GIA PARTNERS

1st Quarter 2019

Highlights

- Markets recovered forcefully during the first quarter, helped by a more dovish Fed. Credit markets outperformed helping our portfolios deliver solid returns.
- Economic data confirmed a slowdown in global manufacturing, but services held up well. Key factors driving negative sentiment seemed poised to turn more favorable.
- News on the immigration crisis abounded during the quarter. Given the deterioration in the country's demographic composition, it behooves the government to legislate a comprehensive policy.

Markets

		Returns (%)			
GIA*	Average Quality	1Q19 Gross	1Q19 Net	12 Months Gross	12 Months Net
Core Plus Composite	**(A)**	**4.05**	**3.96**	**4.15**	**3.79**
Global Credit Plus Composite	**(BBB+)**	**5.35**	**5.22**	**4.47**	**3.95**
Emerging Market Debt Composite	**(BB+)**	**5.67**	**5.51**	**4.04**	**3.42**
Benchmark Bonds					
Bloomberg Barclay's U.S. Agg. Index	(AA+)	2.94		4.48	
Treasury	(AAA)	2.11		4.22	
Credit	(A)	4.87		4.90	
Mortgage	(AAA)	2.17		4.42	
Government/Credit	(AA)	3.26		4.48	
ICE BofAML U.S. Corporate & Yankees	(A-)	4.72		4.96	
ICE BofAML U.S. Corporate	(A-)	5.01		4.96	
ICE BofAML U.S. High Yield Cash Pay	(B+)	7.40		5.96	
ICE BofAML EM Corporate Plus	(BBB)	5.20		5.01	
ICE BofAML Global Gov't ex-US	(AA-)	2.17		2.44	
JPM Emerging Markets EMBI+	(BB+)	6.16		2.59	
JPM CEMBI Broad	(BBB-)	5.16		5.02	
JPM GBI-EM Global Diversified	(BBB)	2.92		-7.58	
Benchmark Equities					
S&P 500	NA	13.07		7.33	
Nasdaq Composite	NA	16.49		9.43	
Russell 2000	NA	14.18		0.67	
MSCI EAFE	NA	9.04		-6.49	
Europe	NA	10.01		-6.59	
Japan	NA	5.66		-9.72	
MSCI Emerging Markets Equity	NA	9.56		-9.63	

Markets

"Risk on" returned during the first quarter of 2019 after investors reassessed the factors driving the market's fourth quarter collapse. A critical actor, the U.S. Federal Reserve, provided a crucial assist to the recovery as it turned decisively more dovish following its seemingly stubborn December rate hike. Ironically, investors brushed weakening economic data aside to propel the U.S. equity market to its best quarterly performance since 2009. Credit markets also recovered from a fourth quarter thrashing, and did so in spite of the yield curve becoming oddly inverted, with three month rates exceeding ten-year rates near quarter end. In Europe, German government ten-year yields turned negative for the first time since 2016 as weakness in manufacturing scared the central bank into resuming stimulus. These unusual shifts in interest rates occurred because of a global pause in manufacturing, but they did not hold back riskier assets as commodities, emerging market equities and U.S. high yield posted stellar performance.

Investment grade credit spreads tightened, and the corporate debt market rode a decline in long-term interest rates to deliver strong absolute and relative returns. Investors set aside fears related to the growing debt load of BBB-rated companies with a sizeable recovery in fund inflows. The investment grade corporate bond index, the ICE Bank of America Merrill Lynch U.S. Corporate Index (C0A0), was up 5.01%, including a 2.49% surge in March. By comparison, the U.S. treasury index rose 2.18% as long term rates moved lower and three-month yields exceeded ten-year yields at the end of the quarter. Corporate option adjusted spreads (OAS) narrowed by 34 b.p. to 125 b.p., while the yield to worst of the index declined from 4.24% to 3.66%. Issuance for the quarter was $389.5 billion, nearly double the fourth quarter's pace and equaling last year's first quarter total. Improved sentiment and lower rates encouraged companies to tap the market.

The high yield market recovered more than what it lost during 4Q in performance through a combination of tightening spreads and lower interest rates. The sector benefited from renewed fund flows and strong creditworthiness to deliver among the best quarterly returns in fixed income. While spreads are still wider than they were at the end of the third quarter, the sector was lifted by the Fed's dovish turn and lower global rates. The ICE Bank of America Merrill Lynch U.S High Yield Index (H0A0) returned 7.40% more than offsetting 4Q's dismal (4.64%) decline. Spreads to worst narrowed by 126 b.p. from 533 b.p. to 407 b.p., while the yield to worst decreased from 7.90% to 6.39%. Unlike 4Q, retail investors returned to the market adding $12.2 billion, the largest quarterly inflow since 3Q 2012. The default rate decreased to 0.94% in March from 1.81% in December. While the rate was about half of December's level, the decline results from dropping last year's high default activity from the calculation. The new issue market "came alive" with $65.4 billion in issuance compared with a paltry $19.1 billion in 4Q. Leveraged debt investors tilted their preference toward fixed rate instruments following the Fed's dovish turn.

Emerging markets bonds also recovered as investors applauded the easing in financial conditions, courtesy of the world's central banks and a weaker U.S. dollar. Many countries experienced improved prospects including: China behind government stimulus, Brazil with a new administration, Russia supported by higher oil prices and India following improved electoral polling for the incumbent. For the quarter, the JPM Emerging Markets Bond Index Plus (EMBI+), a dollar denominated sovereign index, was up 6.16%, the JPM Corporate Emerging Markets Broad Index (CEMBI Broad) returned 5.16%, and the JPM Global Bond Index – Emerging Markets Global Diversified (GBI-EM Global Diversified), a local markets index gained 2.66%.

Portfolios

Our *Core Plus Composite* consists of portfolios that can hold securities rated below investment grade, but are managed against a Core fixed income benchmark. The Composite outperformed the Bloomberg Barclays U.S. Aggregate Index, net of fees, by 102 b.p. for the quarter and was behind by 69 b.p. over the last twelve months. Credit markets recovered meaningfully during the quarter as risk aversion evaporated, likely in response to a more supportive Fed. High yield, which underperformed by a staggering 628 b.p.in 4Q, was ahead by 446 b.p. in 1Q. With outperformance from investment grade and emerging markets as well, the composite received a strong boost. Over the past 12 months, the damage of 4Q held back relative returns.

Our *Global Credit Plus Composite* consists of portfolios holding investment and non-investment grade credit related securities. The Composite is measured against a benchmark consisting 85% of the ICE BofAML U.S. Corporate and Yankees and 15% of the ICE BofAML U.S. Cash Pay High Yield Index. The Composite outperformed the benchmark, net of fees, by 10 b.p. during the quarter, but was behind by 118 b.p. over the last twelve months. The portfolios had an allocation of approximately 75.0% U.S. investment grade, 13.4% high yield, and 9.6% emerging markets, of which 1.1% was below-investment grade rated. Despite an underweight to U.S. high yield, the Composite's securities outperformed the benchmark during the quarter, driven by a recovery in BBB rated securities and successful selection in high yield. Over the past 12 months, the portfolio's underweight to high yield and overweight to investment grade emerging markets caused the underperformance.

Our *Emerging Market Debt Composite* consists of portfolios investing in dollar denominated emerging market credit securities, primarily from corporate issuers. The Composite is measured against the ICE BofAML U.S. Emerging Markets Corporate Plus Index (EMUB). During the quarter the portfolio outperformed the benchmark by 31 b.p., net of fees, but was behind by 159 b.p. over the last twelve months. Like other higher risk sectors, emerging markets outperformed during the first quarter. However, important markets like Brazil and Argentina faded at the end of the quarter. The portfolio benefitted from an overweight to higher risk countries, but the magnitude was depressed by sizable exposure in Latin America. Over the last twelve months, the effects of last year's second quarter sell-off and year-end outflows depressed the Composite's relative performance.

Economy

After a fiscal stimulus supported 2018, the first quarter of 2019 will likely post a disappointingly lower growth rate. Foreshadowing the decline, global manufacturing began to deteriorate in 4Q 2018, led by sluggishness in China. During the second half of last year, China attempted to reign in excess credit, the U.S. pursued a trade war with the country and the Fed raised rates more than expected. Combined, these factors depressed Chinese activity and propelled a swoon in manufacturing globally, which carried over into 1Q. Particularly hard hit was Germany, which dragged down the Eurozone, a region already suffering with the specter of Brexit. Despite this discouraging economic picture, financial markets performed well raising the logical questions: is the global economy deteriorating and, if so, how quickly and how deeply?

Economists responding to the March WSJ Economic Survey reduced their expectations for 1Q growth to 1.4% from 2.2% in January. However, they raised their forecast for 2Q growth to 2.7% from 2.4%. Respondents likely did not have the

benefit of the Fed's decisively dovish turn in March or the European Central Bank's response to Germany's manufacturing collapse. Both of these suggest the world's largest central banks are again attempting to support economic activity.

Our industry reviews suggest companies are moving ahead with investment plans even though they expect more moderate growth. Economic data at the end of March provided a reprieve from the discouraging figures reported early in the month. Financial markets responded with equity markets closing higher, long term interest rates increasing and the yield curve restoring a positive slope.

Ian Shepherdson of Pantheon Macroeconomics phrased his outlook in terms of the most consequential factors currently affecting global economics: China's growth rate, the trade wars and Brexit. While each of these may still turn out poorly, they appear headed in a more favorable direction. To begin, China reported better manufacturing activity at the end of March and expectations are high for an announcement on trade in the coming weeks. Only Brexit remains a quandary, but observers believe the worst case scenario may have been averted.

Scenarios

We propose three scenarios for the U.S. economy over the next 6 months:

1. Our most likely case has the economy growing about 2.5% 2Q and 3Q 2019. While the U.S. economy has shifted to a slower pace of growth, we believe the factors generating negative sentiment have turned more favorable. In the U.S. the Fed's dovish turn after the March meeting led to a rally in riskier assets. Similarly, the European Central Bank reversed its quantitative easing pullback and offered new lending facilities to banks. China's stimulus seems to be working and trade talks appear to be reaching a favorable conclusion. March's month-end economic data came in mostly ahead of expectations, suggesting the factors holding back the economy, including poor weather and the government shutdown, have filtered through allowing growth to resume at a healthier pace. The employment picture in the U.S. continues to look good which should keep sentiment and consumption strong. PROBABILITY 60%

2. A second scenario has the economy returning to an above-trend growth rate of 3.0% to 3.5% over the next six months. If the U.S. and China announce a comprehensive trade agreement that restores the free flow of goods and services, the confidence effect could be meaningful for both economies. In addition, with monetary authorities restoring stimulus, recent economic sluggishness may prove temporary. PROBABILITY 20%

3. A third scenario has the economy declining to a 1.50% growth rate. Financial markets sent cautionary signals during 4Q, including the possibility that growth forecasts were wrong. The primary factors driving investment sentiment down, trade wars, Brexit and Chinese slowing, have not been decisively resolved, and their outcome does not guarantee economic improvement. Furthermore, in the U.S., the boost from 2017's tax cuts will not likely be repeated in 2019. Finally, political acrimony continues and will likely limit the government's ability to enact any growth oriented policies. PROBABILITY 20%

Market Outlook

Financial markets recovered forcefully after the set-back they suffered during the fourth quarter of 2018. Analytically, market behavior should probably be assessed by looking through the entire period and measuring changes from September to March. There is a message in the market's volatility, but when computed in terms of valuation, the most pronounced changes are in interest rates. Specifically, longer term rates in developed economies declined 50 to 60 basis points from September through March. Lower rates suggest the global economy is slowing and inflation will not likely gain traction. We agree broadly with this assessment, although we differ in degree. For the U.S., we believe the economy is slowing gradually to a still-reasonable pace of 2.5% and inflation will likely trend higher than currently expected because of the tight labor market. If we are correct, long-term interest rates should be higher than they are and the yield curve should steepen. Also, economic activity remains robust enough to support a benign outlook for higher risk markets, even if absolute returns are not as compelling over the next two quarters as during the first quarter of 2019.

Commentary – On Immigration and Demographics

Recently, news outlets have been flooded with articles, commentary and opinion on the refugee crisis at our southwestern border. Waves of people from Central America and Mexico have overwhelmed the authorities with asylum requests. According to the U.S. Customs and Border Protection, apprehensions in March exceeded 100 thousand people, more than double the number apprehended the same month last year. Total apprehensions during the 2019 fiscal year (October – March) already exceed 400 thousand, the largest six-month influx in over five years. There are many cringe-worthy aspects to this crisis, including humanitarian displacement, health dangers, safety fears, legal battles and political posturing. For years, government inaction on immigration has been a problem with daunting consequences for cities, states and companies attempting to comply with employment law. There is one facet of the problem that has not received much attention, yet may be the most consequential for the country, the demographic implications.

In a report released in January, the Centers for Disease Control and Prevention published 2017 data on births in the U.S. The bottom line is the birth rate in the U.S. has continued to decline. The general fertility rate (GER) in 2017 was 60.3 births per 1,000 females, a record low. The GER declined from 64.1 in 2010 and resulted in almost 144,000 fewer births in 2017 than in 2010. The GER is a measure applied to females aged 15-44, essentially their child bearing years. A deeper reading of the data is more discouraging because births to women in their 20s is declining and has shown a steady move lower for years. The birth rate for women in their 30s also declined in 2017, although the decline is less pronounced and not continuous as seen in younger age groups. In general, the data confirms women are waiting longer to have children and having fewer of them when deciding to procreate. These data are consistent with data confirming an upward trajectory in women seeking higher levels of education and participating more actively in the labor force.

In our first quarter 2013 letter, our commentary discussed the labor force participation rate and highlighted the demographic forces depressing the number of available workers. For that commentary we studied data from the 2010 census and noted the "bulge" in the labor force created by the "baby boomers" who had begun to reach retirement age. We wrote: "Demographic analysis can help explain economic developments, often with the benefit of hindsight. It seems clear, that coming demographic shifts present significant challenges for the country and the economy. Firstly, the soon retiring boomers, who helped expand the economy at a healthy pace during their more productive years, are expected to live 8 years more today than seniors in 1966. At the time the boomers commenced their working lives, the 65+ age cohort made up approximately 8.5% of the population and there were about 5.1 workers per retiree. In 2010 the 65+

cohort made up 13.0% of the population and there were only 3.0 workers per retiree. In addition, the Centers for Disease Control and Prevention (CDC) announced in February 2013 that the U.S. birth rate hit an all-time low in 2011. The demographic implications of this combination are daunting. The largest population cohort is retiring and the smallest cohort is not having babies."

According to the 2010 census data, in year 2000 the largest five-year cohort was the 35 to 39 years olds (born between 1961 and 1965). The four cohorts around those, ages 30 - 49, averaged of 21.4 million per five-year cohort, or about 5.4 million people per year. Table 1 below shows the number of live births in the U.S. since 2010, along with the combinations of five-year cohorts. In 2010, the smallest working-age five-year cohort (Table 2) was larger than all of the cohorts in the table below. Given current trends in childbirth, household formation, work and leisure preferences, it would appear the demographic trend depicted by the table below will continue. Perhaps mirroring Europe, Japan and other developed nations, the U.S. has become an aging nation.

Table 1

United States Births and Birth Rates 2010-2017

All Races and Origins	*Number*	*Birth Rate*	*Fertility Rate*	*Rolling 5-year*
2017	3,855,500	11.8	60.3	19,700,129
2016	3,945,875	12.2	62.0	19,797,470
2015	3,978,497	12.4	62.5	19,805,185
2014	3,988,076	12.5	62.9	19,826,074
2013	3,932,181	12.4	62.5	
2012	3,952,841	12.6	63.0	
2011	3,953,590	12.7	63.2	
2010	3,999,386	13.0	64.1	

Source: National Vital Statistics Reports, Volume 67 Number 8, November 7, 2018

Given these trends, it would be beneficial to legislate a comprehensive immigration policy. One of the laudable characteristics of the U.S. is that it has the capability of absorbing and assimilating large numbers of people, although it should be done in a thoughtful and measured way. Leaving politics aside, a reasonable policy might consider specific immigration targets. Data from the Customs and Border Protection suggests most asylum seekers are young and those arriving as families are accompanied by young children. While many adults may lack education, they tend to be eager to work and, more important, have offspring that can be educated and taught the skills to become more productive.

Comprehensive immigration policy requires thorough analysis and a thoughtful long-term strategy. The Census Bureau is preparing to conduct its decennial census giving the department data that can become a foundation for policy. One reasonable place to start is analyzing the demographic impetus to economic growth. Using existing data, simplistic analysis suggests: 1) a large youthful population is a harbinger of higher growth rates, and 2) the economy performs better with larger working age cohorts (i.e. like the Boomers traversing their productive years).

Table 2 below shows population cohorts from the 2000 and 2010 census. By advancing the 2010 cohorts by 10 years and taking birth data to populate the youngest, we can generate a working estimate for results in 2020. If we use the "boomer generation" size as a proxy for the desirable demographic composition of the population, each five-year cohort could be targeted to reach 21.5 million people. Even though this would have to be accomplished over many years following a disciplined review process, the data suggests that, on current trends, the country can benefit from a meaningful boost to its demographic composition.

Table 2

Population by Age				
Age	2000	2010	2020	
	Number	Number	Forecast*	Capacity**
Under 5	19,175,798	20,201,362	19,700,129	1,799,871
5 to 9	20,549,505	20,348,657	19,805,185	1,694,815
10 to 14	20,528,072	20,677,194	20,201,362	1,298,638
15 to 19	20,219,890	22,040,343	20,348,657	1,151,343
20 to 24	18,964,001	21,585,999	20,677,194	822,806
25 to 29	19,381,336	21,101,849	22,040,343	-540,343
30 to 34	20,510,388	19,962,099	21,585,999	-85,999
35 to 39	22,706,664	20,179,642	21,101,849	398,151
40 to 44	22,441,863	20,890,964	19,962,099	1,537,901
45 to 49	20,092,404	22,708,591	20,179,642	1,320,358
50 to 54	17,585,548	22,296,125	20,890,964	609,036

*Forecast uses birth data and advances 2010 numbers by 10 years
**Assumes optimal cohort size of 21.5 million

Sources: U.S. Census Bureau and National Vital Statistics Reports

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Important Information

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Index Definitions

Bloomberg Barclays U.S. Aggregate Index
The Barclays U.S. Aggregate Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

Bloomberg Barclays U.S. Treasury Index
This index is the U.S. Treasury component of the U.S. Government index. Public obligations of the U.S. Treasury with a remaining maturity of one year or more.

Bloomberg Barclays U.S .Government/Credit Index
The Government/Credit Index includes securities in the Government and Credit Indices. The Government Index includes treasuries and agencies. The Credit Index includes publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements.

Bloomberg Barclays U.S. Credit Index
This index is the U.S. Credit component of the U.S. Government/Credit index. Publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and quality requirements. To qualify, bonds must be SEC-registered.

Bloomberg Barclays U.S. Mortgage Backed Securities Index
This index is the U.S. MBS component of the U.S. Aggregate index. The MBS Index covers the mortgage-backed pass-through securities of Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC).

ICE BofAML U.S. Corporate & Yankees Index
The ICE BofAML U.S. Corporate & Yankees Index tracks the performance of US dollar denominated investment grade debt publicly issued in the US domestic market by US and non-US corporations and non-US quasi-governments.

ICE BofAML U.S. Corporate Index
The ICE BofAML U.S. Corporate Index tracks the performance of US dollar denominated investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have an investment grade rating (based on an average of Moody's, S&P and Fitch) and an investment grade rated country of risk (based on an average of Moody's, S&P and Fitch foreign currency long term sovereign debt ratings).

ICE BofAML U.S. Cash Pay High Yield Index
The ICE BofAML U.S. Cash Pay High Yield Index tracks the performance of below investment grade US dollar-denominated corporate bonds publicly issued in the US domestic market.

ICE BofAML Global Government Excluding the U.S. Index (N0G1)
The ICE BofAML Global Government Excluding the U.S. Index tracks the performance of publicly issued investment grade sovereign debt denominated in the issuer's own domestic currency. N0G1 excludes U.S. government bonds.

JP Morgan Corporate Emerging Markets Bond Index Broad (CEMBI Broad)
The CEMBI tracks total returns of US dollar-denominated debt instruments issued by corporate entities in Emerging Markets countries. Two variations are available: CEMBI Broad and CEMBI. The CEMBI Broad is the most comprehensive corporate benchmark followed by the CEMBI, which consists of an investable universe of corporate bonds. Both indices are also available in Diversified versions.

JP Morgan EMBI+ Index
The EMBI+ tracks total returns for U.S-dollar-denominated debt instruments of the emerging markets: Brady bonds, loans, Eurobonds. The EMBI+ currently covers 104 instruments across 15 countries.

JP Morgan Government Bond Index-Emerging Markets (GBI-EM)
The GBI-EM is the first comprehensive, global local Emerging Markets index, and consists of regularly traded, liquid fixed-rate, domestic currency government bonds to which international investors can gain exposure. Variations of the index are available to allow investors to select the most appropriate benchmark for their objectives.

S&P 500 Index
An index of 500 stocks chosen for market size, liquidity and industry grouping, among other factors. The S&P 500 is designed to be a leading indicator of U.S. equities and is meant to reflect the risk/return characteristics of the large cap universe.

Nasdaq Composite Index
An index that tracks the change in the total market value of all companies listed on the Nasdaq Stock Market.

Russell 2000 Index
An index measuring the performance of the 2,000 smallest companies in the Russell 3000 Index, which is made up of 3,000 of the biggest U.S. stocks. The Russell 2000 serves as a benchmark for small cap stocks in the United States.

MSCI EAFE Index
The index is a capitalization weighted index that monitors the performance of stocks from Europe, Australasia and the Far East.

MSCI EAFE- Europe Index
The index is a capitalization weighted index that monitors the performance of stocks from Europe.

MSCI EAFE- Japan Index
The index is a capitalization weighted index that monitors the performance of stocks from Japan.

MSCI Emerging Markets Equity
The MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets.