

Office of the Treasurer & Tax Collector
City and County of San Francisco

Tajel Shah, Chief Assistant Treasurer
Robert L. Shaw, CFA, Chief Investment Officer



José Cisneros, Treasurer

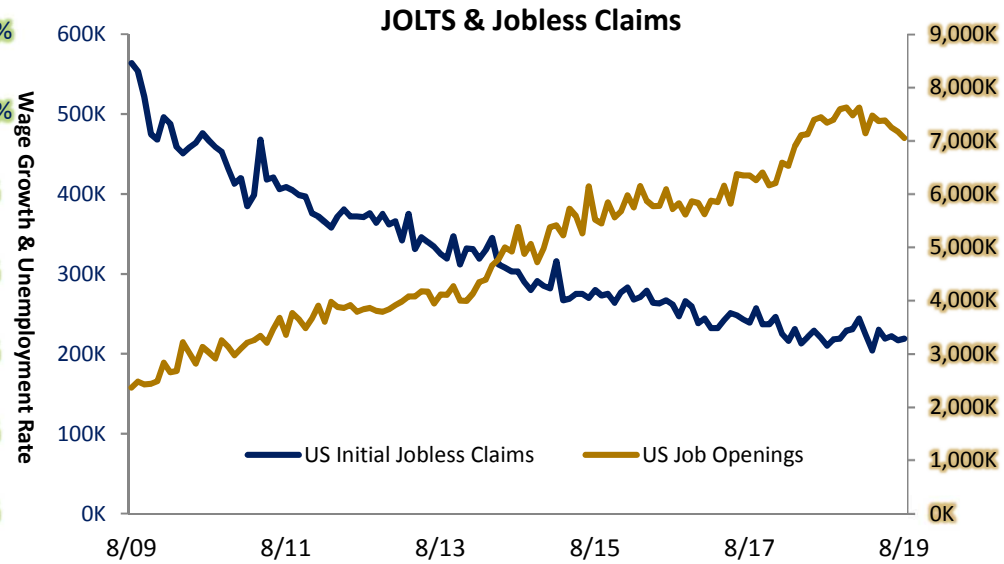
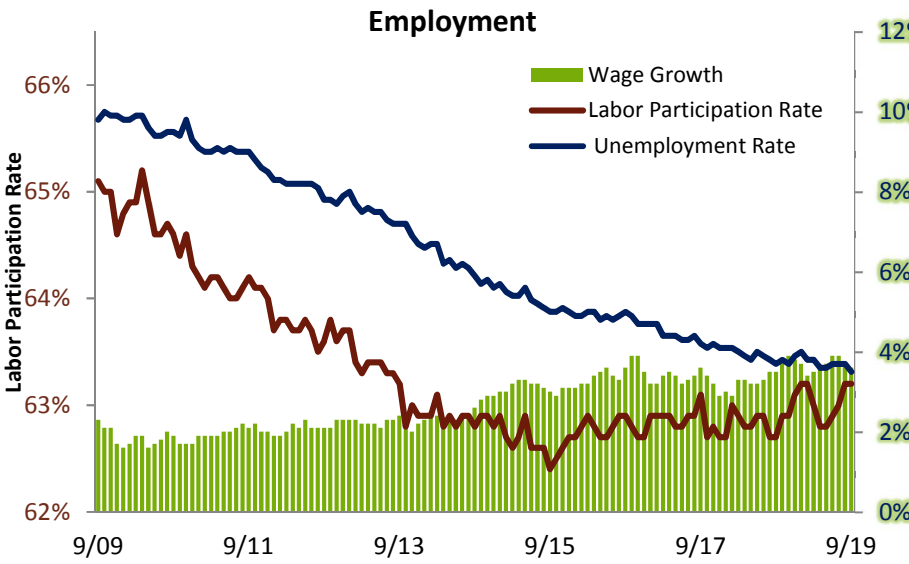
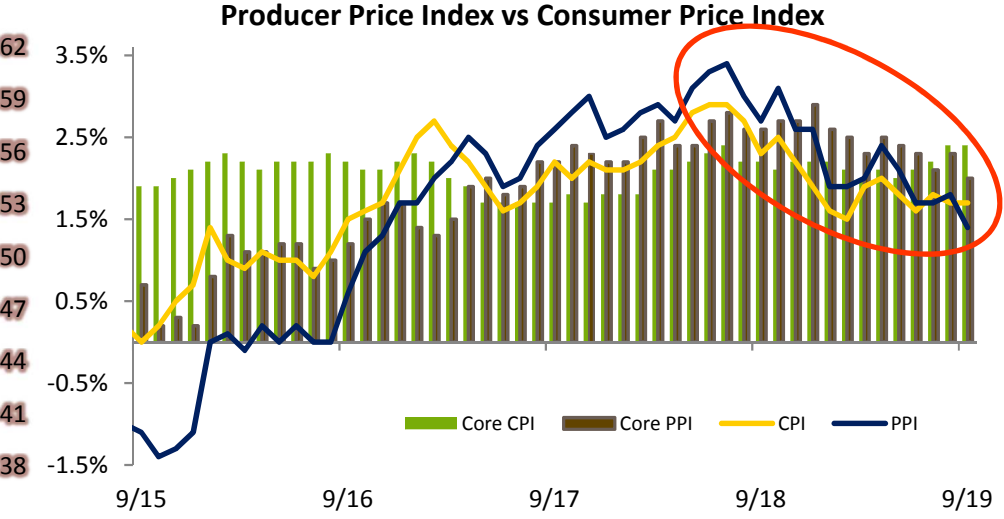
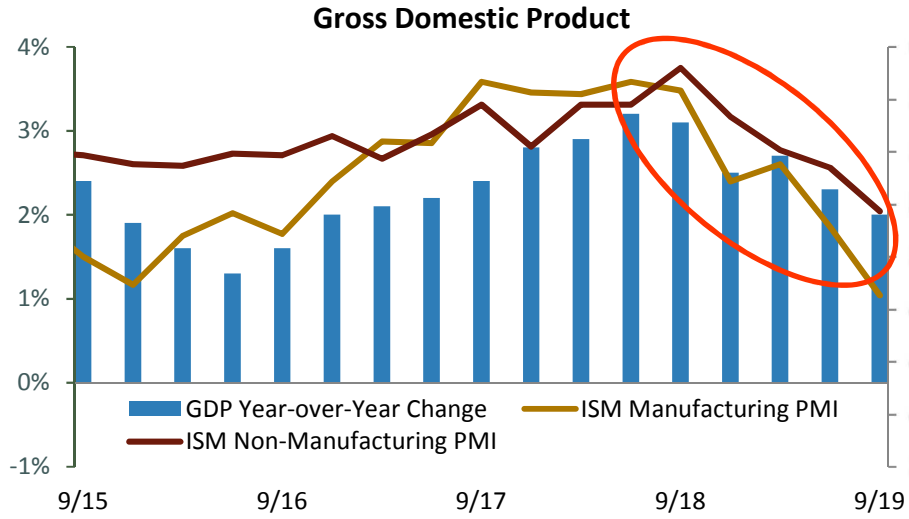
Treasury Oversight Committee

November 8, 2019

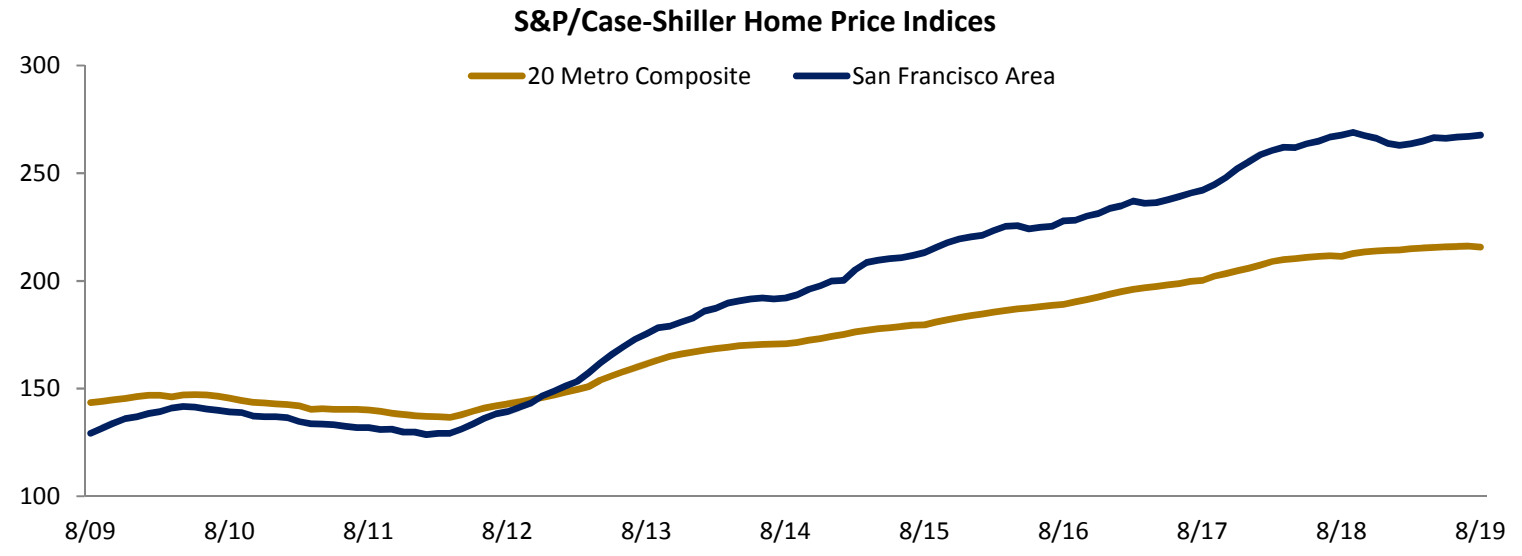
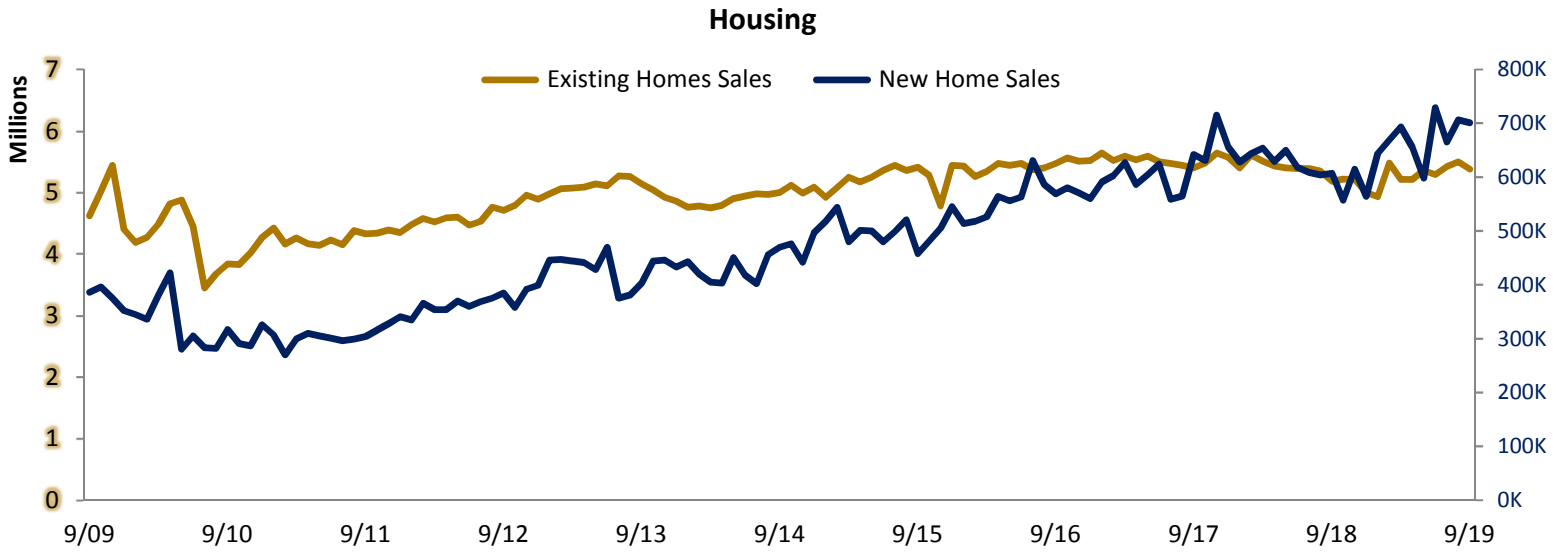
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Key Economic Data

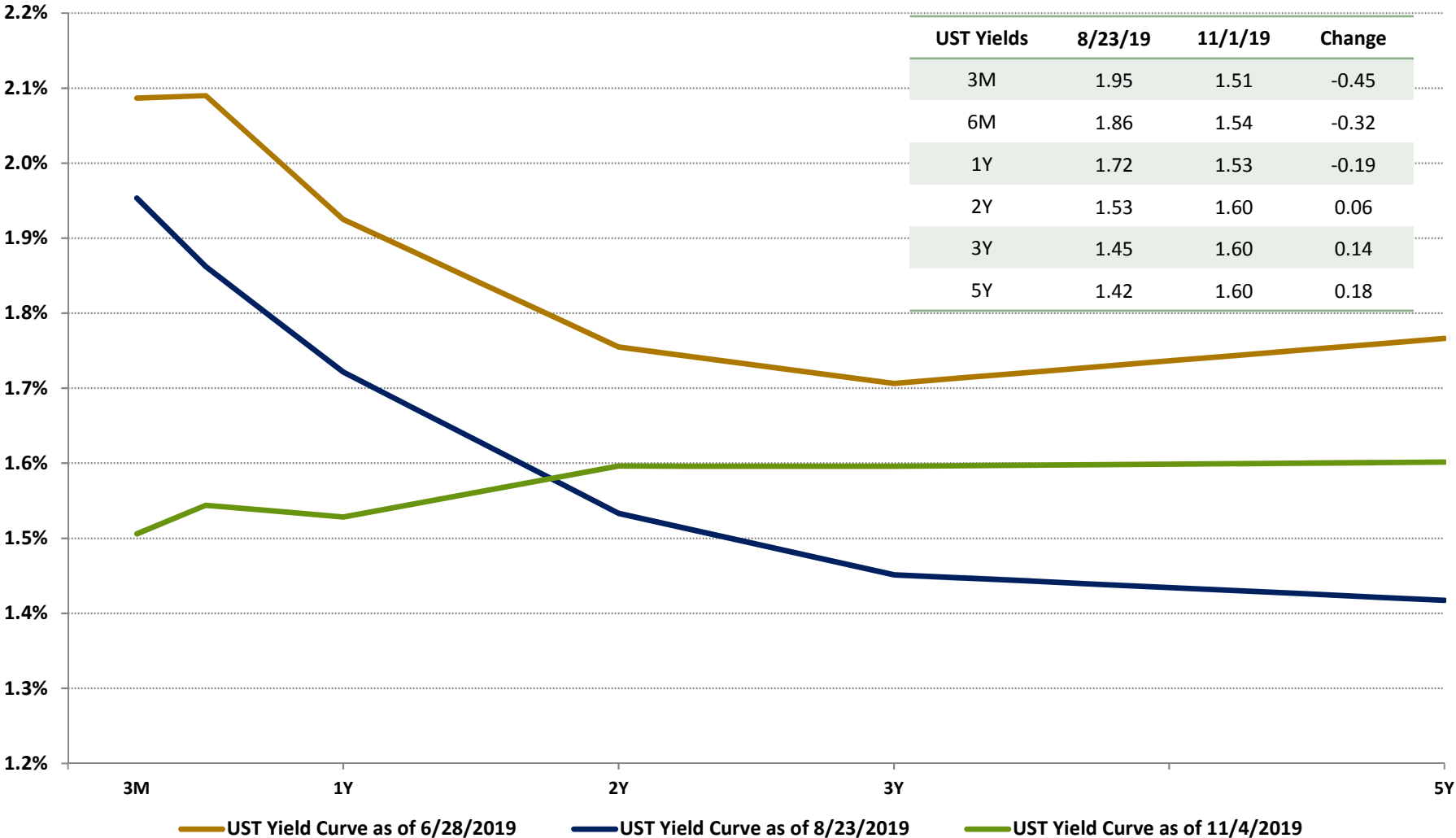


Key Economic Data



Source: Bloomberg

Yield Curve Changes



Source: Bloomberg

Strategic Considerations

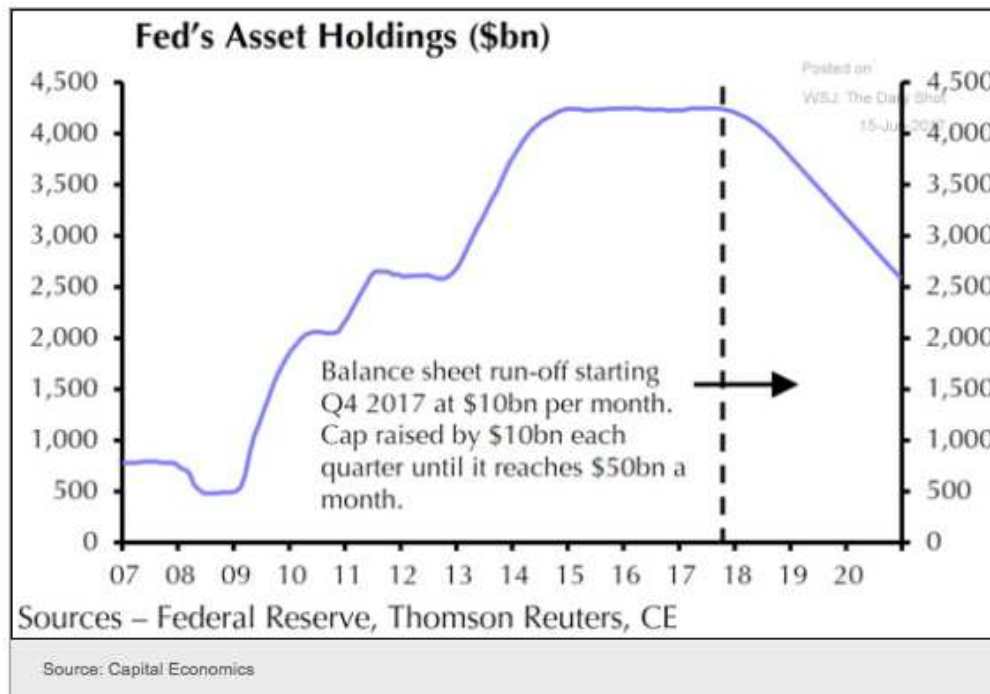
Policy Issues:

- Monetary –Rate Cuts remain policy:
 - 10/30/2019: Cut by 0.25% - 3rd Cut since December 2008; and
 - 2019 Rate Decrease Probability:
 - 4th Rate Cut Probability is 16% (December 2019);
- Fiscal:
 - Tax Reform – No Change:
 - Corporate. Buybacks remain focus;
 - Repatriation of Earnings, but not investing in factories / jobs in US; and
 - Individual. One-time Bonus, not Pay Raises.
 - Tariffs: Little shifting of production to United States; and
 - Trade: The New NAFTA, China and Europe.

Strategic Considerations

Government Policy Issues:

- Federal Reserve's Balance Sheet - \$4.5 Trillion (Fall 2017):



- \$4.0 Trillion (October 2019);
- Up from \$3.8 Billion in July;
- Not being called Quantitative Easing

Strategic Considerations

Portfolio Issues:

- Inflows:
 - August: Airport (\$957 Million); and
 - October: CCSF (\$97 Million)
- Use Money Market Sector to Satisfy Liquidity Needs
- Portfolio Duration: 0.64 (Sept 2019):
 - 0.99 December 2018;
 - 0.95 in December 2017; and
 - 0.68 in December 2016.
- Duration is an Outcome, not an Objective. Approach is:
 - Purchasing Securities that mature on (or slightly before) a known need – such as Payroll, Debt Service, Capital Projects, etc.; and
 - Opportunistic Investing.

The Economic Outlook

Goldilocks Zone – Still There

Factor

Low unemployment rate

Increasing asset prices (stocks, real estate, etc.);

Low Interest rates;

Brisk but steady GDP growth; and

Low inflation

Current Situation

3.5% (50 Year Low)

S&P 500 (+15.8% - since 2009 Trough)

Below historical norms & falling

> 2.5% past several years

Low (1.7%) & below target

Counterpunching:

- Labor participation rate is range bound – despite the large number of job opening;
- Asset prices (such as US Equities) have been very volatile over the past year;
- Interest Rates: Shifted quickly from Increases to Decreases;
- GDP: The best positive among the factors – but declining; and
- Average Hourly Earnings remains above 3.0%.

Future Rate Changes

Moving into the inflection zone:

- Fed Funds: 1.20% - 1.75% Range;
- +1.75% (9 Rate Increases & 3 Decrease since December 2015);
- Fed Minutes: Disagreement amount members on Direction;
- Forecast is a <20% chance of **1 More rate Decrease** in 2019; and
- Forecast (Fed Dot Plot):
 - September 2018: Target Range was 3.25% - 3.50%;
 - December 2018: Target Range now 3.00% - 3.25%;
 - March 2019: Target Range was 2.50% - 2.75%;
 - Sept. 2019: Target Range now 2.50% - 2.75%;

Pool Impact:

- Yield Curve is Flat / Inverted between 2 years (1.59%) and 5 years (1.60%)
- Makes longer dated bonds less attractive.

Yield Curve Inversions & Recessions

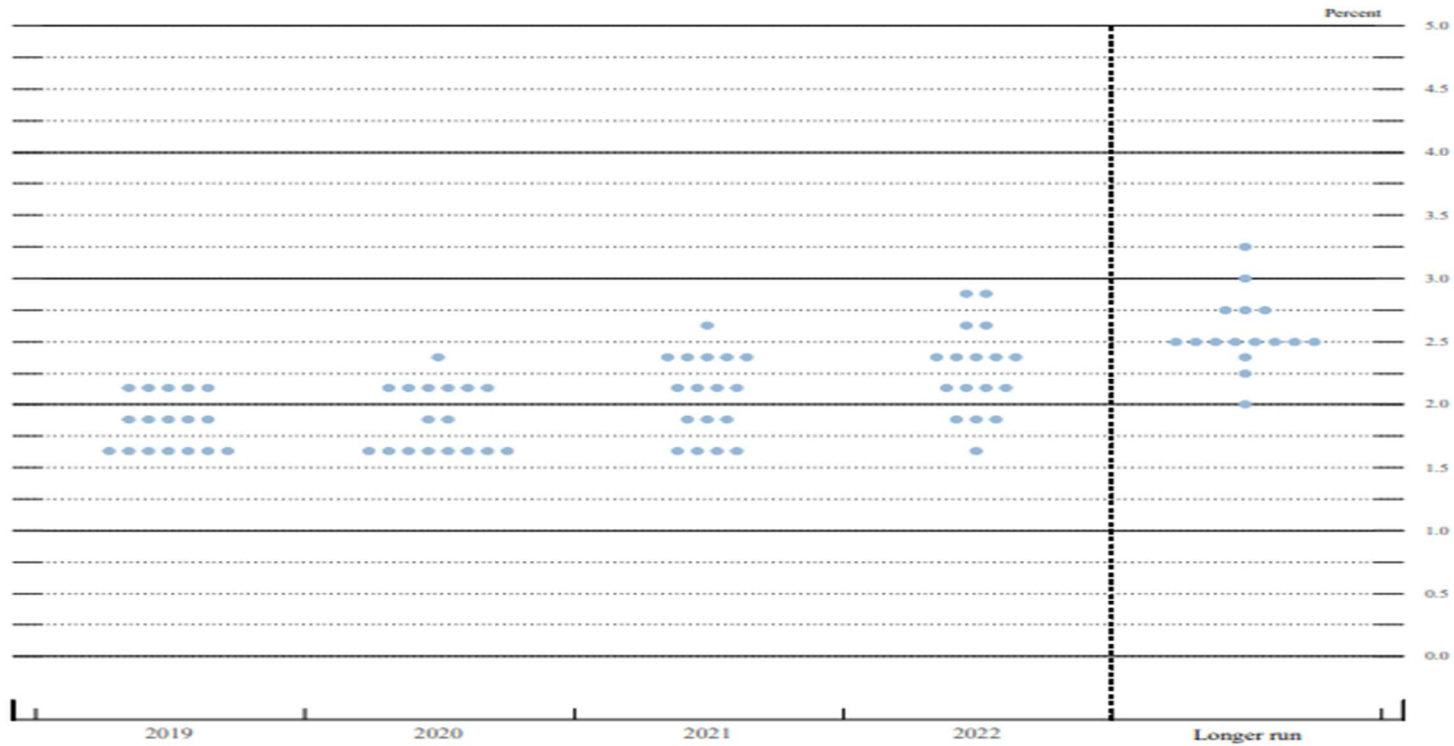


Date of inversion	Start of recession	Number of months
9/17/1978	1/2/1980	15.5
9/12/1980	7/1/1981	10
8/11/1989	7/1/1990	11
2/2/2000	3/1/2001	13
2/1/2006	12/1/2007	22
8/31/2019	?	?

The Dot Plot – September 2019

For release at 2:00 p.m., EDT, September 18, 2019

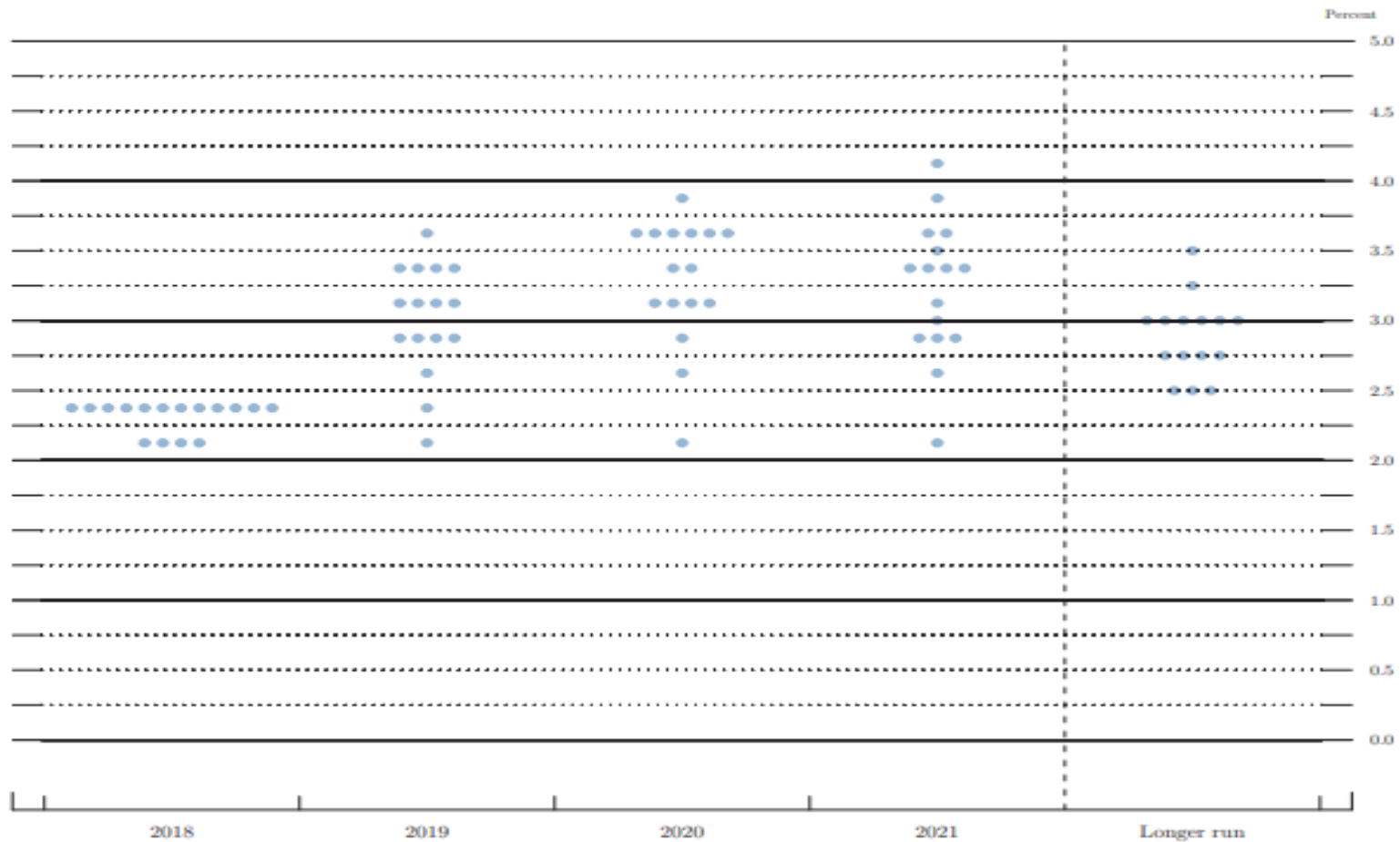
Figure 2. FOMC participants' assessments of appropriate monetary policy: Midpoint of target range or target level for the federal funds rate



The Dot Plot – December 2018

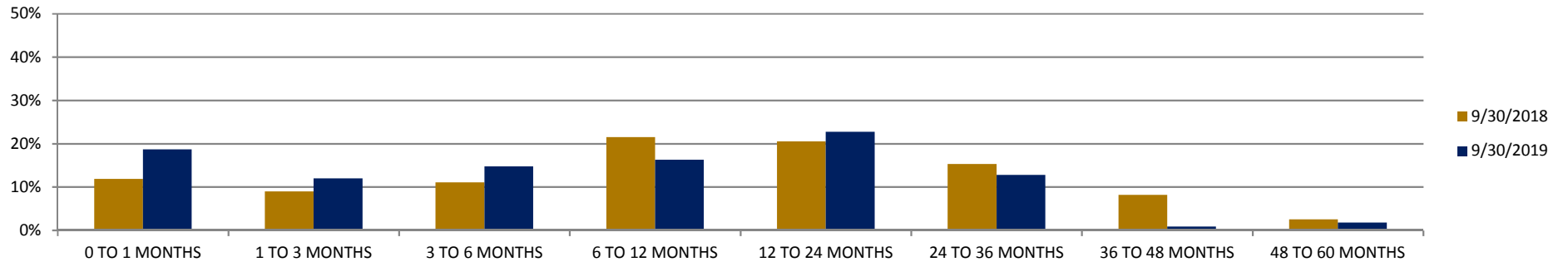
For release at 2:00 p.m., EDT, September 26, 2018

Figure 2. FOMC participants' assessments of appropriate monetary policy: Midpoint of target range or target level for the federal funds rate

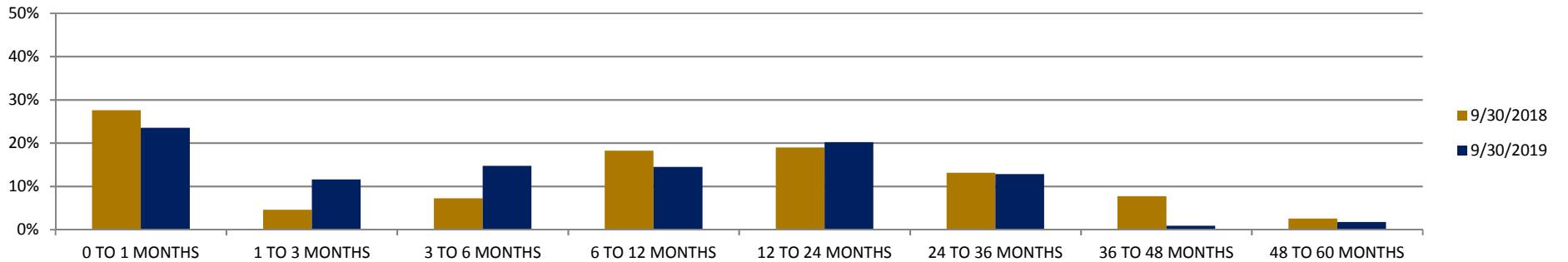


Historical Maturity Distribution Comparison

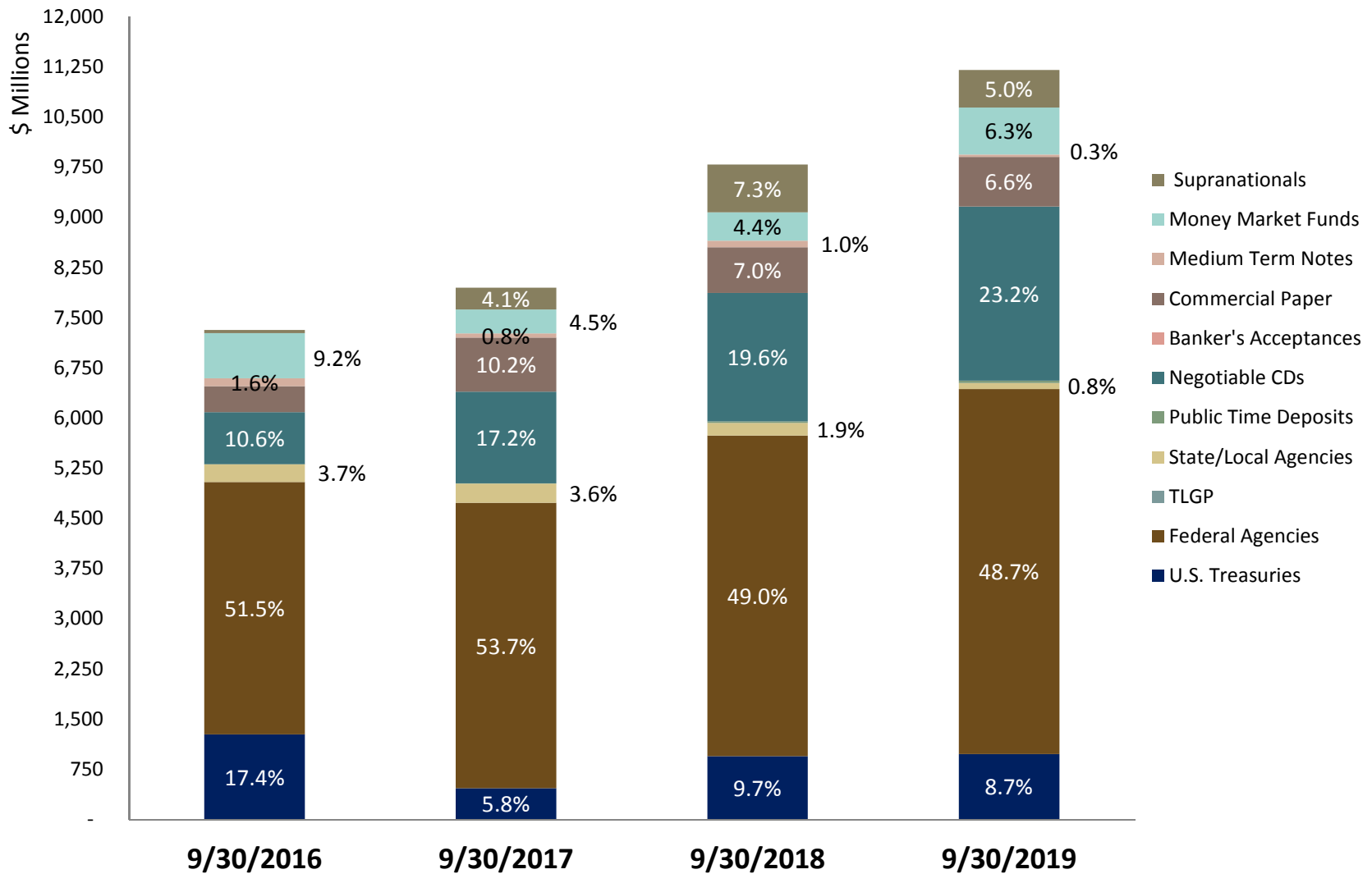
Maturity Distribution



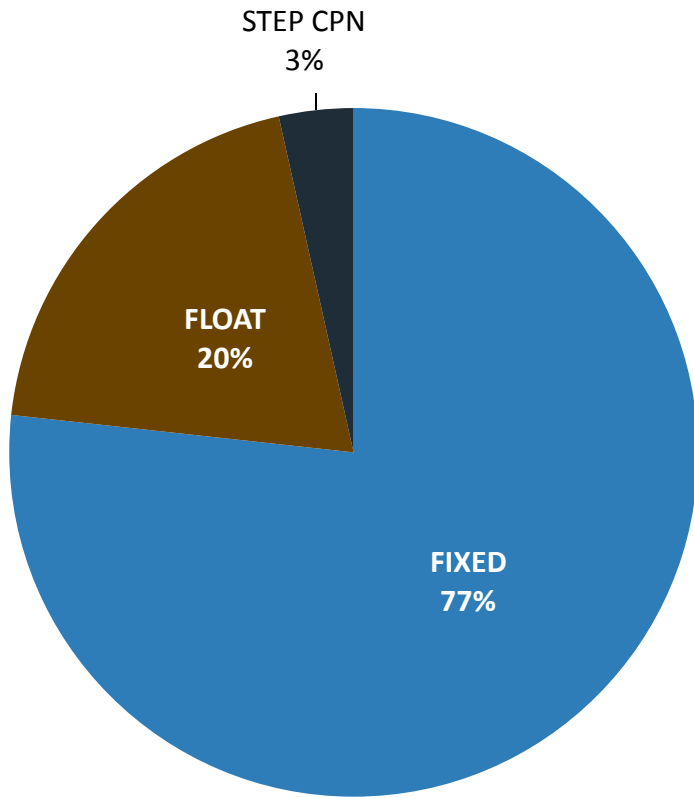
Effective Maturity Distribution



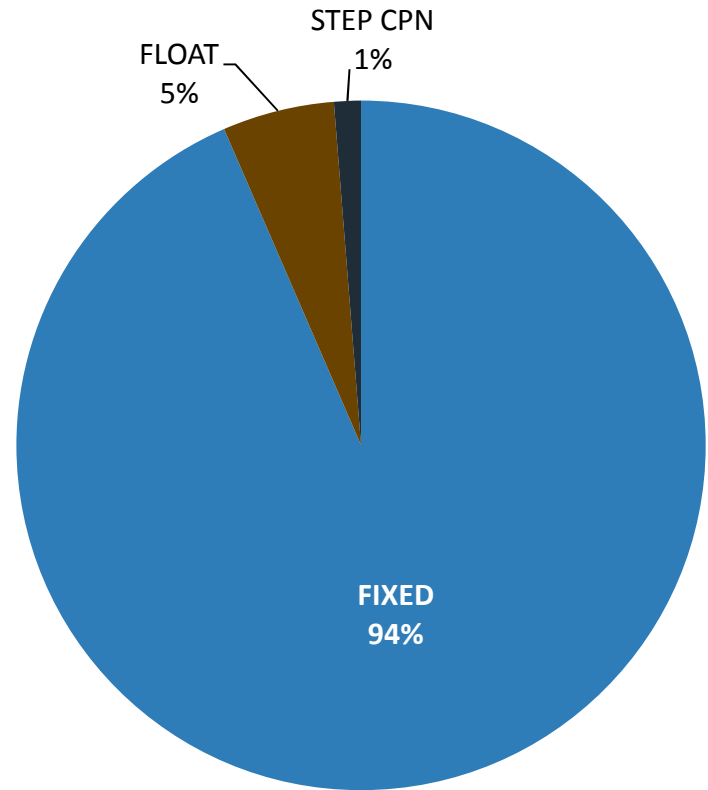
Portfolio Comparison



Portfolio Comparison

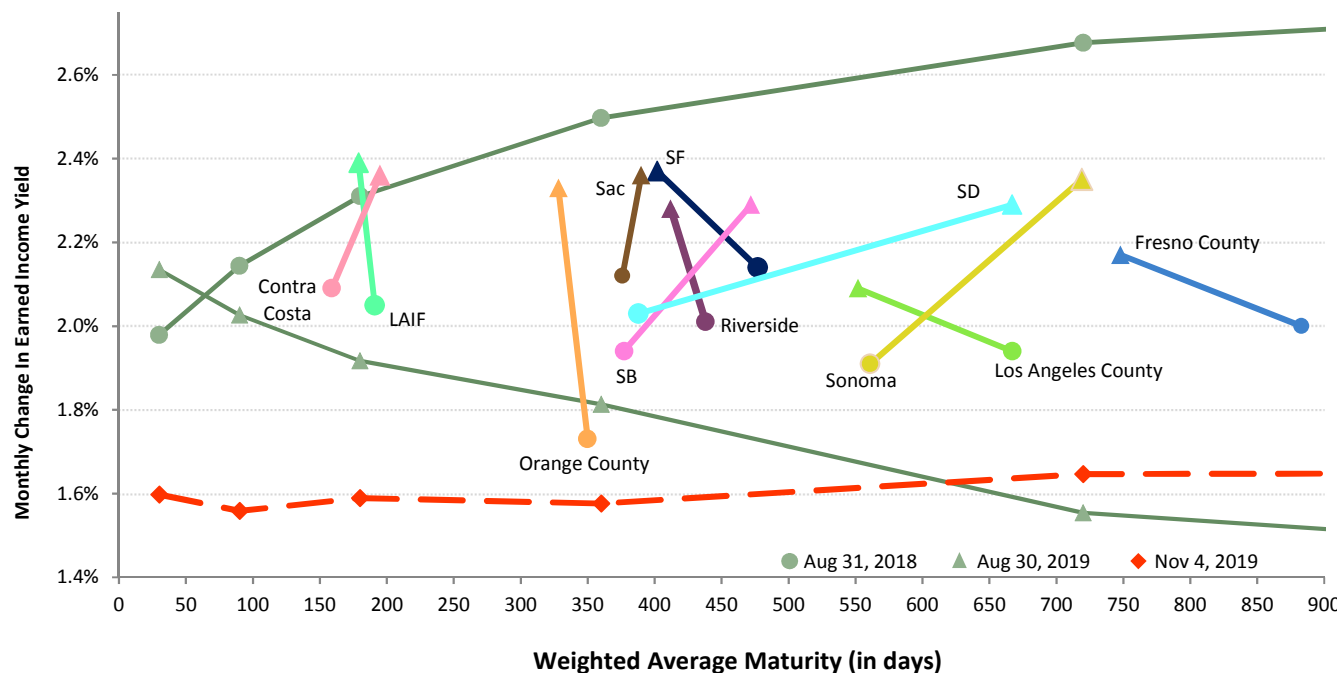


September 30, 2018



September 30, 2019

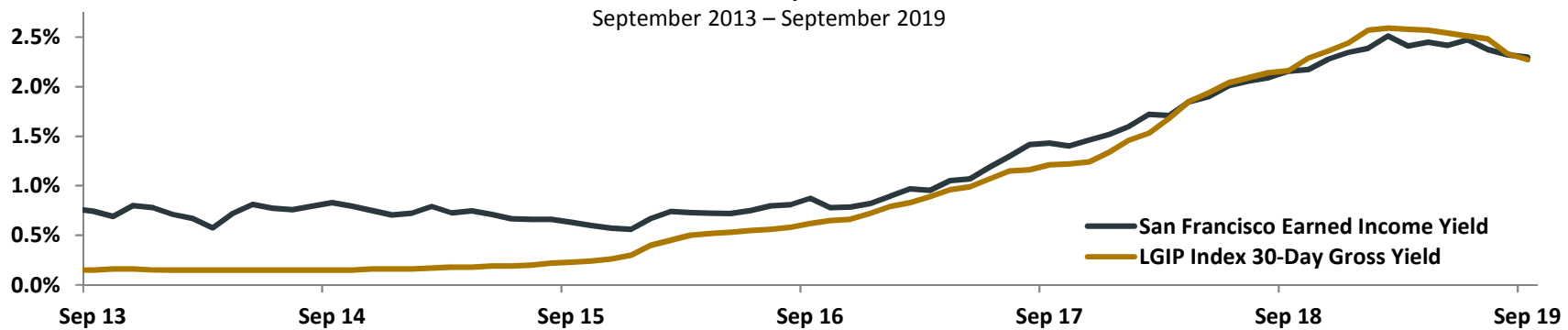
County Pooled Fund Statistics



Name of Fund	Portfolio Size* (\$ mns)
Los Angeles County	\$27,584.0
LAIF	24,268.6
City and County of San Francisco	10,639.3
San Diego County	8,637.8
Riverside County	6,525.7
San Bernardino County	6,240.0
Orange County (ex. Schools)	3,754.3
Fresno	3,572.0
Sacramento County	3,458.7
Contra Costa County	2,484.6
Sonoma County	2,208.9

* as of August 2019

LGIP Index 30-Day Gross Yield
September 2013 – September 2019



Sources: Bloomberg, Sacramento County as of 10/21/2019

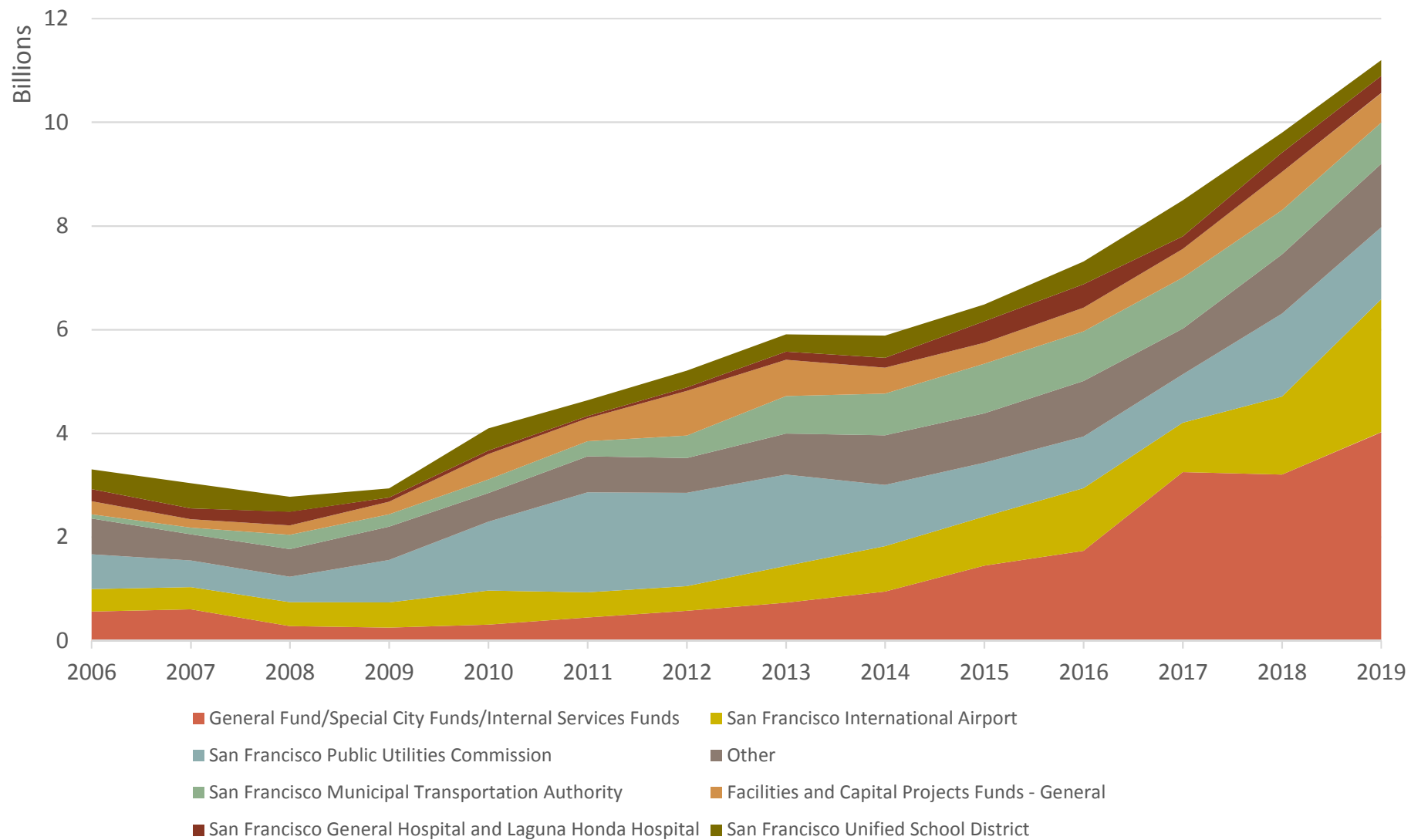
Pool Participants Breakdown

As of September 2019

Pool Participant	Fund Balance	Percent of Fund
General Fund/Special City Funds/Internal Services Funds	\$4,022,743,111	35.92%
San Francisco International Airport	2,563,276,898	22.89%
San Francisco Public Utilities Commission	1,389,004,684	12.40%
San Francisco Municipal Transportation Authority	794,531,244	7.09%
Facilities and Capital Projects Funds - General	568,921,176	5.08%
San Francisco Unified School District	528,669,920	4.72%
San Francisco General Hospital and Laguna Honda Hospital	330,882,940	2.95%
Other agencies (incl. Transbay Joint Powers, Trial Courts)	305,918,959	2.73%
OCII - Successor Agency – former SFRDA	273,333,290	2.44%
Port of San Francisco	204,591,739	1.83%
San Francisco Community College District	87,132,350	0.78%
San Francisco County Transportation Authority	82,575,922	0.74%
Pension and Retiree Health Care Trust Fund	48,296,245	0.43%
Totals	\$11,199,878,480	100.0%

Pool Participants Trends

September 30, 2006 – September 30, 2019



Appendix A

Cash Flow Model Outline – How it was developed

1. Daily CF Data extracted from CashPro (BofA) for prior (FY19) Fiscal Year;
2. Outflow (aka, Spending) data aggregated to Biweekly payroll cycle;
3. Adjust for known & recurring outflows:
 - a) Payroll;
 - b) Payroll Taxes;
 - c) Kaiser medical payment;
 - d) Debt Service (CCSF, PUC, SFO, OCII, etc.);
 - e) Pension payments; and
 - f) Airport Capital Spending.
4. Result is a “Baseline” for spending that can be projected forward for the next Fiscal Year;

Appendix A

Cash Flow Model Outline – How it was developed

5. Introduce a “growth factor” for baseline spending, payroll, payroll taxes, Kaiser and monthly pension payment to reflect contractual increases and general inflation. Currently modeled at 3%;
6. Add Debt Service, SFO Capital Spending and annual Pension Contribution based on information provided;
7. Result is a forecast of Gross CCSF outflows;
8. Subtract known Investment Pool Maturities;
9. Result: Cash Flow Shortfall (or Surplus);

Appendix A

Cash Flow Model Outline – How it was developed

10. Add in anticipated Inflows:

- a. Based on prior FY actuals;
- b. Adjusted for one-time (Bond Issuance) Inflows; and
- c. Include a Growth Factor to reflect inflation.

End Result

- A. Estimate of the Biweekly Cash Flow Deficit or Surplus; and
- A. Opportunity to identify significant Deficits or Surpluses that could be reduced through better portfolio management.

Appendix A

TTX Cash-Flow Actuals

	Gross Expenditures	Modeled Spending	Baseline
7/10/2018	980,528,780	(864,516,561)	116,012,219
7/24/2018	455,683,117	(237,856,799)	217,826,318
8/7/2018	635,951,045	(287,885,475)	348,065,570
8/21/2018	379,844,576	(242,866,309)	136,978,267
9/4/2018	433,589,686	(251,200,339)	182,389,348
9/18/2018	602,881,038	(282,795,078)	320,085,961
10/2/2018	602,551,877	(292,144,155)	310,407,722
10/16/2018	421,759,797	(163,427,196)	258,332,601
10/30/2018	701,567,519	(481,062,203)	220,505,316
11/13/2018	517,856,971	(253,268,038)	264,588,933
11/27/2018	492,812,284	(292,698,328)	200,113,956
12/11/2018	671,097,295	(253,186,706)	417,910,589
12/24/2018	561,787,698	(371,415,218)	190,372,480
1/8/2019	654,138,238	(218,000,000)	436,138,238
1/22/2019	504,508,232	(381,216,762)	123,291,469
2/5/2019	401,309,382	(218,000,000)	183,309,382
2/19/2019	619,879,229	(329,891,350)	289,987,879
3/5/2019	618,057,419	(254,737,519)	363,319,900
3/19/2019	618,311,097	(316,068,853)	302,242,243
4/2/2019	658,906,383	(272,836,890)	386,069,493
4/16/2019	494,677,196	(271,490,236)	223,186,960
4/30/2019	653,789,113	(306,134,279)	347,654,834
5/14/2019	484,807,880	(253,109,787)	231,698,093
5/28/2019	479,223,923	(294,329,918)	184,894,005
6/11/2019	504,169,772	(253,067,087)	251,102,685
6/25/2019	1,299,192,836	(848,235,491)	450,957,345
6/30/2019	114,993,048	0	114,993,048
	15,563,875,431	(8,491,440,577)	7,072,434,854

Appendix A

TTX Cash-Flow Forecasting Model

	Baseline	Expenses subject to Growth	Debt Service	Other	Gross Expenditures	Known Bond Maturities	Un Covered Expenses	Projected InFlows	Cash-Flow Surplus / (Deficit)
7/9/2019	116,012,219	264,424,251	0	706,102,000	1,086,538,470	926,011,000	160,527,470	131,680,387	28,847,083
7/23/2019	217,826,318	133,760,000	0	118,221,297	469,807,615	175,000,000	294,807,615	255,768,851	39,038,764
8/6/2019	348,065,570	264,218,656	35,044,656	0	647,328,882	451,010,000	196,318,882	505,191,023	(308,872,141)
8/20/2019	136,978,267	133,760,000	0	115,053,326	385,791,593	300,000,000	85,791,593	202,006,790	(116,215,196)
9/3/2019	182,389,348	227,810,000	33,200,339	0	443,399,686	193,450,000	249,949,686	365,568,283	(115,618,597)
9/17/2019	320,085,961	169,804,671	0	115,087,752	604,978,383	344,716,000	260,262,383	147,385,885	112,876,499
10/1/2019	310,407,722	227,810,000	74,144,155	0	612,361,877	361,500,000	250,861,877	462,646,689	(211,784,811)
10/15/2019	258,332,601	170,781,420	0	0	429,114,021	221,000,000	208,114,021	243,592,999	(35,478,978)
10/29/2019	220,505,316	133,760,000	225,895,311	107,966,929	688,127,556	389,800,000	298,327,556	479,579,985	(181,252,429)
11/12/2019	264,588,933	264,665,099	0	0	529,254,032	259,650,000	269,604,032	401,031,300	(131,427,267)
11/26/2019	200,113,956	133,760,000	35,134,712	85,543,459	454,552,127	183,950,000	270,602,127	347,159,758	(76,557,631)
12/10/2019	417,910,589	264,580,108	0	0	682,490,697	300,000,000	382,490,697	823,427,530	(440,936,833)
12/24/2019	190,372,480	133,760,000	110,221,517	79,683,097	514,037,094	121,360,000	392,677,094	225,674,257	167,002,837
1/7/2020	436,138,238	227,810,000	0	0	663,948,238	125,000,000	538,948,238	487,879,923	51,068,315
1/21/2020	123,291,469	170,676,406	55,867,535	89,976,589	439,811,999	147,295,000	292,516,999	210,534,888	81,982,111
2/4/2020	183,309,382	227,810,000	0	0	411,119,382	190,000,000	221,119,382	538,147,683	(317,028,302)
2/18/2020	289,987,879	169,804,587	0	75,914,414	535,706,879	200,000,000	335,706,879	148,416,206	187,290,673
3/3/2020	363,319,900	227,810,000	36,737,519	0	627,867,419	250,000,000	377,867,419	921,270,147	(543,402,728)
3/17/2020	302,242,243	170,592,860	0	80,299,392	553,134,496	15,710,000	537,424,496	305,700,316	231,724,180
3/31/2020	386,069,493	227,810,000	54,836,890	0	668,716,383	170,000,000	498,716,383	679,978,409	(181,262,026)
4/14/2020	223,186,960	170,518,949	108,314,209	0	502,020,118	65,000,000	437,020,118	559,099,823	(122,079,705)
4/28/2020	347,654,834	133,760,000	37,441,068	114,288,102	633,144,004	125,000,000	508,144,004	587,450,036	(79,306,031)
5/12/2020	231,698,093	264,499,727	0	0	496,197,820	58,995,227	437,202,593	230,808,998	206,393,596
5/26/2020	184,894,005	133,760,000	32,426,378	115,521,666	466,602,049	15,750,000	450,852,049	218,561,562	232,290,487
6/9/2020	251,102,685	264,455,106	0	0	515,557,791	0	515,557,791	407,770,488	107,787,302
6/23/2020	450,957,345	133,760,000	591,808,420	115,419,028	1,291,944,793	251,900,000	1,040,044,793	432,100,455	607,944,338
6/30/2020	114,993,048	0	0	0	114,993,048	14,675,000	100,318,048	396,206,284	(295,888,236)
	7,072,434,854	5,045,961,839	1,431,072,708	1,919,077,051	15,468,546,453	5,856,772,227	9,611,774,226	10,714,638,953	(1,102,864,728)