

Economic Review and Outlook, 4Q18

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- Global growth is expected to finish 2018 around 3.7%.*
 - U.S. tax cuts, deregulation, fiscal spending, and higher business confidence propelled growth. However a stronger dollar and higher rates worked against emerging economies.
 - Consumer spending exceeded expectations as employment was at its highest levels since 2008. Global consumer confidence was strongest since the Great Recession.
 - In the second half of 2018, U.S. trade policy and tariffs dominated economic and financial markets. Tighter global monetary policy and modestly rising wages and inflation also contributed to the slower growth outlook. China's lower consumption, engineered to curb rising debt levels, was exacerbated as trade restrictions were implemented.
 - Productivity gains held back U.S. wage growth but by the end of the year, hourly wages increased by 3.2% (y-o-y). Lower oil prices helped keep inflation near the Fed's 2% target.
- Although financial markets started 2018 on a positive note, late cycle concerns about rising rates, uncertain trade policies, and potentially slower U.S. and global economic growth (or recession) were factored into market valuations in the last quarter of 2018. The 3-5 year yield curve briefly inverted in early December.
 - Riskier assets had the largest losses, and valuations declined below historical averages.
 - After 9 years of gains, the S&P500 was down 4.38% in 2018. Meanwhile, the MSCI-EM was down 14.58%. Cash was king at +1.8% and intermediate fixed income (Bloomberg Barclays U.S. Aggregate) was +0.1%.



U.S. Economic Highlights from the Fourth Quarter, 2018

- Fourth quarter real GDP (consensus, first estimate) was 2.6%*, as compared to third quarter's 3.4%.
 - Employment remained strong, although manufacturing (PMI and ISM) slowed. Nonmanufacturing business activity also moderated in December.
 - Consumer sentiment remained elevated, but consumer spending dropped in November*.
 - Higher mortgage rates weighed on existing home sales, new single family housing and prices.
 - Business investment flattened, as earnings guidance expressed concerns for 2019.
 - Core inflation was around the 2% Fed target. Lower oil prices improved the inflationary outlook and helped consumers funnel resources to holiday shopping.
- Ambiguity associated with the U.S./China trade policy spilled over into business operations and its outlook for the coming year. Despite trade discussions, a hope for a quick resolution faded.
- A partial government shutdown began late December; border wall funding created political discord.
- In December, the Fed increased the federal funds target range to 2.25-2.50%. While they lowered economic growth projections, Powell's comments did not present as dovish a tone as markets wanted, suggesting future rate hikes were still upcoming (dependent upon economic conditions).
- Considerable economic uncertainty lead to financial market volatility and a shift out of risky assets.
 - Concerns also focused on rising corporate debt and the U.S. budget deficit and debt levels.
 - Treasury rates declined, and the yield curve flattened over the quarter. Financial markets were negative, erasing any gains on the year.

Global Highlights from the Fourth Quarter, 2018

- Global events also weighed on financial market in the fourth quarter:
 - Brexit negotiations reached a stalemate; the U.K. parliament voted against an EU-approved plan for an orderly exit. Another vote will be necessary before the March 29th deadline (or a date extension) to avoid a "no deal" exit.
 - The Italian parliament reached a budget agreement with the EU, avoiding disciplinary action aimed at the that country's deficit and debt levels.
 - A carbon fuel tax increase in France resulted in extensive rioting; the tax was temporarily suspended until mid-2020.
 - EU growth and employment gains slowed over the fourth quarter; manufacturing, industrial production, and export demand trended lower. The ECB planned to end its monthly bond purchases but left interests rates unchanged for the time being, acknowledging slower 2018 growth than originally anticipated.
 - Consumer and manufacturing data in Japan also pointed to slower economic growth.
 - China's fourth quarter GDP declined to 6.4%, down from 6.5% in the third quarter. The pace of industrial production and consumption slowed over the quarter.
- Concerns about U.S./China trade issues and slowing global growth carried over into financial markets: developed market indices were down on the quarter, with emerging markets experiencing the largest losses.



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The outlook for global growth softened in the fourth quarter.

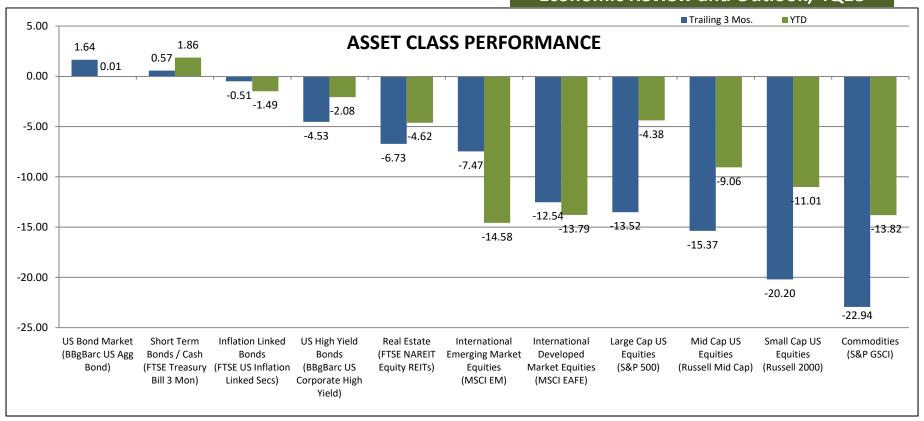
Global Purchasing Managers' Index for Manufacturing

	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
JPM Global	52.8	53	53	52.7	52.6	52.6	52.8	53.2	53.3	53.5	54.1	54.5	54.4	54.1	53.4	53.5	53.4	53	52.7	52.6	52.2	52.1	52	51.4
DM	54.2	54.1	53.9	54.1	54.1	53.9	54	54.2	54.6	55.2	55.8	56.3	56	55.7	54.9	54.6	54.7	54.4	54	53.8	53.6	53.2	52.8	52.3
EM	50.8	51.3	51.6	50.9	50.6	50.8	51	51.7	51.4	51.2	51.7	52.2	52	51.9	51.3	51.2	51.1	51.2	51	50.8	50.3	50.5	50.8	50.3
US	55	54.2	53.3	52.8	52.7	52	53.3	52.8	53.1	54.6	53.9	55.1	55.3	55.3	55.6	56.4	56.4	55.4	55.3	54.7	55.6	55.7	55.3	53.8
Canada	53.5	54.7	55.5	55.9	55.1	54.7	55.5	54.6	55	54.3	54.4	54.7	55.6	55.6	55.7	56.2	56.2	57.1	56.9	56.8	54.8	53.9	54.9	53.6
Japan	52.7	53.3	52.4	52.7	53.1	52.4	52.1	52.2	52.9	52.8	53.6	54	54.1	54.1	53.1	52.8	52.8	53	52.3	52.5	52.5	52.9	52.2	52.6
UK	55.4	54.6	54.3	57.1	56.4	54.2	55.3	56.8	56.1	56.3	58.2	56.3	54.9	55	55.1	54.3	54.3	54.4	54	53	53.6	51.1	53.6	54.2
Euro Area	55.2	55.4	56.2	56.7	57	57.4	56.6	57.4	58.1	58.5	60.1	60.6	58.6	58.6	56.6	55.5	55.5	54.9	55	54.6	53.2	52	51.8	51.4
Germany	56.4	56.8	58.3	58.2	59.5	59.6	58.1	59.3	60.6	60.6	62.5	63.3	60.6	60.6	58.2	56.9	56.9	55.9	57	55.9	53.7	52.2	51.8	51.5
France	53.6	52.2	53.3	55.1	53.8	54.8	54.9	55.8	56.1	56.1	57.7	58.8	55.9	55.9	53.7	54.4	54.4	52.5	53.3	53.5	52.5	51.2	50.8	49.7
Italy	53	55	55.7	56.2	55.1	55.2	55.1	56.3	56.3	57.8	58.3	57.4	56.8	56.8	55.1	52.7	52.7	53.3	51.3	50.1	50	49.2	48.6	49.2
Spain	55.6	54.8	53.9	54.5	55.4	54.7	54	52.4	54.3	55.8	56.1	55.8	56	56	54.8	53.4	53.4	53.4	52.9	53	51.4	51.8	52.6	51.1
China	51	51.7	51.2	50.3	49.6	50.4	51.1	51.6	51	51	50.8	51.5	51.6	51.6	51	51.1	51.1	51	50.8	50.6	50	50.1	50.2	49.7
India	50.4	50.7	52.5	52.5	51.6	50.9	47.9	51.2	51.2	50.3	52.6	54.7	52.1	52.1	51	51.2	51.2	53.1	52.3	51.7	52.2	53.1	54	53.2
Brazil	44	46.9	49.6	50.1	52	50.5	50	50.9	50.9	51.2	53.5	52.4	53.2	53.2	53.4	50.7	50.7	49.8	50.5	51.1	50.9	51.1	52.7	52.6
Mexico	50.8	50.6	51.5	50.7	51.2	52.3	51.2	52.2	52.8	49.2	52.4	51.7	51.6	51.6	52.4	51	51	52.1	52.1	50.7	51.7	50.7	49.7	49.7
Russia	54.7	52.5	52.4	50.8	52.4	50.3	52.7	51.6	51.9	51.1	51.5	52	50.2	50.2	50.6	49.8	49.8	49.5	48.1	48.9	50	51.3	52.6	51.7



Financial Market Performance

Economic Review and Outlook, 4Q18



PEI Research Group 4Q18 Market Commentary

- In a reversal from performance over the previous quarters, international equities outperformed U.S. equities for the fourth quarter, though still posting negative returns for the period.
- Emerging market equities, which struggled throughout the year, outperformed developed international and U.S. equities on the back of less aggressive guidance from the U.S. Federal Reserve regarding future interest rate hikes and a stabilization of U.S. dollar strength.
- Emerging Market country performance saw significant divergence with Brazil rallying strongly on a "market-friendly" election outcome while Mexican equities fell double digits on worries over the incoming government policies.
- Developed international equities evidenced weakness across countries as worries over trade tensions, slowing economic growth, contentious Brexit negotiations and tighter U.S. financial conditions remained at center stage.

Financial Market Performance

Economic Review and Outlook, 4Q18

	DOMESTIC EQUITY		\/=D	4 14		- 1/	40.1/
	Index	3 Mos.	YTD	1 Year	3 Year	5 Year	10 Year
	DJ Industrial Average	-11.31	-3.48	-3.48	12.94	9.70	13.16
Broad	S&P 500	-13.52	-4.38	-4.38	9.26	8.49	13.12
Market	NASDAQ Composite	-17.29	-2.84	-2.84	11.10	10.97	16.76
	Wilshire 5000 Total Market		-5.27	-5.27	9.12	8.07	13.20
Russell 1000		-13.82	-4.78	-4.78	9.09	8.21	13.28
Large Cap	Russell 1000 Growth	-15.89	-1.51	-1.51	11.15	10.40	15.29
	Russell 1000 Value		-8.27	-8.27	6.95	5.95	11.18
	Russell Mid Cap	-15.37	-9.06	-9.06	7.04	6.26	14.03
Mid Cap	Russell Mid Cap Growth	-15.99	-4.75	-4.75	8.59	7.42	15.12
	Russell Mid Cap Value	-14.95	-12.29	-12.29	6.06	5.44	13.03
	Russell 2000	-20.20	-11.01	-11.01	7.36	4.41	11.97
Small Cap	Russell 2000 Growth	-21.65	-9.31	-9.31	7.24	5.13	13.52
	Russell 2000 Value	-18.67	-12.86	-12.86	7.37	3.61	10.40

Source: Morningstar

INTERNATIONAL EQUITY

	Index	3 Mos.	YTD	1 Year	3 Year	5 Year	10 Year
	MSCI ACWI	-12.75	-9.42	-9.42	6.60	4.26	9.46
	MSCI ACWI Ex USA	-11.46	-14.20	-14.20	4.48	0.68	6.57
	MSCI EAFE	-12.54	-13.79	-13.79	2.87	0.53	6.32
	MSCI EAFE Growth	-13.33	-12.83	-12.83	2.89	1.62	7.07
	MSCI EAFE Value	-11.70	-14.78	-14.78	2.82	-0.61	5.50
Developed	MSCI EAFE Small Cap	-16.05	-17.89	-17.89	3.73	3.06	10.51
	MSCI Europe	-12.72	-14.86	-14.86	2.10	-0.61	6.15
	MSCI Europe Ex UK	-13.08	-15.14	-15.14	2.29	-0.13	5.79
	MSCI Pacific Free	-12.20	-12.02	-12.02	4.54	2.73	6.76
	MSCI Pacific Free Ex Japan	-7.94	-10.30	-10.30	6.79	2.10	9.89
	MSCI Japan	-14.23	-12.88	-12.88	3.41	3.06	5.33
	MSCI EM	-7.47	-14.58	-14.58	9.25	1.65	8.02
	MSCI BRIC	-5.32	-13.43	-13.43	11.22	2.95	7.63
Emerging	MSCI EM Latin America	0.36	-6.57	-6.57	14.85	-1.73	4.98
	MSCI EM Europe	-6.12	-12.06	-12.06	9.99	-4.51	4.53
	MSCI EM Asia	-9.29	-15.45	-15.45	8.63	3.94	9.81

	13.03	FTSE
	11.97	ICE I
	13.52	BBg
	10.40	BBg
		BBg
		BBg
	10 Year	BBg
	9.46	Sourc
	6.57	STA
	6.32	
	7.07	Med
	5.50	Med
	10.51	Con
	6.15	Source
	5.79	REA
	6.76	
	9.89	FTSE
	5.33	Bloc
	8.02	S&P
	7.63	Source
	4.98	
	4.53	
Ì	0.01	

FIXED INCOME						
Index	3 Mos.	YTD	1 Year	3 Year	5 Year	10 Year
BBgBarc US Agg Bond	1.64	0.01	0.01	2.06	2.52	3.48
BBgBarc US Government	2.54	0.88	0.88	1.41	1.99	2.12
BBgBarc US Credit	0.01	-2.11	-2.11	3.16	3.22	5.52
BBgBarc US Govt/Credit Interm	1.65	0.88	0.88	1.70	1.86	2.90
BBgBarc US Govt/Credit Long	0.78	-4.68	-4.68	4.03	5.37	5.88
FTSE US Inflation Linked Secs	-0.51	-1.49	-1.49	2.19	1.86	3.59
BBgBarc EM USD Aggregate	-0.18	-2.46	-2.46	5.05	4.23	8.47
BBgBarc ABS	1.25	1.77	1.77	1.78	1.70	4.55
BBgBarc US MBS	2.08	0.99	0.99	1.71	2.53	3.11
FTSE Treasury Bill 3 Mon	0.57	1.86	1.86	0.99	0.60	0.35
ICE BofAML 1-3Y US Trsy	1.29	1.58	1.58	0.96	0.81	0.95
BBgBarc US Corp Aaa	1.43	-2.08	-2.08	3.03	3.81	3.54
BBgBarc US Corp A	0.27	-2.50	-2.50	2.63	3.12	5.42
BBgBarc US Corp Baa	-0.82	-2.85	-2.85	3.98	3.46	7.28
BBgBarc US Corporate High Yield	-4.53	-2.08	-2.08	7.23	3.83	11.12
BBgBarc US HY Caa	-9.28	-3.84	-3.84	11.74	3.93	13.88

Source: Morningstar

STABLE VALUE & MONEY MARKET

Index	3 Mos.	YTD	1 Year	3 Year	5 Year	10 Year
Median Taxable Money Market Fund	0.57	1.87	1.87	0.95	0.61	0.44
Median Stable Value Fund	0.59	2.23	2.23	1.99	1.88	2.24
Consumer Price Index	-0.23	2.17	2.17	2.12	1.57	1.83

Source: PEI

REAL ASSETS

Index	3 Mos.	YTD	1 Year	3 Year	5 Year	10 Year
FTSE NAREIT Equity REITs	-6.73	-4.62	-4.62	2.89	7.90	12.12
Bloomberg Commodity	-9.41	-11.25	-11.25	0.30	-8.80	-3.78
S&P GSCI	-22.94	-13.82	-13.82	0.50	-14.52	-5.78

Source: Morningstar

Source: Morningstar



Global Outlook, 2019

- Global growth could diverge; A slowing U.S. economy is anticipated (GDP around 2.25-2.50% for 2019), while emerging markets (especially India and other lesser developed economies) could experience stable to higher growth in 2019 if the dollar and interest rates are stable.
 - Fading benefits from the 2018 tax cuts and lower consumer and fiscal spending will contribute to slowing U.S. growth. Lingering geopolitical uncertainty could translate into lower business spending.
 - China growth is anticipated to be 6.0-6.2% while the remaining emerging economies could see a combined average of around 4.9%.
 - The Fed expects 2 rate hikes (down from 3) in 2019 due to anticipated slower growth, lower oil prices and inflation at the 2% target. Some analysts see the Fed pausing or ending rate increases.
 - Most analysts have the probability of a U.S. recession around 25-30% in 2019, although the probability increases for 2020. Recessionary signs of economic excesses (high inflation and interest rates) do not exist in the short-term.
 - Global developed market growth in general is expected to slow, and while the ECB and BOJ could move to tighter monetary conditions in 2019, they are still working from a "near-zero" policy base.
 - Most analysts see corporate earnings, while positive, in single digits for 2019.
- Geopolitical factors will continue to impact the economic picture in 2019;
 - Excluding a full-out trade war which is not broadly anticipated, emerging market growth can resume, especially if oil prices and the dollar stabilize.
 - Analysts believe Brexit can occur in an orderly manner, although it will require a second parliamentary vote to support the EU-approved plan, or an extension past March 29, 2019 deadline will need to be granted.
 Portfolio

Outlook and Forecasts

Economic Review and Outlook, 4Q18

	First Quarter, 2019*	Second Quarter, 2019*		
U.S. GDP	2.2%	2.4%		
Unemployment	-	3.6%		
СРІ	2.0%	1.9%		
Fed Funds	2.25-2.50%	2.50-2.75%		

"China's growth slowdown could be faster than expected especially if trade tensions continue, and this can trigger abrupt sell-offs in financial and commodity markets"

> -International Monetary Fund, January 21, 2019

Other Projections as of January 18, 2019

	4Q18 U.S. GDP	2019 U.S. GDP	2019 Global GDP
Atlanta Federal Reserve Bank	2.8%	-	-
New York Federal Reserve Bank	2.57%	-	-
International Monetary Fund		2.5%	3.5%



SURVEY: SUMMARY OF EXPECTATIONS FROM GLOBAL INVESTMENT ADVISORS

2019 Forecasts	Global GDP	US GDP	US CPI	Fed Rate Increases	2019 Themes/Expectations
BlackRock	-	2.5%	-	2	 Fading fiscal stimulus and trade tensions will slow pace of economic growth, but not end expansion, with similar expectations for earnings Policy changes in the US and China will support domestic equities and emerging markets, also supported by a stable dollar/moderating Fed policy
Citibank	3.2%	2.8%	1.1%	2	 Slowing global growth but US will benefit from infrastructure spending and the fading impact of 2018 tax cuts; Fed could pause and USD may be lower Trade tensions continue and expect additional restrictions on China's imports and slight slowdown expected in emerging markets
Goldman Sachs	3.6%	2.4%	1.5%	1	 Risk of recession in 2019 is around 10% as labor market overheating and excessive private sector spending do not look "particularly threatening" Additional tariffs may be imposed on China but an agreement could be reached later in 2019
JP Morgan	2.9%	1.8%	-	2	 Slowing global economy; China growth around 6%, and trade tensions could escalate in second half of 2019. The Fed will slow pace of tightening While earning growth is expected to slow to single digits, low valuations, dividend reinvestment and buyback activity should support equity markets
Morgan Stanley	3.6%	2.3%	2.2%	2	 Slowing US/developed markets growth; fading impact of tax cuts and less fiscal stimulus will lead to a pause in Fed tightening Emerging economies will resume growth; overall higher global inflation leads to tighter monetary policy; ECB raises rates by end of 2019
PIMCO	2.75- 3.25%	2.00-2.50	1.5-2.0%	1-2	 Global economies more synchronized, with lower growth and inflation Chance of US recession about 30% in 2019, but not seeing the typical imbalances (high inflation/spending excesses) that cause Fed to overshoot Expect a resolution to trade discussions without full-blown trade war and Brexit will occur in a more orderly fashion than the market anticipates
Federal Reserve*	-	2.3%	1.9% (Total PCE)	2	 Economic growth will remain above trend in 2019 and then "slow to a pace closer to trend", around 2.0%, unemployment may decline further With low inflation, federal funds rate could be close to long-run neutral
Consensus**	-	2.2%	2.1%	2-3	• Unemployment excepted to bottom at 3.6%, < 25% probability of recession

^{*}Minutes of the Federal Open Market Committee, December 18-19, 2018 **Wall Street Journal survey of 76 economists, January 1, 2019

Risks

- Financial market's worst fear? The Federal Reserve will over-tighten monetary policy in an environment of slower global growth. Recent comments by Chairman Powell suggest otherwise.
- It is possible there are additional or prolonged trade tariffs on China's imports. Congress has yet to approve the tri-lateral USMCA trade agreement, and new trade terms with the EU are still being discussed.
- What impact could rising tariffs, higher oil prices and rising global wages have on inflation and central bank action?
- Brexit could end without an agreement between the U.K. and EU, and border issues between Ireland and the North go unresolved. What is the political fate of Theresa May and her party?
- How deep are the divisions within the EU? Are Italian budget deficit issues resolved? Will there be more populist uprisings in France and Spain?
- And in case that isn't enough:
 - Do Middle Eastern tensions escalate and will there be fallout from the Iran sanctions?
 - Will a de-nuclearization deal be reached with North Korea?
 - What is the outcome of the U.S. special investigation and Russian involvement in voter interference?