



Falling Rates and Implications for Illinois Community Colleges

ICCCFO Conference Fall 2019

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Agenda

- ◆ Market Update
- ◆ Portfolio Strategies
- ◆ Other Investment Considerations



Where Are We In The Business Cycle?

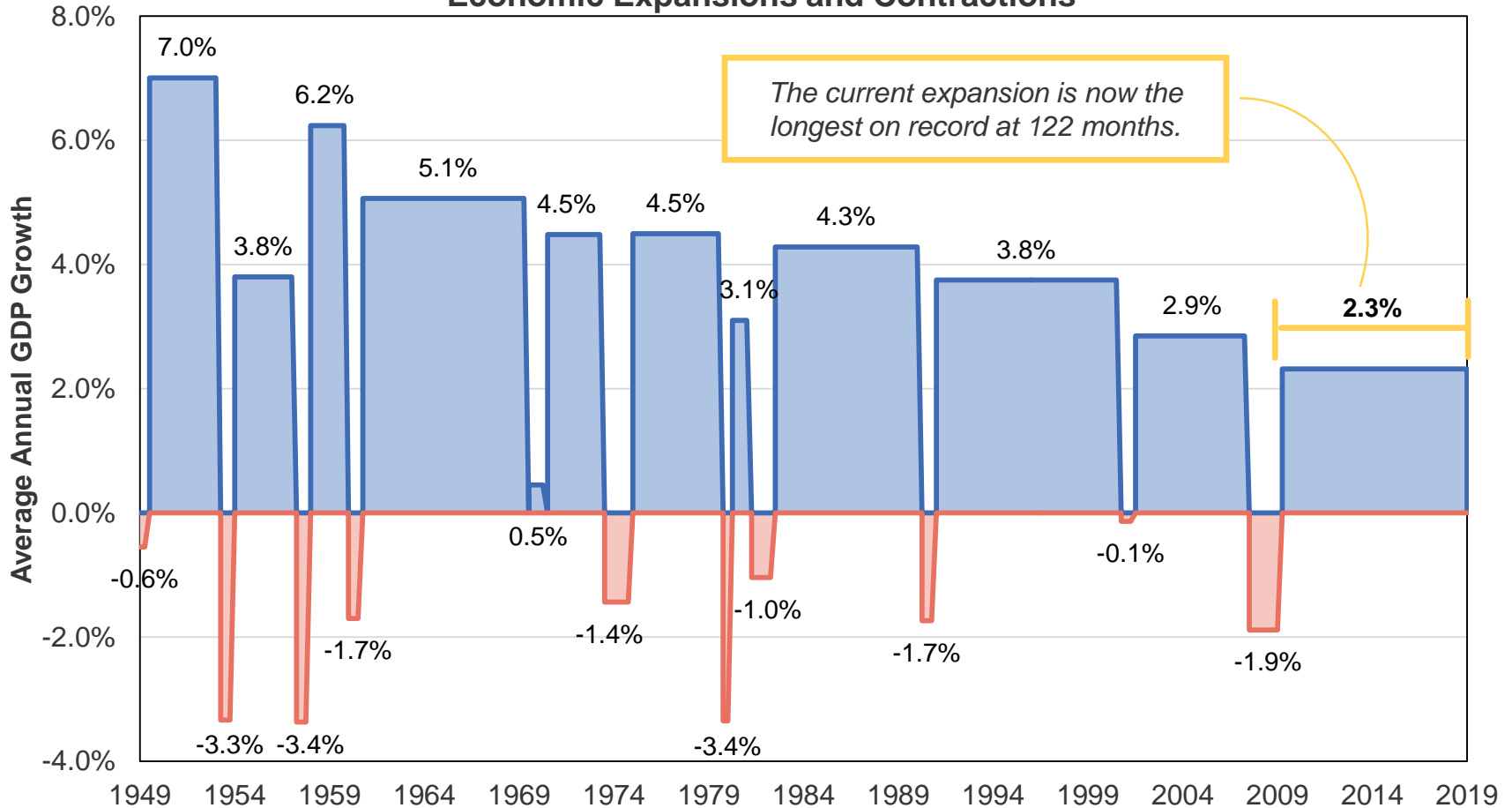


Source: <https://www.thebalance.com/what-is-the-business-cycle-3305912>



Current U.S. Expansion Is Long, But Moderate

Average Annual Growth in Real GDP During U.S. Economic Expansions and Contractions

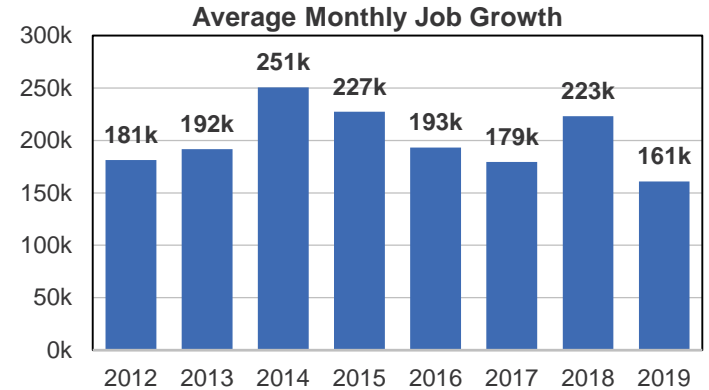
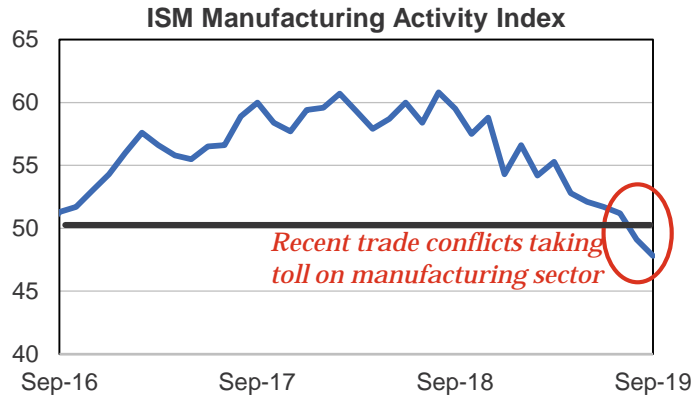


Source: Bloomberg, as of June 30, 2019.

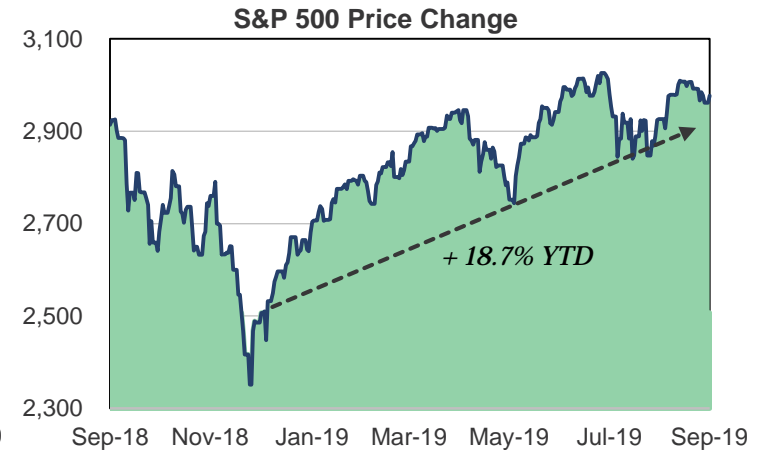
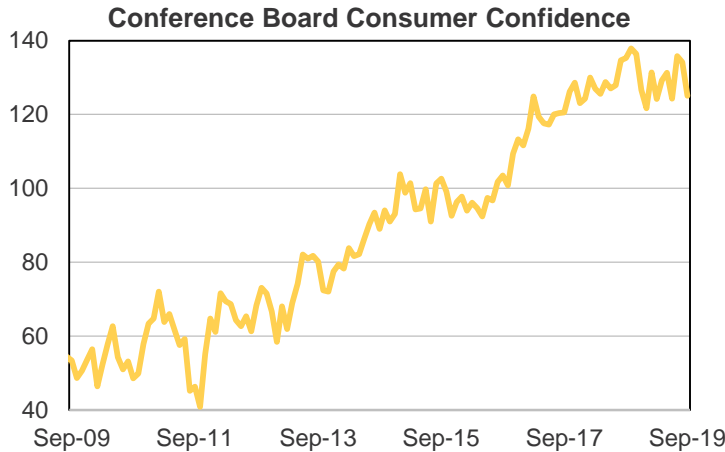


Market Indicators Mixed, But Recession Does Not Appear Imminent

Recession fears growing as manufacturing slows and job growth moderates...



...but consumers remain confident and financial markets seem optimistic

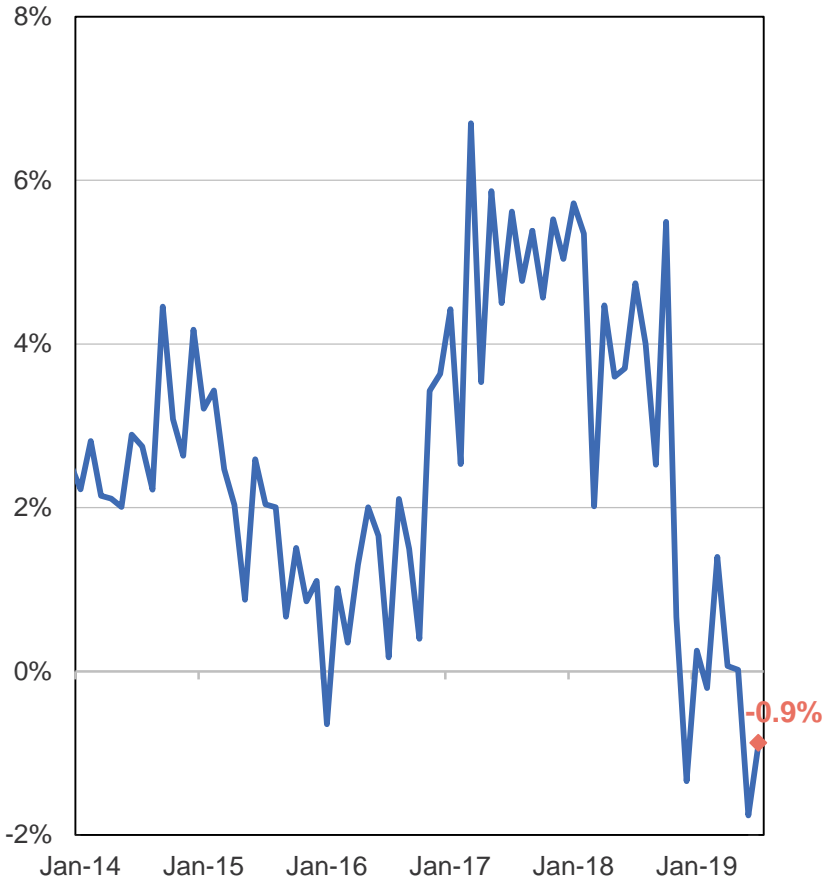


Source: Bloomberg, data available as of 9/30/19.

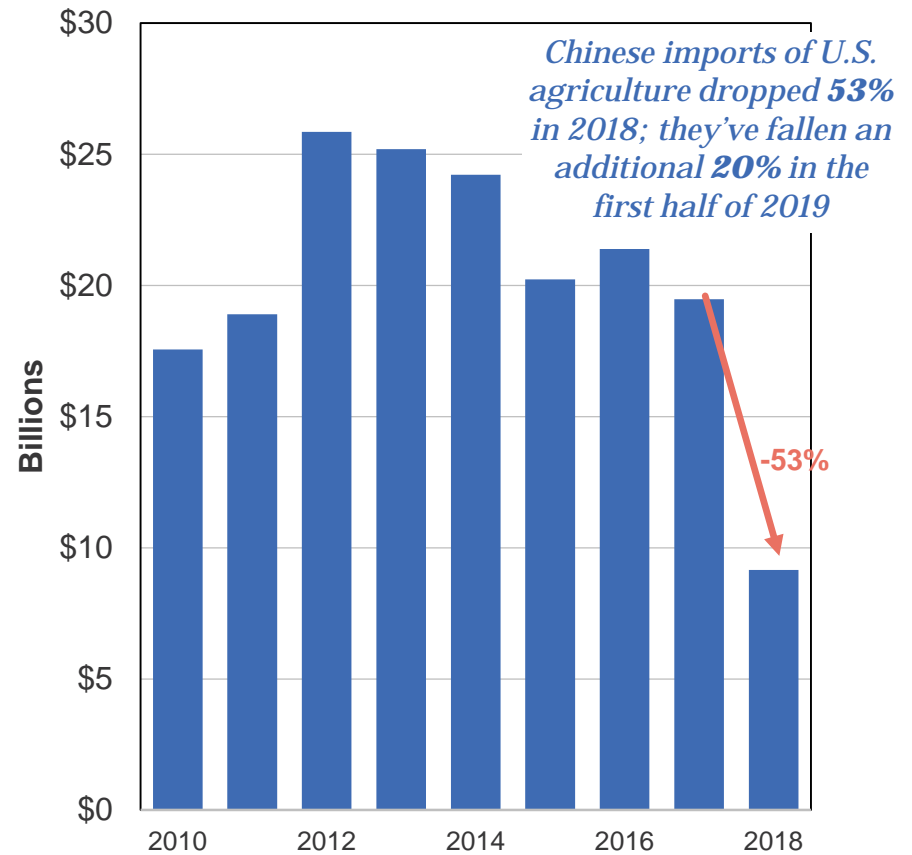


Tariffs Take a Toll on Global Trade Volume, Especially U.S. Agriculture

Global Trade Volume YoY



U.S. Agricultural Exports to China



Source: CPB (left); Wall Street Journal & USDA Foreign Agricultural Service (right).



The OECD Follows World Bank and IMF in Lowering Growth Projections

- The world growth outlook was cut to **2.9%** for 2019, down from the **3.2%** projection from 4 months ago
- This growth rate is the slowest pace since the global financial crisis

“The global economy has become increasingly fragile and uncertain, with growth slowing and downside risks continuing to mount.”

-OECD, 9/19/19

OECD GDP Growth Projections
September 2019

Region	2019	2020
World	2.9% ↓	3.0% ↓
U.S.	2.4% ↓	2.0% ↓
China	6.1% ↓	5.7% ↓
United Kingdom	1.0% ↓	0.9% ↓
Euro Area	1.1% ↓	1.0% ↓
Germany	0.5% ↓	0.6% ↓
France	1.3%	1.2% ↓
Italy	0.0%	0.4% ↓
Japan	1.0% ↑	0.6%
Canada	1.5% ↑	1.6% ↓

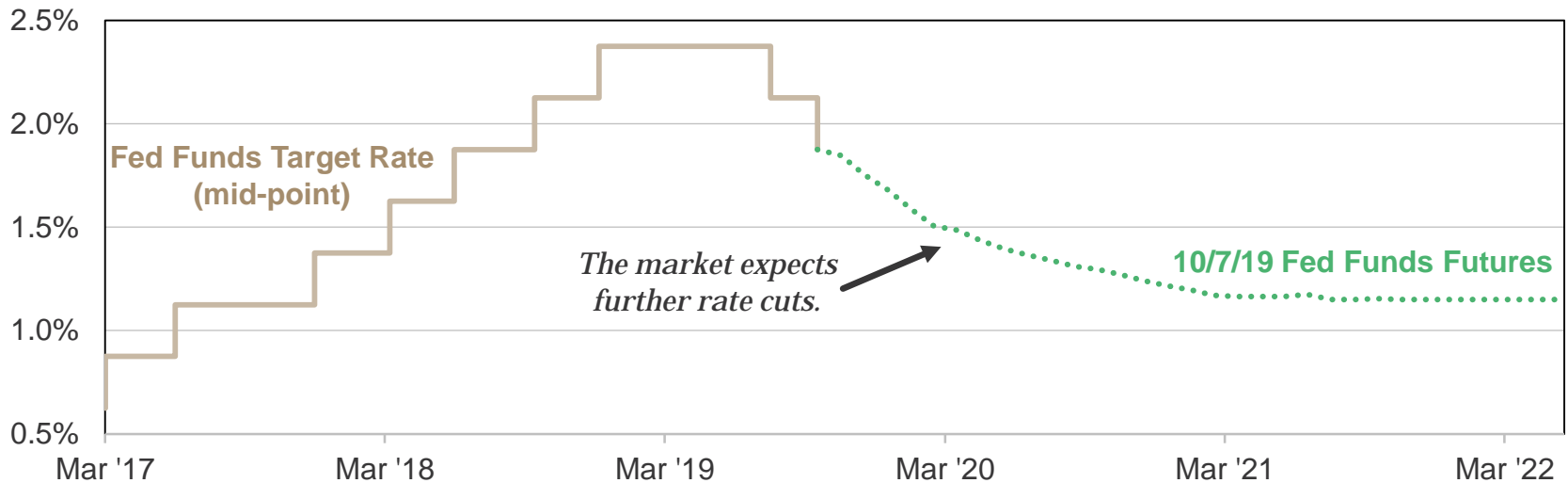
Source: The Organisation for Economic Co-operation and Development. Arrows indicate change from prior projection.



The Federal Reserve Cut Rates in July and September



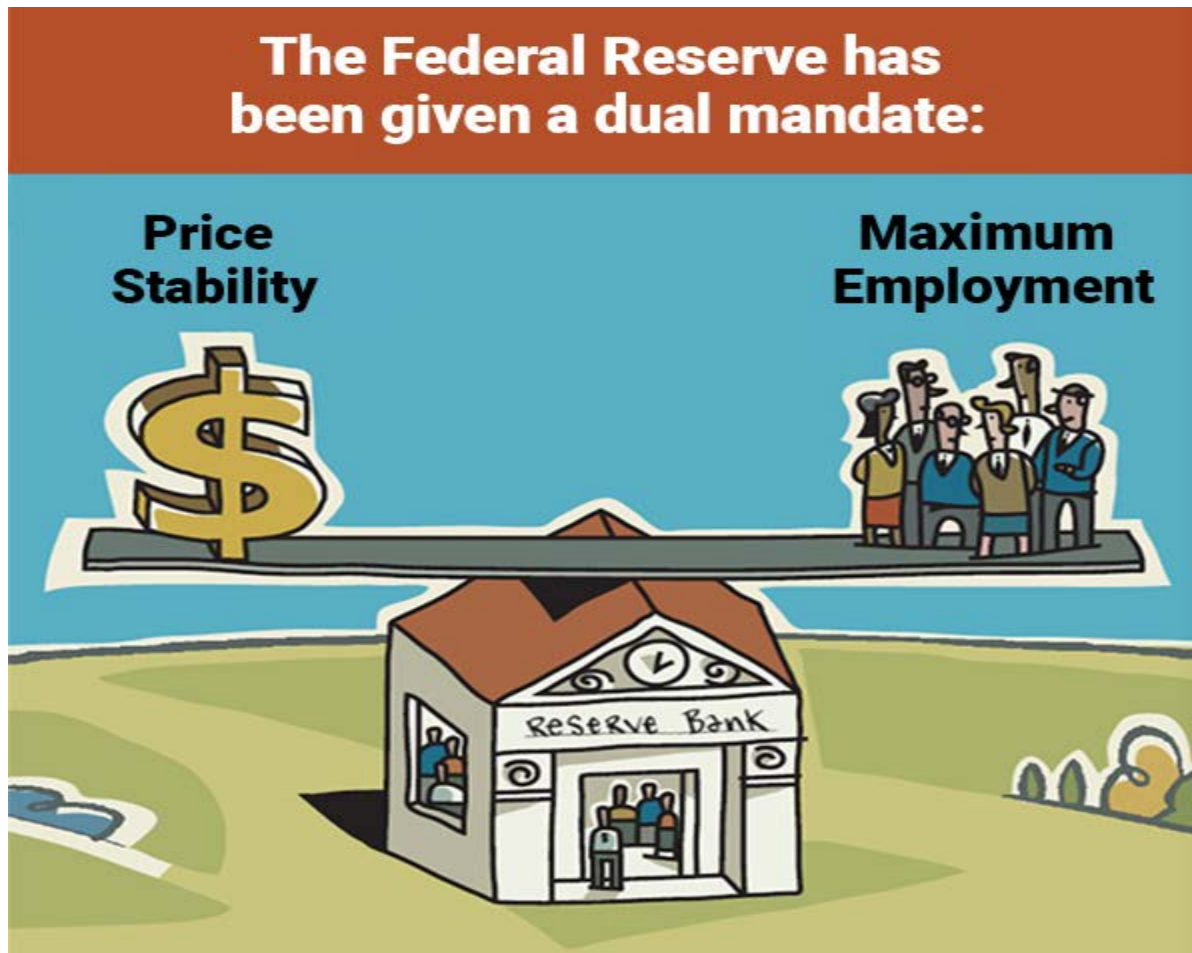
The Fed cited “...weak global growth ...trade policy uncertainty ...and muted inflation...”



Source: Federal Reserve and Bloomberg.

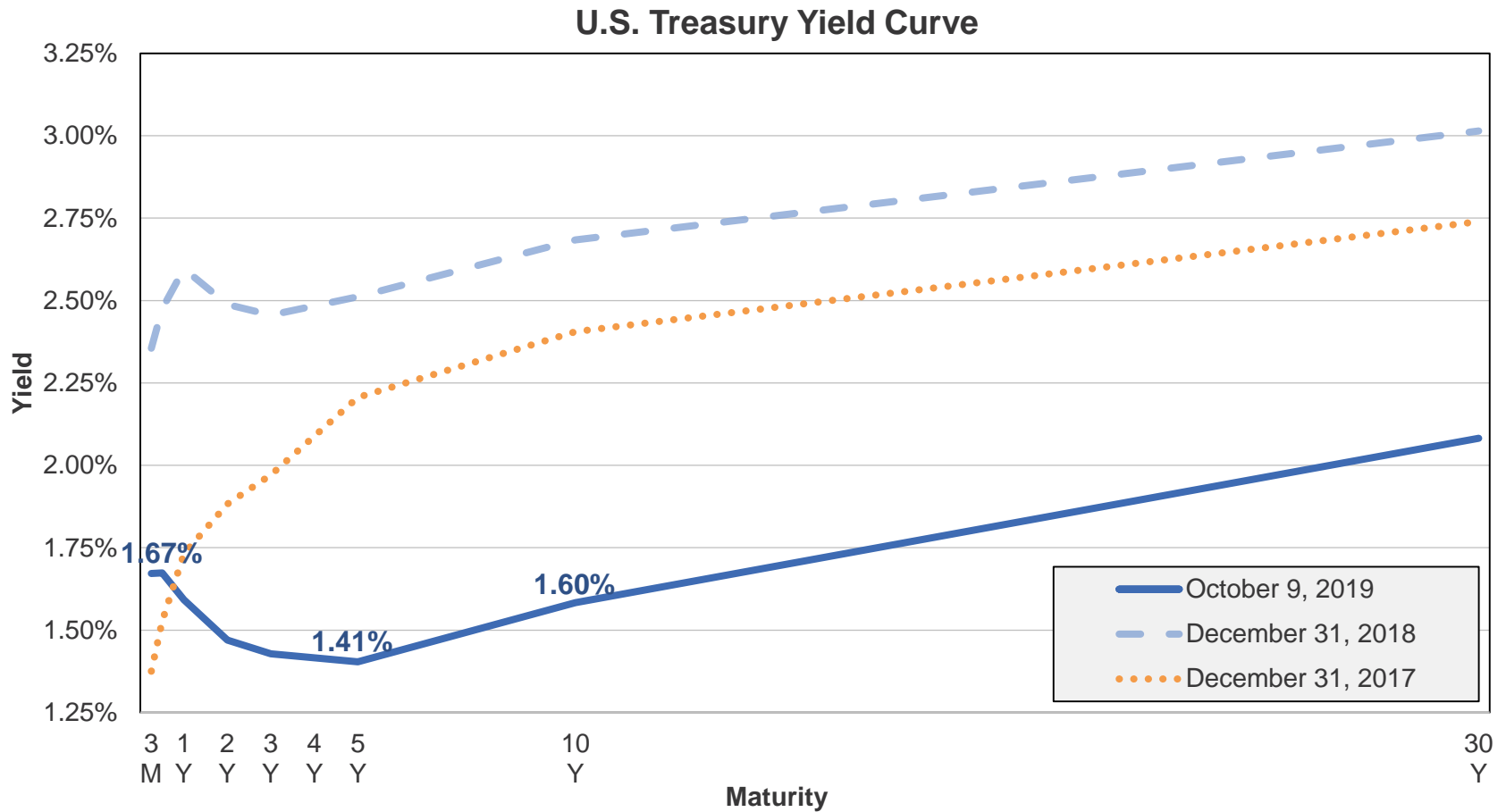


The Fed's Dual Mandate





U.S. Treasury Yield Curve Remains Inverted



Source: Bloomberg, as of 10/9/2019.



Treasury Yields Continue to Fall

2-Year Treasury



10-Year Treasury



Source: Bloomberg, as of 10/9/2019.



Implied Forward Treasury Rates Show Little Expected Change

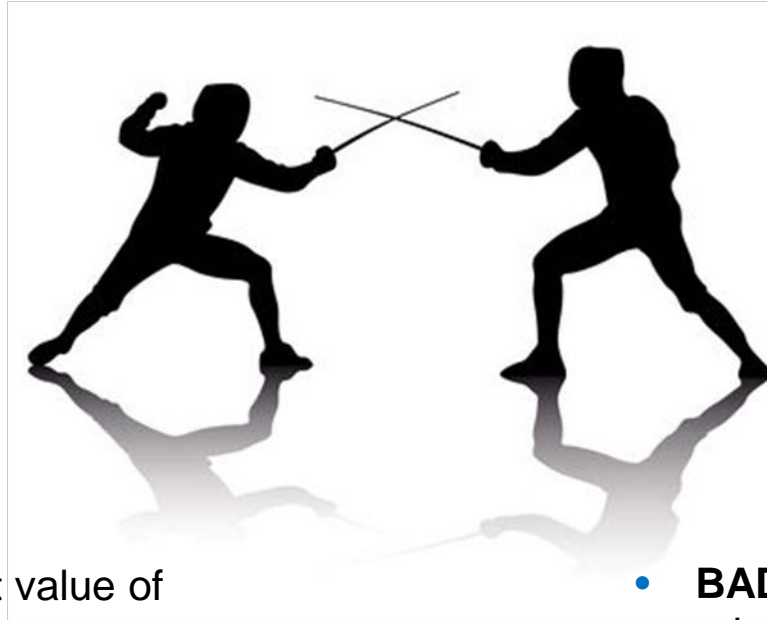
Maturity	Current Yield	1-year Forward	2-year Forward	3-year Forward	5-year Forward
1 year	1.60%	1.34%	1.35%	1.36%	1.74%
2 year	1.47%	1.35%	1.36%	1.37%	1.74%
3 year	1.43%	1.35%	1.36%	1.49%	1.76%
5 year	1.41%	1.43%	1.51%	1.60%	1.80%
7 year	1.50%	1.53%	1.59%	1.67%	1.97%
10 year	1.60%	1.67%	1.78%	1.88%	2.10%
30 year	2.09%	2.12%	2.16%	2.20%	2.29%

Source: Bloomberg, as of 10/9/2019.





Falling Interest Rates: Good vs. Evil



- **GOOD NEWS:** market value of portfolio rises
 - Reporting unrealized gains
 - Potentially taking realized gains
 - Positive periods of total return

- **BAD NEWS:** Lower investment and reinvestment yields:
 - Decreased investment income
 - Continued inversion of the Treasury yield curve



Taking the Long View



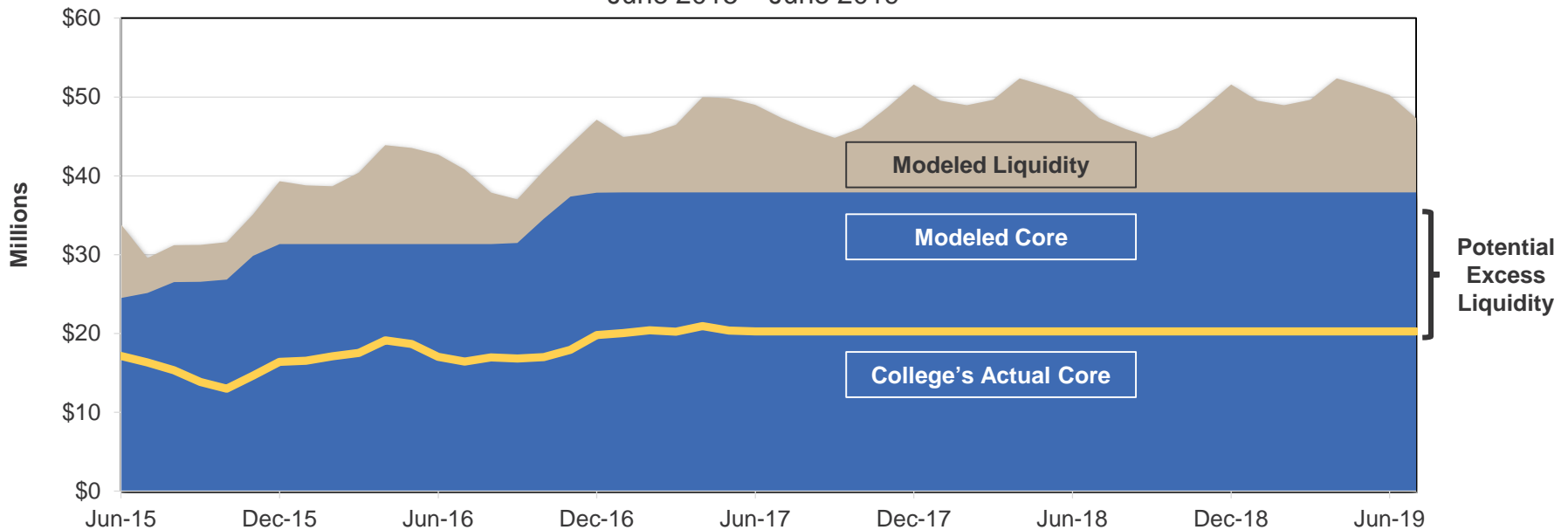
*“My short-term financial goal is to survive until Tuesday.
My long-term financial goal is to survive until Friday.”*



Cash Flow Analysis

- Using month-end balance information, a simple cash flow model can project future cash balances and seasonality, which are valuable inputs in determining the appropriate allocation between liquidity and “core” portfolio components
 - **Liquidity Portfolio:** short-term money market instruments; used to meet cash needs in the near future
 - **“Core” Portfolio:** longer-term securities; used to invest in higher-yielding securities and improve investment performance

Sample College
Historical and Projected Balances
June 2015 – June 2019



Assumes an additional 15% liquidity cushion.



Diversification: There Is No Substitute

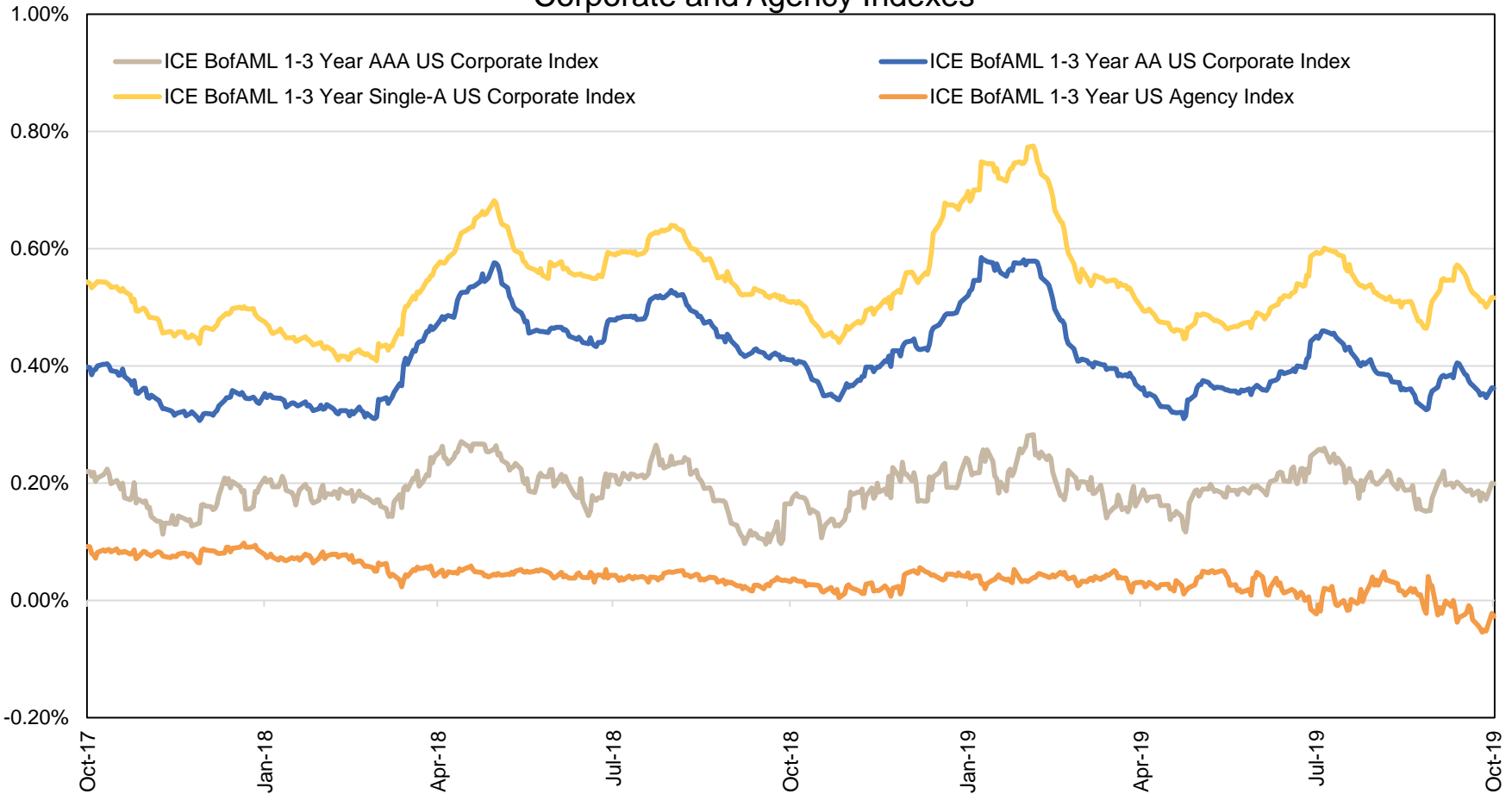
- ◆ Define general universe
- ◆ Bound by the Illinois Public Funds Investment Act (30 ILCS 235)
- ◆ Set diversification limits
 - Term
 - Sector
 - Credit Quality
- ◆ Restrictive clauses

Investment Type	Allowed?
U.S. Treasuries	✓
Federal Agencies	✓
Agency Mortgage-Backed Securities	✓
Government Money Market Funds	✓
Repurchase Agreements	✓
FDIC-Insured Certificates of Deposit	✓
Negotiable Certificates of Deposit	✓
Municipal Bonds	✓
Commercial Paper	✓
Local Government Investment Pools	✓
Corporate Notes	✓
Short-Term Corporate Bond Funds	✓



Historical Yield Spreads

Yield Spreads (OAS) of Investment Grade Corporate and Agency Indexes



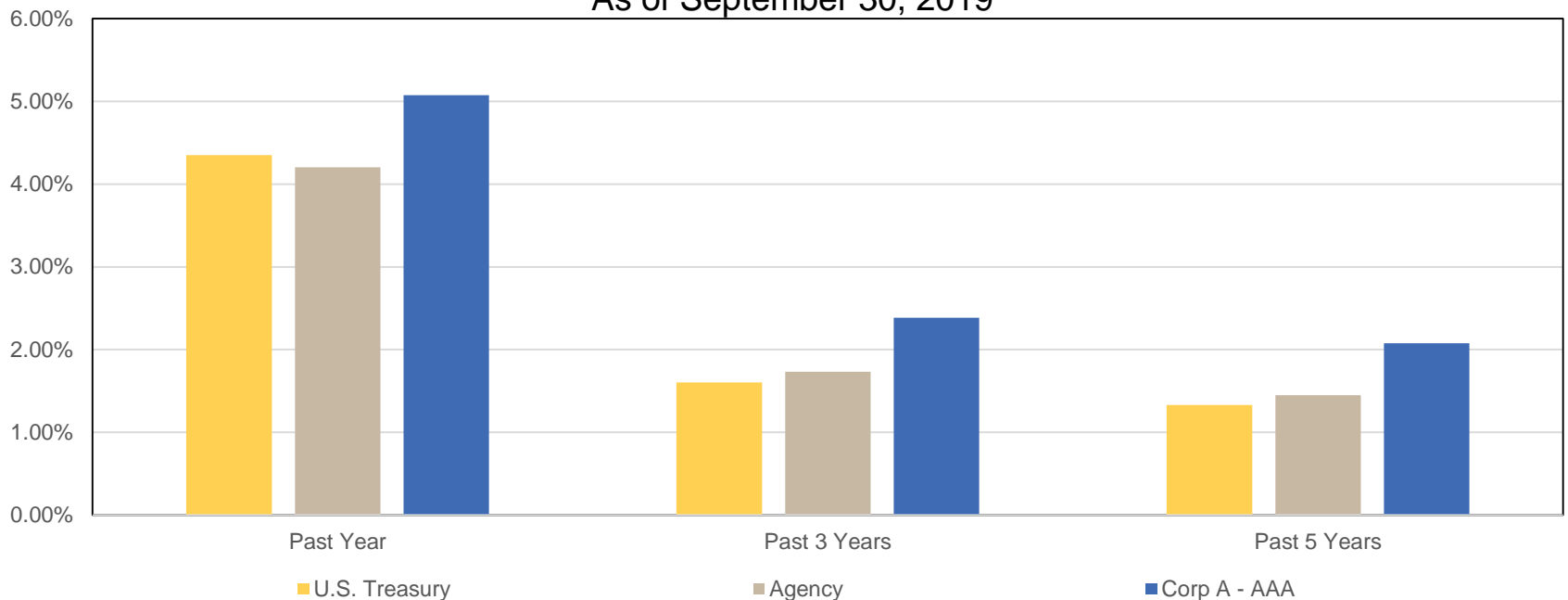
Source: Bloomberg, ICE BofA Merrill Lynch Indices. OAS is option adjusted spread. As of 10/9/2019.



Potential Benefits of Investing in Corporate Securities

- ◆ Potential for increased interest earnings and return
- ◆ Increased diversity can reduce volatility
- ◆ Changing face of fixed income universe

Total Return of Fixed Income Sectors As of September 30, 2019



Source: 1 – 3 Year ICE BofA Merrill Lynch indices from Bloomberg as of 9/30/2019. Returns are presented on an annualized basis.



Illinois Public Funds Investment Act: Short-Term Bond Funds

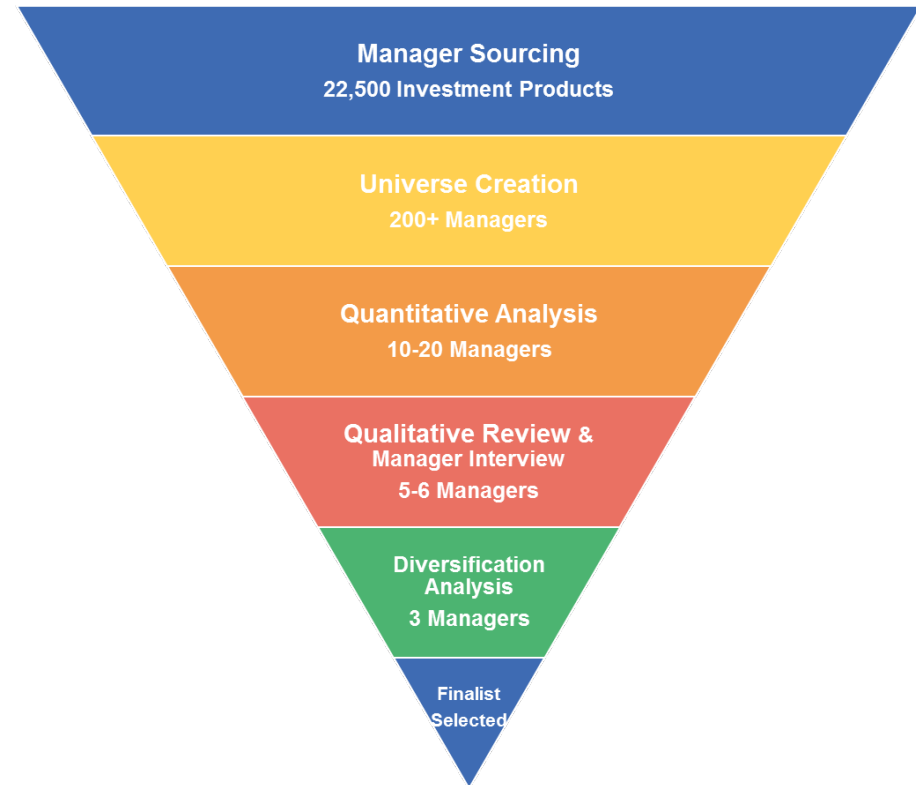
(j) ...In addition to all other investments authorized under this Section, a community college district may invest public funds in any mutual funds that invest primarily in corporate investment grade or global government short term bonds. Purchases of mutual funds that invest primarily in global government short term bonds shall be limited to funds with assets of at least \$100 million and that are rated at the time of purchase as one of the 10 highest classifications established by a recognized rating service. The investments shall be subject to approval by the local community college board of trustees. Each community college board of trustees shall develop a policy regarding the percentage of the college's investment portfolio that can be invested in such funds...



Multi-Asset Class Manager Selection

A manager-of-managers approach to investing — where an investor selects different underlying investments within one's portfolio — provides many advantages:

- Access to sophisticated investment management tools normally available only to the very largest institutional investors
- Portfolio customization to meet investor needs
- Ability to select best-in-class managers from a universe of nearly 24,000 investment products
- Efficient use of both active and passive investments to create a cost-effective strategy



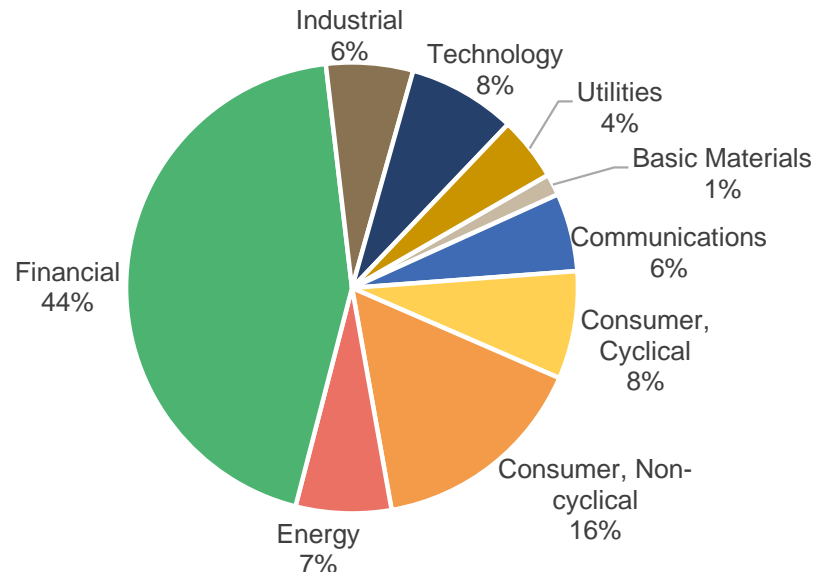


New Long-Term Investment – Corporate Bond ETF

Fund Info

Inception Date	12/17/2009
Benchmark	Bloomberg Barclays U.S. 1 – 3 Year Corporate Bond Index
Option Adjusted Duration	1.79 Years
Yield to Maturity	2.37%

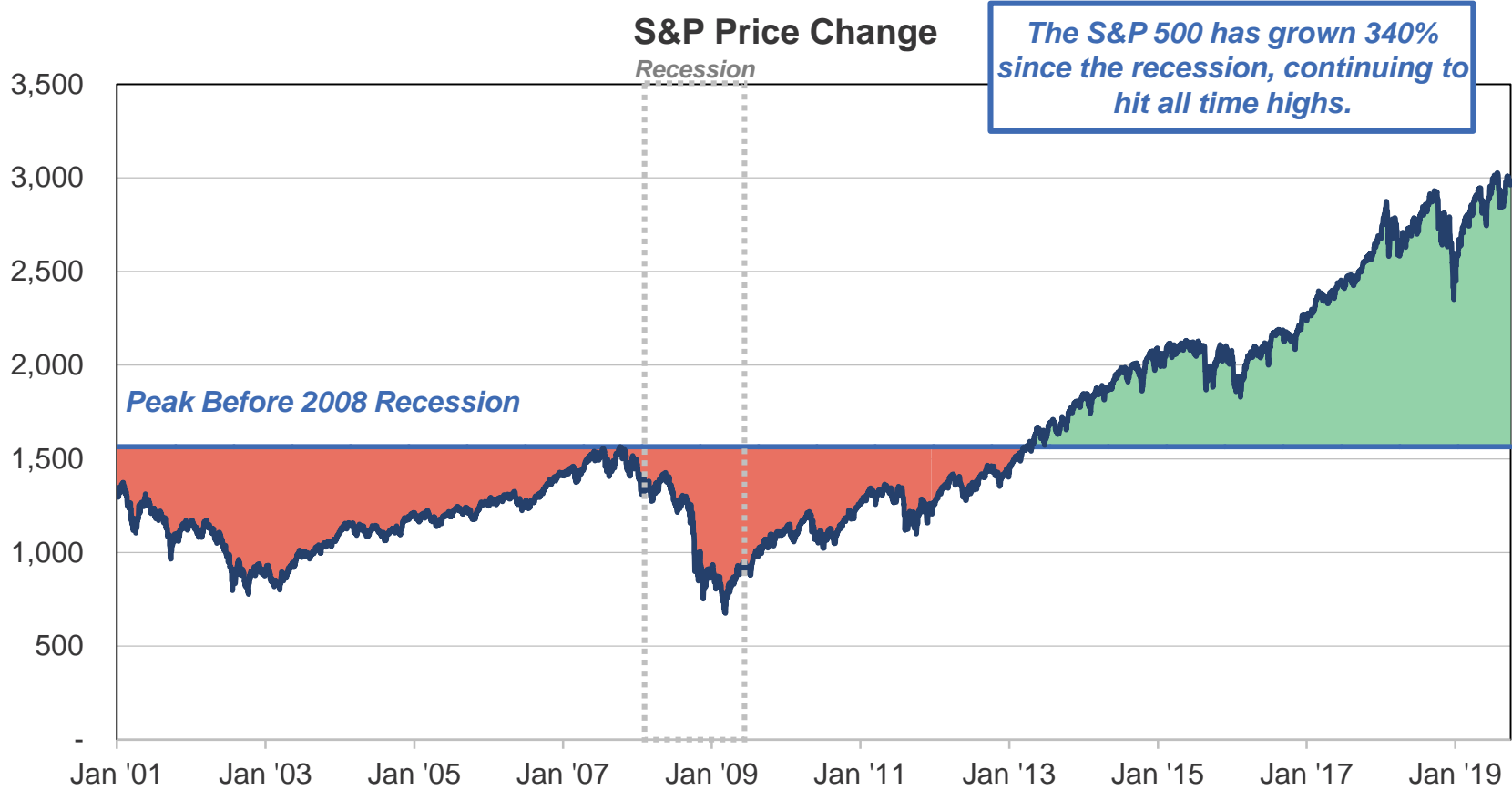
Sector Allocation



Source: Bloomberg. As of 9/18/2019.



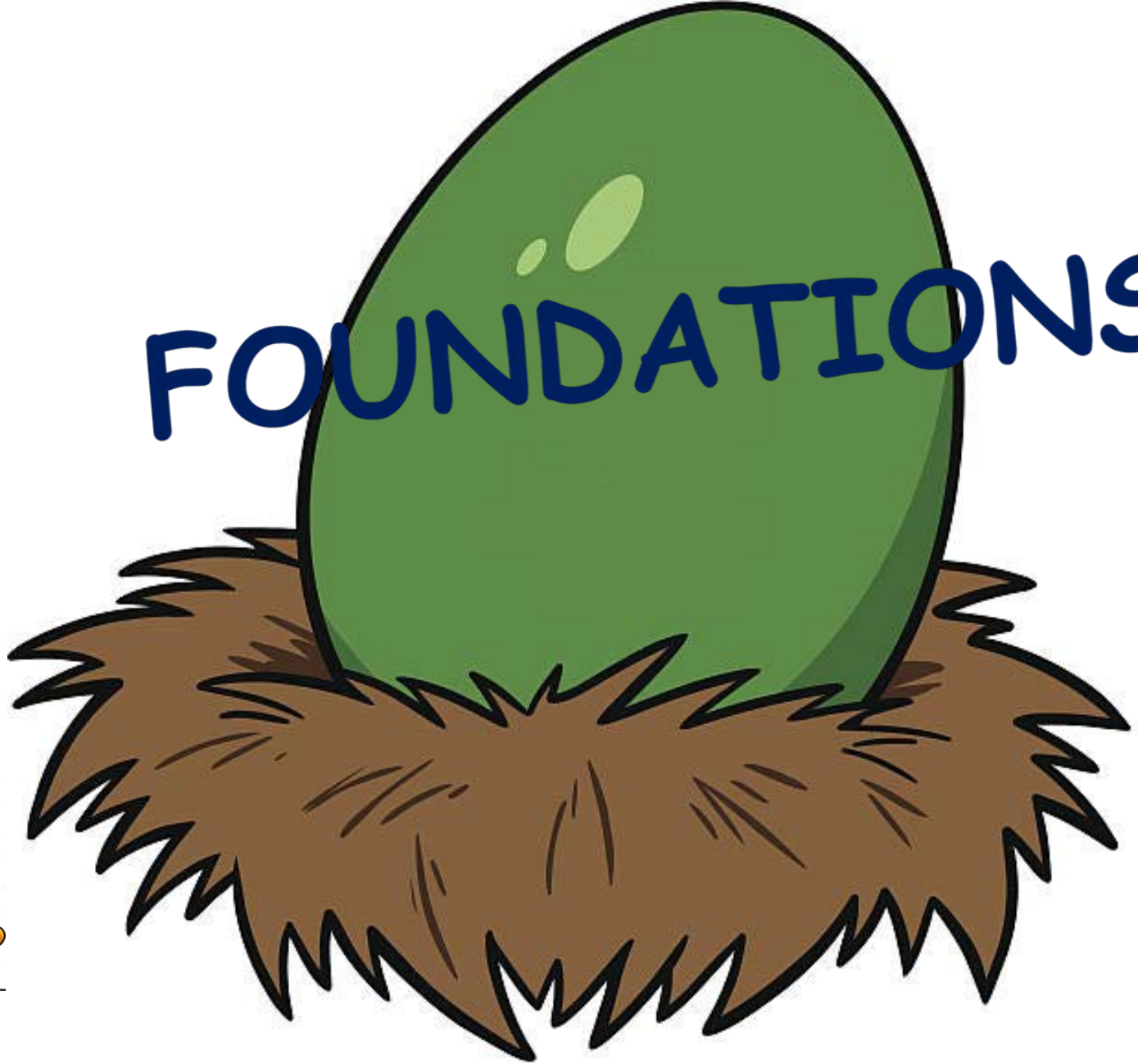
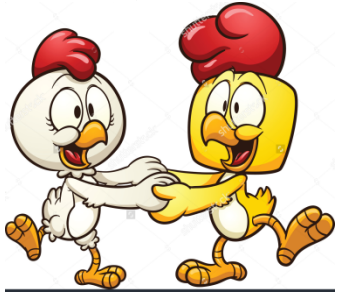
U.S. Stock Market



Source: Bloomberg, January 2001 – October 2019.

FOUNDATIONS

HOW'S OUR
NEST EGG
DOING?

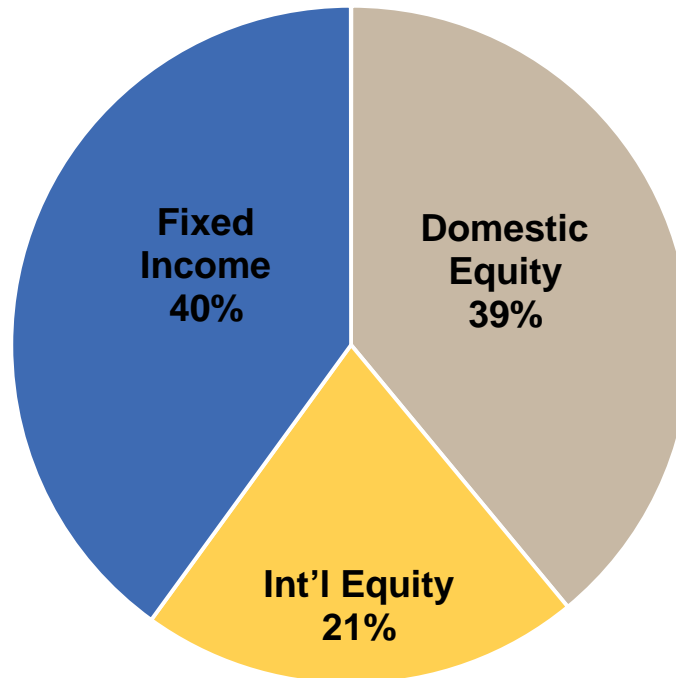




Permitted Investments – Foundation Funds

- ◆ **Not** bound by the Illinois Public Funds Investment Act (30 ILCS 235)

60/40 Asset Allocation

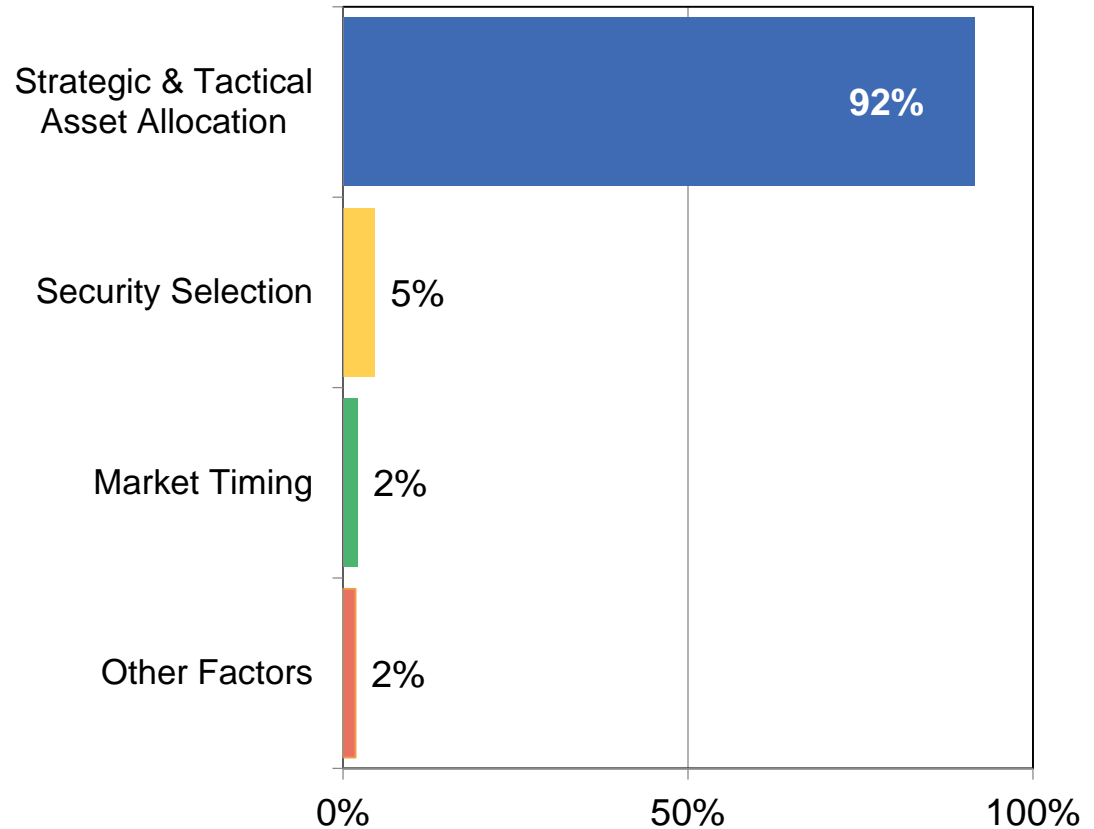




Revisit Your Asset Allocation

Focus on Asset Allocation to Help Achieve Your Long-Term Return Goals

Determinants of Portfolio Performance Variation



Source: Gary Brinson, "Determinants of Portfolio Performance II." *Financial Analyst Journal*, May-June 1991. The chart shows factors which explain variations in portfolio returns.












Asset Class	Our Investment Preferences (Q4 2019)	Comments
U.S. EQUITIES		
Large-Caps		<ul style="list-style-type: none"> Dovish stance by Federal Reserve and strong consumer sentiment continue to be tailwinds while slowdown in manufacturing activity and global growth expectations are headwinds. We expect accommodative monetary policy will be supportive of equity valuations. U.S. – China trade talk progress continues to impact near-term sentiment. Lesser exposure to international economies and more favorable valuations support our overweight of US mid- and small-cap equities.
Mid-Caps		
Small-Caps		
NON-U.S. EQUITIES		
Developed Markets		<ul style="list-style-type: none"> International equities continue to trade at a discount to US equities. While we believe this discount is warranted due to slower growth expectations and higher risks, we see them as attractive relative to fixed income assets. Trade tensions, slowing China economic growth and higher risks coupled with attractive valuations leads us to retain neutral view on emerging market equities.
Emerging Markets		
International Small-Caps		
FIXED INCOME		
Long Duration, Interest-Rate-Sensitive Sectors		<ul style="list-style-type: none"> Fed's recent rate cuts have been supportive of longer duration assets. Globally too, major central banks continue to align with accommodative monetary policy stance. While we continue to overweight credit in the context of continued economic growth, we are less positive on future growth given the recent tightening and low levels of spreads.
Credit-Sensitive Sectors		
ALTERNATIVES		
Real Estate		<ul style="list-style-type: none"> Lower level of interest rates is positive for REITs but they have been trading at a premium. Private equity funds carefully selected may provide higher returns relative to public markets, but the overall PE industry faces headwinds from the significant growth in assets under management and number of firms. Select private debt strategies look attractive as they provide income with lower risk than private equity, while floating rates hedge against rising rates. Select hedge fund strategies managed by talented managers may provide some benefit in a market environment of higher overall valuations and volatility. We remain cautious on the overall hedge fund universe.
Private Equity		
Private Debt		
Hedge Funds		

● Current outlook ○ Outlook one quarter ago





Fourth Quarter 2019: Factors To Consider Over Next 6 – 12 Months

<p>Central Banks:</p>  <ul style="list-style-type: none"> Fed is expected to remain accommodative with one more rate cut this year ECB has announced plans for further quantitative easing 	<p>Economic Growth (U.S.):</p>  <ul style="list-style-type: none"> Slowdown in manufacturing activity but consumer spending is still strong Q3 2019: Expected GDP growth rate of 1.5% – 2.0% No imminent recession expected 	<p>Economic Growth (Global):</p>  <ul style="list-style-type: none"> Global growth expectations continue to be revised downwards by impact of China's slowdown and increase in trade frictions
<p>Trade Tensions:</p>  <ul style="list-style-type: none"> Increasing uncertainty with U.S. – China trade talks continues to have a negative impact on market sentiment 	<p>Consumer Confidence (U.S.):</p>  <ul style="list-style-type: none"> Consumer spending and confidence continue to be strong Labor markets and wage growth continue to supportive of growth 	<p>Inflation (U.S.):</p>  <ul style="list-style-type: none"> Range-bound inflation is supportive of risk assets Globally too, inflation still remains subdued
<p>Corporate Fundamentals:</p>  <ul style="list-style-type: none"> High cash levels, strong buyback activity and higher profit margins point to strong corporate fundamentals 	<p>Interest Rates:</p>  <ul style="list-style-type: none"> The rise in negative-yielding debt raises concern around long term growth prospects 	<p>Geopolitics:</p>  <ul style="list-style-type: none"> Rising tensions with Iran could flare up into a global risk Impeachment enquiry in the U.S., Brexit and protests in Hong Kong are adding to market uncertainty

Stance
Unfavorable to
Risk Assets



Favorable
to Risk
Assets

The view expressed within this material constitute the perspective and judgment of PFM Asset Management LLC at the time of distribution (9/30/2019) and are subject to change.



Current Allocation (9/30/2019)

MACM 1.0 (60/40)	IPS	Tactical	9/30/2019
Domestic Equity	39.0%	41.0%	41.6%
International Equity	21.0%	22.0%	22.2%
Fixed Income	40.0%	37.0%	36.2%
	100.0%	100.0%	100.0%

Asset Class / Sleeve	Current Allocation - MACM	Current Allocation - MMST
Equity vs Fixed	<ul style="list-style-type: none"> Target 3% overweight to Domestic and International Equity 	
Domestic Equity vs. International Equity	<ul style="list-style-type: none"> Underweight International Equity vs. Total World Index 	
Domestic Equity	<ul style="list-style-type: none"> Majority passive Tactical overweight to small and mid caps 	
International Equity	<ul style="list-style-type: none"> Minority passive Overweight to international small cap Marginal underweight to emerging markets, more in MMST than MACM 1.0 	
Fixed Income	<ul style="list-style-type: none"> Active core-plus exposure, passive IG 	<ul style="list-style-type: none"> Active Core, IG, HY, and Structured debt
Duration	<ul style="list-style-type: none"> About 3 months short vs. Bloomberg Aggregate 	
Credit	<ul style="list-style-type: none"> Overweight to IG 	<ul style="list-style-type: none"> Overweight to IG Tactical HY allocation
Alternatives	<ul style="list-style-type: none"> None 	



Rationale for Equity Overweight

- ◆ While the Committee's prior decision to move to a neutral stance was in reaction to the market rally in the first quarter of 2019, this recent decision is led by the Fed's newly accommodative stance and its anticipated impact on equities. The Committee believes that equities will outperform fixed income over the next 6 – 12 months.
- ◆ The recent volatility in reaction to escalating trade tensions between the U.S. and China is a concern, but the Committee believes this reaction to be short-term in nature and priced in. While the Committee is closely watching signs for slowing growth, it does not expect a recession in the next 6 – 12 months, especially at a time when major global central banks have reiterated their accommodative monetary policy stance that is supportive of global growth and risk assets.
- ◆ As rates continue to fall and as spreads continued to tighten, fixed income returns delivered better than expected returns in the second quarter and July. The Committee does not see these outsized fixed income returns to continue.
- ◆ Low level of interest rates, accommodative Fed policy (and global central banks as a whole), stabilizing corporate profits, and also fair equity valuations make equities look attractive relative to fixed income.
- ◆ Within equity, while international equities look more attractive relative to domestic equities based on valuations, the associated risks with international equities leads to some caution.





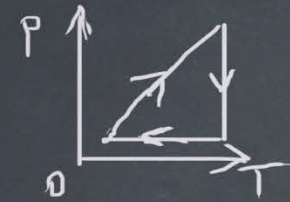

Benchmark Historical Performance (60 Equity / 40 Bonds) (9/30/2019)

	Return
For 3 Years ending Sep 2019	
Blended Benchmark	7.66%
For 5 Years ending Sep 2019	
Blended Benchmark	6.22%
For 7 Years ending Sep 2019	
Blended Benchmark	7.33%
For 10 Years ending Sep 2019	
Blended Benchmark	7.74%



Questions?

$P_1 + \frac{1}{2} \rho v_1^2 = P_2 + \frac{1}{2} \rho v_2^2$
 $\Delta P = \rho v (v_2^2 - v_1^2)$
 $S_1 v_1 = S_2 v_2$
 $r \ll R_2$
 $g = \frac{g_0 R}{R_1 + R_2}$
 $Q = cmG$ [N]
 $p = \omega t$
 $A = Q_1$
 $Q_1, Q_1' = A + Q_2$
 $A = Q_2 (T_2 - T_1) / T_2 = 418 \text{ J}$
 $m = \sqrt{156 \text{ kg}}$
 $\frac{Q_1'}{Q_1} = \frac{A + Q_2}{Q_1}$
 $\frac{v_1}{I_1} = \frac{v_2}{I_2} = \frac{v_3}{I_3}$
 $I_1 = I_2 \cdot R_3 / R_1$
 $g = \frac{g_0 R}{R_1 + R_2}$
 $\frac{Q_1}{Q_1'} = 1 + \frac{T_2}{T_1}$
 $E = mc^2$
 $g = \frac{g_0 R}{R_1 + R_2}$



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