
Total International				**$1,021,610.82**	**$857,487.02**	**$-164,123.80**	**-16.07%**	**$47,545.45**	**5.54%**	**2.75%**	**0.84%**
Total Fixed Income				**$32,345,111.73**	**$31,158,402.33**	**$-1,186,709.40**	**-3.67%**	**$1,018,170.72**	**3.27%**	**100.00%**	**30.61%**

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
US Equity											
RTS BRISTOL-MYERS SQUIBB CO CUSIP: 110122157 Symbol: BMYRT Initial purchase date: Nov 21, 2019	4,000.00	2.30	4.51	9,200.00	18,040.00	8,840.00	96.09%	0.00	0.00%	0.03%	0.02%
Total US Equity				**$9,200.00**	**$18,040.00**	**$8,840.00**	**96.09%**	**$0.00**	**0.00%**	**0.03%**	**0.02%**
Large Cap											
ABBOTT LABS CUSIP: 002824100 Symbol: ABT Initial purchase date: May 11, 2016	12,269.00	33.01	92.09	404,979.90	1,129,852.21	724,872.31	178.99%	17,667.36	1.56%	1.64%	1.11%
ALPHABET INC CL A CUSIP: 02079K305 Symbol: GOOGL Initial purchase date: Nov 12, 2009	832.00	452.75	1,346.70	376,686.20	1,120,454.40	743,768.20	197.45%	0.00	0.00%	1.62%	1.10%
ALPHABET INC CL C CUSIP: 02079K107 Symbol: GOOG Initial purchase date: Nov 12, 2009	904.00	433.82	1,348.66	392,177.01	1,219,188.64	827,011.63	210.88%	0.00	0.00%	1.76%	1.20%
AMAZON.COM INC CUSIP: 023135106 Symbol: AMZN Initial purchase date: Sep 14, 2016	585.00	769.36	2,474.00	450,073.08	1,447,290.00	997,216.92	221.57%	0.00	0.00%	2.09%	1.42%
AMERICAN TOWER CORP REIT CUSIP: 03027X100 Symbol: AMT Initial purchase date: Apr 13, 2012	1,000.00	63.62	238.00	63,618.17	238,000.00	174,381.83	274.11%	3,960.00	1.66%	0.34%	0.23%
APPLE INC CUSIP: 037833100 Symbol: AAPL Initial purchase date: Sep 15, 2011	9,375.00	75.76	293.80	710,258.06	2,754,375.00	2,044,116.94	287.80%	28,875.00	1.05%	3.99%	2.71%
AT&T INC CUSIP: 00206R102 Symbol: T Initial purchase date: Jun 09, 2011	5,968.00	31.24	30.47	186,443.46	181,844.96	-4,598.50	-2.47%	12,413.44	6.83%	0.26%	0.18%
AUTOMATIC DATA PROCESSNG INC CUSIP: 053015103 Symbol: ADP Initial purchase date: Aug 01, 2002	2,000.00	29.12	146.69	58,245.59	293,380.00	235,134.41	403.69%	7,280.00	2.48%	0.42%	0.29%
BANK OF AMER CORP CUSIP: 060505104 Symbol: BAC Initial purchase date: Jan 13, 2016	33,050.00	15.11	24.05	499,349.09	794,852.50	295,503.41	59.18%	23,796.00	2.99%	1.15%	0.78%
BLACKROCK INC CUSIP: 09247X101 Symbol: BLK Initial purchase date: Aug 10, 2016	1,370.00	387.24	502.04	530,515.29	687,794.80	157,279.51	29.65%	19,892.40	2.89%	1.00%	0.68%
BOOKING HLDGS INC CUSIP: 09857L108 Symbol: BKNG Initial purchase date: Feb 26, 2019	200.00	1,908.50	1,480.57	381,699.89	296,114.00	-85,585.89	-22.42%	0.00	0.00%	0.43%	0.29%
BRISTOL MYERS SQUIBB CO CUSIP: 110122108 Symbol: BMY Initial purchase date: Nov 21, 2019	4,000.00	56.41	60.81	225,640.00	243,240.00	17,600.00	7.80%	7,200.00	2.96%	0.35%	0.24%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
CALL BANK OF AMER CORP DUE 09/18/20 35.000 052591 CUSIP: 99UBBQBB0 Symbol: BAC Initial purchase date: Sep 10, 2019	-30.00	9,040.30	11.00	-2,712.09	-330.00	2,382.09	87.83%	0.00	0.00%	0.00%	0.00%
CALL BRISTOL MYERS SQUIB DUE 06/19/20 105.000 100 +CASH 053082 CUSIP: 99UBAQ8B5 Symbol: BMY1 Initial purchase date: Aug 15, 2019	-10.00	9,162.30	1,072.50	-916.23	-10,725.00	-9,808.77	-1,070.56%	0.00	0.00%	-0.02%	-0.01%
CALL CHEVRON CORP DUE 12/18/20 125.000 0926P3 CUSIP: 99UBBC536 Symbol: CVX Initial purchase date: Feb 14, 2020	-17.00	18,235.5	120.00	-3,100.04	-2,040.00	1,060.04	34.19%	0.00	0.00%	0.00%	0.00%
CALL COMCAST CORP NEW CL DUE 06/19/20 50.000 026263 CUSIP: 99UBAXEN7 Symbol: CMCSA Initial purchase date: Nov 13, 2019	-18.00	11,271.7	2.00	-2,028.92	-36.00	1,992.92	98.23%	0.00	0.00%	0.00%	0.00%
CALL COSTCO WHOLESALE CO DUE 06/19/20 330.000 0929G5 CUSIP: 99UBBQEK7 Symbol: COST Initial purchase date: Feb 14, 2020	-10.00	86,946.5	345.00	-8,694.65	-3,450.00	5,244.65	60.32%	0.00	0.00%	0.00%	0.00%
CALL DANAHER CORP DUE 06/19/20 175.000 126250 CUSIP: 99UBBX6E5 Symbol: DHR Initial purchase date: Feb 14, 2020	-10.00	25,860.9	300.00	-2,586.09	-3,000.00	-413.91	-16.01%	0.00	0.00%	0.00%	0.00%
CALL DUKE ENERGY CORP NE DUE 01/15/21 105.000 119MG4 CUSIP: 99UBAL1G2 Symbol: DUK Initial purchase date: Feb 14, 2020	-10.00	32,453.5	120.00	-3,245.35	-1,200.00	2,045.35	63.02%	0.00	0.00%	0.00%	0.00%
CALL GENL DYNAMICS CORP DUE 08/21/20 205.000 174360 CUSIP: 99UBB1AK6 Symbol: GD Initial purchase date: Feb 14, 2020	-10.00	32,364.9	15.00	-3,236.49	-150.00	3,086.49	95.37%	0.00	0.00%	0.00%	0.00%
CALL GLOBAL PAYMENTS INC DUE 05/15/20 200.000 1848N3 CUSIP: 99UBBQMR3 Symbol: GPN Initial purchase date: Dec 12, 2019	-20.00	27,644.1	105.00	-5,528.83	-2,100.00	3,428.83	62.02%	0.00	0.00%	0.00%	0.00%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
CALL JPMORGAN CHASE & CO DUE 06/19/20 140.000 241JP2 CUSIP: 99UBBPTC1 Symbol: JPM Initial purchase date: Oct 10, 2019	-10.00	9,653.30	6.00	-965.33	-60.00	905.33	93.78%	0.00	0.00%	0.00%	0.00%
CALL MARSH & MCLENNAN CO DUE 07/17/20 125.000 275603 CUSIP: 99UBBV8H0 Symbol: MMC Initial purchase date: Feb 14, 2020	-20.00	21,633.8	135.00	-4,326.77	-2,700.00	1,626.77	37.60%	0.00	0.00%	0.00%	0.00%
CALL MCDONALDS CORP DUE 06/19/20 230.000 279676 CUSIP: 99UBBW524 Symbol: MCD Initial purchase date: Feb 14, 2020	-10.00	23,400.9	19.00	-2,340.09	-190.00	2,150.09	91.88%	0.00	0.00%	0.00%	0.00%
CALL O REILLY AUTOMOTIVE DUE 05/15/20 510.000 350B81 CUSIP: 99UBBQN76 Symbol: ORLY Initial purchase date: Dec 12, 2019	-5.00	72,591.8	200.00	-3,629.59	-1,000.00	2,629.59	72.45%	0.00	0.00%	0.00%	0.00%
CALL PEPSICO INC DUE 07/17/20 155.000 368024 CUSIP: 99UBAQYN0 Symbol: PEP Initial purchase date: Feb 14, 2020	-10.00	16,919.9	38.00	-1,691.99	-380.00	1,311.99	77.54%	0.00	0.00%	0.00%	0.00%
CALL PFIZER INC DUE 06/19/20 39.000 370011 CUSIP: 99UBBAG20 Symbol: PFE Initial purchase date: Oct 11, 2019	-20.00	10,418.5	108.00	-2,083.70	-2,160.00	-76.30	-3.66%	0.00	0.00%	0.00%	0.00%
CALL PROCTER & GAMBLE CO DUE 07/17/20 140.000 383601 CUSIP: 99UBBQOG5 Symbol: PG Initial purchase date: Dec 12, 2019	-30.00	13,960.2	26.00	-4,188.06	-780.00	3,408.06	81.38%	0.00	0.00%	0.00%	0.00%
CALL STARBUCKS CORP DUE 07/17/20 100.000 509736 CUSIP: 99UBBQO67 Symbol: SBUX Initial purchase date: Dec 12, 2019	-22.00	16,437.0	16.00	-3,616.15	-352.00	3,264.15	90.27%	0.00	0.00%	0.00%	0.00%
CALL VF CORP DUE 05/15/20 97.500 488984 CUSIP: 99UBBCZ09 Symbol: VFC Initial purchase date: Nov 13, 2019	-4.00	14,722.5	50.00	-588.90	-200.00	388.90	66.04%	0.00	0.00%	0.00%	0.00%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
CALL YUM CHINA HLDGS INC DUE 07/17/20 50.000 518NY1 CUSIP: 99UBAYRO9 Symbol: YUMC Initial purchase date: Feb 14, 2020	-30.00	14,156.9	240.00	-4,247.09	-7,200.00	-2,952.91	-69.53%	0.00	0.00%	-0.01%	-0.01%
CALL YUM! BRANDS INC DUE 07/17/20 115.000 5175J8 CUSIP: 99UBAWGN7 Symbol: YUM Initial purchase date: Feb 14, 2020	-20.00	12,187.6	10.00	-2,437.53	-200.00	2,237.53	91.79%	0.00	0.00%	0.00%	0.00%
CENTENE CORP CUSIP: 15135B101 Symbol: CNC Initial purchase date: Mar 25, 2019	4,732.00	66.76	66.58	315,908.32	315,056.56	-851.76	-0.27%	0.00	0.00%	0.46%	0.31%
CHEVRON CORP CUSIP: 166764100 Symbol: CVX Initial purchase date: Feb 12, 2009	8,710.00	79.26	92.00	690,314.19	801,320.00	111,005.81	16.08%	44,943.60	5.61%	1.16%	0.79%
CIGNA CORP CUSIP: 125523100 Symbol: CI Initial purchase date: Jun 07, 2011	394.00	182.19	195.78	71,780.89	77,137.32	5,356.43	7.46%	15.76	0.02%	0.11%	0.08%
COMCAST CORP NEW CL A CUSIP: 20030N101 Symbol: CMCSA Initial purchase date: Oct 09, 2019	10,600.00	38.43	37.63	407,316.21	398,878.00	-8,438.21	-2.07%	9,752.00	2.44%	0.58%	0.39%
COSTCO WHOLESALE CORP CUSIP: 22160K105 Symbol: COST Initial purchase date: May 10, 2012	3,660.00	93.19	303.00	341,089.59	1,108,980.00	767,890.41	225.13%	10,248.00	0.92%	1.61%	1.09%
CROWN CASTLE INTL CORP REIT CUSIP: 22822V101 Symbol: CCI Initial purchase date: Nov 28, 2016	2,700.00	85.14	159.43	229,878.93	430,461.00	200,582.07	87.26%	12,960.00	3.01%	0.62%	0.42%
DANAHER CORP CUSIP: 235851102 Symbol: DHR Initial purchase date: Jun 09, 2005	11,000.00	13.69	163.46	150,579.95	1,798,060.00	1,647,480.05	1,094.09%	7,920.00	0.44%	2.60%	1.77%
DUKE ENERGY CORP NEW CUSIP: 26441C204 Symbol: DUK Initial purchase date: Apr 09, 2009	3,041.00	40.54	84.66	123,267.64	257,451.06	134,183.42	108.86%	11,494.98	4.46%	0.37%	0.25%
ESCROW ALTABA INC CUSIP: 021ESC017 Initial purchase date: Jun 12, 2014	3,000.00	36.85	0.00	110,545.88	0.00	-110,545.88	-100.00%	0.00	0.00%	0.00%	0.00%
FACEBOOK INC CL A CUSIP: 30303M102 Symbol: FB Initial purchase date: May 29, 2019	4,000.00	185.11	204.71	740,424.45	818,840.00	78,415.55	10.59%	0.00	0.00%	1.19%	0.80%
GENL DYNAMICS CORP CUSIP: 369550108 Symbol: GD Initial purchase date: Jan 13, 2000	5,200.00	26.43	130.62	137,455.71	679,224.00	541,768.29	394.14%	22,880.00	3.37%	0.98%	0.67%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
GENL MILLS INC CUSIP: 370334104 Symbol: GIS Initial purchase date: Jun 10, 2010	4,000.00	38.13	59.89	152,506.12	239,560.00	87,053.88	57.08%	7,840.00	3.27%	0.35%	0.24%
GILEAD SCIENCES INC CUSIP: 375558103 Symbol: GILD Initial purchase date: Dec 16, 2008	14,000.00	22.05	84.00	308,721.43	1,176,000.00	867,278.57	280.93%	38,080.00	3.24%	1.70%	1.16%
GLOBAL PAYMENTS INC CUSIP: 37940X102 Symbol: GPN Initial purchase date: Dec 10, 2009	5,000.00	25.78	166.02	128,889.82	830,100.00	701,210.18	544.04%	3,900.00	0.47%	1.20%	0.82%
JPMORGAN CHASE & CO CUSIP: 46625H100 Symbol: JPM Initial purchase date: Aug 14, 1997	2,000.00	37.85	95.76	75,704.64	191,520.00	115,815.36	152.98%	7,200.00	3.76%	0.28%	0.19%
LOCKHEED MARTIN CORP CUSIP: 539830109 Symbol: LMT Initial purchase date: Oct 09, 2019	320.00	388.31	389.06	124,260.66	124,499.20	238.54	0.19%	3,072.00	2.47%	0.18%	0.12%
MARSH & MCLENNAN COS INC CUSIP: 571748102 Symbol: MMC Initial purchase date: Jan 13, 2016	7,030.00	53.01	97.33	372,652.52	684,229.90	311,577.38	83.61%	12,794.60	1.87%	0.99%	0.67%
MCDONALDS CORP CUSIP: 580135101 Symbol: MCD Initial purchase date: Jan 14, 2010	2,050.00	62.64	187.56	128,406.21	384,498.00	256,091.79	199.44%	10,250.00	2.67%	0.56%	0.38%
MERCK & CO INC NEW COM CUSIP: 58933Y105 Symbol: MRK Initial purchase date: Oct 09, 2019	1,470.00	85.01	79.34	124,962.07	116,629.80	-8,332.27	-6.67%	3,586.80	3.08%	0.17%	0.11%
MFS VALUE FUND CLASS A CUSIP: 552983801 Symbol: MEIAX Initial purchase date: Oct 11, 2017 Client investment: $3,950,015.75 Reinvested dividends: $352,794.63 Investment return: $43,698.35 (1.11%)	107,098.80	40.18	37.29	4,302,810.38	3,993,714.10	-309,096.28	-7.18%	85,886.81	2.15%	5.78%	3.87%
MICROSOFT CORP CUSIP: 594918104 Symbol: MSFT Initial purchase date: Oct 09, 2019	900.00	139.79	179.21	125,813.00	161,289.00	35,476.00	28.20%	1,836.00	1.14%	0.23%	0.16%
O REILLY AUTOMOTIVE INC CUSIP: 67103H107 Symbol: ORLY Initial purchase date: Jul 01, 2003	3,150.00	17.68	386.34	55,702.33	1,216,971.00	1,161,268.67	2,084.78%	0.00	0.00%	1.76%	1.20%
ORACLE CORP CUSIP: 68389X105 Symbol: ORCL Initial purchase date: Feb 10, 2005	5,000.00	13.18	52.97	65,886.08	264,850.00	198,963.92	301.98%	4,800.00	1.81%	0.38%	0.26%
OTIS WORLDWIDE CORP CUSIP: 68902V107 Symbol: OTIS Initial purchase date: Oct 09, 2019	465.00	69.81	50.91	32,462.90	23,673.15	-8,789.75	-27.08%	0.00	0.00%	0.03%	0.02%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
PEPSICO INC CUSIP: 713448108 Symbol: PEP Initial purchase date: Oct 17, 2011	5,000.00	62.54	132.29	312,687.24	661,450.00	348,762.76	111.54%	19,100.00	2.89%	0.96%	0.65%
PFIZER INC CUSIP: 717081103 Symbol: PFE Initial purchase date: Jun 16, 2008	10,000.00	2.32	38.36	23,242.20	383,600.00	360,357.80	1,550.45%	15,200.00	3.96%	0.56%	0.38%
PROCTER & GAMBLE CO CUSIP: 742718109 Symbol: PG Initial purchase date: Feb 15, 1996	7,000.00	35.00	117.87	245,024.26	825,090.00	580,065.74	236.74%	22,139.60	2.68%	1.19%	0.81%
PUT WALT DISNEY CO (HOL DUE 06/19/20 97.500 129488 CUSIP: 99UBBQB20 Symbol: DIS Initial purchase date: Aug 15, 2019	-10.00	12,893.8	283.00	-1,289.38	-2,830.00	-1,540.62	-119.49%	0.00	0.00%	0.00%	0.00%
RAYTHEON TECHNOLOGIES CORP CUSIP: 75513E101 Symbol: RTX Initial purchase date: Oct 09, 2019	930.00	73.66	64.81	68,506.86	60,273.30	-8,233.56	-12.02%	1,767.00	2.93%	0.09%	0.06%
ROPER TECHNOLOGIES INC CUSIP: 776696106 Symbol: ROP Initial purchase date: Aug 01, 2002	4,000.00	15.11	341.03	60,440.25	1,364,120.00	1,303,679.75	2,156.97%	8,200.00	0.60%	1.97%	1.34%
SPDR S&P 500 ETF TR CUSIP: 78462F103 Symbol: SPY Initial purchase date: Feb 08, 2017 Client investment: $502,534.43 Reinvested dividends: $36,042.69 Investment return: $166,731.49 (33.18%)	2,304.00	233.76	290.48	538,577.12	669,265.92	130,688.80	24.27%	13,342.03	1.99%	0.97%	0.66%
STARBUCKS CORP CUSIP: 855244109 Symbol: SBUX Initial purchase date: May 10, 2012	11,280.00	52.24	76.73	589,287.75	865,514.40	276,226.65	46.87%	18,499.20	2.14%	1.25%	0.85%
STRYKER CORP CUSIP: 863667101 Symbol: SYK Initial purchase date: Jul 17, 1997	13,000.00	16.05	186.43	208,628.87	2,423,590.00	2,214,961.13	1,061.68%	29,900.00	1.23%	3.51%	2.38%
THERMO FISHER SCIENTIFIC INC CUSIP: 883556102 Symbol: TMO Initial purchase date: Oct 09, 2019	445.00	280.04	334.68	124,616.33	148,932.60	24,316.27	19.51%	391.60	0.26%	0.22%	0.15%
UNITEDHEALTH GROUP INC CUSIP: 91324P102 Symbol: UNH Initial purchase date: Oct 09, 2019	560.00	224.30	292.47	125,605.88	163,783.20	38,177.32	30.39%	2,419.20	1.48%	0.24%	0.16%
VF CORP CUSIP: 918204108 Symbol: VFC Initial purchase date: Oct 09, 2019	1,400.00	89.32	58.10	125,044.79	81,340.00	-43,704.79	-34.95%	2,688.00	3.30%	0.12%	0.08%
VISA INC CL A CUSIP: 92826C839 Symbol: V Initial purchase date: Oct 17, 2011	12,000.00	20.74	178.72	248,882.28	2,144,640.00	1,895,757.72	761.71%	14,400.00	0.67%	3.10%	2.11%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
WALMART INC CUSIP: 931142103 Symbol: WMT Initial purchase date: Oct 09, 2019	1,050.00	120.26	121.55	126,275.03	127,627.50	1,352.47	1.07%	2,268.00	1.78%	0.18%	0.13%
WALT DISNEY CO (HOLDING CO) DISNEY COM CUSIP: 254687106 Symbol: DIS Initial purchase date: Dec 09, 2015	5,860.00	104.21	108.15	610,699.80	633,759.00	23,059.20	3.78%	10,313.60	1.63%	0.92%	0.62%
YUM CHINA HLDGS INC CUSIP: 98850P109 Symbol: YUMC Initial purchase date: Sep 09, 2004	20,000.00	6.23	48.46	124,678.05	969,200.00	844,521.95	677.36%	9,600.00	0.99%	1.40%	0.95%
YUM! BRANDS INC CUSIP: 988498101 Symbol: YUM Initial purchase date: Sep 09, 2004	7,080.00	14.73	86.43	104,276.56	611,924.40	507,647.84	486.83%	13,310.40	2.18%	0.89%	0.60%
Total Large Cap				**$17,170,045.66**	**$38,592,355.92**	**$21,422,310.26**	**124.77%**	**$604,083.37**	**1.57%**	**55.85%**	**37.91%**
Mid Cap											
AECOM CUSIP: 00766T100 Symbol: ACM Initial purchase date: Feb 05, 2010	2,900.00	25.19	36.26	73,045.33	105,154.00	32,108.67	43.96%	0.00	0.00%	0.15%	0.10%
AMETEK INC (NEW) CUSIP: 031100100 Symbol: AME Initial purchase date: Mar 06, 2017	2,500.00	55.08	83.87	137,689.36	209,675.00	71,985.64	52.28%	1,800.00	0.86%	0.30%	0.21%
CALL CONAGRA BRANDS, INC DUE 06/19/20 32.000 101290 CUSIP: 99UBBYLK2 Symbol: CAG Initial purchase date: Dec 17, 2019	-14.00	11,773.9	252.50	-1,648.35	-3,535.00	-1,886.65	-114.46%	0.00	0.00%	-0.01%	0.00%
CALL GENUINE PARTS CO DUE 05/15/20 115.000 181455 CUSIP: 99UBBQKD6 Symbol: GPC Initial purchase date: Dec 12, 2019	-10.00	15,545.1	6.00	-1,554.51	-60.00	1,494.51	96.14%	0.00	0.00%	0.00%	0.00%
CALL HARTFORD FINCL SERV DUE 01/15/21 70.000 1988E4 CUSIP: 99UBBAGZ7 Symbol: HIG Initial purchase date: Oct 09, 2019	-10.00	19,473.1	28.00	-1,947.31	-280.00	1,667.31	85.62%	0.00	0.00%	0.00%	0.00%
CALL IDEX CORP DUE 07/17/20 185.000 223085 CUSIP: 99UBBQM02 Symbol: IEX Initial purchase date: Dec 12, 2019	-20.00	30,602.1	100.00	-6,120.42	-2,000.00	4,120.42	67.32%	0.00	0.00%	0.00%	0.00%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
CALL ONEOK INC NEW DUE 07/17/20 80.000 3496G4 CUSIP: 99UBAV0A4 Symbol: OKE Initial purchase date: Feb 14, 2020	-10.00	18,491.1	15.00	-1,849.11	-150.00	1,699.11	91.89%	0.00	0.00%	0.00%	0.00%
CALL PALO ALTO NETWORKS DUE 06/19/20 280.000 361DG0 CUSIP: 99UBBCUK0 Symbol: PANW Initial purchase date: Nov 13, 2019	-2.00	89,454.5	28.00	-1,789.09	-56.00	1,733.09	96.87%	0.00	0.00%	0.00%	0.00%
CALL SMUCKER J M CO NEW DUE 01/15/21 130.000 4258Y5 CUSIP: 99UBBC569 Symbol: SJM Initial purchase date: Feb 14, 2020	-10.00	15,643.3	415.00	-1,564.33	-4,150.00	-2,585.67	-165.29%	0.00	0.00%	-0.01%	0.01%
CARMAX INC CUSIP: 143130102 Symbol: KMX Initial purchase date: Jun 12, 2014	5,000.00	44.47	73.65	222,371.77	368,250.00	145,878.23	65.60%	0.00	0.00%	0.53%	0.36%
CARRIER GLOBAL CORP CUSIP: 14448C104 Symbol: CARR Initial purchase date: Oct 09, 2019	930.00	24.96	17.71	23,215.22	16,470.30	-6,744.92	-29.05%	0.00	0.00%	0.02%	0.02%
COGNEX CORP CUSIP: 192422103 Symbol: CGNX Initial purchase date: Jun 07, 2011	8,000.00	8.42	55.24	67,345.65	441,920.00	374,574.35	556.20%	1,760.00	0.40%	0.64%	0.43%
CONAGRA BRANDS, INC. CUSIP: 205887102 Symbol: CAG Initial purchase date: Oct 09, 2019	4,400.00	28.43	33.44	125,093.25	147,136.00	22,042.75	17.62%	3,740.00	2.54%	0.21%	0.14%
D R HORTON INC CUSIP: 23331A109 Symbol: DHI Initial purchase date: Jan 09, 2019	7,000.00	40.09	47.22	280,621.20	330,540.00	49,918.80	17.79%	4,900.00	1.48%	0.48%	0.32%
EAST WEST BANCORP INC CUSIP: 27579R104 Symbol: EWBC Initial purchase date: Jan 09, 2019	5,500.00	47.90	35.07	263,460.51	192,885.00	-70,575.51	-26.79%	6,050.00	3.14%	0.28%	0.19%
F5 NETWORKS INC CUSIP: 315616102 Symbol: FFIV Initial purchase date: Mar 02, 2015	5,800.00	118.85	139.26	689,354.72	807,708.00	118,353.28	17.17%	0.00	0.00%	1.17%	0.79%
FASTENAL CO CUSIP: 311900104 Symbol: FAST Initial purchase date: May 21, 2018	32,000.00	15.33	36.22	490,696.60	1,159,040.00	668,343.40	136.20%	32,000.00	2.76%	1.68%	1.14%
GENTEX CORP CUSIP: 371901109 Symbol: GNTX Initial purchase date: Mar 02, 2015	5,000.00	17.82	24.24	89,080.35	121,200.00	32,119.65	36.06%	2,400.00	1.98%	0.18%	0.12%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
GENUINE PARTS CO CUSIP: 372460105 Symbol: GPC Initial purchase date: Apr 13, 2012	3,000.00	63.29	79.28	189,860.40	237,840.00	47,979.60	25.27%	9,480.00	3.99%	0.34%	0.23%
HARTFORD FINCL SERVICES GROUP INC CUSIP: 416515104 Symbol: HIG Initial purchase date: Jan 13, 2005	4,000.00	67.53	37.99	270,129.76	151,960.00	-118,169.76	-43.75%	5,200.00	3.42%	0.22%	0.15%
IAA INC CUSIP: 449253103 Symbol: IAA Initial purchase date: Nov 30, 2015	5,000.00	23.22	38.60	116,083.55	193,000.00	76,916.45	66.26%	0.00	0.00%	0.28%	0.19%
IDEX CORP CUSIP: 45167R104 Symbol: IEX Initial purchase date: Aug 11, 2004	5,250.00	17.00	153.63	89,251.50	806,557.50	717,306.00	803.69%	10,500.00	1.30%	1.17%	0.79%
LKQ CORP NEW CUSIP: 501889208 Symbol: LKQ Initial purchase date: Dec 10, 2009	4,000.00	9.25	26.15	36,990.75	104,600.00	67,609.25	182.77%	0.00	0.00%	0.15%	0.10%
OLD DOMINION FREIGHT LINES INC CUSIP: 679580100 Symbol: ODFL Initial purchase date: Jan 09, 2019	3,150.00	86.10	145.29	271,215.60	457,663.50	186,447.90	68.75%	1,932.00	0.42%	0.66%	0.45%
ONEOK INC NEW CUSIP: 682680103 Symbol: OKE Initial purchase date: May 14, 2009	14,000.00	14.25	29.93	199,490.58	419,020.00	219,529.42	110.05%	51,450.00	12.28%	0.61%	0.41%
PALO ALTO NETWORKS INC CUSIP: 697435105 Symbol: PANW Initial purchase date: Feb 12, 2015	1,250.00	134.89	196.51	168,607.43	245,637.50	77,030.07	45.69%	0.00	0.00%	0.36%	0.24%
REALTY INCOME CORP MD SBI CUSIP: 756109104 Symbol: O Initial purchase date: May 26, 2015	5,000.00	47.19	54.92	235,951.92	274,600.00	38,648.08	16.38%	13,980.00	5.09%	0.40%	0.27%
SIGNATURE BANK NEW YORK N Y CUSIP: 82669G104 Symbol: SBNY Initial purchase date: Jan 09, 2019	2,500.00	111.91	107.18	279,777.82	267,950.00	-11,827.82	-4.23%	5,600.00	2.09%	0.39%	0.26%
SKYWORKS SOLUTIONS INC CUSIP: 83088M102 Symbol: SWKS Initial purchase date: Feb 26, 2019	4,000.00	83.16	103.88	332,628.80	415,520.00	82,891.20	24.92%	7,040.00	1.69%	0.60%	0.41%
SMUCKER J M CO NEW CUSIP: 832696405 Symbol: SJM Initial purchase date: Jan 14, 2010	3,000.00	62.32	114.91	186,962.73	344,730.00	157,767.27	84.38%	10,560.00	3.06%	0.50%	0.34%
TCF FINL CORP NEW CUSIP: 872307103 Symbol: TCF Initial purchase date: Feb 26, 2019	5,000.00	46.90	29.69	234,491.90	148,450.00	-86,041.90	-36.69%	7,000.00	4.72%	0.21%	0.15%
TRACTOR SUPPLY COMPANY CUSIP: 892356106 Symbol: TSCO Initial purchase date: Dec 10, 2008	13,000.00	9.53	101.43	123,825.41	1,318,590.00	1,194,764.59	964.88%	18,200.00	1.38%	1.91%	1.30%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
ULTA BEAUTY, INC CUSIP: 90384S303 Symbol: ULTA Initial purchase date: Jan 09, 2019	1,000.00	283.02	217.92	283,023.95	217,920.00	-65,103.95	-23.00%	0.00	0.00%	0.32%	0.21%
VANGUARD MID-CAP VALUE ETF CUSIP: 922908512 Symbol: VOE Initial purchase date: Dec 12, 2019	7,580.00	118.87	91.56	901,026.53	694,024.80	-207,001.73	-22.97%	20,472.82	2.95%	1.00%	0.68%
VARIAN MEDICAL SYSTEMS INC CUSIP: 92220P105 Symbol: VAR Initial purchase date: May 07, 2009	3,000.00	30.76	114.38	92,265.26	343,140.00	250,874.74	271.91%	0.00	0.00%	0.50%	0.34%
WATSCO INC CUSIP: 942622200 Symbol: WSO Initial purchase date: Apr 15, 2010	1,000.00	61.20	160.99	61,202.82	160,990.00	99,787.18	163.04%	7,100.00	4.41%	0.23%	0.16%
Total Mid Cap				**$6,518,287.55**	**$10,691,940.60**	**$4,173,653.05**	**64.03%**	**$221,164.82**	**2.07%**	**15.48%**	**10.51%**
Small Cap											
AIR LEASE CORP CL A CUSIP: 00912X302 Symbol: AL Initial purchase date: Aug 29, 2016	4,000.00	28.94	26.15	115,761.25	104,600.00	-11,161.25	-9.64%	2,400.00	2.29%	0.15%	0.10%
ALLEGIANT TRAVEL CO CUSIP: 01748X102 Symbol: ALGT Initial purchase date: Feb 26, 2019	2,500.00	144.05	78.48	360,113.05	196,200.00	-163,913.05	-45.52%	7,000.00	3.57%	0.28%	0.19%
DAVE & BUSTERS ENTMT INC CUSIP: 238337109 Symbol: PLAY Initial purchase date: Feb 26, 2019	5,000.00	51.13	14.64	255,673.62	73,200.00	-182,473.62	-71.37%	3,200.00	4.37%	0.11%	0.07%
EAGLE BANCORP INC (MD) CUSIP: 268948106 Symbol: EGBN Initial purchase date: Feb 19, 2019	5,000.00	59.26	35.08	296,313.40	175,400.00	-120,913.40	-40.81%	4,400.00	2.51%	0.25%	0.17%
ISHARES RUSSELL 2000 ETF CUSIP: 464287655 Symbol: IWM Initial purchase date: Jun 13, 2014 Client investment: $999,013.13 Reinvested dividends: $53,110.64 Investment return: $142,241.85 (14.24%)	8,758.00	120.13	130.31	1,052,123.77	1,141,254.98	89,131.21	8.47%	18,338.57	1.61%	1.65%	1.12%
KAR AUCTION SVCS INC CUSIP: 48238T109 Symbol: KAR Initial purchase date: Nov 30, 2015	5,000.00	14.97	14.98	74,834.68	74,900.00	65.32	0.09%	3,800.00	5.07%	0.11%	0.09%
META FINANCIAL GROUP INC CUSIP: 59100U108 Symbol: CASH Initial purchase date: Feb 19, 2019	5,000.00	25.65	18.42	128,234.81	92,100.00	-36,134.81	-28.18%	1,000.00	1.09%	0.13%	0.09%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
MFS NEW DISCOVERY VALUE FUND CLASS A CUSIP: 55278M100 Symbol: NDVAX Initial purchase date: Oct 11, 2017 Client investment: $1,264,187.35 Reinvested dividends: $194,042.87 Investment return: $-85,850.42 (-6.79%)	94,191.60	15.48	12.51	1,458,230.22	1,178,336.93	-279,893.29	-19.19%	9,183.68	0.78%	1.71%	1.16%
NEXSTAR MEDIA GROUP INC CL A CUSIP: 65336K103 Symbol: NXST Initial purchase date: Feb 19, 2019	3,320.00	89.84	70.04	298,268.37	232,532.80	-65,735.57	-22.04%	7,436.80	3.20%	0.34%	0.23%
PATRICK INDUST INC CUSIP: 703343103 Symbol: PATK Initial purchase date: Jan 09, 2019	8,000.00	35.72	41.22	285,733.51	329,760.00	44,026.49	15.41%	8,000.00	2.43%	0.48%	0.32%
SUPERNUS PHARMACEUTICALS INC CUSIP: 868459108 Symbol: SUPN Initial purchase date: Jan 09, 2019	7,500.00	36.70	23.40	275,240.06	175,500.00	-99,740.06	-36.24%	0.00	0.00%	0.25%	0.17%
VIRTUS KAR SMALL-CAP GROWTH FUND CLASS A CUSIP: 92828N627 Symbol: PSGAX Initial purchase date: Feb 08, 2017 Client investment: $1,260,010.50 Reinvested dividends: $79,929.95 Investment return: $1,112,336.53 (88.28%)	62,843.63	21.32	37.75	1,339,940.45	2,372,347.03	1,032,406.58	77.05%	0.00	0.00%	3.43%	2.33%
Total Small Cap				**$5,940,467.19**	**$6,146,131.74**	**$205,664.55**	**3.46%**	**$64,759.06**	**1.05%**	**8.90%**	**6.04%**
Convertibles											
ESCROW GENERAL MTRS CORP 6.250% SER C DUE 07/15/33 CALLBL CONV CUSIP: 370ESC717 Initial purchase date: Jul 10, 2003	20,000.00	24.84	0.00	496,763.00	0.00	-496,763.00	-100.00%	0.00	0.00%	0.00%	0.00%
Total Convertibles				**$496,763.00**	**$0.00**	**$-496,763.00**	**-100.00%**	**$0.00**	**0.00%**	**0.00%**	**0.00%**
Total US				**$30,134,763.40**	**$55,448,468.26**	**$25,313,704.86**	**84.00%**	**$890,007.25**	**1.61%**	**80.26%**	**54.48%**

Global

Global

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
Global											
AMER FUNDS CAPITAL WORLD GROWTH & INCOME FUND CL A CUSIP: 140543109 Symbol: CWGIX Initial purchase date: Nov 12, 2010 Client investment: $670,980.25 Reinvested dividends: $373,364.74 Investment return: $572,886.89 (85.38%)	27,416.07	38.09	45.37	1,044,344.99	1,243,867.15	199,522.15	19.11%	24,126.14	1.94%	1.80%	1.22%
COLUMBIA SELIGMAN COMMUNICATION AND INFORMATION FUND A CUSIP: 19766H429 Symbol: SLMCX Initial purchase date: Oct 19, 2001 Client investment: $165,000.00 Reinvested dividends: $2,912,438.45 Investment return: $3,955,416.27 (2397.22%)	56,228.39	54.73	73.28	3,077,438.45	4,120,416.27	1,042,977.82	33.89%	0.00	0.00%	5.96%	4.05%
Total Global				**$4,121,783.44**	**$5,364,283.42**	**$1,242,499.97**	**30.14%**	**$24,126.14**	**0.45%**	**7.76%**	**5.27%**
Total Global				**$4,121,783.44**	**$5,364,283.42**	**$1,242,499.97**	**30.14%**	**$24,126.14**	**0.45%**	**7.76%**	**5.27%**
International											
International											
FABRINET CUSIP: G3323L100 Symbol: FN Initial purchase date: Mar 30, 2011	4,000.00	21.23	62.75	84,933.90	251,000.00	166,066.10	195.52%	0.00	0.00%	0.36%	0.25%
Total International				**$84,933.90**	**$251,000.00**	**$166,066.10**	**195.52%**	**$0.00**	**0.00%**	**0.37%**	**0.25%**
Developed Markets											
AMERICAN FUNDS EURO PACIFIC GROWTH FUND CL A CUSIP: 298706102 Symbol: AEPGX Initial purchase date: Dec 20, 2002 Client investment: $1,330,010.50 Reinvested dividends: $1,595,351.19 Investment return: $1,616,392.19 (121.53%)	62,662.75	46.68	47.02	2,925,361.69	2,946,402.69	21,041.00	0.72%	36,225.34	1.23%	4.26%	2.88%
CALL LINDE PLC EUR DUE 07/17/20 230.000 2621Y8 CUSIP: 99UBBU346 Symbol: LIN Initial purchase date: Feb 14, 2020	-10.00	65,255.0	55.00	-6,525.50	-550.00	5,975.50	91.57%	0.00	0.00%	0.00%	0.00%
CHUBB LTD CHF CUSIP: H1467J104 Symbol: CB Initial purchase date: Apr 13, 2016	1,000.00	121.66	108.01	121,658.43	108,010.00	-13,648.43	-11.22%	3,000.00	2.78%	0.16%	0.11%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
International											
DIAGEO PLC NEW GB SPON ADR CUSIP: 25243Q205 Symbol: DEO Initial purchase date: Feb 11, 2010	1,000.00	64.02	138.65	64,017.37	138,650.00	74,632.63	116.58%	3,430.95	2.47%	0.20%	0.14%
ESSENT GROUP LTD CUSIP: G3198U102 Symbol: ESNT Initial purchase date: Feb 19, 2019	10,000.00	44.52	27.32	445,167.08	273,200.00	-171,967.08	-38.63%	6,400.00	2.34%	0.40%	0.27%
LINDE PLC EUR CUSIP: G5494J103 Symbol: LIN Initial purchase date: Sep 09, 2004	5,000.00	163.46	183.99	817,275.00	919,950.00	102,675.00	12.56%	19,260.00	2.09%	1.33%	0.90%
MEDTRONIC PLC CUSIP: G5960L103 Symbol: MDT Initial purchase date: Oct 09, 2019	1,165.00	107.77	97.63	125,550.50	113,738.95	-11,811.55	-9.41%	2,516.40	2.21%	0.16%	0.11%
RIO TINTO PLC SPON ADR CUSIP: 767204100 Symbol: RIO Initial purchase date: Sep 10, 2009	7,000.00	42.96	46.19	300,718.90	323,330.00	22,611.10	7.52%	26,740.00	8.27%	0.47%	0.32%
SENSATA TECHNOLOGIES HLDG PLC EUR CUSIP: G8060N102 Symbol: ST Initial purchase date: May 29, 2019	5,000.00	43.80	36.38	219,001.25	181,900.00	-37,101.25	-16.94%	0.00	0.00%	0.26%	0.18%
Total Developed Markets				**$5,012,224.72**	**$5,004,631.64**	**$-7,593.07**	**-0.15%**	**$97,572.69**	**1.95%**	**7.24%**	**4.91%**
Emerging Markets											
AMER FUNDS NEW WORLD FUND CLASS F2 CUSIP: 649280823 Symbol: NFFFX Initial purchase date: Feb 13, 2020	11,692.50	71.92	60.10	840,875.15	702,718.95	-138,156.20	-16.43%	11,014.33	1.57%	1.02%	0.69%
AMERICAN FUNDS NEW WORLD FUND CL A CUSIP: 649280104 Symbol: NEWFX Initial purchase date: Nov 12, 2015 Client investment: $1,750,021.00 Reinvested dividends: $188,857.74 Investment return: $391,878.55 (22.39%)	35,550.20	54.54	60.25	1,938,878.74	2,141,899.55	203,020.81	10.47%	26,214.72	1.22%	3.10%	2.10%
SAMSUNG ELECTRS LTD GDR (EACH REP 25 COM STK KRW100) REG.S *GB LINE* CUSIP: 7960509A2 Initial purchase date: Jun 13, 2014	170.00	659.22	1,025.89	112,067.61	174,401.98	62,334.37	55.62%	0.00	0.00%	0.25%	0.18%
Total Emerging Markets				**$2,891,821.50**	**$3,019,020.48**	**$127,198.98**	**4.40%**	**$37,229.05**	**1.23%**	**4.37%**	**2.97%**
Total International				**$7,988,980.12**	**$8,274,652.12**	**$285,672.01**	**3.58%**	**$134,801.74**	**1.63%**	**11.98%**	**8.13%**

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
Total Equity				**$42,245,526.96**	**$69,087,403.80**	**$26,841,876.84**	**63.54%**	**$1,048,935.13**	**1.52%**	**100.00%**	**67.88%**

	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of asset class	% of Portfolio
Total Portfolio	**$76,121,505.76**	**$101,776,673.20**	**$25,655,167.44**	**33.70%**	**$2,082,581.60**	**2.05%**	**100%**	**100%**

Total accrued interest (included in market values): $13,081.17

*** Balanced mutual funds are displayed in unbundled view**

Additional information about your portfolio

as of April 30, 2020

Benchmark composition

Consolidated

Blended Index
Start - Current: 70% MSCI World; 30% Barclays Agg Bond

UBS

Disclosures applicable to accounts at UBS Financial Services Inc.

This section contains important disclosures regarding the information and valuations presented here. All information presented is subject to change at any time and is provided only as of the date indicated. The information in this report is for informational purposes only and should not be relied upon as the basis of an investment or liquidation decision. UBS FS account statements and official tax documents are the only official record of your accounts and are not replaced, amended or superseded by any of the information presented in these reports. You should not rely on this information in making purchase or sell decisions, for tax purposes or otherwise.

UBS FS offers a number of investment advisory programs to clients, acting in our capacity as an investment adviser, including fee-based financial planning, discretionary account management, non-discretionary investment advisory programs, and advice on the selection of investment managers and mutual funds offered through our investment advisory programs. When we act as your investment adviser, we will have a written agreement with you expressly acknowledging our investment advisory relationship with you and describing our obligations to you. At the beginning of our advisory relationship, we will give you our Form ADV brochure(s) for the program(s) you selected that provides detailed information about, among other things, the advisory services we provide, our fees, our personnel, our other business activities and financial industry affiliations and conflicts between our interests and your interests.

In our attempt to provide you with the highest quality information available, we have compiled this report using data obtained from recognized statistical sources and authorities in the financial industry. While we believe this information to be reliable, we cannot make any representations regarding its accuracy or completeness. Please keep this guide as your Advisory Review.

Please keep in mind that most investment objectives are long term. Although it is important to evaluate your portfolio's performance over multiple time periods, we believe the greatest emphasis should be placed on the longer period returns.

Please review the report content carefully and contact your Financial Advisor with any questions.

Client Accounts: This report may include all assets in the accounts listed and may include eligible and ineligible assets in a fee-based program. Since ineligible assets are not considered fee-based program assets, the inclusion of such securities will distort the actual performance of your accounts and does not reflect the performance of your accounts in the fee-based program. As a result, the performance reflected in this report can vary substantially from the individual account performance reflected in the performance reports provided to you as part of those programs. For fee-based programs, fees are charged on the market value of eligible assets in the accounts and assessed quarterly in advance, prorated according to the number of calendar days in the billing period. When shown on a report, the risk profile and return objectives describe your overall goals for these accounts. For each account you maintain, you choose one return objective and a primary risk profile. If you have questions regarding these objectives or wish to change them, please contact your Financial Advisor to update your account records.

Performance: This report presents account activity and performance depending on which inception type you've chosen. The two options are: (1) All Assets (Since Performance Start): This presents performance for all assets since the earliest possible date; (2) Advisory Assets (Advisory Strategy Start) for individual advisory accounts: This presents Advisory level performance since the Latest Strategy Start date; If an account that has never been managed is included in the consolidated report, the total performance of that unmanaged account will be included since inception.

Time-weighted Returns for accounts / SWP/AAP sleeves (Monthly periods): The report displays a time weighted rate of return (TWR) that is calculated using the Modified Dietz Method. This calculation uses the beginning and ending portfolio values for the month and weighs each contribution/withdrawal based upon the day the cash flow occurred. Periods greater than one month are calculated by linking the monthly returns. The TWR gives equal weighting to every return regardless of amount of money invested, so it is an effective measure for returns on a fee based account. All periods shown which are greater than 12 months are annualized. This applies to all performance for all assets before 09/30/2010, Advisory assets before 12/31/2010 and SWP/AAP sleeves before 04/30/2018.

Time-weighted Returns for accounts / SWP/AAP sleeves (Daily periods): The report displays a time weighted rate of return (TWR) that is calculated by dividing the portfolio's daily gain/loss by the previous day's closing market value plus the net value of cash flows that occurred during the day, if it was positive. The TWR gives equal weighting to every return regardless of amount of money invested, so it is an effective measure for returns on a fee based account. Periods greater than one day are calculated by linking the daily returns. All periods shown which are greater than 12 months are annualized. For reports generated prior to 01/26/2018, the performance calculations used the account's end of day value on the performance inception (listed in the report under the column "ITD") and all cash flows were posted at end of day. As a result of the change, the overall rate of return (TWR) and beginning market value displayed can vary from prior generated reports. This applies to all performance for all assets on or after 09/30/2010, Advisory assets on or after 12/31/2010, SWP/AAP sleeves on or after 04/30/2018 as well as all Asset Class and Security level returns.

Money-weighted returns: Money-weighted return (MWR) is a measure of the rate of return for an asset or portfolio of assets. It is calculated by finding the daily Internal Rate of Return (IRR) for the period and then compounding this return by the number of days in the period being measured. The MWR incorporates the size and timing of cash flows, so it is an effective measure of returns on a portfolio.

Annualized Performance: All performance periods greater than one year are calculated (unless otherwise stated) on an annualized basis, which represents the return on an investment multiplied or divided to give a comparable one year return.

Cumulative Performance: A cumulative return is the aggregate amount that an investment has gained or lost over time, independent of the period of time involved.

Net of Fees and Gross of Fees Performance: Performance is presented on a "net of fees" and "gross of fees" basis, where indicated. Net returns do not reflect Program and wrap fees prior to 10/31/10 for accounts that are billed separately via invoice through a separate account billing arrangement. Gross returns do not reflect the deduction of fees, commissions or other charges. The payment of actual fees and expenses will reduce a client's return. The compound effect of such fees and expenses should be considered when reviewing returns. For example, the net effect of the deduction of fees on annualized performance, including the compounded effect over time, is determined by the relative size of the fee and the account's investment performance. It should also be noted that where gross returns are compared to an index, the index performance also does not reflect any transaction costs, which would lower the performance results. Market index data maybe subject to review and revision.

Benchmark/Major Indices: The past performance of an index is not a guarantee of future results. Any benchmark is shown for informational purposes only and relates to historical performance of market indices and not the performance of actual investments. Although most portfolios use indices as benchmarks, portfolios are actively managed and generally are not restricted to investing only in securities in the index. As a result, your portfolio holdings and performance may vary substantially from the index. Each index reflects an unmanaged universe of securities without any deduction for advisory fees or other expenses that would reduce actual returns, as well as the reinvestment of all income and dividends. An actual investment in the securities included in the index would require an investor to incur transaction costs, which would lower the performance results. Indices are not actively managed and investors cannot invest directly in the indices. Market index data maybe subject to review and revision. Further, there is no guarantee that an investor's account will meet or exceed the stated benchmark. Index performance information has been obtained from third parties deemed to be reliable. We have not independently verified this information, nor do we make any representations or warranties to the accuracy or completeness of this information.

Blended Index - For Advisory accounts, Blended Index is designed to reflect the asset categories in which your account is invested. For Brokerage accounts, you have the option to select any benchmark from the list.

For certain products, the blended index represents the investment style corresponding to your client target allocation. If you change your client target allocation, your blended index will change in step with your change to your client target allocation.

Blended Index 2 - 8 - are optional indices selected by you which may consist of a blend of indexes. For advisory accounts, these indices are for informational purposes only. Depending on the selection, the benchmark selected may not be an appropriate basis for comparison of your portfolio based on it's holdings.

Custom Time Periods: If represented on this report, the performance start date and the performance end date have been selected by your Financial Advisor in order to provide performance and account activity information for your account for the specified period of time only. As a result, only a portion of your account's activity and performance information is presented in the performance report, and, therefore, presents a distorted representation of your account's activity and performance.

Net Deposits/Withdrawals: When shown on a report, this information represents the net value of all cash and securities contributions and withdrawals, program fees (including wrap fees) and other fees added to or subtracted from your accounts from the first day to the last day of the period. When fees are shown separately, net deposits / withdrawals does not include program fees (including wrap fees). When investment return is displayed net deposits / withdrawals does not include program fees (including wrap fees). For security contributions and withdrawals, securities are calculated using the end of day UBS FS price on the day securities are delivered in or out of the accounts. Wrap fees will be included in this calculation except when paid via an invoice or through a separate accounts billing arrangement. When shown on Client summary and/or Portfolio review report, program fees (including wrap fees) may not be included in net deposits/withdrawals.

PACE Program fees paid from sources other than your PACE account are treated as a contribution. A PACE

Program Fee rebate that is not reinvested is treated as a withdrawal.

Deposits: When shown on a report, this information represents the net value of all cash and securities contributions added to your accounts from the first day to the last day of the period. On Client Summary Report and/or Portfolio Review Report, this may exclude the Opening balance. For security contributions, securities are calculated using the end of day UBS FS price on the day securities are delivered in or out of the accounts.

Withdrawals: When shown on a report, this information represents the net value of all cash and securities withdrawals subtracted from your accounts from the first day to the last day of the period. On Client summary and/or portfolio review report Withdrawals may not include program fees (including wrap fees). For security withdrawals, securities are calculated using the end of day UBS FS price on the day securities are delivered in or out of the accounts.

Dividends/Interest: Dividend and interest earned, when shown on a report, does not reflect your account's tax status or reporting requirements. Use only official tax reporting documents (i.e. 1099) for tax reporting purposes. The classification of private investment distributions can only be determined by referring to the official year-end tax-reporting document provided by the issuer.

Change in Accrued Interest: When shown on a report, this information represents the difference between the accrued interest at the beginning of the period from the accrued interest at the end of the period.

Change in Value: Represents the change in value of the portfolio during the reporting period, excluding additions/withdrawals, dividend and interest income earned and accrued interest. Change in Value may include programs fees (including wrap fees) and other fees.

Fees: Fees represented in this report include program and wrap fees. Program and wrap fees prior to October 1, 2010 for accounts that are billed separately via invoice through a separate account billing arrangement are not included in this report.

Beta: A measure of sensitivity of a portfolio of equities in relation to market movements. Beta measures the covariance of a portfolio in relation to the rest of the stock market as measured by a benchmark index. A portfolio with a higher beta would be expected to rise and fall further than the market. A portfolio with a low beta (less than 1) indicates that it would be expected to rise and fall less than the market.

Performance Start Date Changes: The Performance Start Date for accounts marked with a '^' have changed. Performance figures of an account with a changed Performance Start Date may not include the entire history of the account. The new Performance Start Date will generate performance returns and activity information for a shorter period than is available at UBS FS. As a result, the overall performance of these accounts may generate better performance than the period of time that would be included if the report used the inception date of the account. UBS FS recommends reviewing performance reports that use the inception date of the account because reports with longer time frames are usually more helpful when evaluating investment programs and strategies. Performance reports may include accounts with inception dates that precede the new Performance Start Date and will show performance and activity information from the earliest available inception date.
The change in Performance Start Date may be the result of a performance gap due to a zero-balance that prevents the calculation of continuous returns from the inception of the account. The Performance Start Date may also change if an account has failed one of our performance data integrity tests. In such instances, the account will be labeled as 'Review Required' and performance prior to that failure will be restricted. Finally, the Performance Start Date will change if you have explicitly requested a performance restart. Please contact your Financial Advisor for additional details regarding your new Performance Start Date.

Closed Account Performance: Accounts that have been closed may be included in the consolidated performance report. When closed accounts are included in the consolidated report, the performance report will only include information for the time period the account was active during the consolidated performance reporting time period.

Portfolio: For purposes of this report "portfolio" is defined as all of the accounts presented on the cover page or the header of this report and does not necessarily include all of the client's accounts held at UBS FS or elsewhere.

Percentage: Portfolio (in the "% Portfolio / Total" column) includes all holdings held in the account(s) selected when this report was generated. Broad asset class (in the "% broad asset class" column) includes all holdings held in that broad asset class in the account(s) selected when this report was generated.

Tax lots: This report displays security tax lots as either one line item (i.e., lumped tax lots) or as separate tax lot level information. If you choose to display security tax lots as one line item, the total cost equals the total value of all tax lots. The unit cost is an average of the total cost divided by the total number of shares. If the shares were purchased in different lots, the unit price listed does not represent the actual cost paid for each lot. The unrealized gain/loss value is calculated by combining the total value of all tax lots plus or minus the total market value of the security.

If you choose to display tax lot level information as separate line items on the Portfolio Holdings report, the tax lot information may include information from sources other than UBS FS. The Firm does not independently verify or guarantee the accuracy or validity of any information provided by sources other than UBS FS. As a result this information may not be accurate and is provided for informational purposes only. Clients should not rely on this information in making purchase or sell decisions, for tax purposes or otherwise. See your monthly statement for additional information.

Pricing: All securities are priced using the closing price reported on the last business day preceding the date of this report. Every reasonable attempt has been made to accurately price securities; however, we make no warranty with respect to any security's price. Please refer to the back of the first page of your UBS FS account statement for important information regarding the pricing used for certain types of securities, the sources of pricing data and other qualifications concerning the pricing of securities. To determine the value of securities in your account, we generally rely on third party quotation services. If a price is unavailable or believed to be unreliable, we may determine the price in good faith and may use other sources such as the last recorded transaction. When securities are held at another custodian or if you hold illiquid or restricted securities for which there is no published price, we will generally rely on the value provided by the custodian or issuer of that security.

Cash: Cash on deposit at UBS Bank USA is protected by the Federal Deposit Insurance Corporation (FDIC) up to $250,000 in principal and accrued interest per depositor for each ownership type. Deposits made in an individual's own name, joint name, or individual retirement account are each held in a separate type of ownership. Such deposits are not guaranteed by UBS FS. More information is available upon request.

Margin: The quantity value may indicate that all or part of this position is held on margin or held in the short account. When an account holds a debit balance, this debit balance is incorporated into the account's total market value and deducted from the total value. When calculating the percent of portfolio on each security, the percentage will be impacted by the total market value of the account. Therefore, if the account's market value is reduced by a debit value of a holding the percent of portfolio will be greater and if the account's market value is increased by a holding then the percent of portfolio will be less.

Asset Allocation: Your allocation analysis is based on your current portfolio. The Asset Allocation portion of this report shows the mix of various investment classes in your account. An asset allocation that shows a significantly higher percentage of equity investments may be more appropriate for an investor with a more aggressive investment strategy and higher tolerance for risk. Similarly, the asset allocation of a more conservative investor may show a higher percentage of fixed income investments.

Separately Managed Accounts and Pooled Investment Vehicles (such as mutual funds, closed end funds and exchanged traded funds): The asset classification displayed is based on firm's proprietary methodology for classifying assets. Please note that the asset classification assigned to rolled up strategies may include individual investments that provide exposure to other asset classes. For example, an International Developed Markets strategy may include exposure to Emerging Markets, and a US Large Cap strategy may include exposure to Mid Cap and Small Cap, etc.

Mutual Fund Asset Allocation: If the option to unbundle balanced mutual funds is selected and if a fund's holdings data is available, mutual funds will be classified by the asset class, subclass, and style breakdown of their underlying holdings. Where a mutual fund or ETF contains equity holdings from multiple equity sectors, this report will proportionately allocate the underlying holdings of the fund to those sectors measured as a percentage of the total fund's asset value as of the date shown.

This information is supplied by Morningstar, Inc. on a daily basis to UBS FS based on data supplied by the fund which may not be current. Mutual funds change their portfolio holdings on a regular (often daily) basis. Accordingly, any analysis that includes mutual funds may not accurately reflect the current composition of these funds. If a fund's underlying holding data is not available, it will be classified based on its corresponding overall Morningstar classification. All data is as of the date indicated in the report.

All pooled investment vehicles (such as mutual funds, closed end mutual funds, and exchange traded funds) incorporate internal management and operation expenses, which are reflected in the performance returns. Please see relevant fund prospectus for more information. Please note, performance for mutual funds is inclusive of multiple share classes.

Ineligible Assets: We require that you hold and purchase only eligible managed assets in your advisory accounts. Please contact your Financial Advisor for a list of the eligible assets in your program. These reports may provide performance information for eligible and ineligible assets in a fee-based program. Since ineligible assets are not considered fee-based program assets, the inclusion of such securities will distort the actual performance of your advisory assets. As a result, the performance reflected in this report can vary substantially from the individual account performance reflected in the performance reports provided to you as part of those programs. For fee-based programs, fees are charged on the market value of eligible assets in the accounts and assessed quarterly in advance, prorated according to the number of calendar days in the billing period. Neither UBS nor your Financial Advisor will act as your investment adviser with respect to Ineligible Assets.

Variable Annuity Asset Allocation: If the option to unbundle a variable annuity is selected and if a variable annuity's holdings data is available, variable annuities will be classified by the asset class, subclass, and style breakdown for their underlying holdings. Where a variable annuity contains equity holdings from multiple equity sectors, this report will proportionately allocate the underlying holdings of the variable annuity to those sectors measured as a percentage of the total variable annuity's asset value as of the date shown.

This information is supplied by Morningstar, Inc. on a weekly basis to UBS FS based on data supplied by the variable annuity which may not be current. Portfolio holdings of variable annuities change on a regular (often daily) basis. Accordingly, any analysis that includes variable annuities may not accurately reflect the current composition of these variable annuities. If a variable annuity's underlying holding data is not available, it will remain classified as an annuity. All data is as of the date indicated in the report.

Equity Style: The Growth, Value and Core labels are determined by Morningstar. If an Equity Style is unclassified, it is due to non-availability of data required by Morningstar to assign it a particular style.

Equity Capitalization: Market Capitalization is determined by Morningstar. Equity securities are classified as Large Cap, Mid Cap or Small Cap by Morningstar. Unclassified securities are those for which no capitalization is available on Morningstar.

Equity Sectors: The Equity sector analysis may include a variety of accounts, each with different investment and risk parameters. As a result, the overweighting or underweighting in a particular sector or asset class should not be viewed as an isolated factor in making investment/liquidation decisions; but should be assessed on an account by account basis to determine the overall impact on the account's portfolio.

Classified Equity: Classified equities are defined as those equities for which the firm can confirm the specific industry and sector of the underlying equity instrument.

Estimated Annual Income: The Estimated Annual Income is calculated by summing the previous four dividend rates per share and multiplying by the quantity of shares held in the selected account(s) as of the End Date of Report.

Current Yield: Current yield is defined as the estimated annual income divided by the total market value.

Research Rating: UBS CIO GWM Research is produced by UBS Global Wealth Management (a UBS business group that includes, among others, UBS Financial Services Inc. and UBS International, Inc.) and UBS Investment Research is produced by UBS Investment Bank. Both sources of information are independent of one another and reflect the different assumptions, views and analytical methods of the analysts who prepared them, there may exist a difference of opinions between the two sources. For more information about each research source, please go to UBS Online Services or ask your Financial Advisor.

UBS CIO Global Wealth Management Rating Under Review The CIO GWM Relative Sector Rating for this stock has been placed Under Review by the analyst.

UBS Investment Research Rating: Rating Exception Recommendation and price target information temporarily suspended due to restriction or pending review. **Rating Exception** The rating for this stock may have been placed Under Review by the analyst, or may have an exception to the core rating bands. For further information, please refer to the "Research Rating Exceptions" daily report or contact your financial advisor or representative.

Your Portfolio Manager uses a variety of research sources in making its investment decisions for your account, including research issued by the Firm, UBS affiliates and independent sources. Your Portfolio Manager is not required to follow the Firm or UBS issued research and may, in its discretion, take positions for your account that contradict the research issued by UBS and its affiliates.

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Your Portfolio Manager uses a variety of research sources in making its investment decisions for your account, including research issued by the Firm, UBS affiliates and independent sources. Your Portfolio Manager is not required to follow the Firm or UBS issued research and may, in its discretion, take positions for your account that contradict the research issued by UBS and its affiliates.

There are two sources of UBS research. Reports from the first source, UBS CIO Global Wealth Management, are designed for individual investors and are produced by UBS Wealth Management Americas (which includes UBS Financial Services Inc. and UBS International, Inc.). The second research source is UBS Investment Research, and its reports are produced by UBS Investment Bank, whose primary business focus is institutional investors. The two sources operate independently and may therefore have different recommendations.

The various research content provided does not take into account the unique investment objectives, financial situation or particular needs of any specific individual investor. If you have any questions, please consult your Financial Advisor.

Bond Rating: These ratings are obtained from independent industry sources and are not verified by UBS FS. Securities without rating information are left blank. Rating agencies may discontinue ratings on high yield securities.

NR: When NR is displayed under bond rating column, no ratings are currently available from that rating agency.

High Yield: This report may designate a security as a high yield fixed income security even though one or more rating agencies rate the security as an investment grade security. Further, this report may incorporate a rating that is no longer current with the rating agency. For more information about the rating for any high yield fixed income security, or to consider whether to hold or sell a high yield fixed income security, please contact your financial advisor or representative and do not make any investment decision based on this report.

Credit/Event Risk: Investments are subject to event risk and changes in credit quality of the issuer. Issuers can experience economic situations that may have adverse effects on the market value of their securities.

Interest Rate Risk: Bonds are subject to market value fluctuations as interest rates rise and fall. If sold prior to maturity, the price received for an issue may be less than the original purchase price.

Reinvestment Risk: Since most corporate issues pay interest semiannually, the coupon payments over the life of the bond can have a major impact on the bond's total return.

Call Provisions: When evaluating the purchase of a corporate bond, one should be aware of any features that may allow the issuer to call the security. This is particularly important when considering an issue that is trading at a premium to its call price, since the return may be negatively impacted if the issue is redeemed. Should an issue be called, investors may be faced with an earlier than anticipated reinvestment decision, and may be unable to reinvest their principal at equally favorable rates.

Effective Maturity: Effective maturity is the expected redemption due to pre-refunding, puts, or maturity and does not reflect any sinking fund activity, optional or extraordinary calls. Securities without a maturity date are left blank and typically include Preferred Securities, Mutual Funds and Fixed Income UITs.

Yields: Yield to Maturity and Yield to Worst are calculated to the worst call.

Accrued Interest: Interest that has accumulated between the most recent payment and the report date may be reflected in market values for interest bearing securities.

Bond Averages: All averages are weighted averages calculated based on market value of the holding, not including accrued interest.

Tax Status: "Taxable" includes all securities held in a taxable account that are subject to federal and/or state or local taxation. "Tax-exempt" includes all securities held in a taxable account that are exempt from federal, state and local taxation. "Tax-deferred" includes all securities held in a tax-deferred account, regardless of the status of the security.

Bond sensitivity analysis: This analysis uses Modified Duration which approximates the percentage price change of a security for a given change in yield. The higher the modified duration of a security, the higher its risk. For callable securities, modified duration does not address the impact of changing interest rates on a bond's expected cash flow as a result of a call or prepayment.

Gain/Loss: The gain/loss information may include calculations based upon non-UBS FS cost basis information. The Firm does not independently verify or guarantee the accuracy or validity of any information provided by sources other than UBS FS. In addition, if this report contains positions with unavailable cost basis, the gain/(loss) for these positions are excluded in the calculation for the Gain/(Loss). As a result these figures may not be accurate and are provided for informational purposes only. Clients should not rely on this information in making purchase or sell decisions, for tax purposes or otherwise. Rely only on year-end tax forms when preparing your tax return. See your monthly statement for additional information.

The account listing may or may not include all of your accounts with UBS FS. The accounts included in this report are listed under the "Accounts included in this review" shown on the first page or listed at the top of each page. If an account number begins with "@" this denotes assets or liabilities held at other financial institutions. Information about these assets, including valuation, account type and cost basis, is based on the information you provided to us, or provided to us by third party data aggregators or custodians at your direction. We have not verified, and are not responsible for, the accuracy or completeness of this information.

Account name(s) displayed in this report and labels used for groupings of accounts can be customizable "nicknames" chosen by you to assist you with your recordkeeping or may have been included by your financial advisor for reference purposes only. The names used have no legal effect, are not intended to reflect any strategy, product, recommendation, investment objective or risk profile associated with your accounts or any group of accounts, and are not a promise or guarantee that wealth, or any financial results, can or will be achieved. All investments involve the risk of loss, including the risk of loss of the entire investment.

For more information about account or group names, or to make changes, contact your Financial Advisor.

Account changes: At UBS, we are committed to helping you work toward your financial goals. So that we may continue providing you with financial advice that is consistent with your investment objectives, please consider the following two questions:
1) Have there been any changes to your financial situation or investment objectives?
2) Would you like to implement or modify any restrictions regarding the management of your account?
If the answer to either question is "yes," it is important that you contact your Financial Advisor as soon as possible to discuss these changes. For MAC advisory accounts, please contact your investment manager directly if you would like to impose or change any investment restrictions on your account.

ADV disclosure: A complimentary copy of our current Form ADV Disclosure Brochure that describes the advisory program and related fees is available through your Financial Advisor. Please contact your Financial Advisor if you have any questions.

Important information for former Piper Jaffray and McDonald Investments clients: As an accommodation to former Piper Jaffray and McDonald Investments clients, these reports include performance history for their Piper Jaffray accounts prior to August 12, 2006 and McDonald Investments accounts prior to February 9, 2007, the date the respective accounts were converted to UBS FS. UBS FS has not independently verified this information nor do we make any representations or warranties as to the accuracy or completeness of that information and will not be liable to you if any such information is unavailable, delayed or inaccurate.

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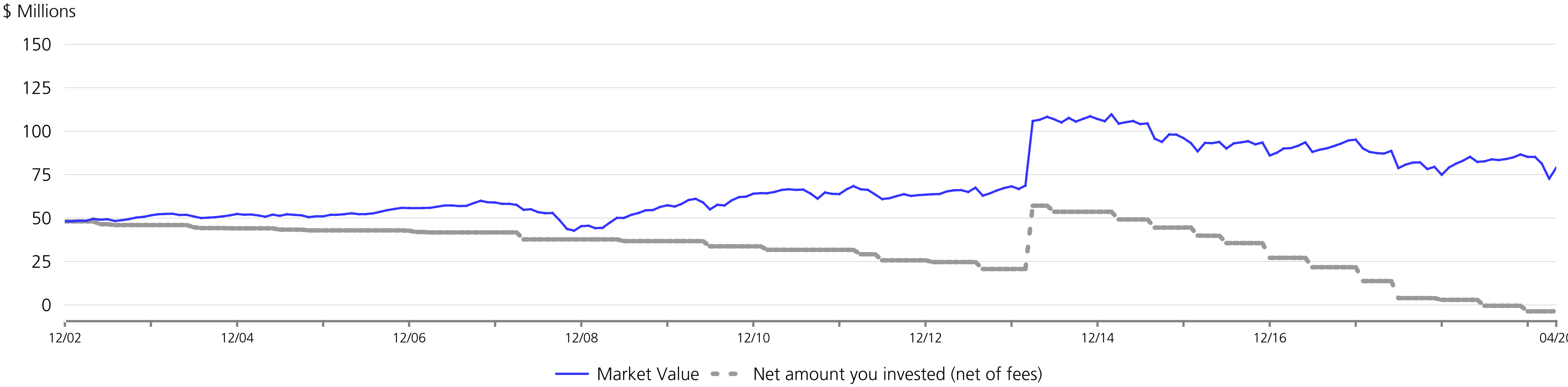
Performance History prior to the account's inception at UBS Financial Services, Inc. may have been included in this report and is based on data provided by third party sources. UBS Financial Services Inc. has not independently verified this information nor does UBS Financial Services Inc. guarantee the accuracy or validity of the information.

UBS

Sources of portfolio value

as of April 30, 2020



	MTD 03/31/2020 to 04/30/2020	YTD 12/31/2019 to 04/30/2020	1 Year 04/30/2019 to 04/30/2020	3 Years 04/30/2017 to 04/30/2020	5 Years 04/30/2015 to 04/30/2020	7 Years 04/30/2013 to 04/30/2020	10 Years 04/30/2010 to 04/30/2020	ITD 12/31/2002 to 04/30/2020
Opening value	**72,638,126.89**	**85,204,028.21**	**85,259,412.47**	**91,572,970.73**	**105,158,638.50**	**65,970,745.65**	**61,053,528.85**	**48,080,148.50**
Net deposits/withdrawals	0.00	0.00	-6,601,881.00	-30,777,724.20	-52,879,122.53	-28,343,135.07	-40,400,014.44	-51,748,346.69
Div./interest income	109,058.07	546,710.68	2,711,003.75	8,084,832.36	13,887,892.14	18,979,852.86	24,255,722.91	39,982,255.79
Change in accr. interest	2,413.20	2,874.12	-2,862.37	-3,236.34	-25,344.37	-26,141.53	-142,958.74	-546,089.22
Change in value	6,240,835.10	-6,763,179.74	-2,375,239.59	10,113,590.72	12,848,369.52	22,409,111.36	34,224,154.69	43,222,464.89
Closing value	**78,990,433.26**	**78,990,433.26**	**78,990,433.26**	**78,990,433.26**	**78,990,433.26**	**78,990,433.26**	**78,990,433.26**	**78,990,433.26**
Gross Time-weighted ROR	8.75	-7.27	0.26	7.14	6.36	7.20	7.90	7.25
Net Time-weighted ROR	8.75	-7.29	0.14	7.01	6.25	7.09	7.80	7.20

Performance returns are annualized after 1 year. Net deposits and withdrawals include program and account fees.

Benchmarks - Annualized time-weighted returns

Blended Index	8.22	-7.03	1.17	5.75	5.23	6.40	7.21	7.40
US Treasury Bill - 3 Mos	0.00	0.47	1.89	1.72	1.12	0.80	0.59	1.30
Barclays Agg Bond	1.78	4.98	10.84	5.17	3.79	3.30	3.96	4.37
MSCI Emerging Markets-PR	9.00	-17.02	-14.30	-1.84	-2.46	-1.65	-0.97	6.87
Russell 2000	13.74	-21.08	-16.39	-0.82	2.88	6.20	7.69	8.80
S&P 500	12.82	-9.29	0.86	9.04	9.11	11.21	11.68	9.35

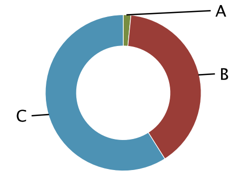
Blended Index:**Start - Current:** 70% MSCI World; 30% Barclays Agg Bond
Past performance does not guarantee future results and current performance may be lower/higher than past data presented.

Portfolio holdings

as of April 30, 2020

Summary of Portfolio Holdings

	Cost basis ($)	Value on 04/30/2020 ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Portfolio
A Cash	**1,248,268.97**	**1,248,268.97**	**0.00**	**0.00%**	**12,617.08**	**1.01%**	**1.58%**
Cash	1,248,268.97	1,248,268.97	0.00	0.00%	12,617.08	1.01%	1.58%
US	1,248,268.97	1,248,268.97	0.00	0.00%	12,617.08	1.01%	1.58%
US Cash	1,248,268.97	1,248,268.97	0.00	0.00%	12,617.08	1.01%	1.58%
B Fixed Income	**32,345,111.73**	**31,158,402.33**	**-1,186,709.40**	**-3.67%**	**1,018,170.72**	**3.27%**	**39.45%**
US	27,415,824.37	26,649,064.77	-766,759.60	-2.80%	854,523.98	3.21%	33.74%
US Fixed Income	18,713,285.08	18,485,032.59	-228,252.49	-1.22%	497,753.03	2.69%	23.40%
Short	5,439,807.13	5,578,783.62	138,976.49	2.55%	128,402.41	2.30%	7.06%
Intermediate	13,123,477.95	12,755,797.92	-367,680.03	-2.80%	367,475.62	2.88%	16.15%
Other	150,000.00	150,451.05	451.05	0.30%	1,875.00	1.25%	0.19%
Government	3,830,530.19	4,059,639.15	229,108.96	5.98%	78,537.53	1.93%	5.14%
Other	3,830,530.19	4,059,639.15	229,108.96	5.98%	78,537.53	1.93%	5.14%
Corporate IG Credit	293,625.00	372,288.14	78,663.14	26.79%	28,081.35	7.81%	0.48%
Short	293,625.00	372,288.14	78,663.14	26.79%	28,081.35	7.81%	0.48%
Corporate High Yield	4,578,384.10	3,732,104.89	-846,279.21	-18.48%	250,152.07	6.70%	4.72%
Corporate High Yield	4,578,384.10	3,732,104.89	-846,279.21	-18.48%	250,152.07	6.70%	4.72%
Global	3,907,676.54	3,651,850.54	-255,826.00	-6.55%	116,101.29	3.18%	4.62%
Global	3,907,676.54	3,651,850.54	-255,826.00	-6.55%	116,101.29	3.18%	4.62%
Global	3,907,676.54	3,651,850.54	-255,826.00	-6.55%	116,101.29	3.18%	4.62%
International	1,021,610.82	857,487.02	-164,123.80	-16.07%	47,545.45	5.54%	1.09%
Emerging Markets	1,021,610.82	857,487.02	-164,123.80	-16.07%	47,545.45	5.54%	1.09%
Emerging Markets	1,021,610.82	857,487.02	-164,123.80	-16.07%	47,545.45	5.54%	1.09%
C Equity	**31,625,046.02**	**46,583,761.96**	**14,958,715.94**	**47.30%**	**762,118.01**	**1.64%**	**58.97%**
US	20,263,384.69	33,650,926.42	13,387,541.73	66.07%	609,590.13	1.81%	42.60%
US Equity	9,200.00	18,040.00	8,840.00	96.09%	0.00	0.00%	0.02%
Other	9,200.00	18,040.00	8,840.00	96.09%	0.00	0.00%	0.02%
Large Cap	13,180,033.66	24,880,655.88	11,700,622.22	88.78%	445,065.05	1.79%	31.50%
Core	4,971,713.70	10,439,920.27	5,468,206.57	109.99%	202,546.83	1.94%	13.22%
Growth	1,802,242.59	6,298,055.19	4,495,812.60	249.46%	18,936.00	0.30%	7.97%
Value	6,342,459.20	7,904,680.42	1,562,221.22	24.63%	219,622.22	2.78%	10.01%
Public Real Estate	63,618.17	238,000.00	174,381.83	274.11%	3,960.00	1.66%	0.30%
Mid Cap	2,727,093.59	4,060,291.60	1,333,198.01	48.89%	137,002.82	3.37%	5.14%
Core	235,507.28	811,741.00	576,233.72	244.68%	17,840.00	2.20%	1.03%
Growth	654,771.02	1,283,991.50	629,220.48	96.10%	22,000.00	1.71%	1.63%
Value	1,836,815.29	1,964,559.10	127,743.81	6.95%	97,162.82	4.95%	2.48%
Small Cap	3,850,294.44	4,691,938.94	841,644.50	21.86%	27,522.26	0.59%	5.94%
Core	1,052,123.77	1,141,254.98	89,131.21	8.47%	18,338.57	1.61%	1.45%



Portfolio holdings - as of April 30, 2020 (continued)

	Cost basis ($)	Value on 04/30/2020 ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Portfolio
Growth	1,339,940.45	2,372,347.03	1,032,406.58	77.05%	0.00	0.00%	3.00%
Value	1,458,230.22	1,178,336.93	-279,893.29	-19.19%	9,183.69	0.78%	1.49%
Convertibles	496,763.00	0.00	-496,763.00	-100.00%	0.00	0.00%	0.00%
Convertibles	496,763.00	0.00	-496,763.00	-100.00%	0.00	0.00%	0.00%
Global	4,121,783.44	5,364,283.42	1,242,499.97	30.14%	24,126.14	0.45%	6.79%
Global	4,121,783.44	5,364,283.42	1,242,499.97	30.14%	24,126.14	0.45%	6.79%
Core	1,044,344.99	1,243,867.15	199,522.15	19.11%	24,126.14	1.94%	1.57%
Growth	3,077,438.45	4,120,416.27	1,042,977.82	33.89%	0.00	0.00%	5.22%
International	7,239,877.89	7,568,552.12	328,674.24	4.54%	128,401.74	1.70%	9.58%
Developed Markets	4,348,056.39	4,549,531.64	201,475.25	4.63%	91,172.69	2.00%	5.76%
Core	1,121,975.80	1,279,798.95	157,823.15	14.07%	28,207.35	2.20%	1.62%
Growth	2,925,361.69	2,946,402.69	21,041.00	0.72%	36,225.34	1.23%	3.73%
Value	300,718.90	323,330.00	22,611.10	7.52%	26,740.00	8.27%	0.41%
Emerging Markets	2,891,821.50	3,019,020.48	127,198.99	4.40%	37,229.05	1.23%	3.82%
Growth	2,779,753.89	2,844,618.50	64,864.61	2.33%	37,229.05	1.31%	3.60%
Other	112,067.61	174,401.98	62,334.38	55.62%	0.00	0.00%	0.22%
D Commodities	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00%**	**0.00%**
E Non-Traditional	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00%**	**0.00%**
F Other	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00%**	**0.00%**
Total Portfolio	**$65,218,426.72**	**$78,990,433.26**	**$13,772,006.54**	**21.12%**	**$1,792,905.80**	**2.27%**	**100%**

Balanced mutual funds represented in multiple asset classes based on Morningstar allocations

Portfolio holdings - as of April 30, 2020 (continued)

Details of portfolio holdings

	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of asset class	% of Portfolio
Total Portfolio	**$65,218,426.72**	**$78,990,433.26**	**$13,772,006.54**	**21.12%**	**$1,792,905.80**	**2.27%**	**100%**	**100%**

Cash	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Cash	% of Portfolio
Cash											
US											
US Cash											
LIQUID ASSETS GOVT FUND CUSIP: 90262Y307 Symbol: MMLIRA	1,246,796.41	1.00	1.00	1,246,796.41	1,246,796.41	0.00	0.00%	12,617.08	1.01%	99.88%	1.58%
USD CASH	1,472.56	1.00	1.00	1,472.56	1,472.56	0.00	0.00%	0.00	0.00%	0.12%	0.00%
Total US Cash				**$1,248,268.97**	**$1,248,268.97**	**$0.00**	**0.00%**	**$12,617.08**	**1.01%**	**100.00%**	**1.58%**
Total US				**$1,248,268.97**	**$1,248,268.97**	**$0.00**	**0.00%**	**$12,617.08**	**1.01%**	**100.00%**	**1.58%**
Total Cash				**$1,248,268.97**	**$1,248,268.97**	**$0.00**	**0.00%**	**$12,617.08**	**1.01%**	**100.00%**	**1.58%**
Total Cash				**$1,248,268.97**	**$1,248,268.97**	**$0.00**	**0.00%**	**$12,617.08**	**1.01%**	**100.00%**	**1.58%**

Fixed Income	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Fixed Income	% of Portfolio
US											
US Fixed Income											
Short											
THORNBURG LIMITED TERM INCOME FD CLASS A CUSIP: 885215509 Symbol: THIFX Initial purchase date: Mar 09, 2017 Client investment: $5,020,625.28 Reinvested dividends: $419,181.85 Investment return: $558,158.34 (11.12%)	409,001.73	13.30	13.64	5,439,807.13	5,578,783.62	138,976.49	2.55%	128,402.41	2.30%	17.90%	7.06%
Total Short				**$5,439,807.13**	**$5,578,783.62**	**$138,976.49**	**2.55%**	**$128,402.41**	**2.30%**	**17.90%**	**7.06%**
Intermediate											

Portfolio holdings - as of April 30, 2020 (continued)

Fixed Income	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Fixed Income	% of Portfolio
US											
Intermediate											
LOOMIS SAYLES INVESTMENT GRADE BOND FUND CLASS A CUSIP: 543487144 Symbol: LIGRX Initial purchase date: Jun 13, 2014 Client investment: $7,097,012.03 Reinvested dividends: $1,758,109.83 Investment return: $1,180,228.37 (16.63%)	732,499.15	12.09	11.30	8,855,121.86	8,277,240.40	-577,881.47	-6.53%	260,696.45	3.15%	26.57%	10.48%
METROPOLITAN WEST TOTAL RETURN BOND FUND CUSIP: 592905103 Symbol: MWTRX Initial purchase date: Nov 14, 2014 Client investment: $3,587,358.91 Reinvested dividends: $680,997.18 Investment return: $891,198.61 (24.84%)	393,892.48	10.84	11.37	4,268,356.09	4,478,557.52	210,201.43	4.92%	106,779.17	2.38%	14.37%	5.67%
Total Intermediate				**$13,123,477.95**	**$12,755,797.92**	**$-367,680.03**	**-2.80%**	**$367,475.62**	**2.88%**	**40.94%**	**16.15%**
Other											
VALLEY NATL BANK NJ US RT 01.1000% MAT 07/01/20 FIXED RATE CD CUSIP: 919853FW6 Symbol: ZBDIH Initial purchase date: Mar 25, 2020	100,000.00	100.00	100.13	100,000.00	100,216.40	216.40	0.22%	1,100.00	1.10%	0.32%	0.13%
VERITEX CMNTY BK N TX US RT 01.5500% MAT 07/06/20 FIXED RATE CD CUSIP: 923450CA6 Symbol: ZBBMU Initial purchase date: Feb 27, 2020	50,000.00	100.00	100.22	50,000.00	50,234.65	234.65	0.47%	775.00	1.55%	0.16%	0.06%
Total Other				**$150,000.00**	**$150,451.05**	**$451.05**	**0.30%**	**$1,875.00**	**1.25%**	**0.49%**	**0.19%**
Total US Fixed Income				**$18,713,285.08**	**$18,485,032.59**	**$-228,252.49**	**-1.22%**	**$497,753.03**	**2.69%**	**59.33%**	**23.40%**
Government											
Other											
ISHARES TIPS BOND ETF CUSIP: 464287176 Symbol: TIP Initial purchase date: Feb 16, 2017 Client investment: $3,689,182.34 Reinvested dividends: $141,347.85 Investment return: $370,456.81 (10.04%)	33,465.00	114.46	121.31	3,830,530.19	4,059,639.15	229,108.96	5.98%	78,537.53	1.93%	13.03%	5.14%
Total Other				**$3,830,530.19**	**$4,059,639.15**	**$229,108.96**	**5.98%**	**$78,537.53**	**1.93%**	**13.03%**	**5.14%**
Total Government				**$3,830,530.19**	**$4,059,639.15**	**$229,108.96**	**5.98%**	**$78,537.53**	**1.93%**	**13.03%**	**5.14%**

Portfolio holdings - as of April 30, 2020 (continued)

Fixed Income	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Fixed Income	% of Portfolio
US											
Corporate IG Credit											
Short											
COMCAST CABLE 09.455% 111522 DTD111802 FC051503 COMMUNICATION CUSIP: 00209TAB1 Initial purchase date: Feb 13, 1992	297,000.00	98.86	121.02	293,625.00	372,288.14	78,663.14	26.79%	28,081.35	7.81%	1.19%	0.48%
Total Short				**$293,625.00**	**$372,288.14**	**$78,663.14**	**26.79%**	**$28,081.35**	**7.81%**	**1.19%**	**0.48%**
Total Corporate IG Credit				**$293,625.00**	**$372,288.14**	**$78,663.14**	**26.79%**	**$28,081.35**	**7.81%**	**1.19%**	**0.48%**
Corporate High Yield											
Corporate High Yield											
AB HIGH INCOME FUND CLASS A CUSIP: 01859M101 Symbol: AGDAX Initial purchase date: Nov 16, 2012 Client investment: $1,109,241.65 Reinvested dividends: $1,187,862.27 Investment return: $634,645.77 (57.21%)	256,077.45	8.97	6.81	2,297,103.92	1,743,887.42	-553,216.50	-24.08%	133,250.64	7.64%	5.60%	2.21%
BLACKROCK HIGH YIELD BOND PORTFOLIOA CUSIP: 09260B663 Symbol: BHYAX Initial purchase date: Nov 16, 2012 Client investment: $1,215,925.43 Reinvested dividends: $1,065,354.75 Investment return: $772,292.04 (63.51%)	288,147.46	7.92	6.90	2,281,280.18	1,988,217.47	-293,062.71	-12.85%	116,901.42	5.88%	6.38%	2.51%
Total Corporate High Yield				**$4,578,384.10**	**$3,732,104.89**	**$-846,279.21**	**-18.48%**	**$250,152.07**	**6.70%**	**11.98%**	**4.72%**
Total Corporate High Yield				**$4,578,384.10**	**$3,732,104.89**	**$-846,279.21**	**-18.48%**	**$250,152.07**	**6.70%**	**11.98%**	**4.72%**
Total US				**$27,415,824.37**	**$26,649,064.77**	**$-766,759.60**	**-2.80%**	**$854,523.98**	**3.21%**	**85.53%**	**33.74%**

Global

Global

Global

Portfolio holdings - as of April 30, 2020 (continued)

Fixed Income	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Fixed Income	% of Portfolio
Global											
Global											
BLACKROCK STRATEGIC INCOME OPPORTUNITIES PORTFOLIOA CUSIP: 09260B416 Symbol: BASIX Initial purchase date: Feb 13, 2014 Client investment: $3,141,350.15 Reinvested dividends: $766,326.39 Investment return: $510,500.39 (16.25%)	382,793.56	10.21	9.54	3,907,676.54	3,651,850.54	-255,826.00	-6.55%	116,101.29	3.18%	11.72%	4.62%
Total Global				**$3,907,676.54**	**$3,651,850.54**	**$-255,826.00**	**-6.55%**	**$116,101.29**	**3.18%**	**11.72%**	**4.62%**
Total Global				**$3,907,676.54**	**$3,651,850.54**	**$-255,826.00**	**-6.55%**	**$116,101.29**	**3.18%**	**11.72%**	**4.62%**
Total Global				**$3,907,676.54**	**$3,651,850.54**	**$-255,826.00**	**-6.55%**	**$116,101.29**	**3.18%**	**11.72%**	**4.62%**
International											
Emerging Markets											
Emerging Markets											
TCW EMERGING MARKETS INCOME FUND CLASS N CUSIP: 87234N351 Symbol: TGINX Initial purchase date: Oct 09, 2019 Client investment: $1,000,075.00 Reinvested dividends: $21,535.82 Investment return: $-142,587.98 (-14.26%)	95,915.77	10.65	8.94	1,021,610.82	857,487.02	-164,123.80	-16.07%	47,545.45	5.54%	2.75%	1.09%
Total Emerging Markets				**$1,021,610.82**	**$857,487.02**	**$-164,123.80**	**-16.07%**	**$47,545.45**	**5.54%**	**2.75%**	**1.09%**
Total Emerging Markets				**$1,021,610.82**	**$857,487.02**	**$-164,123.80**	**-16.07%**	**$47,545.45**	**5.54%**	**2.75%**	**1.09%**
Total International				**$1,021,610.82**	**$857,487.02**	**$-164,123.80**	**-16.07%**	**$47,545.45**	**5.54%**	**2.75%**	**1.09%**
Total Fixed Income				**$32,345,111.73**	**$31,158,402.33**	**$-1,186,709.40**	**-3.67%**	**$1,018,170.72**	**3.27%**	**100.00%**	**39.45%**

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
US Equity											
Other											
RTS BRISTOL-MYERS SQUIBB CO CUSIP: 110122157 Symbol: BMYRT Initial purchase date: Nov 21, 2019	4,000.00	2.30	4.51	9,200.00	18,040.00	8,840.00	96.09%	0.00	0.00%	0.04%	0.02%
Total Other				**$9,200.00**	**$18,040.00**	**$8,840.00**	**96.09%**	**$0.00**	**0.00%**	**0.04%**	**0.02%**
Total US Equity				**$9,200.00**	**$18,040.00**	**$8,840.00**	**96.09%**	**$0.00**	**0.00%**	**0.04%**	**0.02%**
Large Cap											
Core											
ABBOTT LABS CUSIP: 002824100 Symbol: ABT Initial purchase date: May 11, 2016	3,045.00	38.39	92.09	116,912.23	280,414.05	163,501.82	139.85%	4,384.80	1.56%	0.60%	0.35%
APPLE INC CUSIP: 037833100 Symbol: AAPL Initial purchase date: Sep 15, 2011	4,375.00	56.06	293.80	245,260.12	1,285,375.00	1,040,114.88	424.09%	13,475.00	1.05%	2.76%	1.61%
BLACKROCK INC CUSIP: 09247X101 Symbol: BLK Initial purchase date: Aug 10, 2016	670.00	370.32	502.04	248,115.95	336,366.80	88,250.85	35.57%	9,728.40	2.89%	0.72%	0.43%
CALL CHEVRON CORP DUE 12/18/20 125.000 0926P3 CUSIP: 99UBBC536 Symbol: CVX Initial purchase date: Feb 14, 2020	-17.00	18,235.5	120.00	-3,100.04	-2,040.00	1,060.04	34.19%	0.00	0.00%	0.00%	0.00%
CALL COSTCO WHOLESALE CO DUE 06/19/20 330.000 0929G5 CUSIP: 99UBBQEK7 Symbol: COST Initial purchase date: Feb 14, 2020	-10.00	86,946.5	345.00	-8,694.65	-3,450.00	5,244.65	60.32%	0.00	0.00%	-0.01%	0.00%
CALL DANAHER CORP DUE 06/19/20 175.000 126250 CUSIP: 99UBBX6E5 Symbol: DHR Initial purchase date: Feb 14, 2020	-10.00	25,860.9	300.00	-2,586.09	-3,000.00	-413.91	-16.01%	0.00	0.00%	-0.01%	0.00%
CALL MARSH & MCLENNAN CO DUE 07/17/20 125.000 275603 CUSIP: 99UBBV8H0 Symbol: MMC Initial purchase date: Feb 14, 2020	-20.00	21,633.8	135.00	-4,326.77	-2,700.00	1,626.77	37.60%	0.00	0.00%	-0.01%	0.00%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Core											
CALL MCDONALDS CORP DUE 06/19/20 230.000 279676 CUSIP: 99UBBW524 Symbol: MCD Initial purchase date: Feb 14, 2020	-10.00	23,400.9	19.00	-2,340.09	-190.00	2,150.09	91.88%	0.00	0.00%	0.00%	0.00%
CALL O REILLY AUTOMOTIVE DUE 05/15/20 510.000 350B81 CUSIP: 99UBBQN76 Symbol: ORLY Initial purchase date: Dec 12, 2019	-5.00	72,591.8	200.00	-3,629.59	-1,000.00	2,629.59	72.45%	0.00	0.00%	0.00%	0.00%
CALL PROCTER & GAMBLE CO DUE 07/17/20 140.000 383601 CUSIP: 99UBBQOG5 Symbol: PG Initial purchase date: Dec 12, 2019	-30.00	13,960.2	26.00	-4,188.06	-780.00	3,408.06	81.38%	0.00	0.00%	0.00%	0.00%
CALL STARBUCKS CORP DUE 07/17/20 100.000 509736 CUSIP: 99UBBQO67 Symbol: SBUX Initial purchase date: Dec 12, 2019	-22.00	16,437.0	16.00	-3,616.15	-352.00	3,264.15	90.27%	0.00	0.00%	0.00%	0.00%
CALL VF CORP DUE 05/15/20 97.500 488984 CUSIP: 99UBBCZ09 Symbol: VFC Initial purchase date: Nov 13, 2019	-4.00	14,722.5	50.00	-588.90	-200.00	388.90	66.04%	0.00	0.00%	0.00%	0.00%
CALL YUM! BRANDS INC DUE 07/17/20 115.000 5175J8 CUSIP: 99UBAWGN7 Symbol: YUM Initial purchase date: Feb 14, 2020	-20.00	12,187.6	10.00	-2,437.53	-200.00	2,237.53	91.79%	0.00	0.00%	0.00%	0.00%
CHEVRON CORP CUSIP: 166764100 Symbol: CVX Initial purchase date: Feb 12, 2009	8,710.00	79.26	92.00	690,314.19	801,320.00	111,005.81	16.08%	44,943.60	5.61%	1.72%	1.01%
COSTCO WHOLESALE CORP CUSIP: 22160K105 Symbol: COST Initial purchase date: May 10, 2012	3,660.00	93.19	303.00	341,089.59	1,108,980.00	767,890.41	225.13%	10,248.00	0.92%	2.38%	1.40%
DANAHER CORP CUSIP: 235851102 Symbol: DHR Initial purchase date: Jun 09, 2005	3,000.00	20.72	163.46	62,151.97	490,380.00	428,228.03	689.00%	2,160.00	0.44%	1.05%	0.62%
LOCKHEED MARTIN CORP CUSIP: 539830109 Symbol: LMT Initial purchase date: Oct 09, 2019	320.00	388.31	389.06	124,260.66	124,499.20	238.54	0.19%	3,072.00	2.47%	0.27%	0.16%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Core											
MARSH & MCLENNAN COS INC CUSIP: 571748102 Symbol: MMC Initial purchase date: Jan 13, 2016	7,030.00	53.01	97.33	372,652.52	684,229.90	311,577.38	83.61%	12,794.60	1.87%	1.47%	0.87%
MCDONALDS CORP CUSIP: 580135101 Symbol: MCD Initial purchase date: Jan 14, 2010	2,050.00	62.64	187.56	128,406.21	384,498.00	256,091.79	199.44%	10,250.00	2.67%	0.83%	0.49%
MERCK & CO INC NEW COM CUSIP: 58933Y105 Symbol: MRK Initial purchase date: Oct 09, 2019	1,470.00	85.01	79.34	124,962.07	116,629.80	-8,332.27	-6.67%	3,586.80	3.08%	0.25%	0.15%
O REILLY AUTOMOTIVE INC CUSIP: 67103H107 Symbol: ORLY Initial purchase date: Jul 01, 2003	1,500.00	16.91	386.34	25,366.87	579,510.00	554,143.13	2,184.52%	0.00	0.00%	1.24%	0.73%
ORACLE CORP CUSIP: 68389X105 Symbol: ORCL Initial purchase date: Feb 10, 2005	5,000.00	13.18	52.97	65,886.08	264,850.00	198,963.92	301.98%	4,800.00	1.81%	0.57%	0.34%
PROCTER & GAMBLE CO CUSIP: 742718109 Symbol: PG Initial purchase date: Feb 15, 1996	7,000.00	35.00	117.87	245,024.26	825,090.00	580,065.74	236.74%	22,139.60	2.68%	1.77%	1.04%
PUT WALT DISNEY CO (HOL DUE 06/19/20 97.500 129488 CUSIP: 99UBBQB20 Symbol: DIS Initial purchase date: Aug 15, 2019	-10.00	12,893.8	283.00	-1,289.38	-2,830.00	-1,540.62	-119.49%	0.00	0.00%	-0.01%	0.00%
SPDR S&P 500 ETF TR CUSIP: 78462F103 Symbol: SPY Initial purchase date: Feb 08, 2017 Client investment: $502,534.43 Reinvested dividends: $36,042.69 Investment return: $166,731.49 (33.18%)	2,304.00	233.76	290.48	538,577.12	669,265.92	130,688.80	24.27%	13,342.03	1.99%	1.44%	0.85%
STARBUCKS CORP CUSIP: 855244109 Symbol: SBUX Initial purchase date: May 10, 2012	11,280.00	52.24	76.73	589,287.75	865,514.40	276,226.65	46.87%	18,499.20	2.14%	1.86%	1.10%
THERMO FISHER SCIENTIFIC INC CUSIP: 883556102 Symbol: TMO Initial purchase date: Oct 09, 2019	445.00	280.04	334.68	124,616.33	148,932.60	24,316.27	19.51%	391.60	0.26%	0.32%	0.19%
UNITEDHEALTH GROUP INC CUSIP: 91324P102 Symbol: UNH Initial purchase date: Oct 09, 2019	560.00	224.30	292.47	125,605.88	163,783.20	38,177.32	30.39%	2,419.20	1.48%	0.35%	0.21%
VF CORP CUSIP: 918204108 Symbol: VFC Initial purchase date: Oct 09, 2019	1,400.00	89.32	58.10	125,044.79	81,340.00	-43,704.79	-34.95%	2,688.00	3.30%	0.17%	0.10%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Core											
WALT DISNEY CO (HOLDING CO) DISNEY COM CUSIP: 254687106 Symbol: DIS Initial purchase date: Dec 09, 2015	5,860.00	104.21	108.15	610,699.80	633,759.00	23,059.20	3.78%	10,313.60	1.63%	1.36%	0.80%
YUM! BRANDS INC CUSIP: 988498101 Symbol: YUM Initial purchase date: Sep 09, 2004	7,080.00	14.73	86.43	104,276.56	611,924.40	507,647.84	486.83%	13,310.40	2.18%	1.31%	0.77%
Total Core				**$4,971,713.70**	**$10,439,920.27**	**$5,468,206.57**	**109.99%**	**$202,546.83**	**1.94%**	**22.40%**	**13.22%**
Growth											
ALPHABET INC CL A CUSIP: 02079K305 Symbol: GOOGL Initial purchase date: Nov 12, 2009	832.00	452.75	1,346.70	376,686.20	1,120,454.40	743,768.20	197.45%	0.00	0.00%	2.41%	1.42%
ALPHABET INC CL C CUSIP: 02079K107 Symbol: GOOG Initial purchase date: Nov 12, 2009	904.00	433.82	1,348.66	392,177.01	1,219,188.64	827,011.63	210.88%	0.00	0.00%	2.62%	1.54%
AMAZON.COM INC CUSIP: 023135106 Symbol: AMZN Initial purchase date: Sep 14, 2016	585.00	769.36	2,474.00	450,073.08	1,447,290.00	997,216.92	221.57%	0.00	0.00%	3.11%	1.83%
CALL GLOBAL PAYMENTS INC DUE 05/15/20 200.000 1848N3 CUSIP: 99UBBQMR3 Symbol: GPN Initial purchase date: Dec 12, 2019	-20.00	27,644.1	105.00	-5,528.83	-2,100.00	3,428.83	62.02%	0.00	0.00%	0.00%	0.00%
CALL YUM CHINA HLDGS INC DUE 07/17/20 50.000 518NY1 CUSIP: 99UBAYRO9 Symbol: YUMC Initial purchase date: Feb 14, 2020	-30.00	14,156.9	240.00	-4,247.09	-7,200.00	-2,952.91	-69.53%	0.00	0.00%	-0.02%	-0.01%
ESCROW ALTABA INC CUSIP: 021ESC017 Initial purchase date: Jun 12, 2014	3,000.00	36.85	0.00	110,545.88	0.00	-110,545.88	-100.00%	0.00	0.00%	0.00%	0.00%
GLOBAL PAYMENTS INC CUSIP: 37940X102 Symbol: GPN Initial purchase date: Dec 10, 2009	5,000.00	25.78	166.02	128,889.82	830,100.00	701,210.18	544.04%	3,900.00	0.47%	1.78%	1.05%
MICROSOFT CORP CUSIP: 594918104 Symbol: MSFT Initial purchase date: Oct 09, 2019	900.00	139.79	179.21	125,813.00	161,289.00	35,476.00	28.20%	1,836.00	1.14%	0.35%	0.20%
OTIS WORLDWIDE CORP CUSIP: 68902V107 Symbol: OTIS Initial purchase date: Oct 09, 2019	465.00	69.81	50.91	32,462.90	23,673.15	-8,789.75	-27.08%	0.00	0.00%	0.05%	0.03%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Growth											
VISA INC CL A CUSIP: 92826C839 Symbol: V Initial purchase date: Oct 17, 2011	3,000.00	23.56	178.72	70,692.57	536,160.00	465,467.43	658.44%	3,600.00	0.67%	1.15%	0.68%
YUM CHINA HLDGS INC CUSIP: 98850P109 Symbol: YUMC Initial purchase date: Sep 09, 2004	20,000.00	6.23	48.46	124,678.05	969,200.00	844,521.95	677.36%	9,600.00	0.99%	2.08%	1.23%
Total Growth				**$1,802,242.59**	**$6,298,055.19**	**$4,495,812.60**	**249.46%**	**$18,936.00**	**0.30%**	**13.52%**	**7.97%**
Value											
AT&T INC CUSIP: 00206R102 Symbol: T Initial purchase date: Jun 09, 2011	5,968.00	31.24	30.47	186,443.46	181,844.96	-4,598.50	-2.47%	12,413.44	6.83%	0.39%	0.23%
BANK OF AMER CORP CUSIP: 060505104 Symbol: BAC Initial purchase date: Jan 13, 2016	33,050.00	15.11	24.05	499,349.09	794,852.50	295,503.41	59.18%	23,796.00	2.99%	1.71%	1.01%
BRISTOL MYERS SQUIBB CO CUSIP: 110122108 Symbol: BMY Initial purchase date: Nov 21, 2019	4,000.00	56.41	60.81	225,640.00	243,240.00	17,600.00	7.80%	7,200.00	2.96%	0.52%	0.31%
CALL BANK OF AMER CORP DUE 09/18/20 35.000 052591 CUSIP: 99UBBQBB0 Symbol: BAC Initial purchase date: Sep 10, 2019	-30.00	9,040.30	11.00	-2,712.09	-330.00	2,382.09	87.83%	0.00	0.00%	0.00%	0.00%
CALL BRISTOL MYERS SQUIB DUE 06/19/20 105.000 100 +CASH 053082 CUSIP: 99UBAQ8B5 Symbol: BMY1 Initial purchase date: Aug 15, 2019	-10.00	9,162.30	1,072.50	-916.23	-10,725.00	-9,808.77	-1,070.56%	0.00	0.00%	-0.02%	-0.01%
CALL COMCAST CORP NEW CL DUE 06/19/20 50.000 026263 CUSIP: 99UBAXEN7 Symbol: CMCSA Initial purchase date: Nov 13, 2019	-18.00	11,271.7	2.00	-2,028.92	-36.00	1,992.92	98.23%	0.00	0.00%	0.00%	0.00%
CALL DUKE ENERGY CORP NE DUE 01/15/21 105.000 119MG4 CUSIP: 99UBAL1G2 Symbol: DUK Initial purchase date: Feb 14, 2020	-10.00	32,453.5	120.00	-3,245.35	-1,200.00	2,045.35	63.02%	0.00	0.00%	0.00%	0.00%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Value											
CALL GENL DYNAMICS CORP DUE 08/21/20 205.000 174360 CUSIP: 99UBB1AK6 Symbol: GD Initial purchase date: Feb 14, 2020	-10.00	32,364.9	15.00	-3,236.49	-150.00	3,086.49	95.37%	0.00	0.00%	0.00%	0.00%
CALL JPMORGAN CHASE & CO DUE 06/19/20 140.000 241JP2 CUSIP: 99UBBPTC1 Symbol: JPM Initial purchase date: Oct 10, 2019	-10.00	9,653.30	6.00	-965.33	-60.00	905.33	93.78%	0.00	0.00%	0.00%	0.00%
CALL PEPSICO INC DUE 07/17/20 155.000 368024 CUSIP: 99UBAQYN0 Symbol: PEP Initial purchase date: Feb 14, 2020	-10.00	16,919.9	38.00	-1,691.99	-380.00	1,311.99	77.54%	0.00	0.00%	0.00%	0.00%
CALL PFIZER INC DUE 06/19/20 39.000 370011 CUSIP: 99UBBAG20 Symbol: PFE Initial purchase date: Oct 11, 2019	-20.00	10,418.5	108.00	-2,083.70	-2,160.00	-76.30	-3.66%	0.00	0.00%	0.00%	0.00%
COMCAST CORP NEW CL A CUSIP: 20030N101 Symbol: CMCSA Initial purchase date: Oct 09, 2019	2,800.00	44.80	37.63	125,450.93	105,364.00	-20,086.93	-16.01%	2,576.00	2.44%	0.23%	0.13%
DUKE ENERGY CORP NEW CUSIP: 26441C204 Symbol: DUK Initial purchase date: Apr 09, 2009	3,041.00	40.54	84.66	123,267.64	257,451.06	134,183.42	108.86%	11,494.98	4.46%	0.55%	0.33%
GENL DYNAMICS CORP CUSIP: 369550108 Symbol: GD Initial purchase date: Jan 13, 2000	5,200.00	26.43	130.62	137,455.71	679,224.00	541,768.29	394.14%	22,880.00	3.37%	1.46%	0.86%
GENL MILLS INC CUSIP: 370334104 Symbol: GIS Initial purchase date: Jun 10, 2010	4,000.00	38.13	59.89	152,506.12	239,560.00	87,053.88	57.08%	7,840.00	3.27%	0.51%	0.30%
JPMORGAN CHASE & CO CUSIP: 46625H100 Symbol: JPM Initial purchase date: Aug 14, 1997	2,000.00	37.85	95.76	75,704.64	191,520.00	115,815.36	152.98%	7,200.00	3.76%	0.41%	0.24%
MFS VALUE FUND CLASS A CUSIP: 552983801 Symbol: MEIAX Initial purchase date: Oct 11, 2017 Client investment: $3,950,015.75 Reinvested dividends: $352,794.63 Investment return: $43,698.35 (1.11%)	107,098.80	40.18	37.29	4,302,810.38	3,993,714.10	-309,096.28	-7.18%	85,886.81	2.15%	8.57%	5.04%
PEPSICO INC CUSIP: 713448108 Symbol: PEP Initial purchase date: Oct 17, 2011	5,000.00	62.54	132.29	312,687.24	661,450.00	348,762.76	111.54%	19,100.00	2.89%	1.42%	0.84%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Value											
PFIZER INC CUSIP: 717081103 Symbol: PFE Initial purchase date: Jun 16, 2008	10,000.00	2.32	38.36	23,242.20	383,600.00	360,357.80	1,550.45%	15,200.00	3.96%	0.82%	0.49%
RAYTHEON TECHNOLOGIES CORP CUSIP: 75513E101 Symbol: RTX Initial purchase date: Oct 09, 2019	930.00	73.66	64.81	68,506.86	60,273.30	-8,233.56	-12.02%	1,767.00	2.93%	0.13%	0.08%
WALMART INC CUSIP: 931142103 Symbol: WMT Initial purchase date: Oct 09, 2019	1,050.00	120.26	121.55	126,275.03	127,627.50	1,352.47	1.07%	2,268.00	1.78%	0.27%	0.16%
Total Value				**$6,342,459.20**	**$7,904,680.42**	**$1,562,221.22**	**24.63%**	**$219,622.22**	**2.78%**	**16.97%**	**10.01%**
Public Real Estate											
AMERICAN TOWER CORP REIT CUSIP: 03027X100 Symbol: AMT Initial purchase date: Apr 13, 2012	1,000.00	63.62	238.00	63,618.17	238,000.00	174,381.83	274.11%	3,960.00	1.66%	0.51%	0.30%
Total Public Real Estate				**$63,618.17**	**$238,000.00**	**$174,381.83**	**274.11%**	**$3,960.00**	**1.66%**	**0.51%**	**0.30%**
Total Large Cap				**$13,180,033.66**	**$24,880,655.88**	**$11,700,622.22**	**88.78%**	**$445,065.05**	**1.79%**	**53.40%**	**31.50%**
Mid Cap											
Core											
CALL CONAGRA BRANDS, INC DUE 06/19/20 32.000 101290 CUSIP: 99UBBYLK2 Symbol: CAG Initial purchase date: Dec 17, 2019	-14.00	11,773.9	252.50	-1,648.35	-3,535.00	-1,886.65	-114.46%	0.00	0.00%	-0.01%	0.00%
CONAGRA BRANDS, INC. CUSIP: 205887102 Symbol: CAG Initial purchase date: Oct 09, 2019	4,400.00	28.43	33.44	125,093.25	147,136.00	22,042.75	17.62%	3,740.00	2.54%	0.32%	0.19%
TRACTOR SUPPLY COMPANY CUSIP: 892356106 Symbol: TSCO Initial purchase date: Dec 10, 2008	5,000.00	10.17	101.43	50,859.56	507,150.00	456,290.44	897.16%	7,000.00	1.38%	1.09%	0.64%
WATSCO INC CUSIP: 942622200 Symbol: WSO Initial purchase date: Apr 15, 2010	1,000.00	61.20	160.99	61,202.82	160,990.00	99,787.18	163.04%	7,100.00	4.41%	0.35%	0.20%
Total Core				**$235,507.28**	**$811,741.00**	**$576,233.72**	**244.68%**	**$17,840.00**	**2.20%**	**1.74%**	**1.03%**
Growth											

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Growth											
CALL IDEX CORP DUE 07/17/20 185.000 223085 CUSIP: 99UBBQM02 Symbol: IEX Initial purchase date: Dec 12, 2019	-20.00	30,602.1	100.00	-6,120.42	-2,000.00	4,120.42	67.32%	0.00	0.00%	0.00%	0.00%
CALL PALO ALTO NETWORKS DUE 06/19/20 280.000 361DG0 CUSIP: 99UBBCUK0 Symbol: PANW Initial purchase date: Nov 13, 2019	-2.00	89,454.5	28.00	-1,789.09	-56.00	1,733.09	96.87%	0.00	0.00%	0.00%	0.01%
FASTENAL CO CUSIP: 311900104 Symbol: FAST Initial purchase date: May 21, 2018	16,000.00	27.04	36.22	432,571.60	579,520.00	146,948.40	33.97%	16,000.00	2.76%	1.24%	0.73%
IDEX CORP CUSIP: 45167R104 Symbol: IEX Initial purchase date: Aug 11, 2004	3,000.00	20.50	153.63	61,501.50	460,890.00	399,388.50	649.40%	6,000.00	1.30%	0.99%	0.58%
PALO ALTO NETWORKS INC CUSIP: 697435105 Symbol: PANW Initial purchase date: Feb 12, 2015	1,250.00	134.89	196.51	168,607.43	245,637.50	77,030.07	45.69%	0.00	0.00%	0.53%	0.31%
Total Growth				**$654,771.02**	**$1,283,991.50**	**$629,220.48**	**96.10%**	**$22,000.00**	**1.71%**	**2.76%**	**1.63%**
Value											
AECOM CUSIP: 00766T100 Symbol: ACM Initial purchase date: Feb 05, 2010	2,900.00	25.19	36.26	73,045.33	105,154.00	32,108.67	43.96%	0.00	0.00%	0.23%	0.13%
CALL GENUINE PARTS CO DUE 05/15/20 115.000 181455 CUSIP: 99UBBQKD6 Symbol: GPC Initial purchase date: Dec 12, 2019	-10.00	15,545.1	6.00	-1,554.51	-60.00	1,494.51	96.14%	0.00	0.00%	0.00%	0.00%
CALL HARTFORD FINCL SERV DUE 01/15/21 70.000 1988E4 CUSIP: 99UBBAGZ7 Symbol: HIG Initial purchase date: Oct 09, 2019	-10.00	19,473.1	28.00	-1,947.31	-280.00	1,667.31	85.62%	0.00	0.00%	0.00%	0.00%
CALL ONEOK INC NEW DUE 07/17/20 80.000 3496G4 CUSIP: 99UBAV0A4 Symbol: OKE Initial purchase date: Feb 14, 2020	-10.00	18,491.1	15.00	-1,849.11	-150.00	1,699.11	91.89%	0.00	0.00%	0.00%	0.00%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Value											
CALL SMUCKER J M CO NEW DUE 01/15/21 130.000 4258Y5 CUSIP: 99UBBC569 Symbol: SJM Initial purchase date: Feb 14, 2020	-10.00	15,643.3	415.00	-1,564.33	-4,150.00	-2,585.67	-165.29%	0.00	0.00%	-0.01%	-0.01%
CARRIER GLOBAL CORP CUSIP: 14448C104 Symbol: CARR Initial purchase date: Oct 09, 2019	930.00	24.96	17.71	23,215.22	16,470.30	-6,744.92	-29.05%	0.00	0.00%	0.04%	0.02%
GENUINE PARTS CO CUSIP: 372460105 Symbol: GPC Initial purchase date: Apr 13, 2012	3,000.00	63.29	79.28	189,860.40	237,840.00	47,979.60	25.27%	9,480.00	3.99%	0.51%	0.30%
HARTFORD FINCL SERVICES GROUP INC CUSIP: 416515104 Symbol: HIG Initial purchase date: Jan 13, 2005	4,000.00	67.53	37.99	270,129.76	151,960.00	-118,169.76	-43.75%	5,200.00	3.42%	0.33%	0.19%
ONEOK INC NEW CUSIP: 682680103 Symbol: OKE Initial purchase date: May 14, 2009	14,000.00	14.25	29.93	199,490.58	419,020.00	219,529.42	110.05%	51,450.00	12.28%	0.90%	0.53%
SMUCKER J M CO NEW CUSIP: 832696405 Symbol: SJM Initial purchase date: Jan 14, 2010	3,000.00	62.32	114.91	186,962.73	344,730.00	157,767.27	84.38%	10,560.00	3.06%	0.74%	0.44%
VANGUARD MID-CAP VALUE ETF CUSIP: 922908512 Symbol: VOE Initial purchase date: Dec 12, 2019	7,580.00	118.87	91.56	901,026.53	694,024.80	-207,001.73	-22.97%	20,472.82	2.95%	1.49%	0.88%
Total Value				**$1,836,815.29**	**$1,964,559.10**	**$127,743.81**	**6.95%**	**$97,162.82**	**4.95%**	**4.22%**	**2.48%**
Total Mid Cap				**$2,727,093.59**	**$4,060,291.60**	**$1,333,198.01**	**48.89%**	**$137,002.82**	**3.37%**	**8.72%**	**5.14%**
Small Cap											
Core											
ISHARES RUSSELL 2000 ETF CUSIP: 464287655 Symbol: IWM Initial purchase date: Jun 13, 2014 Client investment: $999,013.13 Reinvested dividends: $53,110.64 Investment return: $142,241.85 (14.24%)	8,758.00	120.13	130.31	1,052,123.77	1,141,254.98	89,131.21	8.47%	18,338.57	1.61%	2.45%	1.45%
Total Core				**$1,052,123.77**	**$1,141,254.98**	**$89,131.21**	**8.47%**	**$18,338.57**	**1.61%**	**2.45%**	**1.45%**
Growth											

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Growth											
VIRTUS KAR SMALL-CAP GROWTH FUND CLASS A CUSIP: 92828N627 Symbol: PSGAX Initial purchase date: Feb 08, 2017 Client investment: $1,260,010.50 Reinvested dividends: $79,929.95 Investment return: $1,112,336.53 (88.28%)	62,843.63	21.32	37.75	1,339,940.45	2,372,347.03	1,032,406.58	77.05%	0.00	0.00%	5.09%	3.00%
Total Growth				**$1,339,940.45**	**$2,372,347.03**	**$1,032,406.58**	**77.05%**	**$0.00**	**0.00%**	**5.09%**	**3.00%**
Value											
MFS NEW DISCOVERY VALUE FUND CLASS A CUSIP: 55278M100 Symbol: NDVAX Initial purchase date: Oct 11, 2017 Client investment: $1,264,187.35 Reinvested dividends: $194,042.87 Investment return: $-85,850.42 (-6.79%)	94,191.60	15.48	12.51	1,458,230.22	1,178,336.93	-279,893.29	-19.19%	9,183.68	0.78%	2.53%	1.49%
Total Value				**$1,458,230.22**	**$1,178,336.93**	**$-279,893.29**	**-19.19%**	**$9,183.69**	**0.78%**	**2.53%**	**1.49%**
Total Small Cap				**$3,850,294.44**	**$4,691,938.94**	**$841,644.50**	**21.86%**	**$27,522.26**	**0.59%**	**10.07%**	**5.94%**
Convertibles											
Convertibles											
ESCROW GENERAL MTRS CORP 6.250% SER C DUE 07/15/33 CALLBL CONV CUSIP: 370ESC717 Initial purchase date: Jul 10, 2003	20,000.00	24.84	0.00	496,763.00	0.00	-496,763.00	-100.00%	0.00	0.00%	0.00%	0.00%
Total Convertibles				**$496,763.00**	**$0.00**	**$-496,763.00**	**-100.00%**	**$0.00**	**0.00%**	**0.00%**	**0.00%**
Total Convertibles				**$496,763.00**	**$0.00**	**$-496,763.00**	**-100.00%**	**$0.00**	**0.00%**	**0.00%**	**0.00%**
Total US				**$20,263,384.69**	**$33,650,926.42**	**$13,387,541.73**	**66.07%**	**$609,590.13**	**1.81%**	**72.23%**	**42.60%**

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
Global											
Global											
Core											
AMER FUNDS CAPITAL WORLD GROWTH & INCOME FUND CL A CUSIP: 140543109 Symbol: CWGIX Initial purchase date: Nov 12, 2010 Client investment: $670,980.25 Reinvested dividends: $373,364.74 Investment return: $572,886.89 (85.38%)	27,416.07	38.09	45.37	1,044,344.99	1,243,867.15	199,522.15	19.11%	24,126.14	1.94%	2.67%	1.57%
Total Core				**$1,044,344.99**	**$1,243,867.15**	**$199,522.15**	**19.11%**	**$24,126.14**	**1.94%**	**2.67%**	**1.57%**
Growth											
COLUMBIA SELIGMAN COMMUNICATION AND INFORMATION FUND A CUSIP: 19766H429 Symbol: SLMCX Initial purchase date: Oct 19, 2001 Client investment: $165,000.00 Reinvested dividends: $2,912,438.45 Investment return: $3,955,416.27 (2397.22%)	56,228.39	54.73	73.28	3,077,438.45	4,120,416.27	1,042,977.82	33.89%	0.00	0.00%	8.85%	5.22%
Total Growth				**$3,077,438.45**	**$4,120,416.27**	**$1,042,977.82**	**33.89%**	**$0.00**	**0.00%**	**8.85%**	**5.22%**
Total Global				**$4,121,783.44**	**$5,364,283.42**	**$1,242,499.97**	**30.14%**	**$24,126.14**	**0.45%**	**11.52%**	**6.79%**
Total Global				**$4,121,783.44**	**$5,364,283.42**	**$1,242,499.97**	**30.14%**	**$24,126.14**	**0.45%**	**11.52%**	**6.79%**
International											
Developed Markets											
Core											
CALL LINDE PLC EUR DUE 07/17/20 230.000 2621Y8 CUSIP: 99UBBU346 Symbol: LIN Initial purchase date: Feb 14, 2020	-10.00	65,255.0	55.00	-6,525.50	-550.00	5,975.50	91.57%	0.00	0.00%	0.00%	0.00%
CHUBB LTD CHF CUSIP: H1467J104 Symbol: CB Initial purchase date: Apr 13, 2016	1,000.00	121.66	108.01	121,658.43	108,010.00	-13,648.43	-11.22%	3,000.00	2.78%	0.23%	0.14%
DIAGEO PLC NEW GB SPON ADR CUSIP: 25243Q205 Symbol: DEO Initial purchase date: Feb 11, 2010	1,000.00	64.02	138.65	64,017.37	138,650.00	74,632.63	116.58%	3,430.95	2.47%	0.30%	0.18%
LINDE PLC EUR CUSIP: G5494J103 Symbol: LIN Initial purchase date: Sep 09, 2004	5,000.00	163.46	183.99	817,275.00	919,950.00	102,675.00	12.56%	19,260.00	2.09%	1.97%	1.16%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
International											
Core											
MEDTRONIC PLC CUSIP: G5960L103 Symbol: MDT Initial purchase date: Oct 09, 2019	1,165.00	107.77	97.63	125,550.50	113,738.95	-11,811.55	-9.41%	2,516.40	2.21%	0.24%	0.14%
Total Core				**$1,121,975.80**	**$1,279,798.95**	**$157,823.15**	**14.07%**	**$28,207.35**	**2.20%**	**2.75%**	**1.62%**
Growth											
AMERICAN FUNDS EURO PACIFIC GROWTH FUND CL A CUSIP: 298706102 Symbol: AEPGX Initial purchase date: Dec 20, 2002 Client investment: $1,330,010.50 Reinvested dividends: $1,595,351.19 Investment return: $1,616,392.19 (121.53%)	62,662.75	46.68	47.02	2,925,361.69	2,946,402.69	21,041.00	0.72%	36,225.34	1.23%	6.32%	3.73%
Total Growth				**$2,925,361.69**	**$2,946,402.69**	**$21,041.00**	**0.72%**	**$36,225.34**	**1.23%**	**6.32%**	**3.73%**
Value											
RIO TINTO PLC SPON ADR CUSIP: 767204100 Symbol: RIO Initial purchase date: Sep 10, 2009	7,000.00	42.96	46.19	300,718.90	323,330.00	22,611.10	7.52%	26,740.00	8.27%	0.69%	0.41%
Total Value				**$300,718.90**	**$323,330.00**	**$22,611.10**	**7.52%**	**$26,740.00**	**8.27%**	**0.70%**	**0.41%**
Total Developed Markets				**$4,348,056.39**	**$4,549,531.64**	**$201,475.25**	**4.63%**	**$91,172.69**	**2.00%**	**9.77%**	**5.76%**
Emerging Markets											
Growth											
AMER FUNDS NEW WORLD FUND CLASS F2 CUSIP: 649280823 Symbol: NFFFX Initial purchase date: Feb 13, 2020	11,692.50	71.92	60.10	840,875.15	702,718.95	-138,156.20	-16.43%	11,014.33	1.57%	1.51%	0.89%
AMERICAN FUNDS NEW WORLD FUND CL A CUSIP: 649280104 Symbol: NEWFX Initial purchase date: Nov 12, 2015 Client investment: $1,750,021.00 Reinvested dividends: $188,857.74 Investment return: $391,878.55 (22.39%)	35,550.20	54.54	60.25	1,938,878.74	2,141,899.55	203,020.81	10.47%	26,214.72	1.22%	4.60%	2.71%
Total Growth				**$2,779,753.89**	**$2,844,618.50**	**$64,864.61**	**2.33%**	**$37,229.05**	**1.31%**	**6.11%**	**3.60%**
Other											

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
International											
Other											
SAMSUNG ELECTRS LTD GDR (EACH REP 25 COM STK KRW100) REG.S *GB LINE* CUSIP: 7960509A2 Initial purchase date: Jun 13, 2014	170.00	659.22	1,025.89	112,067.61	174,401.98	62,334.37	55.62%	0.00	0.00%	0.37%	0.22%
Total Other				**$112,067.61**	**$174,401.98**	**$62,334.38**	**55.62%**	**$0.00**	**0.00%**	**0.37%**	**0.22%**
Total Emerging Markets				**$2,891,821.50**	**$3,019,020.48**	**$127,198.99**	**4.40%**	**$37,229.05**	**1.23%**	**6.48%**	**3.82%**
Total International				**$7,239,877.89**	**$7,568,552.12**	**$328,674.24**	**4.54%**	**$128,401.74**	**1.70%**	**16.25%**	**9.58%**
Total Equity				**$31,625,046.02**	**$46,583,761.96**	**$14,958,715.94**	**47.30%**	**$762,118.01**	**1.64%**	**100.00%**	**58.97%**

	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of asset class	% of Portfolio
Total Portfolio	**$65,218,426.72**	**$78,990,433.26**	**$13,772,006.54**	**21.12%**	**$1,792,905.80**	**2.27%**	**100%**	**100%**

Total accrued interest (included in market values): $13,081.17
*** Balanced mutual funds are displayed in unbundled view**

Additional information about your portfolio

as of April 30, 2020

Benchmark composition

Account TX XX595

Blended Index
Start - Current: 70% MSCI World; 30% Barclays Agg Bond

Disclosures applicable to accounts at UBS Financial Services Inc.

This section contains important disclosures regarding the information and valuations presented here. All information presented is subject to change at any time and is provided only as of the date indicated. The information in this report is for informational purposes only and should not be relied upon as the basis of an investment or liquidation decision. UBS FS account statements and official tax documents are the only official record of your accounts and are not replaced, amended or superseded by any of the information presented in these reports. You should not rely on this information in making purchase or sell decisions, for tax purposes or otherwise.

UBS FS offers a number of investment advisory programs to clients, acting in our capacity as an investment adviser, including fee-based financial planning, discretionary account management, non-discretionary investment advisory programs, and advice on the selection of investment managers and mutual funds offered through our investment advisory programs. When we act as your investment adviser, we will have a written agreement with you expressly acknowledging our investment advisory relationship with you and describing our obligations to you. At the beginning of our advisory relationship, we will give you our Form ADV brochure(s) for the program(s) you selected that provides detailed information about, among other things, the advisory services we provide, our fees, our personnel, our other business activities and financial industry affiliations and conflicts between our interests and your interests.

In our attempt to provide you with the highest quality information available, we have compiled this report using data obtained from recognized statistical sources and authorities in the financial industry. While we believe this information to be reliable, we cannot make any representations regarding its accuracy or completeness. Please keep this guide as your Advisory Review.

Please keep in mind that most investment objectives are long term. Although it is important to evaluate your portfolio's performance over multiple time periods, we believe the greatest emphasis should be placed on the longer period returns.

Please review the report content carefully and contact your Financial Advisor with any questions.

Client Accounts: This report may include all assets in the accounts listed and may include eligible and ineligible assets in a fee-based program. Since ineligible assets are not considered fee-based program assets, the inclusion of such securities will distort the actual performance of your accounts and does not reflect the performance of your accounts in the fee-based program. As a result, the performance reflected in this report can vary substantially from the individual account performance reflected in the performance reports provided to you as part of those programs. For fee-based programs, fees are charged on the market value of eligible assets in the accounts and assessed quarterly in advance, prorated according to the number of calendar days in the billing period. When shown on a report, the risk profile and return objectives describe your overall goals for these accounts. For each account you maintain, you choose one return objective and a primary risk profile. If you have questions regarding these objectives or wish to change them, please contact your Financial Advisor to update your account records.

Performance: This report presents account activity and performance depending on which inception type you've chosen. The two options are: (1) All Assets (Since Performance Start): This presents performance for all assets since the earliest possible date; (2) Advisory Assets (Advisory Strategy Start) for individual advisory accounts: This presents Advisory level performance since the Latest Strategy Start date; If an account that has never been managed is included in the consolidated report, the total performance of that unmanaged account will be included since inception.

Time-weighted Returns for accounts / SWP/AAP sleeves (Monthly periods): The report displays a time weighted rate of return (TWR) that is calculated using the Modified Dietz Method. This calculation uses the beginning and ending portfolio values for the month and weighs each contribution/withdrawal based upon the day the cash flow occurred. Periods greater than one month are calculated by linking the monthly returns. The TWR gives equal weighting to every return regardless of amount of money invested, so it is an effective measure for returns on a fee based account. All periods shown which are greater than 12 months are annualized. This applies to all performance for all assets before 09/30/2010, Advisory assets before 12/31/2010 and SWP/AAP sleeves before 04/30/2018.

Time-weighted Returns for accounts / SWP/AAP sleeves (Daily periods): The report displays a time weighted rate of return (TWR) that is calculated by dividing the portfolio's daily gain/loss by the previous day's closing market value plus the net value of cash flows that occurred during the day, if it was positive. The TWR gives equal weighting to every return regardless of amount of money invested, so it is an effective measure for returns on a fee based account. Periods greater than one day are calculated by linking the daily returns. All periods shown which are greater than 12 months are annualized. For reports generated prior to 01/26/2018, the performance calculations used the account's end of day value on the performance inception (listed in the report under the column "ITD") and all cash flows were posted at end of day. As a result of the change, the overall rate of return (TWR) and beginning market value displayed can vary from prior generated reports. This applies to all performance for all assets on or after 09/30/2010, Advisory assets on or after 12/31/2010, SWP/AAP sleeves on or after 04/30/2018 as well as all Asset Class and Security level returns.

Money-weighted returns: Money-weighted return (MWR) is a measure of the rate of return for an asset or portfolio of assets. It is calculated by finding the daily Internal Rate of Return (IRR) for the period and then compounding this return by the number of days in the period being measured. The MWR incorporates the size and timing of cash flows, so it is an effective measure of returns on a portfolio.

Annualized Performance: All performance periods greater than one year are calculated (unless otherwise stated) on an annualized basis, which represents the return on an investment multiplied or divided to give a comparable one year return.

Cumulative Performance: A cumulative return is the aggregate amount that an investment has gained or lost over time, independent of the period of time involved.

Net of Fees and Gross of Fees Performance: Performance is presented on a "net of fees" and "gross of fees" basis, where indicated. Net returns do not reflect Program and wrap fees prior to 10/31/10 for accounts that are billed separately via invoice through a separate account billing arrangement. Gross returns do not reflect the deduction of fees, commissions or other charges. The payment of actual fees and expenses will reduce a client's return. The compound effect of such fees and expenses should be considered when reviewing returns. For example, the net effect of the deduction of fees on annualized performance, including the compounded effect over time, is determined by the relative size of the fee and the account's investment performance. It should also be noted that where gross returns are compared to an index, the index performance also does not reflect any transaction costs, which would lower the performance results. Market index data maybe subject to review and revision.

Benchmark/Major Indices: The past performance of an index is not a guarantee of future results. Any benchmark is shown for informational purposes only and relates to historical performance of market indices and not the performance of actual investments. Although most portfolios use indices as benchmarks, portfolios are actively managed and generally are not restricted to investing only in securities in the index. As a result, your portfolio holdings and performance may vary substantially from the index. Each index reflects an unmanaged universe of securities without any deduction for advisory fees or other expenses that would reduce actual returns, as well as the reinvestment of all income and dividends. An actual investment in the securities included in the index would require an investor to incur transaction costs, which would lower the performance results. Indices are not actively managed and investors cannot invest directly in the indices. Market index data maybe subject to review and revision. Further, there is no guarantee that an investor's account will meet or exceed the stated benchmark. Index performance information has been obtained from third parties deemed to be reliable. We have not independently verified this information, nor do we make any representations or warranties to the accuracy or completeness of this information.

Blended Index - For Advisory accounts, Blended Index is designed to reflect the asset categories in which your account is invested. For Brokerage accounts, you have the option to select any benchmark from the list.

For certain products, the blended index represents the investment style corresponding to your client target allocation. If you change your client target allocation, your blended index will change in step with your change to your client target allocation.

Blended Index 2 - 8 - are optional indices selected by you which may consist of a blend of indexes. For advisory accounts, these indices are for informational purposes only. Depending on the selection, the benchmark selected may not be an appropriate basis for comparison of your portfolio based on it's holdings.

Custom Time Periods: If represented on this report, the performance start date and the performance end date have been selected by your Financial Advisor in order to provide performance and account activity information for your account for the specified period of time only. As a result, only a portion of your account's activity and performance information is presented in the performance report, and, therefore, presents a distorted representation of your account's activity and performance.

Net Deposits/Withdrawals: When shown on a report, this information represents the net value of all cash and securities contributions and withdrawals, program fees (including wrap fees) and other fees added to or subtracted from your accounts from the first day to the last day of the period. When fees are shown separately, net deposits / withdrawals does not include program fees (including wrap fees). When investment return is displayed net deposits / withdrawals does not include program fees (including wrap fees). For security contributions and withdrawals, securities are calculated using the end of day UBS FS price on the day securities are delivered in or out of the accounts. Wrap fees will be included in this calculation except when paid via an invoice or through a separate accounts billing arrangement. When shown on Client summary and/or Portfolio review report, program fees (including wrap fees) may not be included in net deposits/withdrawals.

PACE Program fees paid from sources other than your PACE account are treated as a contribution. A PACE

Program Fee rebate that is not reinvested is treated as a withdrawal.

Deposits: When shown on a report, this information represents the net value of all cash and securities contributions added to your accounts from the first day to the last day of the period. On Client Summary Report and/or Portfolio Review Report, this may exclude the Opening balance. For security contributions, securities are calculated using the end of day UBS FS price on the day securities are delivered in or out of the accounts.

Withdrawals: When shown on a report, this information represents the net value of all cash and securities withdrawals subtracted from your accounts from the first day to the last day of the period. On Client summary and/or portfolio review report Withdrawals may not include program fees (including wrap fees). For security withdrawals, securities are calculated using the end of day UBS FS price on the day securities are delivered in or out of the accounts.

Dividends/Interest: Dividend and interest earned, when shown on a report, does not reflect your account's tax status or reporting requirements. Use only official tax reporting documents (i.e. 1099) for tax reporting purposes. The classification of private investment distributions can only be determined by referring to the official year-end tax-reporting document provided by the issuer.

Change in Accrued Interest: When shown on a report, this information represents the difference between the accrued interest at the beginning of the period from the accrued interest at the end of the period.

Change in Value: Represents the change in value of the portfolio during the reporting period, excluding additions/withdrawals, dividend and interest income earned and accrued interest. Change in Value may include programs fees (including wrap fees) and other fees.

Fees: Fees represented in this report include program and wrap fees. Program and wrap fees prior to October 1, 2010 for accounts that are billed separately via invoice through a separate account billing arrangement are not included in this report.

Performance Start Date Changes: The Performance Start Date for accounts marked with a '^' have changed. Performance figures of an account with a changed Performance Start Date may not include the entire history of the account. The new Performance Start Date will generate performance returns and activity information for a shorter period than is available at UBS FS. As a result, the overall performance of these accounts may generate better performance than the period of time that would be included if the report used the inception date of the account. UBS FS recommends reviewing performance reports that use the inception date of the account because reports with longer time frames are usually more helpful when evaluating investment programs and strategies. Performance reports may include accounts with inception dates that precede the new Performance Start Date and will show performance and activity information from the earliest available inception date.
The change in Performance Start Date may be the result of a performance gap due to a zero-balance that prevents the calculation of continuous returns from the inception of the account. The Performance Start Date may also change if an account has failed one of our performance data integrity tests. In such instances, the account will be labeled as 'Review Required' and performance prior to that failure will be restricted. Finally, the Performance Start Date will change if you have explicitly requested a performance restart. Please contact your Financial Advisor for additional details regarding your new Performance Start Date.

Closed Account Performance: Accounts that have been closed may be included in the consolidated performance report. When closed accounts are included in the consolidated report, the performance report will only include information for the time period the account was active during the consolidated performance reporting time period.

Portfolio: For purposes of this report "portfolio" is defined as all of the accounts presented on the cover page or the header of this report and does not necessarily include all of the client's accounts held at UBS FS or elsewhere.

Percentage: Portfolio (in the "% Portfolio / Total" column) includes all holdings held in the account(s) selected when this report was generated. Broad asset class (in the "% broad asset class" column) includes all holdings held in that broad asset class in the account(s) selected when this report was generated.

Tax lots: This report displays security tax lots as either one line item (i.e., lumped tax lots) or as separate tax lot level information. If you choose to display security tax lots as one line item, the total cost equals the total value of all tax lots. The unit cost is an average of the total cost divided by the total number of shares. If the shares were purchased in different lots, the unit price listed does not represent the actual cost paid for each lot. The unrealized gain/loss value is calculated by combining the total value of all tax lots plus or minus the total market value of the security.

If you choose to display tax lot level information as separate line items on the Portfolio Holdings report, the tax lot information may include information from sources other than UBS FS. The Firm does not independently verify or guarantee the accuracy or validity of any information provided by sources other than UBS FS. As a result this information may not be accurate and is provided for informational purposes only. Clients should not rely on this information in making purchase or sell decisions, for tax purposes or otherwise. See your monthly statement for additional information.

Pricing: All securities are priced using the closing price reported on the last business day preceding the date of this report. Every reasonable attempt has been made to accurately price securities; however, we make no warranty with respect to any security's price. Please refer to the back of the first page of your UBS FS account statement for important information regarding the pricing used for certain types of securities, the sources of pricing data and other qualifications concerning the pricing of securities. To determine the value of securities in your account, we generally rely on third party quotation services. If a price is unavailable or believed to be unreliable, we may determine the price in good faith and may use other sources such as the last recorded transaction. When securities are held at another custodian or if you hold illiquid or restricted securities for which there is no published price, we will generally rely on the value provided by the custodian or issuer of that security.

Cash: Cash on deposit at UBS Bank USA is protected by the Federal Deposit Insurance Corporation (FDIC) up to $250,000 in principal and accrued interest per depositor for each ownership type. Deposits made in an individual's own name, joint name, or individual retirement account are each held in a separate type of ownership. Such deposits are not guaranteed by UBS FS. More information is available upon request.

Margin: The quantity value may indicate that all or part of this position is held on margin or held in the short account. When an account holds a debit balance, this debit balance is incorporated into the account's total market value and deducted from the total value. When calculating the percent of portfolio on each security, the percentage will be impacted by the total market value of the account. Therefore, if the account's market value is reduced by a debit value of a holding the percent of portfolio will be greater and if the account's market value is increased by a holding then the percent of portfolio will be less.

Mutual Fund Asset Allocation: If the option to unbundle balanced mutual funds is selected and if a fund's holdings data is available, mutual funds will be classified by the asset class, subclass, and style breakdown of their underlying holdings. Where a mutual fund or ETF contains equity holdings from multiple equity sectors, this report will proportionately allocate the underlying holdings of the fund to those sectors measured as a percentage of the total fund's asset value as of the date shown.

This information is supplied by Morningstar, Inc. on a daily basis to UBS FS based on data supplied by the fund which may not be current. Mutual funds change their portfolio holdings on a regular (often daily) basis. Accordingly, any analysis that includes mutual funds may not accurately reflect the current composition of these funds. If a fund's underlying holding data is not available, it will be classified based on its corresponding overall Morningstar classification. All data is as of the date indicated in the report.

All pooled investment vehicles (such as mutual funds, closed end mutual funds, and exchange traded funds) incorporate internal management and operation expenses, which are reflected in the performance returns. Please see relevant fund prospectus for more information. Please note, performance for mutual funds is inclusive of multiple share classes.

Ineligible Assets: We require that you hold and purchase only eligible managed assets in your advisory accounts. Please contact your Financial Advisor for a list of the eligible assets in your program. These reports may provide performance information for eligible and ineligible assets in a fee-based program. Since ineligible assets are not considered fee-based program assets, the inclusion of such securities will distort the actual performance of your advisory assets. As a result, the performance reflected in this report can vary substantially from the individual account performance reflected in the performance reports provided to you as part of those programs. For fee-based programs, fees are charged on the market value of eligible assets in the accounts and assessed quarterly in advance, prorated according to the number of calendar days in the billing period. Neither UBS nor your Financial Advisor will act as your investment adviser with respect to Ineligible Assets.

Equity Style: The Growth, Value and Core labels are determined by Morningstar. If an Equity Style is unclassified, it is due to non-availability of data required by Morningstar to assign it a particular style.

Equity Capitalization: Market Capitalization is determined by Morningstar. Equity securities are classified as Large Cap, Mid Cap or Small Cap by Morningstar. Unclassified securities are those for which no capitalization is available on Morningstar.

Equity Sectors: The Equity sector analysis may include a variety of accounts, each with different investment and risk parameters. As a result, the overweighting or underweighting in a particular sector or asset class should not be viewed as an isolated factor in making investment/liquidation decisions; but should be assessed on an account by account basis to determine the overall impact on the account's portfolio.

Classified Equity: Classified equities are defined as those equities for which the firm can confirm the specific industry and sector of the underlying equity instrument.

Estimated Annual Income: The Estimated Annual Income is calculated by summing the previous four dividend rates per share and multiplying by the quantity of shares held in the selected account(s) as of the End Date of Report.

Current Yield: Current yield is defined as the estimated annual income divided by the total market value.

Credit/Event Risk: Investments are subject to event risk and changes in credit quality of the issuer. Issuers can experience economic situations that may have adverse effects on the market value of their securities.

Interest Rate Risk: Bonds are subject to market value fluctuations as interest rates rise and fall. If sold prior to maturity, the price received for an issue may be less than the original purchase price.

Reinvestment Risk: Since most corporate issues pay interest semiannually, the coupon payments over the life of the bond can have a major impact on the bond's total return.

Accrued Interest: Interest that has accumulated between the most recent payment and the report date may be reflected in market values for interest bearing securities.

Gain/Loss: The gain/loss information may include calculations based upon non-UBS FS cost basis information. The Firm does not independently verify or guarantee the accuracy or validity of any information provided by sources other than UBS FS. In addition, if this report contains positions with unavailable cost basis, the gain/(loss) for these positions are excluded in the calculation for the Gain/(Loss). As a result these figures may not be accurate and are provided for informational purposes only. Clients should not rely on this information in making purchase or sell decisions, for tax purposes or otherwise. Rely only on year-end tax forms when preparing your tax return. See your monthly statement for additional information.

The account listing may or may not include all of your accounts with UBS FS. The accounts included in this report are listed under the "Accounts included in this review" shown on the first page or listed at the top of each page. If an account number begins with "@" this denotes assets or liabilities held at other financial institutions. Information about these assets, including valuation, account type and cost basis, is based on the information you provided to us, or provided to us by third party data aggregators or custodians at your direction. We have not verified, and are not responsible for, the accuracy or completeness of this information.

Account name(s) displayed in this report and labels used for groupings of accounts can be customizable "nicknames" chosen by you to assist you with your recordkeeping or may have been included by your financial advisor for reference purposes only. The names used have no legal effect, are not intended to reflect any strategy, product, recommendation, investment objective or risk profile associated with your accounts or any group of accounts, and are not a promise or guarantee that wealth, or any financial results, can or will be achieved. All investments involve the risk of loss, including the risk of loss of the entire investment.

For more information about account or group names, or to make changes, contact your Financial Advisor.

Account changes: At UBS, we are committed to helping you work toward your financial goals. So that we may continue providing you with financial advice that is consistent with your investment objectives, please consider the following two questions:
1) Have there been any changes to your financial situation or investment objectives?
2) Would you like to implement or modify any restrictions regarding the management of your account?
If the answer to either question is "yes," it is important that you contact your Financial Advisor as soon as possible to discuss these changes. For MAC advisory accounts, please contact your investment manager directly if you would like to impose or change any investment restrictions on your account.

ADV disclosure: A complimentary copy of our current Form ADV Disclosure Brochure that describes the advisory program and related fees is available through your Financial Advisor. Please contact your Financial Advisor if you have any questions.

Important information for former Piper Jaffray and McDonald Investments clients: As an accommodation to former Piper Jaffray and McDonald Investments clients, these reports include performance history for their Piper Jaffray accounts prior to August 12, 2006 and McDonald Investments accounts prior to February 9, 2007, the date the respective accounts were converted to UBS FS. UBS FS has not independently verified this information nor do we make any representations or warranties as to the accuracy or completeness of that information and will not be liable to you if any such information is unavailable, delayed or inaccurate.

For insurance, annuities, and 529 Plans, UBS FS relies on information obtained from third party services it believes to be reliable. UBS FS does not independently verify or guarantee the accuracy or validity of any information provided by third parties. Information for insurance, annuities, and 529 Plans that has been provided by a third party service may not reflect the quantity and market value as of the previous business day. When available, an "as of" date is included in the description.

Investors outside the U.S. are subject to securities and tax regulations within their applicable jurisdiction that are not addressed in this report. Nothing in this report shall be construed to be a solicitation to buy or offer to sell any security, product or service to any non-U.S. investor, nor shall any such security, product or service be solicited, offered or sold in any jurisdiction where such activity would be contrary to the securities laws or other local laws and regulations or would subject UBS to any registration requirement within such jurisdiction.

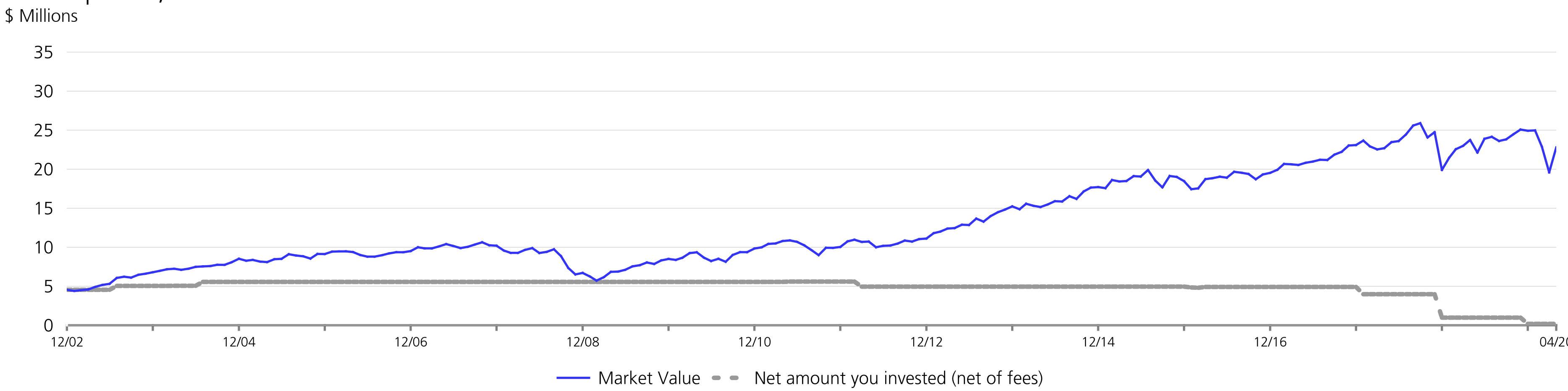
Performance History prior to the account's inception at UBS Financial Services, Inc. may have been included in this report and is based on data provided by third party sources. UBS Financial Services Inc. has not independently verified this information nor does UBS Financial Services Inc. guarantee the accuracy or validity of the information.

UBS

TX XX600 • NAIC • Defined Benefit
Prepared for CITY OF TROY
Risk profile: Moderate
Return Objective: Current Income and Capital Appreciation

Sources of portfolio value

as of April 30, 2020



	MTD 03/31/2020 to 04/30/2020	YTD 12/31/2019 to 04/30/2020	1 Year 04/30/2019 to 04/30/2020	3 Years 04/30/2017 to 04/30/2020	5 Years 04/30/2015 to 04/30/2020	7 Years 04/30/2013 to 04/30/2020	10 Years 04/30/2010 to 04/30/2020	ITD 12/31/2002 to 04/30/2020
Opening value	**19,590,755.98**	**24,925,322.41**	**23,738,984.61**	**20,539,983.79**	**18,480,767.68**	**12,453,636.61**	**9,348,821.37**	**4,545,750.56**
Net deposits/withdrawals	0.00	0.00	-797,869.00	-4,731,919.00	-4,769,919.00	-4,769,969.00	-5,378,000.67	-4,364,697.35
Div./interest income	19,368.60	91,334.39	276,499.52	814,543.45	1,242,480.79	1,549,618.23	1,900,306.87	2,498,124.33
Change in accr. interest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Change in value	3,176,115.36	-2,230,416.86	-431,375.19	6,163,631.70	7,832,910.47	13,552,954.10	16,915,112.37	20,107,062.40
Closing value	**22,786,239.94**	**22,786,239.94**	**22,786,239.94**	**22,786,239.94**	**22,786,239.94**	**22,786,239.94**	**22,786,239.94**	**22,786,239.94**
Gross Time-weighted ROR	16.31	-8.58	-0.80	11.34	9.02	12.55	12.43	10.53
Net Time-weighted ROR	16.31	-8.58	-0.89	11.10	8.85	12.40	12.32	10.47

Performance returns are annualized after 1 year. Net deposits and withdrawals include program and account fees.

Benchmarks - Annualized time-weighted returns

Blended Index	8.22	-7.03	1.17	5.75	5.23	6.40	7.21	7.40
US Treasury Bill - 3 Mos	0.00	0.47	1.89	1.72	1.12	0.80	0.59	1.30
Barclays Agg Bond	1.78	4.98	10.84	5.17	3.79	3.30	3.96	4.37
MSCI Emerging Markets-PR	9.00	-17.02	-14.30	-1.84	-2.46	-1.65	-0.97	6.87
Russell 2000	13.74	-21.08	-16.39	-0.82	2.88	6.20	7.69	8.80
S&P 500	12.82	-9.29	0.86	9.04	9.11	11.21	11.68	9.35

Blended Index:**Start - Current:** 70% MSCI World; 30% Barclays Agg Bond

Past performance does not guarantee future results and current performance may be lower/higher than past data presented.

Report created on: May 04, 2020

UBS

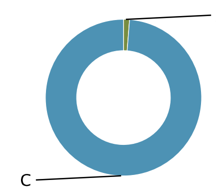
Portfolio holdings

as of April 30, 2020

TX XX600 • NAIC • Defined Benefit
Prepared for **CITY OF TROY**
Risk profile: Moderate
Return Objective: Current Income and Capital Appreciation

Summary of Portfolio Holdings

	Cost basis ($)	Value on 04/30/2020 ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Portfolio
A Cash	**282,598.10**	**282,598.10**	**0.00**	**0.00%**	**2,858.68**	**1.01%**	**1.24%**
Cash	282,598.10	282,598.10	0.00	0.00%	2,858.68	1.01%	1.24%
US	282,598.10	282,598.10	0.00	0.00%	2,858.68	1.01%	1.24%
US Cash	282,598.10	282,598.10	0.00	0.00%	2,858.68	1.01%	1.24%
B Fixed Income	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00%**	**0.00%**
C Equity	**10,620,480.94**	**22,503,641.84**	**11,883,160.90**	**111.89%**	**286,817.12**	**1.27%**	**98.76%**
US	9,871,378.71	21,797,541.84	11,926,163.13	120.82%	280,417.12	1.29%	95.66%
Large Cap	3,990,012.00	13,711,700.04	9,721,688.04	243.65%	159,018.32	1.16%	60.18%
Core	2,132,246.36	7,726,905.04	5,594,658.68	262.38%	74,522.32	0.96%	33.91%
Growth	1,267,178.93	4,515,281.00	3,248,102.07	256.33%	39,240.00	0.87%	19.82%
Value	590,586.71	1,469,514.00	878,927.29	148.82%	45,256.00	3.08%	6.45%
Mid Cap	3,791,193.96	6,631,649.00	2,840,455.04	74.92%	84,162.00	1.27%	29.10%
Core	1,727,198.35	3,181,198.00	1,453,999.65	84.18%	23,140.00	0.73%	13.95%
Growth	961,233.11	2,445,366.00	1,484,132.89	154.40%	25,992.00	1.06%	10.73%
Value	866,810.58	730,485.00	-136,325.58	-15.73%	21,050.00	2.88%	3.21%
Public Real Estate	235,951.92	274,600.00	38,648.08	16.38%	13,980.00	5.09%	1.21%
Small Cap	2,090,172.75	1,454,192.80	-635,979.95	-30.43%	37,236.80	2.56%	6.38%
Core	827,997.94	758,992.80	-69,005.14	-8.33%	18,836.80	2.48%	3.33%
Growth	275,240.06	175,500.00	-99,740.06	-36.24%	0.00	0.00%	0.77%
Value	986,934.75	519,700.00	-467,234.75	-47.34%	18,400.00	3.54%	2.28%
International	749,102.23	706,100.00	-43,002.23	-5.74%	6,400.00	0.91%	3.10%
International	84,933.90	251,000.00	166,066.10	195.52%	0.00	0.00%	1.10%
Growth	84,933.90	251,000.00	166,066.10	195.52%	0.00	0.00%	1.10%
Developed Markets	664,168.33	455,100.00	-209,068.33	-31.48%	6,400.00	1.41%	2.00%
Core	219,001.25	181,900.00	-37,101.25	-16.94%	0.00	0.00%	0.80%
Value	445,167.08	273,200.00	-171,967.08	-38.63%	6,400.00	2.34%	1.20%
D Commodities	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00%**	**0.00%**
E Non-Traditional	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00%**	**0.00%**
F Other	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00%**	**0.00%**
Total Portfolio	**$10,903,079.04**	**$22,786,239.94**	**$11,883,160.90**	**108.99%**	**$289,675.80**	**1.27%**	**100%**



Balanced mutual funds represented in multiple asset classes based on Morningstar allocations

Portfolio holdings - as of April 30, 2020 (continued)

Details of portfolio holdings

	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of asset class	% of Portfolio
Total Portfolio	**$10,903,079.04**	**$22,786,239.94**	**$11,883,160.90**	**108.99%**	**$289,675.80**	**1.27%**	**100%**	**100%**

Cash	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Cash	% of Portfolio
Cash											
US											
US Cash											
LIQUID ASSETS GOVT FUND CUSIP: 90262Y307 Symbol: MMLIRA	282,489.26	1.00	1.00	282,489.26	282,489.26	0.00	0.00%	2,858.68	1.01%	99.96%	1.24%
USD CASH	108.84	1.00	1.00	108.84	108.84	0.00	0.00%	0.00	0.00%	0.04%	0.00%
Total US Cash				**$282,598.10**	**$282,598.10**	**$0.00**	**0.00%**	**$2,858.68**	**1.01%**	**100.00%**	**1.24%**
Total US				**$282,598.10**	**$282,598.10**	**$0.00**	**0.00%**	**$2,858.68**	**1.01%**	**100.00%**	**1.24%**
Total Cash				**$282,598.10**	**$282,598.10**	**$0.00**	**0.00%**	**$2,858.68**	**1.01%**	**100.00%**	**1.24%**
Total Cash				**$282,598.10**	**$282,598.10**	**$0.00**	**0.00%**	**$2,858.68**	**1.01%**	**100.00%**	**1.24%**

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Large Cap											
Core											
ABBOTT LABS CUSIP: 002824100 Symbol: ABT Initial purchase date: Sep 12, 2002	9,224.00	31.23	92.09	288,067.67	849,438.16	561,370.49	194.87%	13,282.56	1.56%	3.77%	3.73%
APPLE INC CUSIP: 037833100 Symbol: AAPL Initial purchase date: Jun 12, 2014	5,000.00	93.00	293.80	464,997.94	1,469,000.00	1,004,002.06	215.92%	15,400.00	1.05%	6.53%	6.45%
BLACKROCK INC CUSIP: 09247X101 Symbol: BLK Initial purchase date: Jan 09, 2019	700.00	403.43	502.04	282,399.34	351,428.00	69,028.66	24.44%	10,164.00	2.89%	1.56%	1.54%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Core											
BOOKING HLDGS INC CUSIP: 09857L108 Symbol: BKNG Initial purchase date: Feb 26, 2019	200.00	1,908.50	1,480.57	381,699.89	296,114.00	-85,585.89	-22.42%	0.00	0.00%	1.32%	1.30%
CENTENE CORP CUSIP: 15135B101 Symbol: CNC Initial purchase date: Mar 25, 2019	4,732.00	66.76	66.58	315,908.32	315,056.56	-851.76	-0.27%	0.00	0.00%	1.40%	1.38%
CIGNA CORP CUSIP: 125523100 Symbol: CI Initial purchase date: Jun 07, 2011	394.00	182.19	195.78	71,780.89	77,137.32	5,356.43	7.46%	15.76	0.02%	0.34%	0.34%
DANAHER CORP CUSIP: 235851102 Symbol: DHR Initial purchase date: Sep 12, 2002	8,000.00	11.05	163.46	88,427.98	1,307,680.00	1,219,252.02	1,378.81%	5,760.00	0.44%	5.81%	5.74%
O REILLY AUTOMOTIVE INC CUSIP: 67103H107 Symbol: ORLY Initial purchase date: Jan 09, 2004	1,650.00	18.39	386.34	30,335.46	637,461.00	607,125.54	2,001.37%	0.00	0.00%	2.83%	2.80%
STRYKER CORP CUSIP: 863667101 Symbol: SYK Initial purchase date: Jul 17, 1997	13,000.00	16.05	186.43	208,628.87	2,423,590.00	2,214,961.13	1,061.68%	29,900.00	1.23%	10.77%	10.63%
Total Core				**$2,132,246.36**	**$7,726,905.04**	**$5,594,658.68**	**262.38%**	**$74,522.32**	**0.96%**	**34.34%**	**33.91%**
Growth											
AUTOMATIC DATA PROCESSNG INC CUSIP: 053015103 Symbol: ADP Initial purchase date: Aug 01, 2002	2,000.00	29.12	146.69	58,245.59	293,380.00	235,134.41	403.69%	7,280.00	2.48%	1.30%	1.29%
CROWN CASTLE INTL CORP REIT CUSIP: 22822V101 Symbol: CCI Initial purchase date: Nov 28, 2016	2,700.00	85.14	159.43	229,878.93	430,461.00	200,582.07	87.26%	12,960.00	3.01%	1.91%	1.89%
FACEBOOK INC CL A CUSIP: 30303M102 Symbol: FB Initial purchase date: May 29, 2019	4,000.00	185.11	204.71	740,424.45	818,840.00	78,415.55	10.59%	0.00	0.00%	3.64%	3.59%
ROPER TECHNOLOGIES INC CUSIP: 776696106 Symbol: ROP Initial purchase date: Aug 01, 2002	4,000.00	15.11	341.03	60,440.25	1,364,120.00	1,303,679.75	2,156.97%	8,200.00	0.60%	6.06%	5.99%
VISA INC CL A CUSIP: 92826C839 Symbol: V Initial purchase date: Mar 30, 2011	9,000.00	19.80	178.72	178,189.71	1,608,480.00	1,430,290.29	802.68%	10,800.00	0.67%	7.15%	7.06%
Total Growth				**$1,267,178.93**	**$4,515,281.00**	**$3,248,102.07**	**256.33%**	**$39,240.00**	**0.87%**	**20.06%**	**19.82%**
Value											

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Value											
COMCAST CORP NEW CL A CUSIP: 20030N101 Symbol: CMCSA Initial purchase date: Jan 09, 2019	7,800.00	36.14	37.63	281,865.28	293,514.00	11,648.72	4.13%	7,176.00	2.44%	1.30%	1.29%
GILEAD SCIENCES INC CUSIP: 375558103 Symbol: GILD Initial purchase date: Dec 16, 2008	14,000.00	22.05	84.00	308,721.43	1,176,000.00	867,278.57	280.93%	38,080.00	3.24%	5.23%	5.16%
Total Value				**$590,586.71**	**$1,469,514.00**	**$878,927.29**	**148.82%**	**$45,256.00**	**3.08%**	**6.53%**	**6.45%**
Total Large Cap				**$3,990,012.00**	**$13,711,700.04**	**$9,721,688.04**	**243.65%**	**$159,018.32**	**1.16%**	**60.93%**	**60.18%**
Mid Cap											
Core											
CARMAX INC CUSIP: 143130102 Symbol: KMX Initial purchase date: Jun 12, 2014	5,000.00	44.47	73.65	222,371.77	368,250.00	145,878.23	65.60%	0.00	0.00%	1.64%	1.62%
D R HORTON INC CUSIP: 23331A109 Symbol: DHI Initial purchase date: Jan 09, 2019	7,000.00	40.09	47.22	280,621.20	330,540.00	49,918.80	17.79%	4,900.00	1.48%	1.47%	1.45%
F5 NETWORKS INC CUSIP: 315616102 Symbol: FFIV Initial purchase date: Mar 02, 2015	5,800.00	118.85	139.26	689,354.72	807,708.00	118,353.28	17.17%	0.00	0.00%	3.59%	3.54%
LKQ CORP NEW CUSIP: 501889208 Symbol: LKQ Initial purchase date: Dec 10, 2009	4,000.00	9.25	26.15	36,990.75	104,600.00	67,609.25	182.77%	0.00	0.00%	0.46%	0.46%
SKYWORKS SOLUTIONS INC CUSIP: 83088M102 Symbol: SWKS Initial purchase date: Feb 26, 2019	4,000.00	83.16	103.88	332,628.80	415,520.00	82,891.20	24.92%	7,040.00	1.69%	1.85%	1.82%
TRACTOR SUPPLY COMPANY CUSIP: 892356106 Symbol: TSCO Initial purchase date: Apr 14, 2008	8,000.00	9.12	101.43	72,965.85	811,440.00	738,474.15	1,012.08%	11,200.00	1.38%	3.61%	3.55%
VARIAN MEDICAL SYSTEMS INC CUSIP: 92220P105 Symbol: VAR Initial purchase date: May 07, 2009	3,000.00	30.76	114.38	92,265.26	343,140.00	250,874.74	271.91%	0.00	0.00%	1.52%	1.51%
Total Core				**$1,727,198.35**	**$3,181,198.00**	**$1,453,999.65**	**84.18%**	**$23,140.00**	**0.73%**	**14.13%**	**13.95%**
Growth											
AMETEK INC (NEW) CUSIP: 031100100 Symbol: AME Initial purchase date: Mar 06, 2017	2,500.00	55.08	83.87	137,689.36	209,675.00	71,985.64	52.28%	1,800.00	0.86%	0.93%	0.92%

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Growth											
COGNEX CORP CUSIP: 192422103 Symbol: CGNX Initial purchase date: Jun 07, 2011	8,000.00	8.42	55.24	67,345.65	441,920.00	374,574.35	556.20%	1,760.00	0.40%	1.96%	1.94%
FASTENAL CO CUSIP: 311900104 Symbol: FAST Initial purchase date: Sep 27, 2000	16,000.00	3.63	36.22	58,125.00	579,520.00	521,395.00	897.02%	16,000.00	2.76%	2.58%	2.53%
IAA INC CUSIP: 449253103 Symbol: IAA Initial purchase date: Nov 30, 2015	5,000.00	23.22	38.60	116,083.55	193,000.00	76,916.45	66.26%	0.00	0.00%	0.86%	0.85%
IDEX CORP CUSIP: 45167R104 Symbol: IEX Initial purchase date: Oct 01, 1999	2,250.00	12.33	153.63	27,750.00	345,667.50	317,917.50	1,145.65%	4,500.00	1.30%	1.54%	1.52%
OLD DOMINION FREIGHT LINES INC CUSIP: 679580100 Symbol: ODFL Initial purchase date: Jan 09, 2019	3,150.00	86.10	145.29	271,215.60	457,663.50	186,447.90	68.75%	1,932.00	0.42%	2.03%	2.01%
ULTA BEAUTY, INC CUSIP: 90384S303 Symbol: ULTA Initial purchase date: Jan 09, 2019	1,000.00	283.02	217.92	283,023.95	217,920.00	-65,103.95	-23.00%	0.00	0.00%	0.97%	0.96%
Total Growth				**$961,233.11**	**$2,445,366.00**	**$1,484,132.89**	**154.40%**	**$25,992.00**	**1.06%**	**10.87%**	**10.73%**
Value											
EAST WEST BANCORP INC CUSIP: 27579R104 Symbol: EWBC Initial purchase date: Jan 09, 2019	5,500.00	47.90	35.07	263,460.51	192,885.00	-70,575.51	-26.79%	6,050.00	3.14%	0.86%	0.85%
GENTEX CORP CUSIP: 371901109 Symbol: GNTX Initial purchase date: Mar 02, 2015	5,000.00	17.82	24.24	89,080.35	121,200.00	32,119.65	36.06%	2,400.00	1.98%	0.54%	0.53%
SIGNATURE BANK NEW YORK N Y CUSIP: 82669G104 Symbol: SBNY Initial purchase date: Jan 09, 2019	2,500.00	111.91	107.18	279,777.82	267,950.00	-11,827.82	-4.23%	5,600.00	2.09%	1.19%	1.18%
TCF FINL CORP NEW CUSIP: 872307103 Symbol: TCF Initial purchase date: Feb 26, 2019	5,000.00	46.90	29.69	234,491.90	148,450.00	-86,041.90	-36.69%	7,000.00	4.72%	0.66%	0.65%
Total Value				**$866,810.58**	**$730,485.00**	**$-136,325.58**	**-15.73%**	**$21,050.00**	**2.88%**	**3.25%**	**3.21%**
Public Real Estate											
REALTY INCOME CORP MD SBI CUSIP: 756109104 Symbol: O Initial purchase date: May 26, 2015	5,000.00	47.19	54.92	235,951.92	274,600.00	38,648.08	16.38%	13,980.00	5.09%	1.22%	1.21%
Total Public Real Estate				**$235,951.92**	**$274,600.00**	**$38,648.08**	**16.38%**	**$13,980.00**	**5.09%**	**1.22%**	**1.21%**

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Total Mid Cap				**$3,791,193.96**	**$6,631,649.00**	**$2,840,455.04**	**74.92%**	**$84,162.00**	**1.27%**	**29.47%**	**29.10%**
Small Cap											
Core											
AIR LEASE CORP CL A CUSIP: 00912X302 Symbol: AL Initial purchase date: Aug 29, 2016	4,000.00	28.94	26.15	115,761.25	104,600.00	-11,161.25	-9.64%	2,400.00	2.29%	0.46%	0.46%
META FINANCIAL GROUP INC CUSIP: 59100U108 Symbol: CASH Initial purchase date: Feb 19, 2019	5,000.00	25.65	18.42	128,234.81	92,100.00	-36,134.81	-28.18%	1,000.00	1.09%	0.41%	0.40%
NEXSTAR MEDIA GROUP INC CL A CUSIP: 65336K103 Symbol: NXST Initial purchase date: Feb 19, 2019	3,320.00	89.84	70.04	298,268.37	232,532.80	-65,735.57	-22.04%	7,436.80	3.20%	1.03%	1.02%
PATRICK INDUST INC CUSIP: 703343103 Symbol: PATK Initial purchase date: Jan 09, 2019	8,000.00	35.72	41.22	285,733.51	329,760.00	44,026.49	15.41%	8,000.00	2.43%	1.47%	1.45%
Total Core				**$827,997.94**	**$758,992.80**	**$-69,005.14**	**-8.33%**	**$18,836.80**	**2.48%**	**3.37%**	**3.33%**
Growth											
SUPERNUS PHARMACEUTICALS INC CUSIP: 868459108 Symbol: SUPN Initial purchase date: Jan 09, 2019	7,500.00	36.70	23.40	275,240.06	175,500.00	-99,740.06	-36.24%	0.00	0.00%	0.78%	0.77%
Total Growth				**$275,240.06**	**$175,500.00**	**$-99,740.06**	**-36.24%**	**$0.00**	**0.00%**	**0.78%**	**0.77%**
Value											
ALLEGIANT TRAVEL CO CUSIP: 01748X102 Symbol: ALGT Initial purchase date: Feb 26, 2019	2,500.00	144.05	78.48	360,113.05	196,200.00	-163,913.05	-45.52%	7,000.00	3.57%	0.87%	0.86%
DAVE & BUSTERS ENTMT INC CUSIP: 238337109 Symbol: PLAY Initial purchase date: Feb 26, 2019	5,000.00	51.13	14.64	255,673.62	73,200.00	-182,473.62	-71.37%	3,200.00	4.37%	0.33%	0.32%
EAGLE BANCORP INC (MD) CUSIP: 268948106 Symbol: EGBN Initial purchase date: Feb 19, 2019	5,000.00	59.26	35.08	296,313.40	175,400.00	-120,913.40	-40.81%	4,400.00	2.51%	0.78%	0.77%
KAR AUCTION SVCS INC CUSIP: 48238T109 Symbol: KAR Initial purchase date: Nov 30, 2015	5,000.00	14.97	14.98	74,834.68	74,900.00	65.32	0.09%	3,800.00	5.07%	0.33%	0.33%
Total Value				**$986,934.75**	**$519,700.00**	**$-467,234.75**	**-47.34%**	**$18,400.00**	**3.54%**	**2.31%**	**2.28%**
Total Small Cap				**$2,090,172.75**	**$1,454,192.80**	**$-635,979.95**	**-30.43%**	**$37,236.80**	**2.56%**	**6.46%**	**6.38%**

Portfolio holdings - as of April 30, 2020 (continued)

Equity	Quantity	Purchase price ($) / Avg Price	Price on 04/30/2020 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Equity	% of Portfolio
US											
Total US				**$9,871,378.71**	**$21,797,541.84**	**$11,926,163.13**	**120.82%**	**$280,417.12**	**1.29%**	**96.86%**	**95.66%**
International											
International											
Growth											
FABRINET CUSIP: G3323L100 Symbol: FN Initial purchase date: Mar 30, 2011	4,000.00	21.23	62.75	84,933.90	251,000.00	166,066.10	195.52%	0.00	0.00%	1.12%	1.10%
Total Growth				**$84,933.90**	**$251,000.00**	**$166,066.10**	**195.52%**	**$0.00**	**0.00%**	**1.12%**	**1.10%**
Total International				**$84,933.90**	**$251,000.00**	**$166,066.10**	**195.52%**	**$0.00**	**0.00%**	**1.12%**	**1.10%**
Developed Markets											
Core											
SENSATA TECHNOLOGIES HLDG PLC EUR CUSIP: G8060N102 Symbol: ST Initial purchase date: May 29, 2019	5,000.00	43.80	36.38	219,001.25	181,900.00	-37,101.25	-16.94%	0.00	0.00%	0.81%	0.80%
Total Core				**$219,001.25**	**$181,900.00**	**$-37,101.25**	**-16.94%**	**$0.00**	**0.00%**	**0.81%**	**0.80%**
Value											
ESSENT GROUP LTD CUSIP: G3198U102 Symbol: ESNT Initial purchase date: Feb 19, 2019	10,000.00	44.52	27.32	445,167.08	273,200.00	-171,967.08	-38.63%	6,400.00	2.34%	1.21%	1.20%
Total Value				**$445,167.08**	**$273,200.00**	**$-171,967.08**	**-38.63%**	**$6,400.00**	**2.34%**	**1.21%**	**1.20%**
Total Developed Markets				**$664,168.33**	**$455,100.00**	**$-209,068.33**	**-31.48%**	**$6,400.00**	**1.41%**	**2.02%**	**2.00%**
Total International				**$749,102.23**	**$706,100.00**	**$-43,002.23**	**-5.74%**	**$6,400.00**	**0.91%**	**3.14%**	**3.10%**
Total Equity				**$10,620,480.94**	**$22,503,641.84**	**$11,883,160.90**	**111.89%**	**$286,817.12**	**1.27%**	**100.00%**	**98.76%**

	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of asset class	% of Portfolio
Total Portfolio	**$10,903,079.04**	**$22,786,239.94**	**$11,883,160.90**	**108.99%**	**$289,675.80**	**1.27%**	**100%**	**100%**

Total accrued interest (included in market values): $0.00
*** Balanced mutual funds are displayed in unbundled view**

Additional information about your portfolio

as of April 30, 2020

Benchmark composition

Account TX XX600

Blended Index
Start - Current: 70% MSCI World; 30% Barclays Agg Bond

UBS

Disclosures applicable to accounts at UBS Financial Services Inc.

This section contains important disclosures regarding the information and valuations presented here. All information presented is subject to change at any time and is provided only as of the date indicated. The information in this report is for informational purposes only and should not be relied upon as the basis of an investment or liquidation decision. UBS FS account statements and official tax documents are the only official record of your accounts and are not replaced, amended or superseded by any of the information presented in these reports. You should not rely on this information in making purchase or sell decisions, for tax purposes or otherwise.

UBS FS offers a number of investment advisory programs to clients, acting in our capacity as an investment adviser, including fee-based financial planning, discretionary account management, non-discretionary investment advisory programs, and advice on the selection of investment managers and mutual funds offered through our investment advisory programs. When we act as your investment adviser, we will have a written agreement with you expressly acknowledging our investment advisory relationship with you and describing our obligations to you. At the beginning of our advisory relationship, we will give you our Form ADV brochure(s) for the program(s) you selected that provides detailed information about, among other things, the advisory services we provide, our fees, our personnel, our other business activities and financial industry affiliations and conflicts between our interests and your interests.

In our attempt to provide you with the highest quality information available, we have compiled this report using data obtained from recognized statistical sources and authorities in the financial industry. While we believe this information to be reliable, we cannot make any representations regarding its accuracy or completeness. Please keep this guide as your Advisory Review.

Please keep in mind that most investment objectives are long term. Although it is important to evaluate your portfolio's performance over multiple time periods, we believe the greatest emphasis should be placed on the longer period returns.

Please review the report content carefully and contact your Financial Advisor with any questions.

Client Accounts: This report may include all assets in the accounts listed and may include eligible and ineligible assets in a fee-based program. Since ineligible assets are not considered fee-based program assets, the inclusion of such securities will distort the actual performance of your accounts and does not reflect the performance of your accounts in the fee-based program. As a result, the performance reflected in this report can vary substantially from the individual account performance reflected in the performance reports provided to you as part of those programs. For fee-based programs, fees are charged on the market value of eligible assets in the accounts and assessed quarterly in advance, prorated according to the number of calendar days in the billing period. When shown on a report, the risk profile and return objectives describe your overall goals for these accounts. For each account you maintain, you choose one return objective and a primary risk profile. If you have questions regarding these objectives or wish to change them, please contact your Financial Advisor to update your account records.

Performance: This report presents account activity and performance depending on which inception type you've chosen. The two options are: (1) All Assets (Since Performance Start): This presents performance for all assets since the earliest possible date; (2) Advisory Assets (Advisory Strategy Start) for individual advisory accounts: This presents Advisory level performance since the Latest Strategy Start date; If an account that has never been managed is included in the consolidated report, the total performance of that unmanaged account will be included since inception.

Time-weighted Returns for accounts / SWP/AAP sleeves (Monthly periods): The report displays a time weighted rate of return (TWR) that is calculated using the Modified Dietz Method. This calculation uses the beginning and ending portfolio values for the month and weighs each contribution/withdrawal based upon the day the cash flow occurred. Periods greater than one month are calculated by linking the monthly returns. The TWR gives equal weighting to every return regardless of amount of money invested, so it is an effective measure for returns on a fee based account. All periods shown which are greater than 12 months are annualized. This applies to all performance for all assets before 09/30/2010, Advisory assets before 12/31/2010 and SWP/AAP sleeves before 04/30/2018.

Time-weighted Returns for accounts / SWP/AAP sleeves (Daily periods): The report displays a time weighted rate of return (TWR) that is calculated by dividing the portfolio's daily gain/loss by the previous day's closing market value plus the net value of cash flows that occurred during the day, if it was positive. The TWR gives equal weighting to every return regardless of amount of money invested, so it is an effective measure for returns on a fee based account. Periods greater than one day are calculated by linking the daily returns. All periods shown which are greater than 12 months are annualized. For reports generated prior to 01/26/2018, the performance calculations used the account's end of day value on the performance inception (listed in the report under the column "ITD") and all cash flows were posted at end of day. As a result of the change, the overall rate of return (TWR) and beginning market value displayed can vary from prior generated reports. This applies to all performance for all assets on or after 09/30/2010, Advisory assets on or after 12/31/2010, SWP/AAP sleeves on or after 04/30/2018 as well as all Asset Class and Security level returns.

Money-weighted returns: Money-weighted return (MWR) is a measure of the rate of return for an asset or portfolio of assets. It is calculated by finding the daily Internal Rate of Return (IRR) for the period and then compounding this return by the number of days in the period being measured. The MWR incorporates the size and timing of cash flows, so it is an effective measure of returns on a portfolio.

Annualized Performance: All performance periods greater than one year are calculated (unless otherwise stated) on an annualized basis, which represents the return on an investment multiplied or divided to give a comparable one year return.

Cumulative Performance: A cumulative return is the aggregate amount that an investment has gained or lost over time, independent of the period of time involved.

Net of Fees and Gross of Fees Performance: Performance is presented on a "net of fees" and "gross of fees" basis, where indicated. Net returns do not reflect Program and wrap fees prior to 10/31/10 for accounts that are billed separately via invoice through a separate account billing arrangement. Gross returns do not reflect the deduction of fees, commissions or other charges. The payment of actual fees and expenses will reduce a client's return. The compound effect of such fees and expenses should be considered when reviewing returns. For example, the net effect of the deduction of fees on annualized performance, including the compounded effect over time, is determined by the relative size of the fee and the account's investment performance. It should also be noted that where gross returns are compared to an index, the index performance also does not reflect any transaction costs, which would lower the performance results. Market index data maybe subject to review and revision.

Benchmark/Major Indices: The past performance of an index is not a guarantee of future results. Any benchmark is shown for informational purposes only and relates to historical performance of market indices and not the performance of actual investments. Although most portfolios use indices as benchmarks, portfolios are actively managed and generally are not restricted to investing only in securities in the index. As a result, your portfolio holdings and performance may vary substantially from the index. Each index reflects an unmanaged universe of securities without any deduction for advisory fees or other expenses that would reduce actual returns, as well as the reinvestment of all income and dividends. An actual investment in the securities included in the index would require an investor to incur transaction costs, which would lower the performance results. Indices are not actively managed and investors cannot invest directly in the indices. Market index data maybe subject to review and revision. Further, there is no guarantee that an investor's account will meet or exceed the stated benchmark. Index performance information has been obtained from third parties deemed to be reliable. We have not independently verified this information, nor do we make any representations or warranties to the accuracy or completeness of this information.

Blended Index - For Advisory accounts, Blended Index is designed to reflect the asset categories in which your account is invested. For Brokerage accounts, you have the option to select any benchmark from the list.

For certain products, the blended index represents the investment style corresponding to your client target allocation. If you change your client target allocation, your blended index will change in step with your change to your client target allocation.

Blended Index 2 - 8 - are optional indices selected by you which may consist of a blend of indexes. For advisory accounts, these indices are for informational purposes only. Depending on the selection, the benchmark selected may not be an appropriate basis for comparison of your portfolio based on it's holdings.

Custom Time Periods: If represented on this report, the performance start date and the performance end date have been selected by your Financial Advisor in order to provide performance and account activity information for your account for the specified period of time only. As a result, only a portion of your account's activity and performance information is presented in the performance report, and, therefore, presents a distorted representation of your account's activity and performance.

Net Deposits/Withdrawals: When shown on a report, this information represents the net value of all cash and securities contributions and withdrawals, program fees (including wrap fees) and other fees added to or subtracted from your accounts from the first day to the last day of the period. When fees are shown separately, net deposits / withdrawals does not include program fees (including wrap fees). When investment return is displayed net deposits / withdrawals does not include program fees (including wrap fees). For security contributions and withdrawals, securities are calculated using the end of day UBS FS price on the day securities are delivered in or out of the accounts. Wrap fees will be included in this calculation except when paid via an invoice or through a separate accounts billing arrangement. When shown on Client summary and/or Portfolio review report, program fees (including wrap fees) may not be included in net deposits/withdrawals.

PACE Program fees paid from sources other than your PACE account are treated as a contribution. A PACE

Program Fee rebate that is not reinvested is treated as a withdrawal.

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Performance Start Date Changes: The Performance Start Date for accounts marked with a '^' have changed. Performance figures of an account with a changed Performance Start Date may not include the entire history of the account. The new Performance Start Date will generate performance returns and activity information for a shorter period than is available at UBS FS. As a result, the overall performance of these accounts may generate better performance than the period of time that would be included if the report used the inception date of the account. UBS FS recommends reviewing performance reports that use the inception date of the account because reports with longer time frames are usually more helpful when evaluating investment programs and strategies. Performance reports may include accounts with inception dates that precede the new Performance Start Date and will show performance and activity information from the earliest available inception date.
The change in Performance Start Date may be the result of a performance gap due to a zero-balance that prevents the calculation of continuous returns from the inception of the account. The Performance Start Date may also change if an account has failed one of our performance data integrity tests. In such instances, the account will be labeled as 'Review Required' and performance prior to that failure will be restricted. Finally, the Performance Start Date will change if you have explicitly requested a performance restart. Please contact your Financial Advisor for additional details regarding your new Performance Start Date.

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Percentage: Portfolio (in the "% Portfolio / Total" column) includes all holdings held in the account(s) selected when this report was generated. Broad asset class (in the "% broad asset class" column) includes all holdings held in that broad asset class in the account(s) selected when this report was generated.

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This information is supplied by Morningstar, Inc. on a daily basis to UBS FS based on data supplied by the fund which may not be current. Mutual funds change their portfolio holdings on a regular (often daily) basis. Accordingly, any analysis that includes mutual funds may not accurately reflect the current composition of these funds. If a fund's underlying holding data is not available, it will be classified based on its corresponding overall Morningstar classification. All data is as of the date indicated in the report.

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1) Have there been any changes to your financial situation or investment objectives?
2) Would you like to implement or modify any restrictions regarding the management of your account?
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UBS House View

Investment Strategy Guide
May 2020

Chief Investment Office
Global Wealth Management
US edition

Looking past the peak

Mike Ryan, CFA

Chief Investment Officer Americas,
Global Wealth Management

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Monthly House View client call:

7 May 2020

1:00 PM ET

This month's conversation will only be available through the dial-in below:

Dial-in: 1-877-200-4456

Passcode: 46502#

Dear reader,

Dear Reader,

The last few weeks have forced us to reconcile with a new way of life. In an unprecedented move, many of us have spent the last month staying at home, practicing social distancing, and patiently waiting for a return to normalcy. Our sacrifices have been paying off. Now, as we await confirmation that the peak of this pandemic is behind us, we can begin looking ahead to what a postcrisis economy and society will look like.

In this month's **Feature** we extend our scenario analysis to the next three phases of the outbreak: normalization, recovery, and postcrisis. The exact duration of each phase hinges on policy responses from governments as they assess when to ease restrictions and how to support hard-hit sectors. With the gradual return of employees and consumers to their normal business activities, a permanent recovery will rely on the availability and accuracy of testing, treatment, and contact tracing.

As we monitor the latest trends, we remain overweight in US high yield credit, Treasury Inflation-Protected Securities (TIPS), and USD-denominated emerging market sovereign bonds—asset classes already pricing in much of the downside risks, but with room for further gains if the recovery base case continues to play out.

The COVID-19 outbreak has underscored the importance of continuing to invest in our healthcare systems and infrastructure. In our **Thematic Spotlight**, we highlight longer-term investment opportunities in oncology and genetic therapies—themes with substantial return potential as innovative treatments to cancer advance in clinical trials and come to market.

As a reminder, our **Detailed asset allocation** section is available as a stand-alone report, available at ubs.com/houseview.

Regards,

Mike Ryan

CIO Preferences

	underweight	neutral	overweight
Cash		⊖	
Total bonds		⊖	
US government	⊖		
US TIPS			⊕
US Treasuries (long)		⊖	
US municipal		⊖	
US investment-grade corporate		⊖	
US high-yield			⊕
Emerging market		⊖	
EM local-currency		⊖	
EM hard-currency			⊕
Total equities		⊖	
US large-cap growth		⊖	
US large-cap value		⊖	
US mid-cap		⊖	
US small-cap		⊖	
Int'l developed market		⊖	
Emerging market		⊖	

This is a visual summary of our preferences. For the full detailed asset allocation, see our full detailed asset allocation tables report.

⊕ **Overweight**
Tactical recommendation to hold more of the asset class than specified in the moderate risk strategic asset allocation.

⊖ **Underweight**
Tactical recommendation to hold less of the asset class than specified in the moderate risk strategic asset allocation.

⊖ **Neutral**
Tactical recommendation to hold the asset class in line with its weight in the moderate risk strategic asset allocation.

Also in this report

Looking past the peak

Normalization

Markets are beginning to look "past the peak" of the pandemic, and toward when economic functioning can normalize. We expect lock-down measures to be lifted in the next 1–2 months, but for some restrictions to remain through 2020.

Recovery

How quickly profits recover to precrisis highs will depend on the length of the lockdown, and on government and monetary support. In our central scenario, we expect S&P 500 profits in 2021 to be 5% lower than in 2019.

Post crisis

The postcrisis legacy will be a more indebted, less global, and more digital world. We see opportunity in themes like *Digital Transformation, E-commerce, Fintech, Automation and Robotics, Healthtech, Genetic Therapies, and Oncology*.

Prefer credit

We think credit has the most attractive risk-return profile among major asset classes at present. We overweight US high yield and USD-denominated emerging market sovereign bonds in our US tactical asset allocation.

Mark Haefele
Global Chief Investment Officer
Wealth Management

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Just a month ago, we didn't know whether western democracies' unprecedented lockdowns would be sufficient to slow the spread of the coronavirus. Now, markets have risen sharply as investors have dared to look beyond the peak of the pandemic.

Given that the central scenario laid out in last month's *Monthly Letter* (in which new cases of the virus peaked by mid-April) is playing out as expected, in this letter I refresh our scenario analysis, and consider the next three phases of the coronavirus crisis so investors can evaluate the risks and opportunities that lie ahead.

In the first phase, normalization, most of the US and Europe allow employees to return to work, but output remains well below precrisis levels. In the second phase, recovery, the economy gradually returns to precrisis levels. Net new business formation is positive, and workers made redundant during the lockdown find new positions. In the third, postcrisis phase, we are left with the legacy of the crisis: a world more indebted and less global, yet more digital.

Despite the complexity of the three phases, and the wide range of possible outcomes, markets can only process a few key themes at a time, and, over the coming months, we think the market is likely to be driven primarily by: a) how quickly we can move through the normalization phase, and b) estimates of how far through the recovery phase we can get during 2021.

Our central scenario, in which intermittent lockdowns through 2020 mean that some broad recovery phase can only sustainably get underway in 2021, is already priced in by broad equity indexes. But there is no paucity of opportunity in markets today. We continue to believe that credit is cheaply priced relative to its risk, and we overweight US high yield and USD-denominated emerging market sovereign bonds in our US tactical asset allocation. Volatility remains elevated, providing investors the opportunity to gain asymmetric exposure to markets, or harvest yields. And within equities, we don't think markets have yet fully appreciated the scale of structural change driven by the pandemic—with implications in particular for *Digital Transformation, E-commerce, Fintech, Automation and Robotics, Healthtech, Genetic Therapies,* and *Oncology*.

The economic and social uncertainty created by this new virus is extraordinary. Massive government intervention in the economy means political decisions can now drive a much wider range of market outcomes. And central bank intervention in the bond markets makes diversification less straightforward than in the past. But, with a farsighted financial plan, flexible enough to take advantage of opportunities yet disciplined and diversified enough to stay the course, we remain convinced investors can both protect, and grow, capital over the long term.

Central scenario

Parts of Europe may follow China's path of resuming economic functioning.

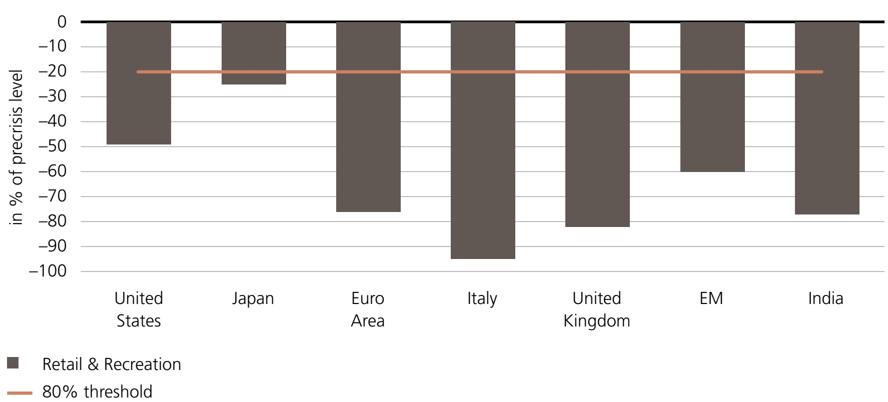
1) Normalization

Now that we know social distancing policies can prevent healthcare systems from being overwhelmed, governments will begin to make trade-offs between the healthcare system and the economy. In Europe, the majority of restrictions in Spain have been extended to at least 25 April, and France has extended its lockdown to 11 May. But Austria has announced restrictions will start to be lifted from mid-April, while Germany, Switzerland, Norway, Denmark, and Italy are also moving to relax restrictions. This suggests that at least parts of Europe may follow China's path of resuming economic functioning promptly after imposing distancing measures.

Figure 1

Footfall data will provide a guide to normalization of economic activity

Mobility change, in %, for places like restaurants, shopping centers, and movie theaters, compared to precrisis baseline (3 January–6 February 2020)



Source: Google mobility reports, Citi, UBS, as of 5 April 2020.

Yet, second-wave restrictions and continued limitations on travel and social proximity in some Asian countries show how western nations face a more complex process than simply flicking a switch. Without a medical solution, the spread of the virus has to be dealt with using a combination of testing and tracing, along with a flexible government intervention policy. This is less disruptive than a full lockdown, but will mean recurring restrictions on businesses and free movement. In our central scenario, suppression starts to be lifted gradually from mid-May in Europe, but renewed outbreaks mean that intermittent suppression measures, including partial lockdowns, are likely. This will only allow for economic functioning to normalize *sustainably* from December.

Read more on
ubs.com/houseview

The metrics we are watching

An important challenge for investors is measuring economic functioning normalizing in real time, particularly given that countries, cities, and regions, are likely to remove restrictions both gradually and unevenly. Much of the economic data we usually rely on also is subject to distortions from the lockdown or government policies to save jobs and businesses.

We therefore monitor the passage through phase 1 using a combination of big data and employment data. More specifically, we think we can be confident we are leaving phase 1 and entering phase 2 when Google data of retail and recreation footfall reaches >80% of precrisis levels, when mobility trends such as public transport and city and air traffic reach >75%, and when employment indicators show significant signs of improvement as well. Although employment data is normally a lagging indicator, in this cycle it is more likely to be a coincident indicator. So we will also be watching the US unemployment rate and the number of European furloughed workers who have returned to full-time work.

In our central scenario, intermittent lockdowns through 2020 mean that the recovery phase only sustainably gets underway from the beginning of 2021.

2) Recovery

In our central scenario, intermittent lockdowns through 2020 mean that the recovery phase only sustainably gets underway from the beginning of 2021. How quickly the economy and corporate profits return to precrisis levels thereafter will depend on the success governments have in reducing bankruptcies and job losses. We estimate that unemployment by the end of 2020 will be 100–150% higher than precrisis levels in the US, and will be 25–50% higher in Europe, and S&P 500 profits will be down 26% in 2020.

The nature of government support may be the key to the recovery in 2021. Policies that pay furloughed workers a high proportion of their wages should have the effect of boosting consumer spending once the lockdown is over, since many furloughed workers will have saved some money during the lockdown. If workers are sufficiently secure in their jobs, they will spend their savings—and the furlough policy transforms into a stimulus. The USD 1,200 payouts to most adult Americans should also act as a stimulus to spending for those people who have kept their jobs during the lockdown.

Although we expect a recovery in 2021, we don't think corporate profits will recover levels reached in 2019 until 2022. We estimate that S&P 500 profits in 2021 will be around 5% lower than in 2019. Assuming we are on course for this scenario, we would expect the S&P 500 to be trading at around 2,750 by the end of 2020.

Upside scenario

In our upside scenario, the lockdown phase is short enough and government policy effective enough that we enter the recovery phase in a relatively strong position.

1) Normalization
In our upside scenario, most countries in Europe and the US decide to start lifting suppression measures from early May, allowing many types of economic functioning to sustainably normalize by the end of June. Achieving this could involve strategies like implementing widespread testing while using mobile phones to trace infections, thus keeping the virus well within the capacity of healthcare systems to cope with new cases. An alternative path could be the discovery of an effective medical treatment that significantly reduces the strain on hospitals, allowing societies to begin to see COVID-19 risks more like seasonal flu risks. It could also involve measures that limit movement for more at-risk groups but allow the majority of the working-age population to resume normal activity.

Medical breakthroughs
As of today, no treatments are known to be effective against COVID-19. Developing an effective treatment could help to reduce the pressure on hospitals and intensive care units, by reducing patients' length of stay or keeping less severe cases from progressing. This would help to manage second and subsequent waves of infections. One type of drug that looks promising is nucleoside analogs, a class of drugs that can block the virus's replication process and slow its spread in the body.

Results from the first clinical trials of one such drug, remdesivir, are likely to be available in the coming weeks. Based on the very limited data to date, it could well show signs of efficacy. Should the data be positive, remdesivir's manufacturer can produce enough of the drug to treat around 1 million patients in the coming year. There are at least two other nucleoside analogs being trialed for COVID-19.

2) Recovery
In this scenario, the lockdown phase is short enough and government policy effective enough that we enter the recovery phase in a relatively strong position. We estimate that if economic functioning can normalize by the end of June, unemployment in the US is likely to end the year at 75–100% higher than precrisis levels and 0–25% higher in Europe. The effect of the massive monetary and fiscal stimulus in recent months would help to restore economic activity to precrisis levels by 2021. For 2021 as a whole, we would expect S&P 500 profits to exceed levels reached in 2019 by around 6%. In this scenario, we would estimate the S&P 500 trading at 3,150 by the end of 2020.

Downside scenario

In our downside scenario economic functioning would not sustainably normalize until June 2021.

1) Normalization
In our downside scenario, suppression is lifted in the coming months, but a major second wave of the virus overwhelms healthcare systems and leads to a renewed lockdown, setting back the recovery phase by up to a year, and contributing to a high degree of political caution about lifting lockdown measures again. As well as being a humanitarian disaster, this could lead to significantly more business failures and permanent redundancies if more successful government intervention also fails to materialize.

2) Recovery
In this scenario, economic functioning would not sustainably normalize until June 2021, and the damage inflicted to jobs and businesses in the interim means that the economy would enter the recovery phase in a very weakened state, with high levels of unemployment, and with some workers permanently leaving the labor force due to skill loss.

In this scenario, S&P 500 profits in 2021 would be around 20% lower than levels achieved in 2019, and we would likely only see profits reach prior highs in 2022 or even 2023. We would expect the S&P 500 to be trading at around 2,100 by the end of 2020.

Our scenario analysis for markets

Taken together we arrive at the following matrix of three scenarios, defined by: a) how quickly economic activity normalizes; and b) how economic activity and corporate profits stand in 2021.

	Date by which economic functioning normalizes*	How weak is the economy as it enters the recovery phase?	Where do we stand by 2021?	Potential triggers
Upside	End of June 2020	Unemployment % rise at end 2020 relative to precrisis level: US 75–100% Europe 0–25%	S&P 500 profits +6% vs. 2019	– Sophisticated test and trace model – Medical breakthrough – Measures to allow working-age population to resume activity
Central	End of December 2020	Unemployment % rise at end 2020 relative to precrisis level: US 100–150% Europe 25–50%	S&P 500 profits –5% vs. 2019	– Only steady lifting of restrictions – Second wave triggering renewed restrictions
Downside	End of June 2021	Unemployment % rise at end 2020 relative to precrisis level: US 200%+ Europe 75%+	S&P 500 profits –20% vs. 2019	– Major second wave of the virus

* As defined by furloughed employees returning to work, Google data indicating retail footfall of 80% of precrisis levels, mobility data for public transport as well as city and air traffic reaching 75% of precrisis levels, and evidence in employment data of most furloughed employees returning to work.

	S&P 500 2021E	S&P 500 multiple	S&P 500 level
Upside	USD 174 (+6% vs. 2019)	18.1x	3,150
Central	USD 156 (–5% vs. 2019)	17.6x	2,750
Downside	USD 132 (–20% vs. 2019)	15.9x	2,100

	Current	Upside	Central	Downside
S&P 500	2,783	3,150	2,750	2,100
Euro Stoxx 50	2,808	3,300	2,600	1,800
MSCI EM	888	1,050	900	600
SMI	9,320	10,000	9,000	7,000
USD IG spread	209bps	100bps	150bps	300–400bps
USD HY spread	764bps	350bps	550bps	1,000–1,500bps
EMBIG spread	608bps	280bps	450bps	700–800bps
EURUSD	1.0875	1.19	1.13	1.05
GBPUSD	1.2475	1.38	1.33	1.1
USDJPY	107.80	100	104	110
US 10-year yield	0.64%	1.40%	0.95%	0.50%

Source: UBS, as of 15 April 2020.

Finding the right multiple
Valuations are a function of a discount rate and a growth outlook. The very large increase in government debt to support the economy creates uncertainty about the long-term growth outlook. But equally, the very low level of interest rates should boost valuations, and investors might also be willing to pay a higher-than-average multiple if they expect a continued earnings recovery through 2021 and into 2022. On balance we think a slightly higher-than-average multiple is justified to anchor our central scenario. The S&P 500 has traded on an average forward price-to-earnings multiple of 16.7x over the past five years. In our central scenario we apply a P/E ratio of 17.6x to our 2021 EPS estimate of USD 156.

Phase 3: Postcrisis

Even after corporate profitability and economic activity return to precrisis levels, we foresee structural changes: a world more indebted, less global, yet more digital.

Financing elevated government debt levels will likely require a combination of financial repression, taxation, and moderately higher inflation.

Financing elevated government debt levels will likely require a combination of financial repression, taxation, and moderately higher inflation. The combination of financial repression and moderately higher inflation will amount to an effective tax on conservative savers, and so will therefore require investors to reconsider the place of bonds and cash in their portfolios. Alternative diversifiers including option strategies, dynamic allocation strategies, and private markets will need to play a bigger role, as well as assets like gold and Treasury Inflation-Protected Securities (TIPS), which may additionally provide protection against the risk of higher inflation. Potentially higher tax rates, combined with elevated financial market volatility, will also increase the importance of financial planning and strategies like tax-loss harvesting.

The world will be less global. Pandemics have a habit of driving xenophobia, and we should expect more populism and protectionism.

The world will also be less global. Pandemics have a habit of driving xenophobia, and we should expect more populism and protectionism. For investors, a less interconnected world will create different outcomes in individual countries and increase the importance of global diversification. But we also expect this trend to create opportunities. The fourth industrial revolution has enabled local manufacturing, but uptake has been slow due to the cost of investing in local infrastructure. But with the virus highlighting the need for robust supply chains, and coming shortly after a period of heightened US-China trade tensions, we think that, for many companies, this crisis could tip the balance in favor of local, rather than global, production. We expect companies exposed to *Automation and Robotics* to experience higher demand.

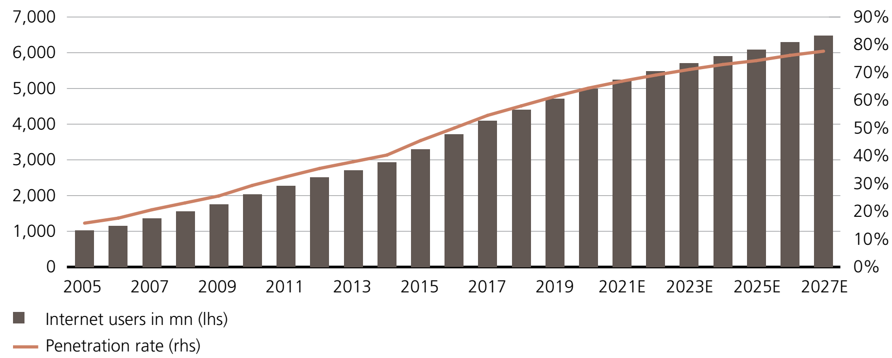
Lockdown measures are accelerating the digital transformation trend.

Finally, the world will also be more digital. Lockdown measures have forced many consumers and businesses to change fundamentally the way they buy and sell goods and services, accelerating digital adoption rates. Once the crisis is over, consumers may not fully revert back to use of brick-and-mortar shops, a boost for companies exposed to *E-commerce* and *Fintech*.

Figure 2

"Stay-at-home" is accelerating the digitalization trend

Internet users in millions (lhs), penetration rate (rhs)



Source: World Bank, UBS estimates, as of April 2020.

Policymakers under pressure to improve the quality and efficiency of healthcare delivery are also likely to turn to *Healthtech*, boosting demand for areas from healthcare IT, to cutting-edge innovations like telemedicine and population health software. Other key related themes in which we see significant investment opportunity are *Genetic Therapies* and *Oncology*. Genetic therapies have the potential to significantly improve the efficiency of healthcare delivery, and, with the rate of growth in new cancer cases likely to be double the rate of population growth until 2040, we expect the market for oncology drugs to grow by low-double-digit percentages each year.

We prefer credit over equities.

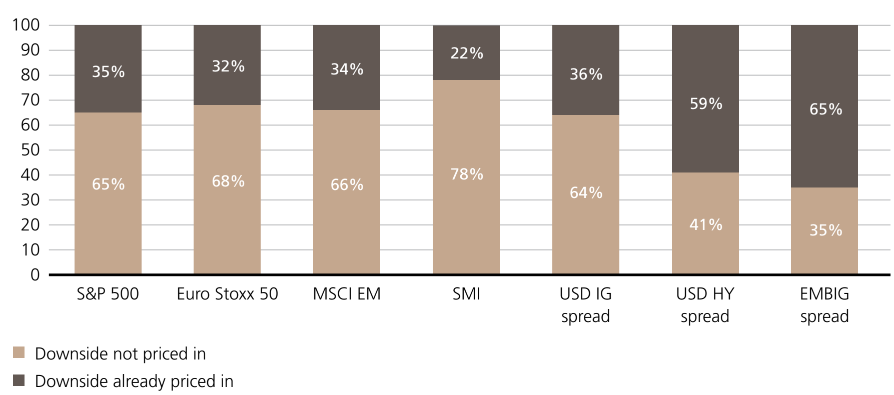
Investment recommendations

Considering our scenario analysis, we currently see a better risk-reward trade-off in credit than in the global equity indexes. Further upside for equity markets as a whole would likely require additional fiscal or monetary stimulus, greater clarity about exit strategies, or a medical breakthrough.

Figure 3

Credit closer to pricing in our downside scenario

Normalized range between best and worst case for selected assets, current position relative to worst case, in %



Source: Bloomberg, UBS as of April 15, 2020.
Note: SMI = Swiss Market Index; EMBIG is the JP Morgan index for USD EM sovereign bonds.

Credit

Policy and corporate behavior favor credit.

We see credit as attractively priced at present. Monetary and fiscal policy is deliberately targeted at ensuring that companies that were viable prior to the coronavirus crisis remain viable. Corporate behavior has become much more bondholder friendly, including cuts to share buyback programs, dividends, and capital expenditures. Historically, when credit spreads are as wide as they are today, credit investors have enjoyed attractive subsequent returns.

We are overweight hard-currency (USD) emerging market sovereign bonds (EMBIGD).

We are overweight hard-currency (USD) emerging market sovereign bonds (EMBIGD), and see current spread levels of more than 600bps as attractive. Since 2000 there have been 52 months with EMBIGD spreads in excess of 500bps. Subsequent 12-month total returns were positive in all cases, with a median return of 13%.

Emerging market sovereigns have lower external vulnerabilities in aggregate because they have better current account balances today than they did during previous crises. Multilateral policy has also been deployed through the IMF and the Federal Reserve's dollar swap lines to lend support. At current levels of 600bps, spreads are close to pricing in our downside scenario (700–800bps). In our central scenario, we expect spreads to tighten to around 450bps.

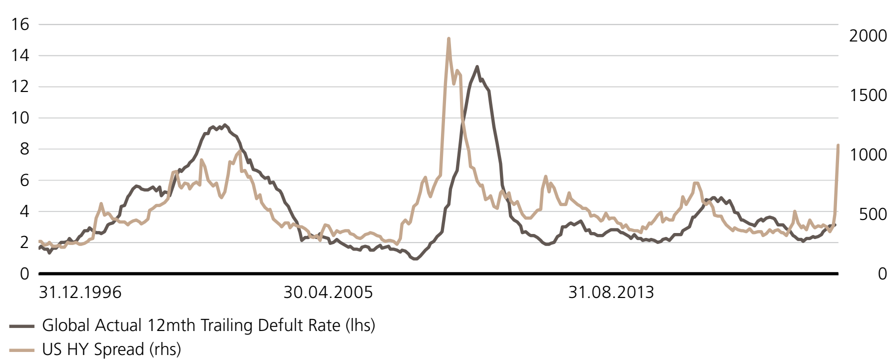
We are overweight US high yield (HY) credit.

We are overweight US high yield (HY) credit. At current levels of 764bps, high yield bond spreads still offer attractive return potential, particularly given the Fed's decision to expand corporate credit facilities to allow for purchases of bonds recently downgraded below investment grade. Since 1987, there have been 89 months with spreads in excess of 700bps, and subsequent 12-month total returns were positive in 87% of cases, with a median return of 17.5%. In our central scenario, we expect US HY spreads to tighten to around 550bps, and 350bps in the upside case.

Figure 4

US HY spreads are already pricing in a significant increase in defaults

US HY spreads in basis points (rhs), trailing default rate (lhs, in %)



Source: Moody's, Bloomberg, UBS, as of April 3, 2020.

We overweight Treasury Inflation-Protected Securities (TIPS) against US government bonds.

We overweight TIPS against US government bonds. TIPS will outperform if realized inflation comes in above the current very low US 5-year breakeven rate of 0.65%. In our central scenario of the recovery phase sustainably getting underway in 2021, we think it's likely that realized inflation will gradually rise back to 2%. Then in the postcrisis world, policymakers will tolerate moderately higher inflation to address elevated government debt levels.

Equities

Be selective within equities.

Overall equity market indexes are close to pricing our central scenario. At this point, the key opportunities are in a) taking advantage of elevated volatility to earn coupons (e.g. through put writing), b) using elevated skew to gain asymmetric exposure to markets (e.g. through risk reversal strategies), and c) looking for selective exposure in oversold opportunities, resilient stocks and sectors, and in companies that could see an enduring boost in demand as a result of the crisis, including those exposed to *Automation and Robotics*, *Digital Transformation*, *E-commerce*, *Fintech*, *Oncology*, and *Genetic Therapies.*

FX strategy

We overweight the British pound versus the US dollar.

We overweight the British pound versus the US dollar. The Fed's measures to ease USD funding stress, and the coordinated action from the UK government and the Bank of England to support the British economy, have already triggered a rebound in GBPUSD in recent weeks, and we expect that rebound to continue. We forecast that GBPUSD will reach 1.40 by the end of 2020. Economic conditions in the UK are similar to those in Europe and the US, but the UK has a deeply undervalued currency—our estimate of fair value on a purchasing power parity basis is 1.57.

We close our basket of high-yielding emerging market currencies.

We close our basket of high-yielding emerging market currencies. We close our overweight position in the Indonesian rupiah (IDR), the Indian rupee (INR), and the Brazilian real (BRL), funded by short positions in the Australian dollar (AUD), the Taiwan dollar (TWD), and the Swedish krona (SEK). The position received some protection due to the pro-cyclical short positions, but we now see little upside as the coronavirus crisis spreads to emerging markets.

Commodities

Oil

We expect oil prices to recover in 2H20, supporting our overweight US HY.

OPEC+ reached a deal to cut oil production by 9.7mbpd on 12 April, but we think the cuts will do little to offset the near-term destruction in demand. Lower prices are needed to trigger further production shut-ins in North and South America and prevent inventories reaching capacity limits. In the medium term, however, output cuts may help rebalance the market and support prices if demand recovers in 2H20. We see Brent falling to USD 20/bbl or lower this quarter, but rising to USD 30/bbl by the end of September and to USD 43/bbl by the end of December.

Gold

Gold has proved its value as a portfolio hedge. We see further upside.

The two most important determinants of the gold price are real US interest rates and expectations for the purchasing power of the US dollar. Led by Fed easing, we now expect real US interest rates to dip deeper into negative territory and perhaps even test the post-GFC lows. Also, the forces behind a potential debasement of the US dollar have intensified. We have raised our gold price forecast to USD 1,800/oz.

Mark Haefele
Chief Investment Officer
Global Wealth Management

Asset allocation implementation

The UBS House View is our current assessment of the global economy and financial markets, with corresponding investment recommendations. The asset allocation implementation of this view can vary across model portfolios, depending on their objectives.

Our Tactical Asset Allocation (TAA) recommendations

Overweights
- Treasury Inflation-Protected Securities (TIPS)
- US high yield corporate fixed income
- US dollar-denominated emerging market sovereign bonds
- China equities (all-equity portfolio)
- Senior loans (yield-focused portfolio)

Underweights
- US government bonds
- Preferreds (yield-focused portfolio)

A note on TAA scaling
Unless noted otherwise, the TAA percentages on this page refer to a Moderate risk profile. Generally speaking, we apply a scaling methodology to TAA tilts for lower-risk portfolios, so that a 2% overweight in the moderate risk profile reflects as a 1.5% and 1%, respectively, in the Moderately Conservative and Conservative profiles.

Full detailed asset allocation tables
View our full set of asset allocation tables for guidance on positioning across different investor types, portfolio strategies, and risk tolerances.

Implementation guidance

While the US and global economy are currently mired in the deepest recession since the 1930s, a gradual process of normalization of economic activity should begin as social distancing restrictions are lifted, followed by a more sustainable recovery in 2021. Equity markets are generally pricing in this scenario, with relatively low margin of safety if normalization takes longer. In contrast, credit markets are closer to pricing in downside risks. Consequently, we prefer to add risk exposure through credit rather than equities at this time. For now we recommend keeping asset allocations relatively close to their long-term strategic benchmark.

Equities
We remain neutral across regions and styles within equities, with the view that equity markets are pricing in a faster recovery than we think is likely. From its all-time high on 19 February, the S&P is now down 17.3%, just behind international developed markets (–18.7%) and emerging markets at (–18.5%). Thus, there hasn't been significant differentiation, which is likely to continue in the near term while all regions are adversely impacted by COVID-19. Within emerging markets, we continue to overweight China. The number of new cases of the virus in China has remained low, economic activity is normalizing, policy remains supportive, and valuations are below average.

Rather than take clear directional views, we currently favor higher-quality companies that should outperform as the markets remain volatile and uncertainty about the virus and the economy remain high. Once the normalization phase becomes more apparent, we expect cyclical and lower-quality assets to begin outperforming, but we recommend waiting for a better entry point to make that rotation.

Among US equity sectors, we overweight consumer services (defensive growth), offset by an underweight to tech (still expensive relative to the overall market). We added a modest overweight to healthcare (near-term political risks have declined, relative valuation vs. other defensive sectors is attractive, and the sector is able to produce faster dividend growth). We added an underweight to materials as an offset because low oil prices are likely to weigh on the chemicals industry.

Fixed income
We maintain tactical overweight positions in Treasury Inflation-Protected Securities (TIPS), US high yield corporate bonds, and US dollar-denominated emerging market sovereign bonds, all versus US government bonds. Inflation expectations, at just over 1% for the next 10 years, remain far below the likely level of actual inflation, given the ample policy stimulus and elevated government debt levels. Spreads on high yield and emerging market bonds relative to Treasuries are currently over 750 and 600 basis points, respectively. Both should continue to benefit from the Fed expanding the size and scope of its lending facility programs.

In our Sustainable Investing portfolios, we keep our overweight position to ESG engagement high yield bonds versus ESG IG leaders bonds. Additionally, we maintain a preference for green bonds versus ESG corporate bonds. The former have similar duration, but are more defensive due to their sector composition.

Non-taxable investor

Moderate risk, without non-traditional assets

	Strategic Asset Allocation (SAA)	Tactical tilt	Tactical Asset Allocation (TAA)	Preferences
Cash	**5.0**		**5.0**	=
Fixed Income	**46.0**		**46.0**	=
US Gov't FI	16.0	-4.0	12.0	−
US TIPS	0.0	+2.0	2.0	+
US Treasuries (long)	0.0		0.0	=
US Municipal	0.0		0.0	=
US IG Corp FI	21.0		21.0	=
US HY Corp FI	5.0	+1.0	6.0	+
Emerging Markets FI	4.0		4.0	=
EM Local Currency FI	0.0		0.0	=
EM Hard Currency FI	0.0	+1.0	1.0	+
Equity	**49.0**		**49.0**	=
US Large Cap Growth	9.0		9.0	=
US Large Cap Value	9.0		9.0	=
US Mid Cap	5.0		5.0	=
US Small Cap	3.0		3.0	=
Int'l Developed Markets	17.0		17.0	=
Emerging Markets	6.0		6.0	=

Overweight: Tactical recommendation to hold more of the asset class than specified in the moderate risk strategic asset allocation. **Underweight:** Tactical recommendation to hold less of the asset class than specified in the moderate risk strategic asset allocation. **Neutral:** Tactical recommendation to hold the asset class in line with its weight in the moderate risk strategic asset allocation. → **Month-to-month change**
"Emerging Markets FI" is a blend of 50% local currency, 50% hard currency.
Source: UBS.

Risk profile implementation guidance

Tactical positioning for the Moderate portfolio is applicable for other risk profiles, with adjustments. We continue to recommend a long-maturity Treasury allocation in Moderately Aggressive and Aggressive portfolios, which have large equity allocations. These bonds are effective diversifiers, but the interest rate risk that they entail is less desirable in Conservative portfolios. The decline in longer-maturity yields highlights the risk that yields could rise, but we think it remains a moderate risk given monetary policy actions and near-term growth risks.

In Aggressive portfolios we recommend implementing the long-maturity Treasury position with 20-30 Treasury STRIPS (principal-only bonds), whereas 20+ year Treasury bonds offer sufficient protection for Moderately Aggressive portfolios. STRIPS have longer duration and thus offer more protection during a sustained economic slowdown when rates are likely to fall, but they're also more volatile.

The TIPS allocation is appropriate for all risk profiles, but longer-maturity TIPS (10+ years) are better for Aggressive portfolios because of their longer duration. In Conservative portfolios shorter maturities (0–5 years) are recommended because they have lower rising-rate risk.

Bull Market Monitor

Equity markets have already risen by enough to possibly call this a new bull market, but it will be difficult to sustain the rally unless the economy enters a recovery. We are changing some indicators to better suit current circumstances.

Current status
With most of the country under stay-at-home orders, the economy is in a severe downturn and unemployment is soaring. With help from aggressive action by the Fed, financial conditions have eased relative to the worst period in March.

What's new?
Many economic indicators have suffered record declines. Jobless claims have totaled 20 million over the four-week period ending 11 April. Retail sales fell by -8.7% month-on-month in March while industrial production dropped -5.4%. Interpreting these figures requires adjusting for the rapid changes that occurred during March. Core CPI fell by -0.1% in March, which is a rare occurrence. This indicates that weak demand is creating deflationary pressure even as shortages push up prices for some goods. Some activities that have been particularly hard hit by the pandemic appear to have stabilized at very low levels. For example, air travel has plunged -95% below normal levels but now appears to be hovering around that level.

Congress has passed three economic packages worth more than USD 2 trillion. The Fed has cut rates to near zero, expanded its balance sheet by around USD 2 trillion, and created new facilities to help ensure the flow of credit is not interrupted. The yield curve is upward sloping with the short end near zero. The strong policy response has allowed credit conditions to become somewhat easier.

We have made some changes to our indicators, including the addition of a "mobility" indicator. This incorporates the percentage of the population under stay-at-home orders, as well as measures of how much people are moving around.

What are we watching?
It will be impossible for economic conditions to return to normal until social distancing measures can be lifted. We are focusing on the pandemic itself, progress toward a vaccine or effective treatment, and what policymakers are saying about the possible timing for easing restrictions. It will also be important to watch what is happening overseas. If other countries can resume more normal activity without causing another pickup in COVID-19 cases, it could encourage policy changes in the US. We expect Congress to pass a fourth economic package but the timing, size, and contents remain uncertain. We are also watching the Fed to see how in practice it implements all of its recent policy announcements.

What are the investment implications?
The near-term outlook is highly uncertain. We have a neutral setting on equities in our tactical asset allocation.

Key indicators

The cycle indicators gauge whether the economy is overheating and if financial conditions are restricting growth. These determine our assessment of where we are in the cycle.

▼ Current ▽ Previous

Economic indicators

Growth (relative to potential)

Labor market

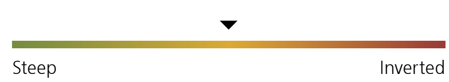
Mobility (relative to normal)

Inflation (relative to 2%)

Financial indicators

Monetary policy

Yield curve



Credit conditions

Each indicator is evaluated relative to a neutral level that is sustainable over time in order to determine whether the economy is at risk of overheating or if financial conditions will start to restrict growth.

Questions we‘re tracking

What does the coronavirus mean for investors?

The S&P 500 has rebounded strongly from its March lows, as investors look through the growing headline numbers of COVID-19 cases and focus on signs that the pandemic is being brought under control. Attention is shifting to when containment measures will be relaxed and the extent to which the fiscal and monetary response will offset the negative economic impact. We see credit as more attractively priced than equities and are overweight in emerging market hard-currency sovereign bonds, and US high yield.

What are the main coronavirus market scenarios?

The continued spread of COVID-19 has forced world leaders to implement temporary restrictions on daily life and commerce. In turn, major central banks have extended emergency easing measures, and governments are rolling out significant fiscal spending and other support. For investors, the outlook will now depend not just on the development of the coronavirus pandemic, but also on the efficacy, intensity, and speed of policy support. We outline three main scenarios.

Should I sell stocks now?

Markets have been highly volatile amid uncertainty over the spread of COVID-19 and the policy response. As a result, investors might want to avoid potential losses by selling rallies. But we advise staying invested, diversifying, and rebalancing portfolios. Equity markets are relatively close to pricing in our central scenario, so for investors looking to deploy new capital in stocks, it’s important to be selective. We prefer credit over equities and see value in US high yield bonds and emerging market sovereign debt.

Will oil production cuts lift prices?

OPEC+ reached a deal to cut oil production by 9.7mbpd on 12 April, after oil prices reached multi-year lows on tumbling demand due to the COVID-19 pandemic and excess supply concerns due to a Saudi-Russia price war. But we think the cuts will do little to tackle the near-term destruction in demand. In the longer term, they may help rebalance the market if demand recovers in 2H20, supporting prices and our overweight to US high yield credit.

Will credit or equities give a better return?

Since hitting their lows in mid-March due to the coronavirus outbreak, global stocks have rallied over 20% due to signs that the pandemic is starting to be controlled. We continue to see opportunities in select oversold and resilient stocks, as well as longer-term winners, but overall we are neutral on stocks and prefer taking risk in credit. We like US dollar-denominated emerging market sovereign bonds and US high yield credit, both of which are pricing in more of a downside scenario.

Month in review

COVID-19 and both its health and economic implications have continued to dominate headlines and occupy the minds of investors this month. The total number of infections has surpassed two million, with fatalities nearing 145,000. However, equities have rallied significantly from their lows, with the S&P 500 currently up +24.6% since its low on 23 March, on signs that containment measures are starting to curb the spread in Europe and the US.

Economic data has continued to illustrate the damage done by the virus so far. The Federal Reserve’s Beige Book, which collects information from its business contacts across the country, reported that “Economic activity contracted sharply and abruptly across all regions in the United States,” and “Many Districts said severe job cuts were widespread.” But while unprecedented job losses have taken place, the survey also noted that many job losses appear to be only temporary.

The oil price war that started on 8 March between Saudi Arabia and Russia ended on 12 April with a historic OPEC+ deal that decreased output by 9.7 million barrels a day. Despite the deal, oil prices failed to be meaningfully lifted. The decline in energy demand has caused the futures curve to collapse into a super-contango structure, and the International Energy Agency projected that global demand will fall by a record 9.3 million barrels per day in 2020.

The impacts of the coronavirus have also altered the profile of the 2020 election. Within the last month, Senator Bernie Sanders exited from the Democratic race and endorsed his formal rival, Joe Biden, on 13 April. Discussions have begun over the proposition to use mail-in ballots in the event that social distancing protocols are not rolled back by November.

Addressing a longer-term health crisis

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Thematic Investment Associate

Lachlan Towart

Healthcare equity analyst

The coronavirus pandemic and its devastating consequences have set in motion a number of long-term changes across our global economy, which we discuss in our report *The Decade Ahead & COVID-19*. Among these shifts, we expect to see an increased focus on healthcare funding and infrastructure development. The COVID-19 outbreak has demonstrated that providing adequate care for an aging and growing population is a complex task, particularly as population density rises in emerging cities.

However, infectious diseases are only one type of illness that our healthcare systems will contend with in the decades ahead. While the world focuses on battling COVID-19, millions of individuals are also fighting noncommunicable diseases that will become increasingly prevalent as our population ages and adopts western lifestyles—cancer being among the deadliest and most challenging to combat. Cancer is the second-leading cause of death globally, and the number of new cases is expected to grow at twice the rate of population growth through 2040.

After decades of research, significant progress has been made in the diagnosis and treatment of cancer, but there is still more work to be done. We believe investors can play a critical role in providing capital for private research and drug development. In the public markets, investments in makers of cancer-treatment drugs can offer consistent above-GDP earnings growth rates. In recent years, key developments in the space include targeted immuno-oncology and cell therapy.

Targeted immuno-oncology

Checkpoint inhibitors are a type of immuno-oncology drug that have demonstrated proof-of-concept in the adjuvant setting in recent years. Six checkpoint inhibitors have been approved for use and yield several benefits compared to traditional treatment methods. Compared to chemotherapy, checkpoint inhibitors tend to have fewer side effects, which can improve the quality of life for patients. The reduced side effects also allow for post-surgical use, aiding in the prevention of disease recurrence. Opdivo and Keytruda—both approved for adjuvant melanoma treatment—have improved the five-year overall survival rate for stage III melanoma patients to 64% from 54%. We will likely see more data on the efficacy of checkpoint inhibitors in treating other cancer types in the year ahead.

Personalized cell therapy treatments

Typically, different types of cancer are defined by the organ they attack, but there's been an increasing focus on genetic mutations and how they drive different types of cancers. CAR-T treatment is a personalized cellular immunotherapy treatment that was approved beginning with Kymriah and Yescarta in 2017. The high cost of these treatments has been a hurdle to commercial adoption, with Kymriah and Yescarta costing over USD 450,000 and USD 370,000, respectively. The cost reflects the potential for these methods to cure the disease with only one treatment—a stark contrast from the long treatment cycle of more traditional methods. Personalized cell therapy treatments are still in the early stages of adoption, and more data will be needed to further prove their safety and efficacy. Further information on both CAR-T and genetic therapies, more broadly, can be found in the report *Longer Term Investments: Genetic Therapies*.

Investment implications

The oncology market is currently worth around USD 150bn, and is expected to grow at low-double-digit rates. In our view, innovative cancer therapeutics are the most attractive investment opportunity, but for some drug categories it's still too early to pick winners. For this reason, public market investors should take a diversified approach to help mitigate the risk of clinical failure and other stock-specific risks. Investors who are able to commit capital for several years can capture an illiquidity premium in the private markets, and impact investors can potentially play a meaningful role in directing capital to meet funding needs in the early stages of the drug development cycle. See our report *Longer Term Investments: Oncology* for more information.

Themes universe

For guidance on how to invest in each of the themes on this page, please contact your Financial Advisor.

Technology

Automation and robotics
A fourth industrial revolution is underway, which we believe will transform the future of manufacturing.

Digital data
Companies that both enable digital data and invest their infrastructure will likely continue strong earnings growth over the coming years.

E-commerce
E-commerce is altering the global retail landscape and omnichannel companies should lead the way forward.

Enabling technologies
We identify five enabling technologies that should offer solid long-term growth amid irreversible technological disruption.

Fintech
The global fintech industry is at an inflection point and set to drive a major digital transformation in the financial services industry.

Health Tech
Aging populations are straining global healthcare budgets, spurring healthcare providers to explore new technologies that could improve efficiency.

Medical devices
The medical device industry has matured but opportunities exist for increased penetration in emerging markets (EMs).

Oncology
Advances in cancer therapeutics will create new opportunities for successful drugs.

Security and safety
Growing trends such as urbanization, digital data growth, and increased regulation support demand for security and safety.

Smart Mobility
Global urbanization will call for structural changes in technology that will alter the way we "consume" mobility in the coming decades.

Space
Growing private sector investment and lower entry barriers to the space economy are causing an inflection point.

Resources

Agricultural yield
The world faces a growing food production crisis as the global population increases. Companies that help to boost agricultural yields stand to benefit.

Clean air and carbon reduction
Rising populations and urbanization are fueling the need for clean-air technologies.

Energy efficiency
Stricter regulation and corporate competition to improve product efficiency are driving demand for energy-efficiency solutions.

Energy transition
The world is facing relentless demand for energy, and several types of energy resources will be needed to satisfy that demand.

Food revolution
Greater technology utilization and investment throughout the food supply chain will be needed to create a healthy sustainable food system.

Renewables
Increasing energy demand from urbanization and population growth will benefit renewable energy as lower costs drive competitiveness with fossil fuels.

Waste management and recycling
Low waste treatment rates in EMs offer big catch-up potential that could lead to extraordinary growth rates.

Water scarcity
Water scarcity is one of the biggest risks to mankind. If limited water resources can be better harnessed, the benefits could be enormous.

Society

Education services
With limits to many governments' education resources, there is increased opportunity for the private education market.

Emerging market healthcare
An aging EM population requires stepped-up investment in healthcare. We believe global healthcare companies can benefit.

Emerging market infrastructure
Growing urbanization and high economic growth rates will drive demand for infrastructure investment in EMs.

Generics
As healthcare costs grow, government policy and demographics will be important drivers of increased generic drug sales.

Genetic Therapies
Genetic therapies could revolutionize medicine by removing the fundamental causes of inherited genetic conditions.

Obesity
Urbanization and rising per-capita GDP in EMs will contribute to an ever-greater prevalence of global obesity.

Retirement homes
A larger population of seniors and evolving social trends support opportunity in retirement homes investment.

Retirement planning
Changing demographics are increasing demand for retirement planning.

Silver spending
As the global population ages, those 55 and older are expected to account for an ever-increasing proportion of consumer spending.

Fixed income

Beyond benchmark
By diversifying fixed-income exposure investors can avoid the shortcomings of heavily government-weighted taxable fixed-income benchmarks.

MLP bonds
Master limited partnership bonds offer attractive coupon income relative to other investment-grade sectors.

Taxable munis
Taxable munis can be attractive to taxable fixed income buyers for three principal reasons.

US senior loans
Senior loans offer attractive floating-rate coupons with low correlation to other asset classes and lower volatility than high-yield bonds.

Yield for the short end
Short-end corporate bonds offer attractive current yield without taking on excessive credit or interest-rate risk.

Equity

5G infrastructure
5G creates an attractive opportunity and infrastructure companies should benefit before smartphone-focused companies.

Campaign warriors
Headline risk related to policy proposals could continue through November. We believe these companies are relatively less exposed to election-related volatility.

Chinese equities to lead the recovery
Chinese equities offer superior growth prospects relative to most DM stocks and are trading at a discount to the MSCI EAFE.

Event-driven strategies
Event-driven strategies can represent attractive ways to capitalize on companies' corporate actions.

India profits and reforms reloaded Pro-market policy measures should be supportive of equity valuations, and earnings growth is expected to be superior to several other major markets.

Pricing power standouts
Companies with pricing power should be better insulated from the headwinds of slowing growth.

The power of the Internet
Internet stocks offer investors exposure to consumer-related secular growth trends.

Equity–ESG

Gender lens
Evidence suggests that gender-diverse companies are more profitable and tend to outperform their less-diverse peers.

Sustainable value creation in EM
Incorporating ESG considerations into EM equity investment decisions may provide a competitive edge.

KEY

Sustainable longer-term investment theme
Longer-term investments = Multi-business cycle
Shorter-term investments = Current business cycle

Global economic outlook

Efforts to limit the spread of the coronavirus are causing a sharp slowdown in global economic activity. We expect global growth to be negative in 2020. Both fiscal and monetary policies have been loosened in many countries, but it will be difficult to generate a recovery until virus mitigation measures can be relaxed. In the US, job losses have been particularly severe. The Fed has cut rates to near zero and expanded its balance sheet, and fiscal packages have exceeded USD 2 trillion.

Global growth in 2020 expected to be -1.7%

	Real GDP growth in %			Inflation in %		
	2019F	2020F	2021F	2019F	2020F	2021F
US	2.3	-5.2	4.3	1.8	0.8	1.7
Canada	1.6	0.2	1.9	1.9	1.4	2.0
Brazil	1.1	-2.0	3.0	3.7	3.5	3.2
Japan	0.7	-5.5	2.5	0.5	-0.2	-2.7
Australia	1.8	-6.1	5.2	1.6	0.0	0.9
China	6.1	1.5	7.5	2.9	2.4	1.9
India	4.5	2.5	6.0	4.8	3.9	4.4
Eurozone	1.2	-4.5	1.8	1.2	0.4	1.0
Germany	0.6	-4.7	1.8	1.4	0.8	1.2
France	1.3	-4.3	1.9	1.3	0.3	1.1
Italy	0.3	-5.0	1.9	0.6	0.2	0.6
Spain	2.0	-4.0	2.5	0.8	0.0	0.9
UK	1.4	-3.9	1.5	1.8	0.8	1.5
Switzerland	0.9	-3.0	2.2	0.4	-0.3	0.5
Russia	1.3	-1.5	2.3	4.5	4.1	4.7
World	3.0	-1.7	4.7	3.1	2.3	2.4

Source: Reuters EcoWin, IMF, UBS, as of 15 April 2020.
Note: In developing the CIO economic forecasts, CIO economists work in collaboration with economists employed by UBS Investment Research. Forecasts and estimates are current only as of the date of this publication and may change without notice.

Economic outlook summary

Brian Rose, PhD
Senior Economist Americas

House view

Probability: 60%

A negative quarter, with policy limiting second-round effects

Most major economies are in lockdown. While this will vary depending on how strict the local lockdowns are, this is likely to reduce consumer spending by about 30%. With restrictions on corporate activity, that suggests a reduction in GDP of 2–3% per month of lockdown. The most important economic focus will be on preventing otherwise solvent businesses from closing (that would add to unemployment, and create the negative scenario). This will require policies to help companies with cash flow problems. Attempts to stimulate demand are unlikely to be effective—and health policies are aimed at reducing demand in some areas. Looking beyond the effects of the virus, policies to stimulate demand can be effective in speeding the pace of the bounce-back in the second half. This is not a conventional economic slowdown. The collapse in growth is a deliberate policy move, not the result of imbalances in the economy that have become unsustainable. This suggests that the economic recovery may not follow normal economic patterns.

↗ Positive scenario

Probability: 20%

Stronger bounce-back

An earlier end to lockdowns limits the near-term economic damage and allows consumer confidence to stay relatively high.

↘ Negative scenario

Probability: 20%

Second-round effects weaken demand further, prolonging the downturn

Failure to provide assistance to small businesses and consumers leads to a second-wave demand shock. Unemployment rises and demand weakens further. The second wave outlasts the impact of the virus, delaying the recovery for several quarters.

Central bank policy

Paul Donovan
Chief Economist

House view

Probability: 60%

Targeted policy now, stimulus later

Central banks will need to focus their attention on the problems of companies, and in particular small companies (listed companies are not especially relevant, economically speaking). Cash flow will be challenged by the demand shock of the coronavirus. Similarly, households may have more problems meeting loan payments. Central banks therefore need to focus on three key policy measures: providing enough liquidity to meet demand; encouraging banks to lend quickly and effectively to small businesses (with government backing where relevant); and maintaining orderly bond markets, to enable governments to raise money to finance fiscal policy—where necessary providing emergency funding to the government for a short period.

↗ Positive scenario

Probability: 20%

Further measures to directly manage liquidity

If the financial system is not transmitting liquidity through to the economy, central banks may have to use regulatory and other powers to speed the efficiency of the process.

↘ Negative scenario

Probability: 20%

Fiscal stimulus and pent-up demand support the bounce-back

As the economy recovers, the demand for liquidity drops sharply. Central banks then adjust their quantitative measures accordingly.

High uncertainty

Jeremy Zirin, CFA
Head of Equities Americas

David Lefkowitz, CFA
Senior Equity Strategist Americas

House view

Probability: 50%

Earnings likely to take a hit

The spread of the coronavirus will adversely affect the US economy and corporate profits, but predicting the depth and duration of the impact is challenging. Roughly 80–90% of the country is in lockdown, and we expect these measures to begin easing in May. With that as a caveat, we recently trimmed our 2020 S&P 500 EPS further to USD 122 (26% decline). We see a sharp fall in earnings in the first half, especially in 2Q, but this should mark the low point; profits in the second half should be materially higher. Earnings momentum should rebound in 2021 when we expect EPS of USD 156 (28% growth). Our outlook is predicated on the view that the economic cost could be quite substantial. Still, before the virus hit, the US economy was on solid footing. Consumer debt levels were not excessive, the banking system was very sound, and corporate profitability had been strong. Also, there were very few economic imbalances, unlike the housing bubble on the eve of the global financial crisis and the tech bubble in the late 1990s. Extraordinary fiscal and monetary stimulus has been implemented to combat the coronavirus, and this should help those who have been most affected. So, ultimately, once social distancing measures begin to ease, economic activity should bounce back more quickly than the recovery from a typical recession.

↗ Positive scenario

Probability: 30%

Spread of the coronavirus proves to be short-lived

Containment measures prove to be effective and further spread of the virus is prevented sooner than expected. Earnings contract by 17% in 2020 and rise by 27% in 2021 due to aggressive government stimulus.

↘ Negative scenario

Probability: 20%

Downturn in overall sentiment

The coronavirus isn't contained until the summer. Flare-ups between OPEC and Russia persist. Earnings plummet 45% in 2020.

Key dates

29 April 2020
GDP for 1Q20
The rapid deterioration of economic conditions in the second half of March will likely result in negative growth for the first quarter as a whole. The "flash" estimate may be subject to large revisions in the future.

29 April 2020
FOMC meeting
Given that the Fed has been implementing various measures between meetings, the focus is likely to be on Fed Chair Powell's post-meeting news conference.

1 May 2020
ISM manufacturing PMI for April
The ISM Purchasing Managers' Index fell below 50 in March and is likely to drop more sharply in April as the pandemic hits demand for manufactured goods.

5 May 2020
ISM nonmanufacturing index for April
The ISM nonmanufacturing index covers most of the economy. It will provide a timely indication of current conditions and how they compare to the worst period of the global financial crisis.

8 May 2020
Labor report for April
The unemployment rate, which was at a 50-year low of 3.5% in February, may hit a new high for the modern data which goes back to 1948. The current record high is 10.8% in November 1982, well below the 24.9% rate in 1933.

Equities

Jeremy Zirin, CFA; David Lefkowitz, CFA; Edmund Tran, CFA

Social distancing measures to contain the virus are driving one of the sharpest slowdowns ever. Even though governments worldwide are mounting aggressive monetary and fiscal responses, corporate profits will suffer a huge near-term blow. After the recent market rebound, valuations are at long-term averages and well above trough levels of March 2009. However, record-low yields and unlimited central bank liquidity provide a floor to valuations. Global earnings will likely be revised sharply lower. Current consensus earnings estimates for global equities are too optimistic in our view, at -1.6%.

Eurozone

Neutral

We now expect the fall in earnings to be similar in magnitude to 2008–09, at -39%. This is much lower than consensus estimates of -4.3% and implies the bulk of earnings cuts still lies ahead. Volatility will likely remain high, but early signs of a slowing outbreak along with an aggressive policy response suggest we may have passed peak panic. We expect dividends to be cut. Special dividends and buybacks are most at risk, but cuts to ordinary dividends are also likely. Valuations are in line with historical averages, and given the macro backdrop, not attractive in our view.

EURO STOXX (index points, current: 306)	December 2020 target
House view	**290**
↗ Positive scenario	360
↘ Negative scenario	210

Emerging markets

Neutral

We expect earnings to be flat in EM in 2020 given the muted external demand, disruptive oil markets, and weak manufacturing activities. Weaker EM currencies also harm the near-term outlook on the asset class. Valuations are too rich, at 11x forward EPS, as consensus EPS estimates are still too high in our view, at +8%. We continue to prefer Chinese stocks within EM as authorities there have sufficient policy tools to support the economy in a sequential and targeted manner.

MSCI EM (index points, current: 888)	December 2020 target
House view	**900**
↗ Positive scenario	1050
↘ Negative scenario	600

Japan

Neutral

Japanese stocks are highly exposed to the global economy, especially the US and China. Thus, uncertainty over the COVID-19 outbreak globally will likely weigh on share prices and corporate earnings for the next few months. The BoJ's annual purchase program should backstop equity prices. Following restrictions on Tokyo, we revise our FY2020 earnings forecast from +4% to -18%, though FY2021 should see an improvement at +64% growth. Potential JPY appreciation due to lower US yields is also a risk for Japanese equities.

TOPIX (index points, current: 1434)	December 2020 target
House view	**1400**
↗ Positive scenario	1600
↘ Negative scenario	1000

UK

Neutral

UK equity valuations are attractive at 11.6x forward EPS. However, we stay neutral over our tactical horizon as profit growth for this year will likely be down sharply, driven by negative economic growth, currency appreciation, and lower energy prices. Fiscal spending and other policy initiatives should lift the economy in the near term. This, combined with an anticipated rise in sterling, should help domestically focused UK equities outperform internationally exposed large-cap stocks.

FTSE 100 (index points, current: 5598)	December 2020 target
House view	**5500**
↗ Positive scenario	6700
↘ Negative scenario	4000

Note: All current values as of 15 April 2020.

US Equities

After plummeting 34% from 19 February to 23 March, US stocks have surged in response to very aggressive government support for the economy and clear evidence that social distancing measures are working. Investors are now anticipating the end of the economic lockdown, which should start in May. Still, there remains a high degree of uncertainty about the ultimate pace of the recovery and it appears that stocks are pricing in a slightly faster recovery than we expect. We maintain our neutral view on US equities.

US equities overview

Neutral

The key investment debates over the next several weeks will be the pace of the economic recovery and the level of corporate profits in 2021. We expect S&P 500 EPS to contract by 26% this year before rebounding by 28% next year to USD 156, about 5% lower than the peak level achieved in 2019. We apply a 17.6x P/E (higher than the five-year average of 16.7x) to derive our year-end price target of 2,750, although the range of market outcomes remains quite wide. Separately, we expect S&P 500 dividends to fall 6–8% in 2020. With the yield on stocks relative to bonds now the highest since 1955, the long-term outlook for stocks versus bonds is quite attractive.

US equities – sectors

This month we upgrade healthcare to a moderate overweight. The sector should benefit from reduced political risks around "Medicare for All" and potentially even drug pricing. We believe valuations do not yet fully reflect this improving outlook. We also downgrade materials to a moderate underweight based on our view that the sector is anticipating a faster recovery than we expect. We maintain our moderate overweight to communication services and moderate underweight to information technology.

US equities – size

Since mid-2018, small-caps have underperformed large-caps by a staggering 30%. As a result, small-cap valuations are looking quite appealing. In addition, small-caps usually outperform in a recovery. However, we believe equity markets are currently pricing in a slightly faster recovery than we expect. As a result, we maintain our neutral view across size segments but could look to overweight smaller companies if the risk/reward becomes more compelling.

US equities – style

Value stocks have continued to underperform growth stocks this year. The segment has been weighed down by very challenging conditions for financials and energy, two heavyweights in the value index. Still, value stocks may be poised to regain some lost ground as investors gain greater confidence in the recovery. We are neutral growth versus value.

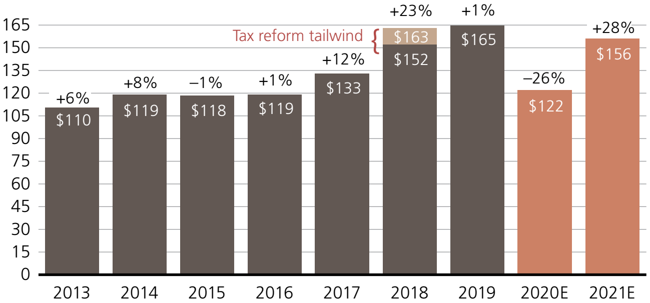
S&P 500 (index points, current: 2783)	December 2020 target
House view	**2750**
↗ Positive scenario	3150
↘ Negative scenario	2100

Note: Current values as of 15 April 2020.

Figure 1

Profits collapse, but then rebound

Annual S&P 500 EPS, actuals and estimates, in USD

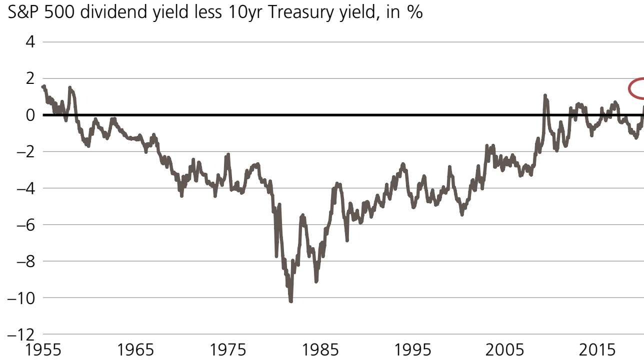


Source: FactSet, UBS, as of 15 April 2020.

Figure 2

Dividend yields are very appealing versus interest rates

S&P 500 dividend yield less 10yr Treasury yield, in %



Source: Bloomberg, FactSet, UBS, as of 15 April 2020.

Bonds

Leslie Falconio; Kathleen McNamara, CFA, CFP; Barry McAlinden, CFA; Philipp Schoettler; Frank Sileo, CFA

Interest rates fell at the start of the year due to fears over the disruption triggered by the coronavirus outbreak in China. The fall accelerated in mid-February as COVID-19 spread globally and tumbling stock markets triggered a flight to quality. The Fed cut rates to near zero. Interest rates are low across the curve. Measures to minimize the spread of the coronavirus have dampened economic activity. However, governments have reacted with record speed, enacting numerous programs to support businesses and their employees. We think interest rates will rise only very modestly as the year progresses.

Government bonds

Underweight

The US 10-year remains range bound between 55bps–80bps. Given the 0% to 0.25% range in the fed funds rate, it is unlikely the 10-year yield moves meaningfully higher over the next few months. However, we would not buy interest rate risk as the reward is very limited.

US 10-YEAR YIELD (current: 0.6%)	December 2020 target
House view	**0.95%**
↗ Positive scenario	0.3%
↘ Negative scenario	1.5%

Note: We maintain an overweight to US Treasury Inflation-Protected Securities against nominal US government bonds within this category.

US investment grade corporate bonds

Neutral

In one of the quickest corrections on record, credit spreads widened rapidly from postcrisis lows of 100bps to a peak of 401bps on 23 March. As market conditions worsened, the Fed stepped in and announced substantial corporate bond purchases, triggering a rapid reversal of this spread-widening. Current valuations coupled with targeted policy support from both monetary and fiscal authorities, including direct bond purchases, make the risk-reward for IG bonds attractive. We like the 1–5 year maturity segment that will be purchased by the Fed.

US IG SPREAD (current: 238bps*)	December 2020 target
House view	**180bps**
↗ Positive scenario	150bps
↘ Negative scenario	350–450bps

*Data based on ICE BofA IG corporate index.

US high yield corporate bonds

Overweight

We remain tactically overweight as fiscal and monetary stimulus in the US has helped alleviate fears that the current slowdown will become more prolonged and protracted. In particular, the Fed's measures to directly support credit markets—first through purchase programs targeted at IG issuers, later extended to include recent "fallen angels" and high yield exchange-traded funds (HY ETFs)—have supported sentiment in the US HY market. HY spreads have tightened over 300bps from their March highs, now retracing 40% of the widening since late February. We expect defaults to reach 10–12% over the next 12 months, which is by and large priced in by now.

USD HY SPREAD (current: 764bps*)	December 2020 target
House view	**550bps**
↗ Positive scenario	350bps
↘ Negative scenario	1000–1500bps

*Data based on ICE BofA High Yield indices.

Emerging market bonds

Overweight

The global spread of the coronavirus and the marked decline in oil prices triggered a sharp widening of USD-denominated emerging market (EM) sovereign and corporate bond spreads in recent weeks. Although spreads are off their recent highs, and notwithstanding the help of lower US Treasury rates, the asset class has posted year-to-date losses in the range of negative high-single to low-double digits. In our baseline scenario we expect affected countries to bring the disease under control, oil prices to grind higher toward the year-end, and therefore spreads to begin to normalize in our forecast period. We maintain a tactical overweight position in EM sovereign debt.

EMBIG div / CEMBI div SPREAD (current: 608bps / 532bps)	December 2020 target
House view	**450bps* / 400bps**
↗ Positive scenario	280bps* / 280bps
↘ Negative scenario	700bps* / 750bps

Note: Current values as of 15 April 2020. Overweight is to EM hard-currency sovereign bonds.

Municipal bonds

Neutral

Following a period of unprecedented volatility in munis last month, the market's technical challenges began to subside in the early part of April. On 9 April, the Fed announced that a municipal liquidity facility will offer as much as USD 500bn in lending to states and municipalities. Overall, this is positive news for the muni market. We reiterate our preference for high-quality credits. Muni yields relative to taxable debt remain high, suggesting opportunities for crossover investors. Current AAA 10-year muni-to-Treasury yield ratio: 141% (last month: 148%).

Non-US developed fixed income

Neutral

Over the past month, US bond yields moved sharply lower, but they were mixed in non-US developed markets. Further, on foreign exchange markets, the dollar gained against most other major currencies, which hurt returns on non-dollar assets when measured in dollars. On net, the asset class was down modestly for the month. With yields negative on many bonds, non-US developed fixed income remains unattractive. We do not recommend a strategic asset allocation position on the asset class.

Additional US taxable fixed income (TFI) segments

Agency bonds

The flight to safety witnessed in March has started to decline, given the large amount of monetary and fiscal stimulus. We are underweight Agency debt versus IG corporates and Agency MBS. The Fed is buying both IG and MBS which we believe will support future outperformance given the cheapness of spread product. Agency debt has returned 4.1% year-to-date; however, given the low level of yields in US Treasuries, we don't foresee a large increase in total return from current levels.

Current spread is +8bps to the 5-year (versus +11bps last month)

Mortgage-backed securities (MBS)

Agency MBS have recovered substantially since the March wide, as the Fed steps in to increase liquidity. We are currently neutral MBS, given the potential pressure on the mortgage service industry. Forbearance, or the relief of mortgage payments by the consumer for the next several months, is creating cash flow shortfalls from several nonbank banks that service GSE loans. Although we don't anticipate significant underperformance, volatility may remain. As spreads tightened in late March, we favor IG corporates over Agency MBS.

Current spread is +129bps to the 5-year and 10-year Treasury blend (versus +160bps last publication)

Figure 1

UBS CIO interest rate forecast

UST	15-Apr-20	Jun-20	Sep-20	Dec-20	Mar-21
2-year	0.2	0.5	0.5	0.5	0.5
5-year	0.3	0.6	0.6	0.7	0.7
10-year	0.6	0.8	0.9	1.0	1.0
30-year	1.3	1.2	1.4	1.4	1.4

Source: as of 15 April 2020.

Preferred securities

Valuation has generally improved driven by aggressive repricing of risk throughout all asset classes. Select pockets of value have emerged, especially among USD 25 par fixed-rate coupons. Backdrop is challenging for floaters and fixed-to-floats (F2Fs) nearing first call date—intuitively coupons float lower for the foreseeable future, while investors want higher yields (wider credit spreads). For F2Fs, more call protection is better (while being mindful of prospectus language on coupon calculation in the absence of Libor). But valuation is important. Strategically, we favor fixed-rate coupons, but some F2Fs may offer value and good structure from high-quality issuers.

Treasury inflation-protected securities (TIPS)

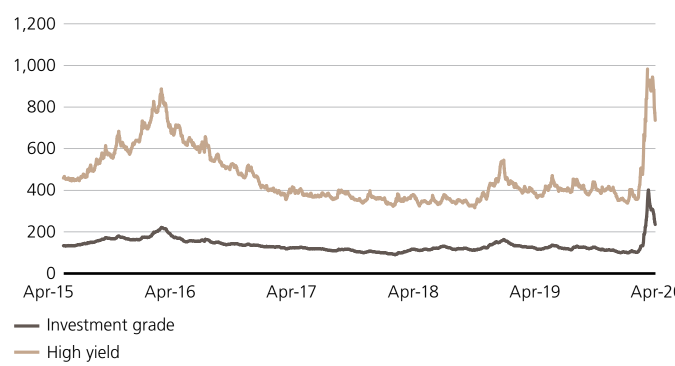
TIPS breakeven inflation rates have rallied from their March lows, and CIO continues to recommend an overweight to the sector. The TIPS index has returned about 5% year-to-date, with the 5–7 year TIPS (CIO's preferred area of the curve) returning a little over 3%. Although we are not calling for large inflation prints over the next several months, the large fiscal and monetary stimulus, a declining US dollar, combined with our view that real rates will decline over the next year keeps CIO overweight the asset class, particularly in the 5-year area.

Current 5-year breakeven inflation rate of 0.73% (0.1% last month)

Figure 2

Credit spreads are historically wide but off peak levels

Spread, in bps



Source: ICE BofA, UBS, as of 14 April 2020.

Commodities and other asset classes

Dominic Schnider, CFA, CAIA; Giovanni Staunovo; Thomas Veraguth; Wayne Gordon

Commodity prices have dropped sharply this year on plunging demand. Cyclical commodities, like crude oil and base metals, have been hit the hardest. Commodity prices will likely continue to weaken until economic activity stabilizes in developed economies during the summer and, for crude oil and base metals, until greater supply cuts emerge. Inventories across cyclical commodities will build broadly. On a spot basis, we think broad commodity indices could drop by up to 10% from current levels in 2Q. As a result, investors should avoid broad commodity exposure for now.

Commodities

Neutral

Precious metals Thanks to the unlimited quantitative easing (QE) program announced by the Federal Reserve in late March, gold has rebounded sharply. Real assets like gold should continue to benefit from the aggressive monetary stimulus of key central banks across the globe. We continue to see gold as a valuable insurance asset in a portfolio context and expect the price of the yellow metal to rise to USD 1,800 over the coming few months. Our base case is still that economic growth will recover in 2H, but a more aggressive monetary response to support the global economy could push gold into the USD 1,900–2,000/oz risk-case range.

GOLD (current: USD 1717/oz)	December 2020 target
House view	**USD 1800/oz**
↗ Positive scenario	USD 1900-2000/oz
↘ Negative scenario	USD 1400-1500/oz

Crude oil OPEC and its allies (OPEC+) agreed to staggered production cuts: 9.7mbpd from May–June, 7.7mbpd from July–December, and 5.8mbpd from January 2021–April 2022. The 9.7mbpd OPEC+ cut is huge, but the real problem remains: cratering oil demand—down 20mbpd y/y this quarter, in our view. With OPEC+ cuts scheduled to be implemented from May onward, oil inventories will continue to soar over the coming weeks. To prevent inventories reaching capacity limits, lower prices are needed to trigger further production shut-ins in North and South America. Hence, we see Brent falling to USD 20/bbl or lower this quarter.

BRENT (current: USD 27.7/bbl)	December 2020 target
House view	**USD 43/bbl**
↗ Positive scenario	USD 60/bbl
↘ Negative scenario	USD 20-30/bbl

Base metals Base metal prices are trading in 10–50% into the cost curve. Such levels are not sustainable in the long run, but given the contraction in global GDP during 2Q and weak metal demand, lower prices can be expected. As surpluses build up, inventory increase across the complex should become visible, particularly at exchanges. Such levels offer investors the opportunity to pick up some broad metal exposure.

Agriculture Panic buying caused prices of wheat, rice, and coffee to rise in March, while foods more related to discretionary consumption (e.g., cocoa and cotton) and those with a higher correlation to oil prices (e.g., sugar and corn) languished. Livestock prices also fell sharply due to disruptions in global supply chains and elevated US herd numbers. These concerns about supply chains have been amplified by disruptions in key Argentinean and Brazilian ports, as well as news reports that export restrictions on key grains are being considered in Black Sea countries and Vietnam. Risk premiums might push up local food prices, but unlike previous events, global supplies are plentiful across staples like grains, dairy, and oilseeds.

Other asset classes

Listed real estate We see earnings growth at 4% for 2019–20 and 6.4% for 2020–21 (excluding emerging markets) driven by portfolio reshuffling, repositioning, extensions, and development projects. Retail landlords need to deleverage. Some companies' risk spreads will expand amid a sharper cyclical deceleration. Tenant quality is key. Physical transaction volumes and take-up demand are falling. The support that ample liquidity provides to values is receding but resulting in divergences. The downturn in capital value growth rates that began in 2015 is accelerating. We expect cap-rate expansions with the exception of some niches. Vacancies are edging up amid new supply and tenant defaults.

RUGL Index (current: USD 4337)	December 2020 target
House view	**USD 4500**
↗ Positive scenario	USD 5000
↘ Negative scenario	USD 4000

Note: Current values as of 15 April 2020.

Foreign exchange

Thomas Flury, Strategist

In our FX strategy we maintain an overweight to the British pound versus the US dollar. We close our overweight on a basket of high-yielding emerging market currencies versus risk-sensitive currencies.

USD

Underweight

The Fed has opened new facilities that supply the liquidity demanded for USD transactions in tumbling markets. This has calmed down foreign exchange markets considerably, and we expect volatility to stay low. With the funding stress out of the system, we expect the appreciation pressure on the USD to ease.

EUR

Neutral

We expect EURUSD to trade sideways in a broad 1.10–1.15 range for the coming few months. Our forecast remains at 1.13 for the end of June. The easy Fed policy stance will put the USD in a less-exclusive role, and higher volatility will prevent investors from engaging in short-euro carry trades. We also leave the year-end forecast at 1.19 under the assumption that the global economy will rebound in 2H20 and the Fed will nevertheless not hike rates until the end of 4Q21.

GBP

Overweight

The cable had a drastic repricing as investors unwound risk positions and pro-growth trades. We still think the pound is quite attractive and expect a rebound as soon as the health situation stabilizes globally and international trade rebounds.

UBS CIO FX forecasts

	Jun 20	Sep 20	Dec 20	Mar 21	*PPP
EURUSD	1.13	1.17	1.19	1.19	1.27
EURCHF	1.04	1.08	1.10	1.10	1.18
USDCHF	0.92	0.92	0.92	0.92	0.93
GBPUSD	1.33	1.38	1.40	1.40	1.54
EURGBP	0.85	0.85	0.85	0.85	0.82
GBPCHF	1.22	1.27	1.29	1.29	1.44
USDJPY	100	102	104	104	76
EURJPY	113	119	124	124	96
USDCAD	1.40	1.38	1.35	1.33	1.22
AUDUSD	0.61	0.61	0.65	0.67	0.65
NZDUSD	0.58	0.58	0.62	0.64	0.56
EURSEK	10.90	10.90	10.80	10.80	9.86
EURNOK	11.20	10.80	10.60	10.60	10.70

Source: UBS, as of 16 April 2020.
Note: Past performance is not an indication of future returns.
*PPP = Purchasing Power Parity

CHF

Neutral

We forecast USDCHF to fall to a 0.90–0.95 trading range by the end of June and stay there for the remaining forecast horizon. The Fed has cut rates to ease market uncertainties and is likely to keep rates at low levels for a prolonged period. Lower yield spreads and higher volatility has put USDCHF under pressure. The Swiss National Bank will try to prevent heavy appreciation, but is probably unable to weaken the CHF from here.

JPY

Neutral

We keep our USDJPY forecasts at 100, 102, 104, and 104 for end-June 2020, September 2020, December 2020, and March 2021, respectively. The Fed has now cut policy rates to near zero. The Bank of Japan is trying to do as little as possible. This should bring the USDJPY down to 100 in the near term. In a risk-case scenario of escalating global risk aversion, a fall below 100 cannot be ruled out.

Other developed market currencies

Neutral

We close the carry basket that held long positions in the Indian rupee (INR), Indonesian rupiah (IDR), and Brazilian real (BRL) versus short positions in the Australian dollar (AUD), Taiwan dollar (TWD), and Swedish krona (SEK). We constructed this basket to be long and short currencies that move in line with equity markets. This has protected the position even as equity markets started to tumble. The spread of the coronavirus, however, is affecting different markets in different ways, and the varying capabilities of their health systems and policymakers to cope with the virus—and its effect on their economies—create the risk that the long currencies will underperform the short currencies.

Key forecasts

- Overweight
- Neutral
- Underweight

Asset class	TAA (6–12 months)	Change this month	Benchmark	Value	m/m perf. in % [1]	Forecast (Dec 2020)		
						House View	Positive scenario	Negative scenario
EQUITIES	Neutral	–						
US	Neutral	–	S&P 500	2783	15.5%	2750	3150	2100
Eurozone	Neutral	–	Euro Stoxx	306	13.8%	290	360	210
UK	Neutral	–	FTSE 100	5598	8.7%	5500	6700	4000
Japan	Neutral	–	Topix	1434	11.8%	1400	1600	1000
Switzerland	Neutral	–	SMI	9320	6.1%	9000	10000	700
Emerging Markets	Neutral	–	MSCI EM	888	15.9%	900	1050	600
BONDS	Neutral	–						
US Government bonds	Underweight	–	10yr Treasury yield	0.63%	3.5%	0.95%	0.3%	1.5%
US Corporate bonds (IG)	Neutral	–	ICE BofA IG spread	238	10.9%	180 bps	150 bps	350-450 bps
US High-yield bonds	Overweight	–	ICE BofA US HY spread	764	11.5%	550 bps	350 bps	1,000-1,500 bps
EM Sovereign	Overweight	–	EMBI Diversified spread	608	6.7%	450 bps	280 bps	700 bps
EM Corporate	Neutral	–	CEMBI Diversified spread	532	4.3%	400 bps	280 bps	750 bps
OTHER ASSET CLASSES								
Gold	Neutral	–	Spot price	1717 /oz.	16.7%	1800	1900-2000	1400-1500
Brent crude oil	Neutral	–	Spot price	27.69 /bbl.	-2.7%	43	60	20-30
Listed real estate	Neutral	–	RUGL Index	4337	19.6%	4500	5000	4000
CURRENCIES			Currency pair					
USD	Underweight	–	USD	NA	NA	NA	NA	NA
EUR	Neutral	–	EURUSD	1.09	2.0%	1.19	NA	NA
GBP*	Overweight	–	GBPUSD	1.25	9.0%	1.40	NA	NA
JPY*	Neutral	–	USDJPY	107	-2.9%	104	NA	NA
CHF	Neutral	–	USDCHF	0.96	-2.2%	0.92	NA	NA

Source: Bloomberg, UBS. Current values as of 15 April. Currency values as of 16 April.
* We continue to recommend that investors hold UK and Japanese equities on an unhedged basis, as GBP and JPY offer long-term appreciation potential against the US dollar.
[1] Month over month.
Past performance is no indication of future performance. Forecasts are not a reliable indicator of future performance.

US equity sector allocation

in %

	S&P 500 Benchmark allocation[1]	**CIO GWM tactical deviation**[2]				**Current allocation**[3]
		Numeric		Symbol		
		Previous	Current	Previous	Current	
Communication Services	10.7	+1.0	+1.0	+	+	11.7
Consumer Discretionary	10.2	+0.0	+0.0	n	n	10.2
Consumer Staples	7.9	+0.0	+0.0	n	n	7.9
Energy	2.7	+0.0	+0.0	n	n	2.7
Financials	10.6	+0.0	+0.0	n	n	10.6
Healthcare	15.5	+0.0	+1.0	n	+	16.5
Industrials	7.8	+0.0	+0.0	n	n	7.8
Information Technology	25.7	–1.0	–1.0	–	–	24.7
Materials	2.5	+0.0	–1.0	n	–	1.5
Real Estate	3.0	+0.0	+0.0	n	n	3.0
Utilities	3.5	+0.0	+0.0	n	n	3.5

Source: UBS, as of 15 April 2020.

For US equity sub-sector recommendations please see the “Equity Preference List” for each sector. These reports are published on a monthly basis and can be found on the Online Services website in the Research > Equities section.
The benchmark allocation, as well as the tactical deviations, are intended to be applicable to the US equity portion of a portfolio across investor risk profiles.
[1] The benchmark allocation is based on S&P 500 weights.
[2] See "Deviations from strategic asset allocation" in the Appendix of UBS House View for an explanation regarding the interpretation of the suggested tactical deviations from the benchmark. The “current” column refers to the tactical deviation that applies as of the date of this publication. The “previous” column refers to the tactical deviation that was in place at the date of the previous edition of UBS House View or the last UBS House View Update.
[3] The sum of the S&P 500 benchmark allocation and CIO GWM tactical deviation columns.

Full detailed asset allocation tables
View our full set of asset allocation tables for guidance on positioning across different investor types, portfolio strategies, and risk tolerances.

Index information

Underlying indices for Strategic Asset Allocations

US Cash (Barclays Capital US Treasury – Bills [1–3 M])
US Large-Cap Growth (Russell 1000 Growth)
US Large-Cap Value (Russell 1000 Value)
US Mid-Cap (Russell Mid Cap)
US Small-Cap (Russell 2000)
International Dev. Equities (MSCI EAFE)
Emerging Markets Equities (MSCI EMF)
US Government Fixed Income (Bloomberg Barclays US Agg Government)
US Municipal Fixed Income (Bloomberg Barclays Municipal Bond)
US Investment-Grade Fixed Income (Bloomberg Barclays US Agg Credit)
US Corporate High-Yield Fixed Income (Bloomberg Barclays US Agg Corp HY)
International Dev. Fixed Income (Bloomberg Barclays Global Agg xUS)
Emerging Markets Fixed Income (50% Bloomberg Barclays EM Gov and 50% BarCap Global EM (USD))
Commodities (Dow Jones-UBS Commodity Index)

Note: For additional information on indices, portfolio analytics, and performance, please see our stand-alone asset allocation report.

Investment committee

Global Investment Process and Committee description
The UBS investment process is designed to achieve replicable, high-quality results through applying intellectual rigor, strong process governance, clear responsibility, and a culture of challenge.

Based on the analyses and assessments conducted and vetted throughout the investment process, the Chief Investment Officer (CIO) formulates the UBS Wealth Management Investment House View (e.g., overweight, neutral, underweight stances for asset classes and market segments relative to their benchmark allocation) at the Global Investment Committee (GIC). Senior investment professionals from across UBS, complemented by selected external experts, debate and rigorously challenge the investment strategy to ensure consistency and risk control.

Global Investment Committee composition
The GIC comprises top market and investment expertise from across all divisions of UBS:

- Mark Haefele (Chair)
- Paul Donovan
- Jorge Mariscal
- Mike Ryan
- Simon Smiles
- Tan Min Lan
- Themis Themistocleous
- Bruno Marxer (*)
- Andreas Koester

WMA Asset Allocation Committee description
We recognize that a globally derived house view is most effective when complemented by local perspective and application. As such, UBS has formed a Wealth Management Americas Asset Allocation Committee (WMA AAC). WMA AAC is responsible for the development and monitoring of UBS WMA's strategic asset allocation models and capital market assumptions. The WMA AAC sets parameters for the CIO Americas, WM Investment Strategy Group to follow during the translation process of the GIC's House Views and the incorporation of US-specific asset class views into the US-specific tactical asset allocation models.

WMA Asset Allocation Committee composition
The WMA Asset Allocation Committee comprises 10 members:

- Mike Ryan
- Solita Marcelli
- Michael Crook
- Brian Rose
- Jeremy Zirin
- Jason Draho
- Tom McLoughlin
- Leslie Falconio
- Laura Kane
- David Lefkowitz

(*) Business area distinct from Chief Investment Office Americas, Wealth Management

Cautionary statement regarding forward-looking statements

This report contains statements that constitute "forward-looking statements," including but not limited to statements relating to the current and expected state of the securities market and capital market assumptions. While these forward-looking statements represent our judgments and future expectations concerning the matters discussed in this document, a number of risks, uncertainties, changes in the market, and other important factors could cause actual developments and results to differ materially from our expectations. These factors include, but are not limited to (1) the extent and nature of future developments in the US market and in other market segments; (2) other market and macro-economic developments, including movements in local and international securities markets, credit spreads, currency exchange rates and interest rates, whether or not arising directly or indirectly from the current market crisis; (3) the impact of these developments on other markets and asset classes. UBS is not under any obligation to (and expressly disclaims any such obligation to) update or alter its forward-looking statements whether as a result of new information, future events, or otherwise.

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Explanations about asset classes

Sources of strategic asset allocations and investor risk profiles
Strategic asset allocations represent the longer-term allocation of assets that is deemed suitable for a particular investor. The strategic asset allocation models discussed in this publication, and the capital market assumptions used for the strategic asset allocations, were developed and approved by the Global Wealth Management Americas Asset Allocation Committee (GWMA AAC).

The strategic asset allocations are provided for illustrative purposes only and were designed by the GWMA AAC for hypothetical US investors with a total return objective under five different Investor Risk Profiles ranging from conservative to aggressive. In general, strategic asset allocations will differ among investors according to their individual circumstances, risk tolerance, return objectives and time horizon. Therefore, the strategic asset allocations in this publication may not be suitable for all investors or investment goals and should not be used as the sole basis of any investment decision. Minimum net worth requirements may apply to allocations to non-traditional assets. As always, please consult your UBS Financial Advisor to see how these weightings should be applied or modified according to your individual profile and investment goals.

The process by which the strategic asset allocations were derived is described in detail in the publication entitled "2019 Capital Market Assumptions Update," published on 4 February 2019 by the GWMA AAC. Your Financial Advisor can provide you with a copy.

Deviations from strategic asset allocation or benchmark allocation
The recommended tactical deviations from the strategic asset allocation or benchmark allocation are provided by the Global Investment Committee and the Investment Strategy Group within CIO Americas, Wealth Management. They reflect the short- to medium-term assessment of market opportunities and risks in the respective asset classes and market segments. Positive/zero/negative tactical deviations correspond to an overweight/neutral/underweight stance for each respective asset class and market segment relative to their strategic allocation. The current allocation is the sum of the strategic asset allocation and the tactical deviation.

Note that the regional allocations on the Equities and Bonds pages in UBS House View are provided on an unhedged basis (i.e., it is assumed that investors carry the underlying currency risk of such investments) unless otherwise stated. Thus, the deviations from the strategic asset allocation reflect the views of the underlying equity and bond markets in combination with the assessment of the associated currencies. The detailed asset allocation tables integrate the country preferences within each asset class with the asset class preferences in UBS House View.

Asset allocation does not assure profits or prevent against losses from an investment portfolio or accounts in a declining market.

Scale for tactical deviation charts

Symbol	Description/Definition	Symbol	Description/Definition	Symbol	Description/Definition
+	moderate overweight vs. benchmark	–	moderate underweight vs. benchmark	n	neutral, i.e., on benchmark
++	overweight vs. benchmark	– –	underweight vs. benchmark	n/a	not applicable
+++	strong overweight vs. benchmark	– – –	strong underweight vs. benchmark		

Source: UBS.

Statement of risk

Equities - Stock market returns are difficult to forecast because of fluctuations in the economy, investor psychology, geopolitical conditions and other important variables.

Fixed income - Bond market returns are difficult to forecast because of fluctuations in the economy, investor psychology, geopolitical conditions and other important variables. Corporate bonds are subject to a number of risks, including credit risk, interest rate risk, liquidity risk, and event risk. Though historical default rates are low on investment grade corporate bonds, perceived adverse changes in the credit quality of an issuer may negatively affect the market value of securities. As interest rates rise, the value of a fixed coupon security will likely decline. Bonds are subject to market value fluctuations, given changes in the level of risk-free interest rates. Not all bonds can be sold quickly or easily on the open market. Prospective investors should consult their tax advisors concerning the federal, state, local, and non-U.S. tax consequences of owning any securities referenced in this report.

Preferred securities - Prospective investors should consult their tax advisors concerning the federal, state, local, and non-U.S. tax consequences of owning preferred stocks. Preferred stocks are subject to market value fluctuations, given changes in the level of interest rates. For example, if interest rates rise, the value of these securities could decline. If preferred stocks are sold prior to maturity, price and yield may vary. Adverse changes in the credit quality of the issuer may negatively affect the market value of the securities. Most preferred securities may be redeemed at par after five years. If this occurs, holders of the securities may be faced with a reinvestment decision at lower future rates. Preferred stocks are also subject to other risks, including illiquidity and certain special redemption provisions.

Municipal bonds - Although historical default rates are very low, all municipal bonds carry credit risk, with the degree of risk largely following the particular bond's sector. Additionally, all municipal bonds feature valuation, return, and liquidity risk. Valuation tends to follow internal and external factors, including the level of interest rates, bond ratings, supply factors, and media reporting. These can be difficult or impossible to project accurately. Also, most municipal bonds are callable and/or subject to earlier than expected redemption, which can reduce an investor's total return. Because of the large number of municipal issuers and credit structures, not all bonds can be easily or quickly sold on the open market.

Appendix

Emerging Market Investments
Investors should be aware that Emerging Market assets are subject to, among others, potential risks linked to currency volatility, abrupt changes in the cost of capital and the economic growth outlook, as well as regulatory and socio-political risk, interest rate risk and higher credit risk. Assets can sometimes be very illiquid and liquidity conditions can abruptly worsen. CIO Americas, WM generally recommends only those securities it believes have been registered under Federal US registration rules (Section 12 of the Securities Exchange Act of 1934) and individual State registration rules (commonly known as "Blue Sky" laws). Prospective investors should be aware that to the extent permitted under US law, CIO Americas, WM may from time to time recommend bonds that are not registered under US or State securities laws. These bonds may be issued in jurisdictions where the level of required disclosures to be made by issuers is not as frequent or complete as that required by US laws.

For more background on emerging markets generally, see the CIO Americas, WM Education Notes "Investing in Emerging Markets (Part 1): Equities," 27 August 2007, "Emerging Market Bonds: Understanding Emerging Market Bonds," 12 August 2009 and "Emerging Markets Bonds: Understanding Sovereign Risk," 17 December 2009.

Investors interested in holding bonds for a longer period are advised to select the bonds of those sovereigns with the highest credit ratings (in the investment-grade band). Such an approach should decrease the risk that an investor could end up holding bonds on which the sovereign has defaulted. Subinvestment-grade bonds are recommended only for clients with a higher risk tolerance and who seek to hold higher-yielding bonds for shorter periods only.

Nontraditional Assets
Nontraditional asset classes are alternative investments that include hedge funds, private equity, real estate, and managed futures (collectively, alternative investments). Interests of alternative investment funds are sold only to qualified investors, and only by means of offering documents that include information about the risks, performance and expenses of alternative investment funds, and which clients are urged to read carefully before subscribing and retain. An investment in an alternative investment fund is speculative and involves significant risks. Specifically, these investments (1) are not mutual funds and are not subject to the same regulatory requirements as mutual funds; (2) may have performance that is volatile, and investors may lose all or a substantial amount of their investment; (3) may engage in leverage and other speculative investment practices that may increase the risk of investment loss; (4) are long-term, illiquid investments; there is generally no secondary market for the interests of a fund, and none is expected to develop; (5) interests of alternative investment funds typically will be illiquid and subject to restrictions on transfer; (6) may not be required to provide periodic pricing or valuation information to investors; (7) generally involve complex tax strategies and there may be delays in distributing tax information to investors; (8) are subject to high fees, including management fees and other fees and expenses, all of which will reduce profits.

Interests in alternative investment funds are not deposits or obligations of, or guaranteed or endorsed by, any bank or other insured depository institution, and are not federally insured by the Federal Deposit Insurance Corporation, the Federal Reserve Board, or any other governmental agency. Prospective investors should understand these risks and have the financial ability and willingness to accept them for an extended period of time before making an investment in an alternative investment fund, and should consider an alternative investment fund as a supplement to an overall investment program.

In addition to the risks that apply to alternative investments generally, the following are additional risks related to an investment in these strategies:

Hedge Fund Risk: There are risks specifically associated with investing in hedge funds, which may include risks associated with investing in short sales, options, small-cap stocks, "junk bonds," derivatives, distressed securities, non-US securities and illiquid investments.

Managed Futures: There are risks specifically associated with investing in managed futures programs. For example, not all managers focus on all strategies at all times, and managed futures strategies may have material directional elements.

Real Estate: There are risks specifically associated with investing in real estate products and real estate investment trusts. They involve risks associated with debt, adverse changes in general economic or local market conditions, changes in governmental, tax, real estate and zoning laws or regulations, risks associated with capital calls and, for some real estate products, the risks associated with the ability to qualify for favorable treatment under the federal tax laws.

Private Equity: There are risks specifically associated with investing in private equity. Capital calls can be made on short notice, and the failure to meet capital calls can result in significant adverse consequences including, but not limited to, a total loss of investment.

Foreign Exchange/Currency Risk: Investors in securities of issuers located outside of the United States should be aware that even for securities denominated in US dollars, changes in the exchange rate between the US dollar and the issuer's "home" currency can have unexpected effects on the market value and liquidity of those securities. Those securities may also be affected by other risks (such as political, economic or regulatory changes) that may not be readily known to a US investor.

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