

Table of Contents

Thoughts from the desk	3
Overview	4
Domestic economy	6
Central bank monetary policy	12
Markets and performance	18
Global economy	25
Portfolio management strategy	29



Thoughts from the desk

U.S. macroeconomic outlook

Advanced estimates for Q4 real GDP rose at a 2.6 percent annual rate, lower than the consensus of 3.2 percent. However, the economy was stronger than the release number would suggest. Consumer spending, business investments and residential fixed investments rose at a 4.6 percent annual rate, while trade deficit and slower pace of inventory formation deducted from GDP. Meanwhile, Q3 GDP grew at a 3.2 percent annual rate in the third quarter as the U.S. economy expanded at the fastest pace since the first quarter of 2015.

The unemployment rate continued to trend lower to its current rate of 4.1 percent while the labor participation rate averaged 62.8 percent in 2017, with little change from peak to trough. Although employment growth in the healthcare sector added 300K jobs in 2017, it slowed from 2016's pace of 379K. Construction hiring, on the other hand, improved from 2016 to produce 210K jobs in 2017. As wage growth remained range bound for much of 2017, the lowest percentage of earners experienced the sharpest wage increase, albeit rising from years of stagnant to zero growth.

The FOMC has signaled three rate hikes for 2018 via its dot plot and economic projections with market participants expecting a gradual increase to its benchmark rates. The Federal Reserve will surely look to remove monetary accommodations without putting the economic expansion at risk.

Global macroeconomic outlook

Prospective growth in the developed economies and policy uncertainties in the United States placed downward pressure on the U.S. dollar against most major currencies. The dollar index dropped 10 percent in 2017, its worst performance in 14 years, while the euro experienced a 14 percent increase in the same period.

The Eurozone economy is on track to grow at the fastest pace since 2007, as GDP came in at 0.6 percent in the third quarter of 2017. On a year-on-year basis, the region grew 2.6 percent with Germany and Italy having picked up the pace while France and Spain eased slightly. The German economy rose 0.8 percent on the quarter while the second largest economy, France, grew 0.5 percent in the same period, or 2.2 percent annualized. Italy also came in at 0.5 percent; household spending and net exports accounted for the majority of the growth. Conversely, the British economy is less rosy, as a drop in the sterling resulted in unexpected increases to import prices. In the quarter, the British economy expanded 0.4 percent, or 1.5 percent annually.

With global central banks signaling their intentions to tighten monetary policies, sovereign bonds will look to break further away from their zero bound targets.

Overview



Domestic economy

- Advanced readings of Q4 economic activity showed the U.S. economy expanded at a healthy pace of 2.6 percent. The initial reading was below consensus expectations and also below the above 3 percent growth numbers of the prior two quarters.
- Q4 GDP number was fueled by consumer spending, which jumped 3.8 percent, the best in more than a year, while business investment grew at the fastest pace in three years at 11.4 percent. In addition, housing made a strong contribution, its first in three quarters.
- The tax overhaul that was approved at year-end has the power to further boost growth in the following quarters.
- Retail numbers released in the fourth quarter suggest that consumption accelerated in the last quarter of the year, which should translate into a strong consumption contribution to the overall economy in the final quarter of the year.
- The U.S. economy added just over 2 million jobs in 2017. This was the seventh year in a row of job gains. However, the pace of yearly job gains has been slowing for the last few years.
- The Fed's preferred inflation measure, core PCE, rebounded in August; however, it is still below the Fed's target at only 1.5 percent.
- Despite inflation being below the Fed's 2 percent target, expectations are for the Fed to continue the course stated in the last FOMC meeting and raise interest rates at least three times in 2018.



Central bank monetary policy

- Hawkish sentiment continues to build across the global monetary policy landscape. Recent projections from the Federal Reserve imply three additional rate hikes of 25 basis points in 2018 with several more penciled in for 2019.
 This has caused front-end Treasury yields to continue to rise.
- A synchronized global recovery and improving growth outlooks have continued to increase market participants' speculation as to the timing of a reduction in global monetary policy support from the ECB, BOJ and BOE. The removal of accommodation through a reduction in asset purchases or policy rate increases will continue to be a well-debated theme throughout 2018.
- Uncertainties still remain, such as the ultimate response of corporations and individuals to the recent tax reform, further policy changes such as healthcare reform and infrastructure spending, and how the Fed progresses on its path of policy tightening. The Fed is well underway on its tightening cycle, and its unprecedented balance sheet reduction is smoothly progressing.

Overview



Markets and performance

- Despite a flattening U.S. Treasury yield curve, U.S. investment grade credit spreads continued to tighten into year-end generating positive excess returns.
- At the rating level, BBB rated corporate bonds outperformed their low-beta counterparts in 2017 as spreads tightened.
- U.S. high-yield bonds outperformed their investment grade counterparts. The rally in the energy sector showed no signs of slowing as oil prices reached fivemonth highs.
- In 2018, the recently passed tax bill could affect the new issue market for corporate bonds, as it could incentivize corporations to use less debt due to repatriation, give cash back to shareholders and increased M&A activities.
- Corporate credit fundamentals remain solid overall. Credit metrics remained little changed from the previous quarter across all sectors.
- A number of changes from the recently enacted tax bill could restrain financial flexibility and increase borrowing costs for municipalities, thus negatively impacting credit quality. The outcome will vary among sectors and will likely change the supply and demand dynamics in the near term.



Global economy

- As most global economies continue to post positive growth, political events and changes in policy directions are primed to either accelerate the expansion or threaten to cause economic uncertainty.
- The narrowing of growth differential between the United States and the rest of the world has kept the overall sentiment on the dollar bearish in 2017, despite the solid economic backdrop and three rate hikes. The scope of the dollar narrative will continue to hinge on the major central banks' policy directions and the political landscape.
- In an effort to pre-emptively curb currency speculation and circumvent capital outflow, China has increased the level of exchange rate intervention to prop up CNY, after experiencing a volatile start in 2017.
- A rebound in the energy sector, solid consumer spending and strong employment have propelled the Canadian economy and its currency. After two rate hikes in 2017, the economic growth is expected to moderate. With an elevated Canadian dollar and uncertainty regarding NAFTA renegotiation, BOC will likely be cautious on future rate policy.

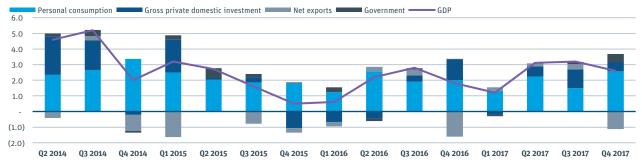




GDP: Solid growth

- Advanced readings of Q4 economic activity showed the U.S. economy expanded at a healthy pace of 2.6 percent. The initial reading was below consensus expectations and also below the above 3 percent growth numbers of the prior two quarters.
- Q4 GDP number was fueled by consumer spending, which jumped 3.8 percent, the best in more than a year, while business investment grew at the fastest pace in three years at 11.4 percent. In addition, housing made a strong contribution, its first in three quarters.
- Q4 GDP reflects an economy that continues to grow at a healthy pace. Moreover, the tax overhaul that was approved at the end of 2017 has the power to boost growth in future quarters.

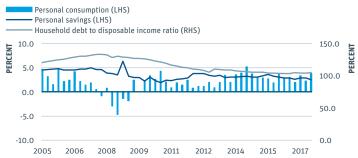
GDP and components



Source: Bureau of Economic Analysis (BEA), Congressional Budget Office (CBO) and SVB Asset Management. Data as of 1/30/2018. Note: GDP values shown in legend are % change vs. prior quarter, on an annualized basis.

Consumption: Strong prospects ahead

Consumption overview

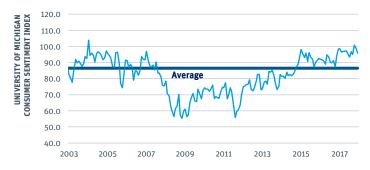


Retail and food service sales \$ IN BILLIONS / \$ IN MILLIONS



- The pace of consumer spending accelerated in Q4 to 3.8 percent according to advanced readings, following an increase of 2.2 percent the prior quarter.
- Retail numbers released in the fourth quarter suggest that consumption accelerated in the last quarter of the year, which should translate into a strong consumption contribution to the overall economy in the final quarter of the year.
- Consumer sentiment in 2017 was the highest since 2000. In December consumers were positive on the current economic conditions but concerned about the future.

Consumer sentiment

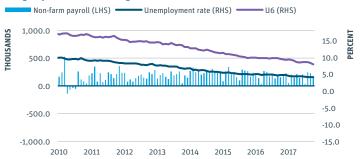


Source: Bloomberg and SVB Asset Management. Data as of 1/30/2018.



Employment: Solid gains

Employment landscape



Employment to population ratio



Labor force participation rate



- The U.S. economy added just over 2 million jobs in 2017. This was the seventh year in a row of job gains. However, the pace of yearly job gains has been slowing for the last few years.
- 2017 closed the year with the unemployment rate at 4.1 percent, which is considered full employment.
- Despite the 17-year low in the unemployment rate, wage growth remains steady with an average of 2.5 percent in 2017.
- The solid gains in the job market and low unemployment rate will support the Fed's outlook for at least three more rate increases in 2018.

Source: U.S. Bureau of Labor and Statistics (BLS), Bloomberg and SVB Asset Management. Data as of 12/31/2017.

Note: The underemployment rate U6, defined as persons marginally attached to the labor force, counts those who currently are neither working nor looking for work but indicate they want and are available for a job and have looked for work in the past 12 months.



U.S. housing: *Stable grounds*

Home sales and supply

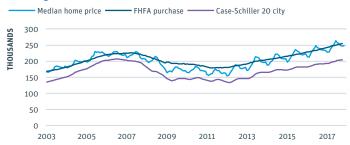


Housing affordability



Source: Bloomberg and SVB Asset Management. Data as of 12/31/2017.

Home prices — indexed to 100



Household formation



Inflation: Muted

Core PCE — % change from prior year

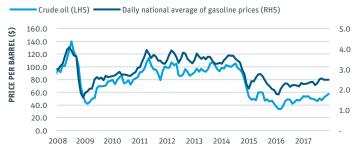


Wage growth



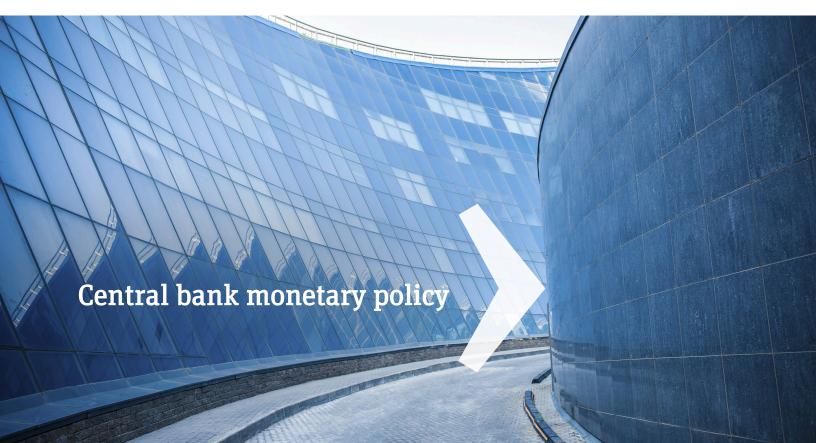
Source: Bloomberg and SVB Asset Management. Data as of 12/31/2017.

Crude oil and gasoline prices

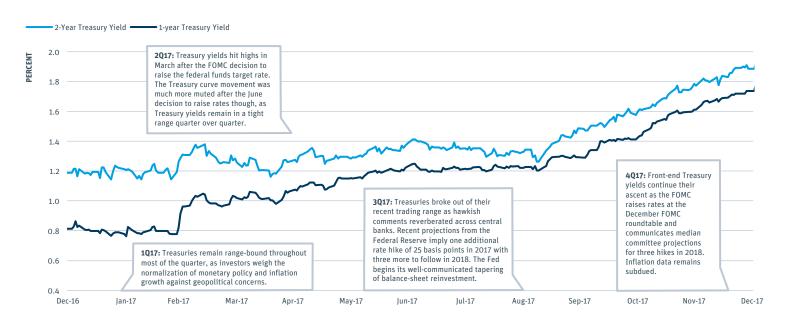


- The Fed's preferred inflation measure, core PCE, rebounded in August; however, it is still below the Fed's target at only 1.5 percent.
- Despite inflation being below the Fed's 2 percent target, expectations are for the Fed to continue the course stated in the last FOMC meeting and raise interest rates at least three times in 2018.
- The tax reform is expected to add some price pressure and hopefully stoke inflation.
- Crude oil prices continue to climb in response to falling inventories.





Historical interest rates: Path to normalization



Source: Bloomberg and SVB Asset Management. Data as of 12/31/2017.



Central bank economic projections: *Brighter outlook*

	2016	2017	2018	2019
Economic projections: United States				
Change in real GDP	1.5%	2.3%	2.5%	2.1%
Unemployment rate	4.9%	4.4%	3.9%	3.9%
Core PCE inflation	1.8%	1.5%	1.9%	2.0%
Economic projections: Eurozone				
Change in real GDP	1.8%	2.4%	2.3%	1.9%
CPI inflation	0.2%	1.5%	1.4%	1.5%
Unemployment rate	10.0%	9.1%	8.4%	7.8%
Economic projections: China				
Change in real GDP	6.7%	6.9%		
CPI inflation	2.0%	1.6%		
Unemployment rate	4.0%			
Economic projections: Japan				
Change in real GDP	0.9%	1.9%	1.4%	0.7%
Core CPI inflation	-0.2%	0.8%	1.4%	2.3%

Source: Federal Reserve, European Central Bank, National People's Congress of China, Bank of Japan. Data as of 01/30/2018. Forecasts are not available for all periods.



Federal Reserve rate projections: *Rising expectations*



Source: Bloomberg and Federal Reserve.

Data as of 1/9/2018. Percentages below the chart reference the median forecasted rate at the end of each period.



Central banks: *Mind the tightening*

	Japan	Eurozone	★ .* China	United Kingdom	United States
Central bank	Bank of Japan	European Central Bank	People's Bank of China	Bank of England	Federal Reserve
Benchmark rate	-0.10%	0.0%	4.35%	0.50%	1.25-1.50%
		Stable		Tightenir	ng
Current policy	Continue easing program, which includes targeting 10-year rates near zero, short-term rates at -0.1% and commitment to push inflation above 2 percent.	Maintain an expanded QE program that includes asset purchases with no rate change.	Remains on sidelines with major policy changes, as benchmark rate has been steady for approximately three years and no changes since March 2017 hike in auxiliary borrowing rates.	Increased benchmark rate by 25 bps in November 2017, with indications that two additional 25 bps rate hikes are planned.	Increased benchmark rates 25bps in December while maintaining planned reduction to its balance sheet.
Inflation	0.9%	0.9%	0.0% 1.0% 2.0%	3.0% 0.0% 1.0% 2.0% 3.0%	0.0% 1.0% 2.0%
Unemployment	2.7%	8.7%	4.0%	4.3%	4.1%
Analysis	No material policy changes expected until late 2018 due to unwavering push for inflation target, even as economy gains momentum. Bias for tightening over medium term. The ECB is poised to scale back its QE program before the end of 2018, as economic growth becomes durable and employment conditions improve further.		PBOC is expected to remain on the sidelines in 2018, as continued reform of financial regulations will act to tighten financial conditions.	With manufacturing and services activity steadily solid and inflation firmly above target, BOE is poised to strike again, though Brexit appears to be sidelining them until late 2018.	The Fed is poised to raise interest rates at least three times in 2018.

Source: Federal Reserve, European Central Bank, Bank of England, The People's Bank of China, Bank of Japan, Bloomberg, SVB Asset Management.



FOMC 2018: Changing of the guard

FOMC committee role	2017 year-end	Dove/Hawk	2018 transition	Beginning 2018	Dove/Hawk
BoG, Chair	Janet L. Yellen, Board of Governors, Chair	Dove	Yellen retiring February 2018, replaced by Jerome Powell	Jerome H. Powell, Board of Governors, Chair	Neutral
BoG, Vice Chair	Open Seat, Board of Governors, Vice Chairman	-	Pending Trump nomination	Open Seat, Board of Governors, Vice Chairman	-
BoG, Vice Chair for Supervision	Randal K. Quarles, Board of Governors	Neutral	Continuing in current role	Randal K. Quarles, Board of Governors, Vice Chair for Supervision	Neutral
BoG	Jerome H. Powell, Board of Governors	Neutral	Pending Trump nomination to replace Powell, who was confirmed as Chair	Open Seat, Board of Governors	-
BoG	Lael Brainard, Board of Governors	Dove	Continuing in current role	Lael Brainard, Board of Governors	Dove
BoG	Open Seat, Board of Governors	-	Pending Trump nomination	Open Seat, Board of Governors	-
BoG	Open Seat, Board of Governors	-	Marvin Goodfriend nominated	Marvin Goodfriend, Board of Governors*	-
ReserveBank President	William C. Dudley, New York, Vice Chairman	Dove	Retiring mid-2018	William C. Dudley, New York, Vice Chairman**	Dove
ReserveBank President	Charles L. Evans, Chicago	Dove	Evans rotating off committee	Loretta J. Mester, Cleveland	Hawk
ReserveBank President	Patrick Harker, Philadelphia	Hawk	Harker rotating off committee	Thomas I. Barkin, Richmond	Hawk
ReserveBank President	Robert S. Kaplan, Dallas	Neutral	Kaplan rotating off committee	Raphael W. Bostic, Atlanta	Neutral
ReserveBank President	Neel Kashkari, Minneapolis	Most Dovish	Kashkari rotating off committee	John C. Williams, San Francisco	Hawk

^{*}Awaiting confirmation

Source: FRB, Bloomberg as of 1/10/2018.



^{**}William Dudley to retire mid-2018





Fixed income returns: Overview

		Basic statistic	s	Spread	change	Total re	turn %	Excess re	eturn %
	Spread	Yield	Duration	Q4 2017	2017	Q4 2017	2017	Q4 2017	2017
1-3yr Treasuries	0.00	1.89	1.86	0.00	0.00	-0.25	0.42	0.00	0.00
1-3yr agencies	10.00	1.97	1.82	-1.00	-2.00	-0.19	0.67	0.00	0.21
O-3yr MBS	12.00	2.22	2.29	-3.00	-26.00	0.03	0.83	0.24	0.18
1-3yr ABS	44.00	2.19	1.29	-4.00	-24.00	0.18	1.53	0.19	0.96
1-3yr IG corporates	52.00	2.40	1.88	-5.00	-36.00	-0.02	1.90	0.20	1.47
3-5yr IG corporates	69.00	2.80	3.62	-6.00	-35.00	-0.09	3.34	0.45	2.52
5-10yr IG corporates	101.00	3.34	6.34	-9.00	-31.00	0.52	5.78	0.95	3.67
1-5yr high yield	428.00	6.31	2.27	16.00	-82.00	0.35	6.42	0.56	5.68
			1-3yr corp	orates by ratin	g				
AAA	19.00	2.08	1.94	-1.00	-15.00	-0.13	1.13	0.04	0.62
AA	35.00	2.22	1.88	-2.00	-27.00	-0.11	1.49	0.10	1.06
A	45.00	2.33	1.88	-5.00	-33.00	-0.03	1.74	0.19	1.32
BBB	69.00	2.58	1.89	-5.00	-46.00	0.03	2.29	0.25	1.87
1-3yr corporates by sector									
Financial	52.00	2.40	1.89	-7.00	-41.00	0.01	2.01	0.23	1.60
Industrials	52.00	2.40	1.88	-2.00	-32.00	-0.05	1.80	0.17	1.39
Utility/Energy	59.00	2.46	1.78	-5.00	-34.00	0.04	1.92	0.21	1.47

Spread is based on option adjusted spread. Duration is based on modified duration. Data as of 12/31/2017. Source: Bloomberg, ICE Bond Indices and SVB Asset Management.



Total return comparisons

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
US Treasury	Crude Oil	Gold	Gold	REIT	Wilshire	REIT	S&P 500	Crude Oil	S&P 500
6.67%	78.00%	29.67%	10.23%	16.47%	33.06%	28.24%	1.40%	44.80%	21.80%
Gold	Wilshire	REIT	Crude Oil	Wilshire	S&P 500	S&P 500	REIT	Wilshire	Wilshire
5.53%	28.29%	26.97%	8.15%	16.05%	32.39%	13.69%	1.30%	13.40%	21.00%
FI Credit	S&P 500	Wilshire	REIT	S&P 500	Crude Oil	Wilshire	FI Credit	S&P 500	Gold
0.30%	26.46%	17.18%	7.48%	16.00%	7.32%	12.70%	0.85%	12.00%	13.70%
S&P 500	REIT	Crude Oil	S&P 500	Gold	FI Credit	FI Credit	Wilshire	Gold	Crude Oil
-37.00%	26.27%	15.10%	2.11%	6.96%	1.45%	1.12%	0.70%	8.60%	12.50%
Wilshire	Gold	S&P 500	FI Credit	FI Credit	REIT	US Treasury	US Treasury	REIT	REIT
-37.23%	23.96%	15.06%	1.75%	3.69%	1.26%	0.63%	0.56%	7.10%	3.70%
REIT	FI Credit	FI Credit	US Treasury	US Treasury	US Treasury	Gold	Gold	FI Credit	FI Credit
-39.05%	11.59%	4.15%	1.55%	0.43%	0.36%	-1.51%	-10.50%	2.38%	1.91%
Crude Oil	US Treasury	US Treasury	Wilshire	Crude Oil	Gold	Crude Oil	Crude Oil	US Treasury	US Treasury
-53.52%	0.80%	2.40%	0.98%	-7.08%	-28.26%	-45.76%	-30.50%	0.89%	0.42%

All returns above are on a total return basis. 2017 returns are on a periodic basis up to 12/31/2017. FI Credit refers to BofA/ML US Corporate Bonds 1-3 year Index; Treasury refers to BofA/ML US Treasuries 1-3 year Index; Gold refers to S&P GSCI Gold Spot; Crude Oil refers to Spot West Texas Intermediate Crude Oil; Wilshire refers to Wilshire 5000 Total Market Index; REIT refers to MSCI US REIT Index; S&P 500 refers to S&P 500 Index.

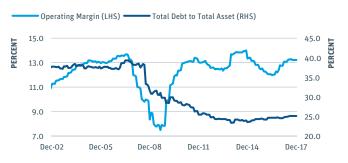
Source: Thomson Reuters, ICE Bond Indices and SVB Asset Management.



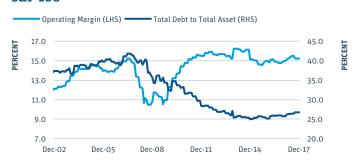
Credit cycle: Corporate credit health remains resilient

- Leverage has stayed near historic lows.
- Operating margin, though lower than the 2014 peak, remains elevated.

S&P 500



S&P 100



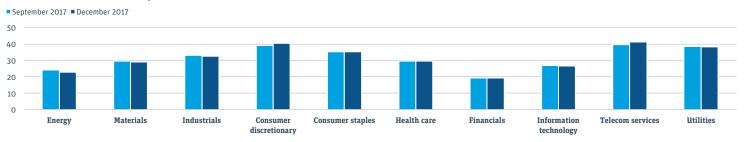
Source: Bloomberg. Data as of 12/31/2017.



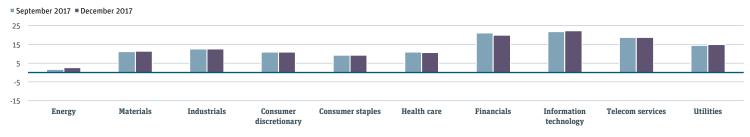
Credit cycle: Corporate credit fundamentals hold steady

· Across all corporate sectors, credit metrics showed little change sequentially from the previous quarter.

S&P 500 debt to assets by sector



S&P 500 operating margin by sector



Source: Bloomberg. Data as of 12/31/2017.



Tax reform: *More headwinds for municipalities*

Change	What it means	Implication
Corporate tax rate	 Reduce top corporate tax rate from 35 percent to 21 percent Banks, corporations and insurance companies are large investors 	Reduction in corporate demand due to less appeal on tax exemption will increase issuer borrowing costs
Individual tax rate	Reduce top tax rate from 39.6 percent to 37 percent	Minimal impact on demand from highest tax bracket individuals in high-tax states
State and local deduction	 Cap of \$10,000 for property, income and sales taxes Increase the effective state tax rate for taxpayers 	Diminished tax-raising flexibility for high-tax states and local municipalities in an attempt to remain competitive
Advance refunding	 Eliminate the issuer ability to advance refund previously issued bonds on a tax-exempt basis Newly issued bonds are taxable 	Reduce options for issuer on debt-saving strategy. Lower supply on new pre-refunded bond
Mortgage deduction interest	• Cap of \$750,000 loan	Lower tax revenues collection for municipalities from falling assessed property values in high-cost areas

 $Source: SVB\ Asset\ Management\ and\ the\ Tax\ Cuts\ and\ Jobs\ Act\ Conference\ Report,\ United\ States\ Congress.$



Corporate tax reform: *Implications for bond issuance*

Change	What it means	For bond issuance
Cut top rate	 Top corporate tax rate reduced from 35 percent to 21 percent Improve profit margins and cash flow 	Marginal impact on bond issuance
Immediate expensing of capital spending	 100 percent bonus depreciation through 2023 Reduce cash tax cost of capital projects Encourage investments 	Increase bond issuance in capital-intensive industries
Limit interest deduction	 Deduction beyond interest income capped Increase cost of borrowing Make equity financing relatively more attractive 	Reduce high-yield bond issuance for non-financials
Foreign cash repatriation	 Reduced one-time tax rate of 15.5 percent for cash and 8 percent for illiquid assets held overseas No tax on future foreign income 	Reduce investment-grade bond issuance in cash-rich sectors (technology and health care)

Source: SVB Asset Management and the Tax Cuts and Jobs Act Conference Report, United States Congress.







United States: The currency bears are lurking

Euro currency (EUR currency)



- Despite the solid economic backdrop and three rate hikes, the U.S. dollar faded to end the year. The EUR closed near its high of 2017 as the ECB contends that the Eurozone growth has stabilized.
- The British pound also closed the year on a high note. Any fear regarding Brexit negotiation progress was minimized by the quick and consistent response by the British government that they are ready to push forward.
- The one major economy that also raised rates was Canada. Correspondingly, its currency rose 6.60 percent for the year. Stable growth and stronger oil prices certainly gave the Canadian dollar an edge.

British pound (GBP currency)



Canadian dollar (CAD currency)



Source: Bloomberg, Silicon Valley Bank and SVB Asset Management. Data as of 1/5/2018.



Emerging markets: Winners, losers and push

Indian rupee (INR currency)



- India is expected to become the world's fifth largest economy in 2018 on the backs of strong manufacturing and growth-friendly policies. The Reserve Bank of India has also turned hawkish in recent quarters.
- Mexico's economy has decelerated throughout 2017, and the constant friction regarding trade like NAFTA is leaving many investors pessimistic that the country can rebound despite a recovery in crude prices.
- Despite constant volatility, the Russian ruble seems to be trading in a narrow band. Political relations remain a sore topic, but their effects are felt more in the United States. The bounce in crude oil will certainly support further growth.

Mexican peso (MXN currency)



Russian ruble (RUB currency)



Source: Bloomberg, Silicon Valley Bank and SVB Asset Management. Data as of 1/5/2018.



Global theme: The political arena

China yuan (CNY currency)



- China continues to fix its reference rates lower to levels not seen in two
 years against the dollar in the hopes of curbing speculative growth. China's
 central bank spent almost \$1 trillion in foreign reserves to support its
 currency throughout 2017.
- Onshore and offshore variance in rates has narrowed significantly. However, fund flows have dropped as CNY are trading very rich to the dollar.
- Tough trade rhetoric between China and the United States will be an ongoing concern, as any threat of a trade war will be a major negative event for both countries and global sentiment.

Dollar index (DXY index)



- By most economic metrics and a supportive Federal Reserve, the U.S. dollar should be trading higher than current levels. However, traders remain downbeat on the greenback.
- There is still doubt regarding the political landscape that the administration will be able to push more legislation through, with headwinds such as the Russian investigations capping enthusiasm on the dollar.
- Overall sentiment is that the dollar is bearish for the year, but a rally may
 materialize in the second half if we continue to see more rate hikes and
 continued economic strength or if hawkish overtones in Europe and the
 United Kingdom subside.

Source: Bloomberg, Silicon Valley Bank and SVB Asset Management. Data as of 1/5/2018.







Portfolio strategy: *Macro overview*

Economy	Solid data	 GDP: Q2 and Q3 both came in above 3 percent; Q4's first estimate is at 2.6 percent Unemployment rate: +4.1 percent — 17 year low Weekly jobless claims average (YoY): 245,000, below 300,000 since March 2015 Inflation below Fed's 2 percent target
Rates	Flat curve	 Yield curve flattened in 2017 with 2s10s spread flattening from +122 in the beginning of 2017 to +52 at the end of 2017 The difference in yield between 18- and 24- month Treasuries has averaged around five basis points in 2017 Our rate outlook is for yields to move directionally higher, largely based on stable economic data and the FOMC focused on normalization of Fed funds rate
Duration	Defensive	 Short and intermediate benchmarks: long duration vs. benchmark as coupon income should offset price volatility Intermediate-plus benchmarks: stay neutral to benchmark Long benchmarks: shorter to manage price fluctuations and maximize reinvestment opportunities
Sector	Overweight spread product	 Favor corporate bond, commercial paper and asset-backed securities. Diversify by security type, sector and issuer concentration As rates rise spread product will help protect bond prices due to higher income accruals

Source: SVB Asset Management and Bloomberg. Data as of 1/5/2018. Past performance is not a guarantee of future results. The above is not to be construed as a recommendation for your particular portfolio.



Portfolio strategy: Flat yield curve

- In 2017, the 2s10s curve fell below +60 bps for the first time in a decade.
- Comparing this rate-hiking cycle to 2004 and 2005, the curve has room to flatten even further in 2018 as the Fed raises rates.
- One reason for the very recent rise in the front end came after the Treasury department said it would issue more notes in the two- to five-year part of the curve instead of the long end causing longer yields to remain stable while shorter yields increased due to increased supply.

2s10s Treasury curve



Source: SVB Asset Management and Bloomberg, Data as of 1/5/2018. Past performance is not a guarantee of future results. The above is not to be construed as a recommendation for your particular portfolio.

Portfolio strategy: Relative value curve analysis

Front-end Treasury yield curve



- In 2017, Treasury yields rose across the curve led by the front end causing the curve to flatten.
- Front end offering double-digit yield pick up (six- and 9-month maturities).
- The difference in yield between 18- and 24month Treasuries has averaged around five basis points in 2017.

	Treasury	СР	ABS	AA Ind	A- Ind	AA Fin	A- Fin
90D	1.33	1.60	1.68	1.64	1.70	1.68	1.74
180D	1.58	1.70	1.78	1.72	1.79	1.78	1.84
270D	1.73	1.78	1.87	1.81	1.87	1.86	1.96
1Y	1.82		1.96	1.90	1.96	1.95	2.00
1.5Y	1.92		2.12	1.98	2.07	2.04	2.11
2Y	1.95		2.19	2.10	2.16	2.15	2.23
2.5Y	2.00		2.27	2.21	2.27	2.27	2.36
3Y	2.04		2.29	2.33	2.40	2.40	2.49



- Front end Treasury yields have risen approximately 80 basis points in 2017.
- Commercial paper and ABS yields have held steady relative to Treasuries. For example, 180 day CP yields have risen 60 basis points while ABS rose 70 basis points in 2017. Yields for 180day Treasuries rose almost 100 basis points during the same period.
- As rates rise, spread products help shield bond prices due to higher income accruals.

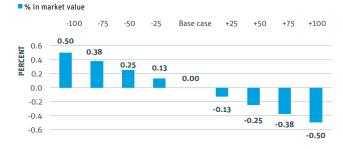
Source: SVB Asset Management and Bloomberg. Data as of 1/5/2018. Past performance is not a guarantee of future results. The above is not to be construed as a recommendation for your particular portfolio.



Portfolio strategy: Duration and interest rate risk management

	Short duration 3-6 month T-bill	Intermediate duration 9 month T-bill	Long duration 1 year Treasury
Benchmark duration	0.375	0.75	1.0
Portfolio duration target	-30% Neutral +30%	-30% Neutral +30%	-30% Neutral +30%

Duration (price sensitivity) analysis



- We exercise a disciplined benchmarking approach to manage portfolio duration where we position duration in a +/- 30 percent band around the appropriate benchmark.
- In a rising rate environment where a portfolio is more susceptible to unrealized losses, we mitigate this risk by managing average duration relative to the benchmark and by limiting exposure to longer-dated investments. This allows for greater reinvestment opportunity to take advantage of higher anticipated rates.

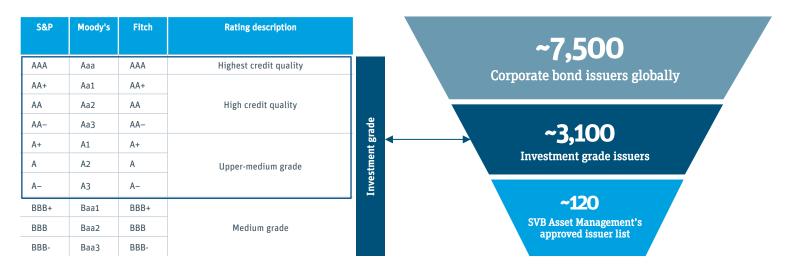
Source: SVB Asset Management and Bloomberg. Data as of 1/5/2018.

Past performance is not a guarantee of future results. The above is not to be construed as a recommendation for your particular portfolio as individual portfolio durations will vary.



^{*}Sample portfolio with duration of 0.5 years

Portfolio strategy: Credit risk management



- We are highly selective in our security selection process, and look to diversify by sector, sub-sector and issuer concentration.
- Our dedicated credit research team performs a rigorous examination of every issuer, as well as ongoing credit monitoring of all investments.
- The credit analysis incorporates a proprietary scoring system to analyze issuers.

Source: SVB Asset Management, Bloomberg and Moody's.



Our team

President, SVB Asset Management

Lauri Moss lmoss@svb.com

Head of Investment Strategy and Portfolio Management

Ninh Chung nchung@svb.com

Head of Credit Research

Melina Hadiwono, CFA mhadiwono@svb.com

Director of Portfolio Management

Renuka Kumar, CFA rkumar@svb.com

Portfolio Management Team

Eric Souza esouza@svb.com

Paula Solanes psolanes@svb.com

Jose Sevilla isevilla@svb.com

Steve Johnson sjohnson2@svb.com

Hiroshi Ikemoto hikemoto@svb.com

Jason Graveley jgraveley@svb.com

Silicon Valley Bank Partners

Teresa Quizon tquizon@svb.com

Credit and Risk

Tim Lee, CFA tlee@svb.com

Daeyoung Choi, CFA dchoi@svb.com

Nilani Murthy nmurthy@svb.com

Guest Contributors

Peter Ng Senior FX Trader png@svb.com

Minh Trang, CFA Senior FX Trader mtrang@svb.com

svb > Asset Management

This material, including without limitation the statistical information herein, is provided for informational purposes only. The material is based in part upon information from third-party sources that we believe to be reliable but which has not been independently verified by us and, as such, we do not represent that the information is accurate or complete. This information should not be viewed as tax, investment, legal or other advice, nor is it to be relied on in making an investment or other decision. You should obtain relevant and specific professional advice before making any investment decision. Nothing relating to the material should be construed as a solicitation, offer or recommendation to acquire or dispose of any investment or to engage in any other transaction.

All material presented, unless specifically indicated otherwise, is under copyright to SVB Asset Management and its affiliates and is for informational purposes only. None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied or distributed to any other party without the prior express written permission of SVB Asset Management. All trademarks, service marks and logos used in this material are trademarks or service marks or registered trademarks of SVB Financial Group or one of its affiliates or other entities.

©2018 SVB Financial Group. All rights reserved. Silicon Valley Bank is a member of the FDIC and the Federal Reserve System. Silicon Valley Bank is the California bank subsidiary of SVB Financial Group (Nasdaq: SIVB). SVB, SVB FINANCIAL GROUP, SILICON VALLEY BANK, MAKE NEXT HAPPEN NOW and the chevron device are trademarks of SVB Financial Group, used under license. MPID313 Rev 02-07-18.

SVB Asset Management, a registered investment advisor, is a non-bank affiliate of Silicon Valley Bank and member of SVB Financial Group. Investment products offered by SVB Asset Management:

Are not insured by the FDIC or any other federal government agency	Are not deposits of or guaranteed by a bank	May lose value
--	---	----------------

