I N S T I T U T I O N A L

I N V E S T M E N T

S O L U T I O N S

PREPARED BY

Frank R. Burnette

Principal & Senior Consultant
frb@morrisonadvisors.com

PREPARED FOR

PAPERS 12th Annual Spring Forum

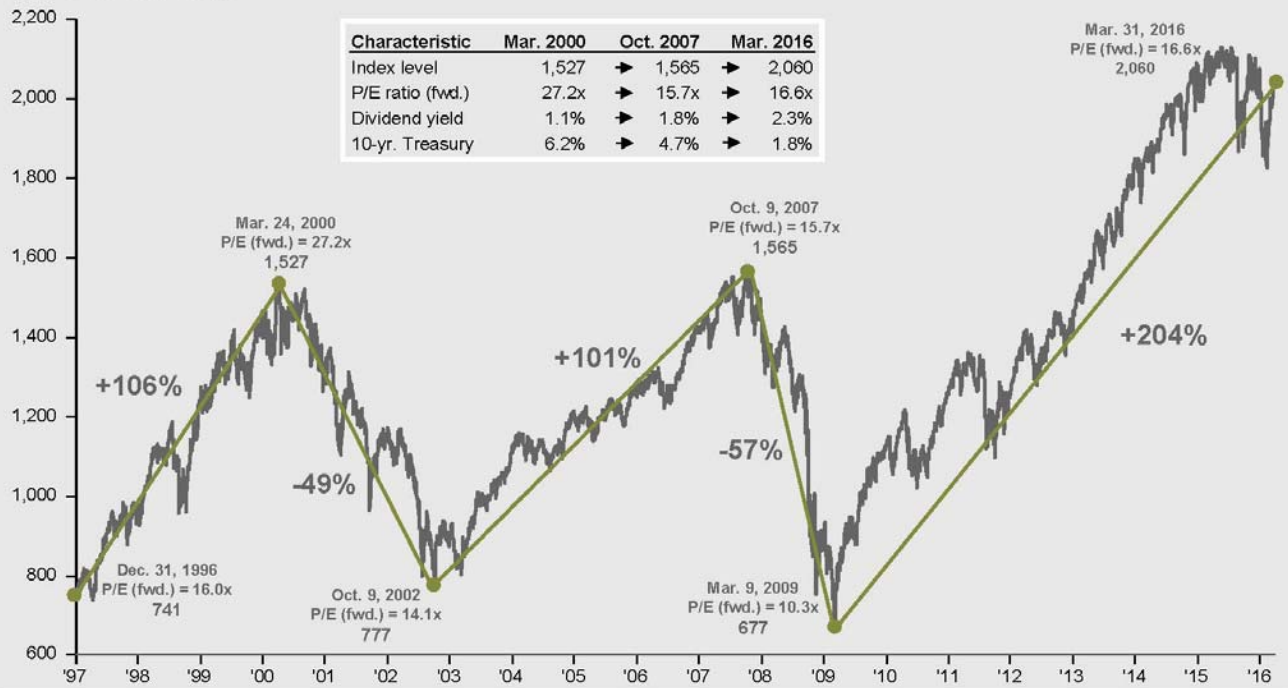## PA County Guide to Pension Plan Best Practices

Wednesday, May 25, 2016 @ 10:00 am

FIRM OVERVIEW

➢ Morrison Fiduciary Advisors, Inc. (MFA) is a Pittsburgh based advisor serving PA municipal clients since 2002. MFA's client base is 100% institutional and has served over 125 PA municipal clients during their extended careers.

➢ MFA serves as "Chief Investment Officer" and accepts responsibility of guiding the client's overall investment process in a comprehensive manner.

➢ MFA does not manage money and has no affiliations with investment managers or broker/dealers. This "pure" independence allows its advice and counsel to be in the best interest of its clients. MFA serves each client as a strict legal Fiduciary via its written contract with client accounts.

➢ MFA maintains an alliance with Wilshire Consulting to provide national caliber investment performance measurement and capital markets analysis.

➢ For investment strategy, MFA draws of multiple resources including Wilshire, JP Morgan, Yardeni, State Street and others.

➢ In addition to the Wilshire research team, MFA employs five investment professionals and two support staff to ensure that all client needs are met in the most professional manner possible.

➢ MFA clients employ over 70 investment companies and over 100 different investment products as evaluated by Wilshire and Investment Alliance.

➢ Annually, MFA conducts over 300 manager meetings.

Equities

S&P 500 Price Index

Characteristic	Mar. 2000		Oct. 2007		Mar. 2016
Index level	1,527	➤	1,565	➤	2,060
P/E ratio (fwd.)	27.2x	➤	15.7x	➤	16.6x
Dividend yield	1.1%	➤	1.8%	➤	2.3%
10-yr. Treasury	6.2%	➤	4.7%	➤	1.8%

Mar. 31, 2016
P/E (fwd.) = 16.6x
2,060

Mar. 24, 2000
P/E (fwd.) = 27.2x
1,527

Oct. 9, 2007
P/E (fwd.) = 15.7x
1,565

+106%

+101%

+204%

−49%

−57%

Dec. 31, 1996
P/E (fwd.) = 16.0x
741

Oct. 9, 2002
P/E (fwd.) = 14.1x
777

Mar. 9, 2009
P/E (fwd.) = 10.3x
677

'97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13 '14 '15 '16

Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management.
Dividend yield is calculated as consensus estimates of dividends for the next 12 months, divided by most recent price, as provided by Compustat.
Forward price to earnings ratio is a bottom-up calculation based on the most recent S&P 500 Index price, divided by consensus estimates for earnings in the next 12 months (NTM), and is provided by FactSet Market Aggregates. Returns are cumulative and based on S&P 500 Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns.
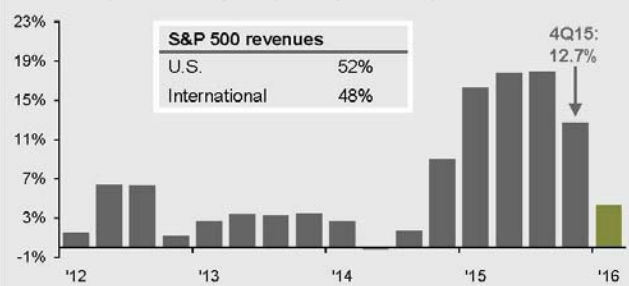*Guide to the Markets – U.S.* Data are as of March 31, 2016.

J.P.Morgan
Asset Management

2

Equities

S&P 500 earnings per share
Index quarterly operating earnings

S&P consensus analyst estimates

4Q15*: $23.06
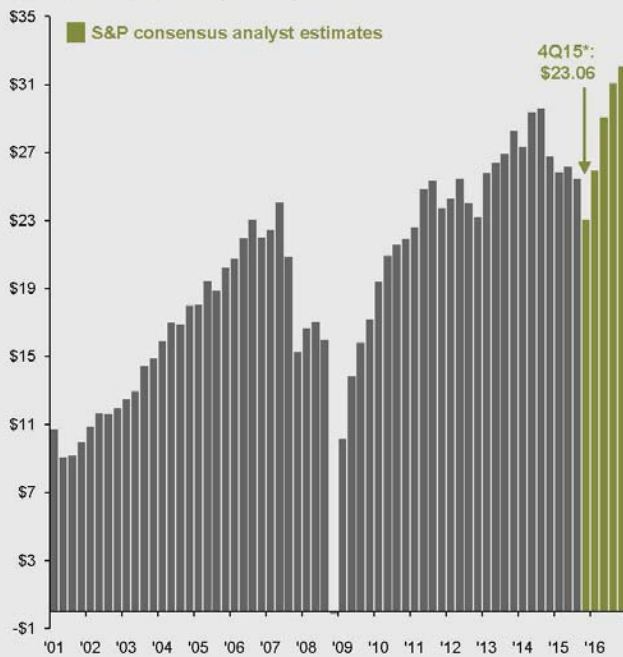
U.S. dollar
Year-over-year % change**, quarterly, USD major currencies index

S&P 500 revenues	
U.S.	52%
International	48%

4Q15: 12.7%

Energy sector earnings
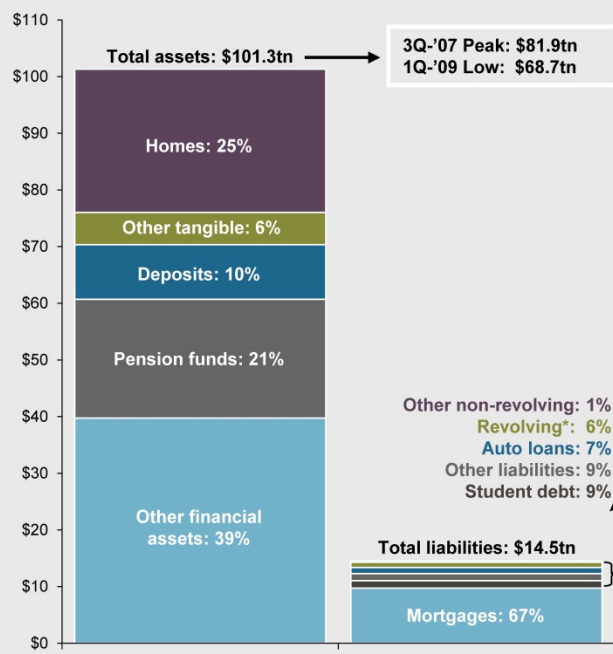Energy sector contribution to S&P 500 EPS, quarterly

4Q15*: -$2.51
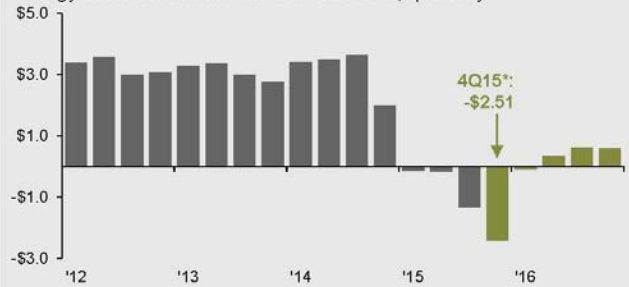
Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management; (Top right) Federal Reserve, S&P 500 individual company 10k filings, S&P Index Alert.
EPS levels are based on operating earnings per share. *Earnings estimates are Standard & Poor's preliminary consensus analyst expectations. Past performance is not indicative of future returns. Currencies in the Trade Weighted U.S. Dollar Major Currencies Index are: British pound, euro, Swedish kroner, Australian dollar, Canadian dollar, Japanese yen and Swiss franc. 1Q16 dollar is a J.P. Morgan Asset Management estimate. **Year-over-year change is calculated using the quarterly average for each period.
Guide to the Markets – U.S. Data are as of March 31, 2016.

J.P.Morgan
Asset Management 3

3

Economy

Consumer balance sheet
4Q15, trillions of dollars outstanding, not seasonally adjusted

Total assets: $101.3tn

3Q-'07 Peak: $81.9tn
1Q-'09 Low: $68.7tn

Homes: 25%

Other tangible: 6%

Deposits: 10%

Pension funds: 21%

Other financial
assets: 39%

Other non-revolving: 1%
Revolving*: 6%
Auto loans: 7%
Other liabilities: 9%
Student debt: 9%

Total liabilities: $14.5tn

Mortgages: 67%

Household debt service ratio
Debt payments as % of disposable personal income, SA

4Q07:
13.2%

1Q80:
10.6%

1Q16**:
10.1%

Household net worth
Not seasonally adjusted, USD billions
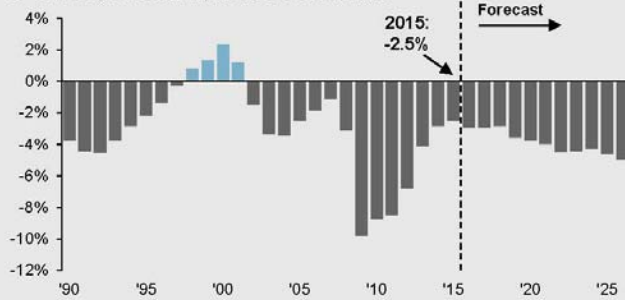
1Q16**:
$88,017

2Q07:
$67,667
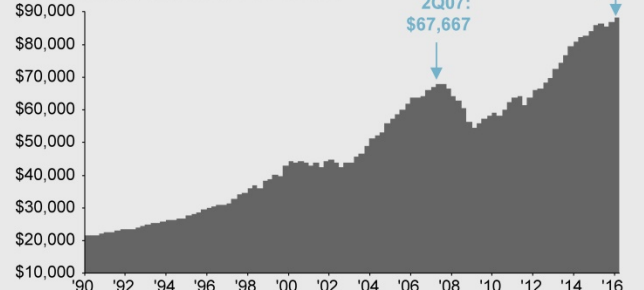
Source: FactSet, FRB, J.P. Morgan Asset Management; (Top and bottom right) BEA.
Data include households and nonprofit organizations. SA – seasonally adjusted.
*Revolving includes credit cards. **1Q16 household debt service ratio and household net worth are J.P. Morgan Asset Management estimates.
Values may not sum to 100% due to rounding.
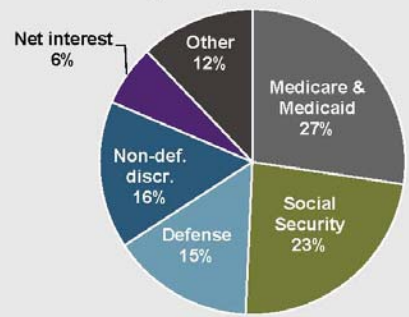*Guide to the Markets – U.S.* Data are as of March 31, 2016.

J.P.Morgan
Asset Management

4

Economy

Federal budget surplus/deficit
% of GDP, 1990-2026, 2016 CBO Baseline

Forecast

2015: -2.5%

2016 Federal Budget - Spending

Net interest 6%

Other 12%

Medicare & Medicaid 27%

Non-def. discr. 16%

Defense 15%

Social Security 23%

Federal net debt (accumulated deficits)
% of GDP, 1940-2026, 2016 CBO Baseline, end of fiscal year

Forecast

2015: 73.6%

2026: 85.6%

CBO interest rate projections


Forecast

10-year U.S. Treasury

3-month U.S. T-bill

2021-2026: 4.1%

2021-2026: 3.2%
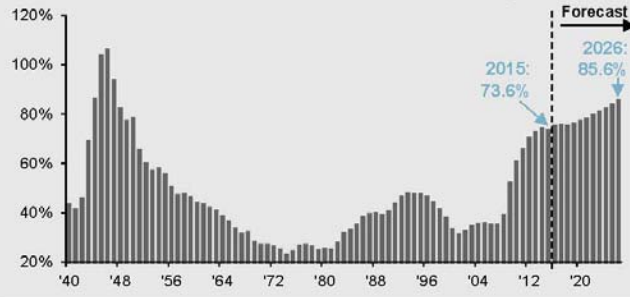
Source: CBO, J.P. Morgan Asset Management; (Top left and bottom left) BEA; (Bottom right) Federal Reserve.
2016 Federal Budget is based on the Congressional Budget Office (CBO) March 2016 Baseline Budget Forecast. Other spending includes, but is not limited to, health insurance subsidies, income security and federal civilian and military retirement.
Note: Years shown are fiscal years (Oct. 1 through Sep. 30). 2015 numbers are CBO estimates as of March 2016. Interest rate projections are actual historical data from the Federal Reserve through 4Q15 and a quarterly forecast from the CBO's January 2016 baseline economic projections afterwards.
Guide to the Markets – U.S. Data are as of March 31, 2016.

J.P.Morgan
Asset Management
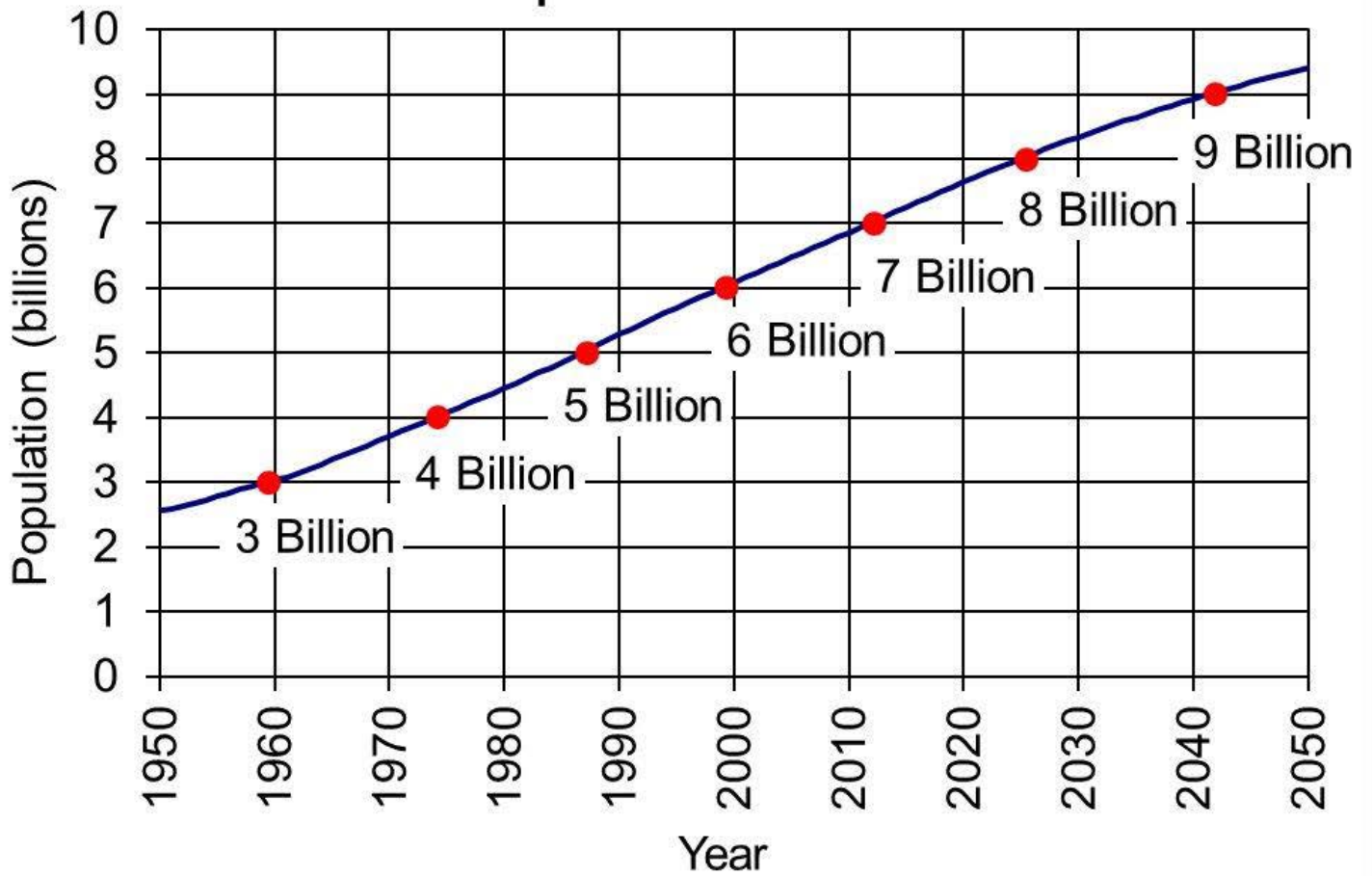
5

5

Equities

S&P Composite Index
Log scale, annual
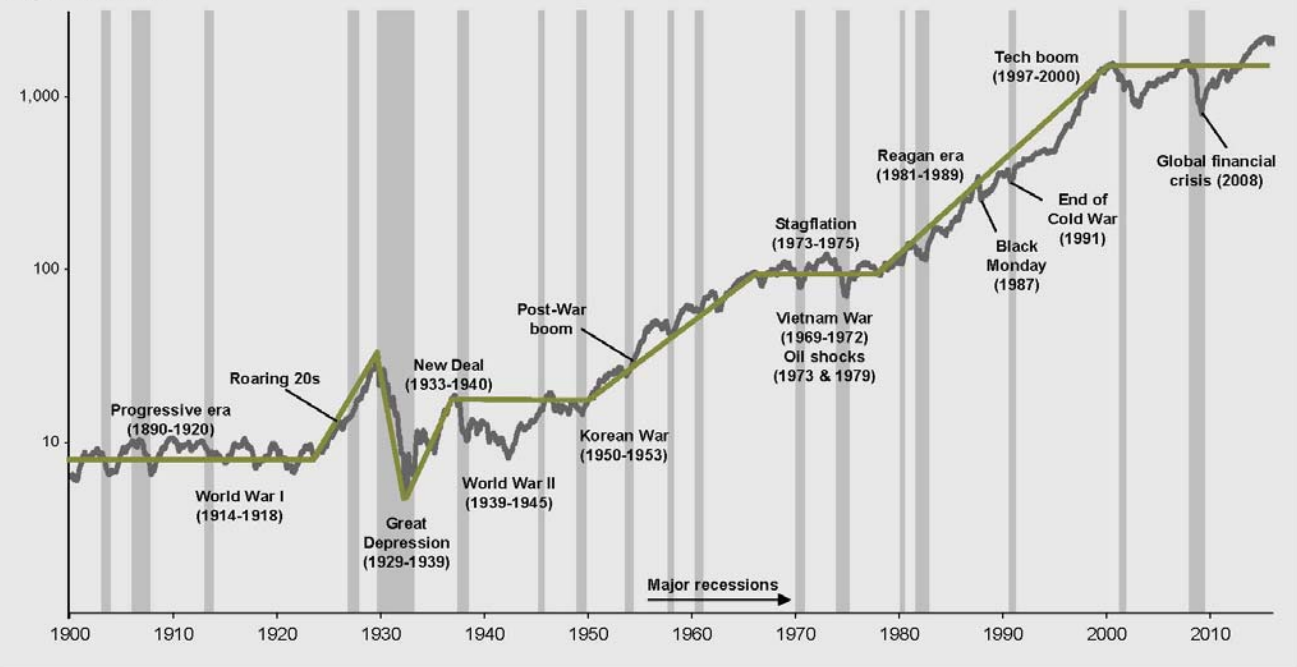
J.P.Morgan
Asset Management

6

World Population: 1950-2050

Source: U.S. Census Bureau, International Data Base, July 2015 Update.