Invesco Investment Grade Credit SMA

First Quarter

Current portfolio positioning
US credit returns were quite robust for the quarter, posting their best results since the mid-1990s. While the decelerating global economy was driving rates lower over the period, which boosted valuations, credit investors were clamoring for yield and were less concerned with growing risk factors in the market. After the dismal fourth quarter 2018 for corporates, when spread premiums widened significantly, investors were well positioned to reenter the market at heightened yield levels. Global demand for US-based yield escalated amid the Federal Reserve’s pivot to delay rate hikes in 2019, after a year of steady increases had stymied investors, especially non-US investors faced with rising hedging costs.

US investment grade credit posted 273 basis points (bps) of excess return during the rally in spread premiums over the quarter. Industrials (295 bps) were the primary drivers of the outperformance, led by energy (425 bps), communications (372 bps) and basic materials (298 bps). Financials (257 bps) also fared well, with banking (260 bps) and insurance companies (253 bps) rebounding soundly from their weak tone within the fourth quarter. The utility sector (156 bps) had less of a bounce in relative return, given its relative outperformance versus the other sectors during the major sell-off. Investors had a clear preference for the lower-rated investment grade BBBs, which generated 328 bps of excess return, compared to A-rated bonds, which posted 229 bps.

Corporate technicals benefited from slightly lower new issuance of roughly $330 billion, compared to $341 billion in the same period last year. Nevertheless, the burgeoning demand for corporate credit drove spread tightening. Yields were at compelling levels, near seven-year highs, and dampening rate volatility attracted many large institutional buyers to the market, especially from Asia. Fundamentals remained supportive of allocations, even though investors’ concerns surrounding BBs persisted. Corporate leverage also remained high, but free cash flow and interest coverage ratios in key sectors were critical to the supportive environment. Terming out debt and deleveraging were also central strategies for issuers across sectors.

The Invesco Investment Grade Credit SMA recorded a positive return for the period and outperformed the Bloomberg Barclays US Credit Index primarily driven by the overweight to lower-rated investment grade securities and security selection within the financials, utility and industrials sub-sectors. Sector allocation within the tech-media-telecom and utility sub-sectors contributed positively to relative return, while allocations to the financials and consumer cyclical sub-sectors detracted for the period. A slight detractor from relative return was the modest underweight to duration as intermediate-term rates rallied over the course of the quarter.
Supplemental information to Invesco Investment Grade Credit SMA Wrap composite

Portfolio characteristics | Portfolio
--- | ---
Number of Holdings | 60
Yield-to-Worst (YTW) | 3.63
Weighted Average Maturity (Years) | 11.18
Modified Duration (Years) | 6.86
Effective Duration (Years) | 6.94

Portfolio characteristics are subject to change.

Effective duration (%)

- 0-2 years: 16.2%
- 2-4 years: 16.0%
- 4-6 years: 22.7%
- 6-8 years: 22.2%
- 10-15 years: 8.0%
- 15-20 years: 15.0%

Maturity (%)

- 0-2 years: 16.2%
- 2-4 years: 10.7%
- 4-6 years: 9.1%
- 6-8 years: 18.9%
- 8-10 years: 17.1%
- 15-20 years: 4.6%
- 20+ years: 23.6%

Credit quality (%)

- Cash: 3.8%
- AAA: 5.0%
- AA: 1.8%
- A: 28.4%
- BBB: 61.1%

Figures may not add up to 100% due to rounding. Cash and equivalents is deemed to have a 0% Maturity and Duration.

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Source: Invesco ■ Ratings source: Standard & Poor's, Moody's or Fitch, as applicable. A credit rating is an assessment provided by a nationally recognized statistical rating organization (NRSRO) of the creditworthiness of an issuer with respect to debt obligations, including specific securities, money market instruments or other debts. Ratings are measured on a scale that generally ranges from AAA (highest) to D (lowest); ratings are subject to change without notice. NR indicates the debtor was not rated, and should not be interpreted as indicating low quality. For more information on rating methodologies, please visit the following NRSRO website: www.standardandpoors.com and select ‘Understanding Ratings’ under Rating Resources on the homepage; www.moodys.com and select ‘Ratings Methodologies’ under Research and Ratings on the homepage; www.fitchratings.com and select ‘Ratings Definitions’ on the homepage. ■ Weighted average maturity is a measure, as estimated by the portfolio managers, of the length of time the average security in a bond will mature or be redeemed by the issuer. It takes into account mortgage payments, puts, adjustable coupons and potential call dates. ■ Modified duration is a duration calculated which incorporates the expected duration-shortening effect of an issuer’s embedded call provision. ■ Option adjusted duration is a measure, as estimated by the portfolio managers, of a bond portfolio’s price sensitivity to changes in interest rates. It takes into account mortgage prepayments, puts, adjustable coupons and potential call dates.
Sample portfolio (Supplemental information to Invesco Investment Grade Credit SMA on page 4)

### Top 10 holdings

<table>
<thead>
<tr>
<th>Security</th>
<th>Coupon</th>
<th>Maturity</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Citigroup Inc.</td>
<td>4.650</td>
<td>7/30/2045</td>
<td>1.89</td>
</tr>
<tr>
<td>2. Commonwealth Edison Co.</td>
<td>4.350</td>
<td>11/15/2045</td>
<td>1.89</td>
</tr>
<tr>
<td>3. Berkshire Hathaway Energy Co.</td>
<td>4.500</td>
<td>2/1/2045</td>
<td>1.88</td>
</tr>
<tr>
<td>4. Home Depot Inc.</td>
<td>3.900</td>
<td>12/6/2028</td>
<td>1.88</td>
</tr>
<tr>
<td>5. Zoetis Inc.</td>
<td>4.500</td>
<td>11/13/2025</td>
<td>1.88</td>
</tr>
<tr>
<td>6. Comcast Corp.</td>
<td>4.400</td>
<td>8/15/2035</td>
<td>1.85</td>
</tr>
<tr>
<td>7. MPLX LP</td>
<td>4.500</td>
<td>7/15/2023</td>
<td>1.85</td>
</tr>
<tr>
<td>8. UnitedHealth Group Inc.</td>
<td>3.750</td>
<td>7/15/2025</td>
<td>1.85</td>
</tr>
<tr>
<td>9. Bank of New York Mellon Corp.</td>
<td>5.850</td>
<td>12/31/2049</td>
<td>1.84</td>
</tr>
<tr>
<td>10. Bank of America Corp.</td>
<td>3.880</td>
<td>8/1/2025</td>
<td>1.83</td>
</tr>
</tbody>
</table>

### Other sample holdings

- AbbVie Inc. 4.450 5/14/2046
- Air Lease Corp 2.130 1/15/2020
- Altria Group Inc. 5.800 2/14/2039
- Altria Group Inc. 4.800 2/14/2029
- American International Group Inc. 4.700 7/10/2035
- Anheuser-Busch InBev Finance Inc. 4.900 2/1/2046
- Apple Inc. 2.850 2/23/2023
- AT&T Inc. 3.950 1/15/2025
- Bank of America Corp. 3.590 7/21/2028
- Bank of New York Mellon Corp. 4.630 12/31/2049
- Becton Dickinson and Co. 2.680 12/15/2019
- Capital One Financial Corp. 3.800 1/31/2028
- Celgene Corp. 2.880 8/15/2020
- Citigroup Inc. 4.450 9/29/2027
- Comcast Corp. 3.950 10/15/2025
- Concho Resources Inc. 3.750 10/1/2027
- CVS Health Corp. 2.800 7/20/2020
- CVS Health Corp. 4.300 3/25/2028
- Discovery Communications LLC 2.950 3/20/2023
- Enbridge Inc. 3.700 7/15/2027

This table illustrates the composition of a model portfolio as of the date listed and should not be considered as a recommendation to purchase or sell a particular security; additionally, there is no assurance that the securities purchased remain in the portfolio or that securities sold have not been repurchased. Past performance does not guarantee future results. Holdings may vary depending on program sponsor restrictions or specific client guidelines. To obtain a list of all recommendations made by Invesco Advisers, Inc. in this investment style during the last year, please contact Invesco Advisers, Inc. at 800 349 0953.

### Quarterly returns

<table>
<thead>
<tr>
<th>Period</th>
<th>&quot;Pure&quot; gross return (%)</th>
<th>Net return (%)</th>
<th>Bloomberg Barclays U.S. Credit Index Total Return (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Q19</td>
<td>5.38</td>
<td>5.00</td>
<td>4.87</td>
</tr>
</tbody>
</table>

Returns less than one year are not annualized.

* "Pure" gross of fees returns do not reflect the deduction of trading costs or any other expenses, and are supplemental to net returns. See note 5 on page 4.

### Annualized compound returns as of Mar. 31, 2019

<table>
<thead>
<tr>
<th>Period</th>
<th>&quot;Pure&quot; gross return (%)</th>
<th>Net return (%)</th>
<th>Bloomberg Barclays U.S. Credit Index Total Return (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Year</td>
<td>5.16</td>
<td>3.60</td>
<td>4.89</td>
</tr>
<tr>
<td>3 Year</td>
<td>3.07</td>
<td>1.17</td>
<td>3.48</td>
</tr>
<tr>
<td>Since Inception (01/01/16)</td>
<td>4.22</td>
<td>2.20</td>
<td>4.43</td>
</tr>
</tbody>
</table>
Invesco Investment Grade Credit SMA Wrap composite

<table>
<thead>
<tr>
<th>Year</th>
<th>&quot;Pure&quot; gross return (%)</th>
<th>Net return (%)</th>
<th>Bloomberg Barclays U.S. Credit Index total return (%)</th>
<th>Composite 3-year annualized standard deviation (%)</th>
<th>Benchmark 3-year annualized standard deviation (%)</th>
<th>Number of accounts</th>
<th>Composite assets ($ millions)</th>
<th>Total firm assets ($ billions)</th>
<th>% wrap assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>-2.74</td>
<td>-4.18</td>
<td>-2.11</td>
<td>N/A</td>
<td>3.68</td>
<td>&lt;5</td>
<td>0.22</td>
<td>579</td>
<td>100</td>
</tr>
<tr>
<td>2017</td>
<td>6.09</td>
<td>4.53</td>
<td>6.18</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>0.22</td>
<td>660</td>
<td>100</td>
</tr>
<tr>
<td>2016</td>
<td>5.17</td>
<td>2.07</td>
<td>5.63</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>0.21</td>
<td>599</td>
<td>100</td>
</tr>
</tbody>
</table>

Annualized Compound Returns as of Dec. 31, 2018

<table>
<thead>
<tr>
<th>Period</th>
<th>&quot;Pure&quot; Gross Return</th>
<th>Net Return</th>
<th>Bloomberg Barclays U.S. Credit Index Total Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Year</td>
<td>2.76</td>
<td>0.74</td>
<td>3.16</td>
</tr>
<tr>
<td>3 Year</td>
<td>2.76</td>
<td>0.74</td>
<td>3.16</td>
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* "Pure" gross of fees returns do not reflect the deduction of trading costs or any other expenses, and are supplemental to net returns. See note 5.

1. Invesco Worldwide ("The Firm") manages a broad array of investment strategies around the world. The Firm comprises U.S.-based Invesco Advisers, Inc. (excluding Unit Investment Trusts) and all wholly owned Invesco firms outside of North America (excluding Invesco India and Source Investment Management Limited). All entities within the Firm are directly or indirectly owned by Invesco Ltd. Invesco Canada Ltd. is also a GIPS-compliant firm whose assets are managed by a subsidiary of Invesco Ltd. Invesco Senior Secured Management, Inc., Invesco Private Capital, Inc., and Invesco Capital Management LLC are affiliates of the Firm. Each is a SEC-registered investment adviser and is marketed as a separate entity. Invesco Great Wall Fund Management Co. Ltd is a fund management company established under China Securities Regulatory Commission’s approval, and its assets are excluded from total Firm assets.

2. Invesco Worldwide claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Invesco Worldwide has been independently verified for the periods January 1, 2003 through December 31, 2017. The legacy firms that constitute Invesco Worldwide have been verified since 2001 or earlier. The verification reports are available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm’s policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

3. A complete list and description of Firm composites and performance results is available upon request. Additional information regarding policies for calculating and reporting returns is available upon request. All returns are expressed in U.S. dollars and are gross of nonreclaimable withholding tax, if applicable.

4. The Invesco Investment Grade Credit SMA Wrap Composite includes all discretionary accounts styled after the Invesco Investment Grade Credit SMA Model Portfolio, which seeks to provide current income with potential capital appreciation for total return by investing primarily in corporate debt securities. For all periods, the composite was composed of 100% non-fee-paying discretionary wrap accounts. The composite is managed in comparison to, not duplication of, the benchmark. The composite was created on January 1, 2016.

5. "Pure" gross of fees returns do not reflect the deduction of trading costs or any other expenses, and are supplemental to net returns. Performance results are presented both net and gross of total wrap fees. For periods beginning January 1, 2017, the net returns reflect the deduction of the maximum total wrap fee, which is currently 1.50% per annum. On a monthly basis approximately 0.125% (based on the geometric calculation) is reduced from the "pure" gross return. A model fee is the highest wrap fee a client could pay (1.50% annually as charged by the program sponsor). Prior to January 1, 2017, the net returns reflect the deduction of the maximum total wrap fee of 3.00% per annum or 0.25% monthly from the "pure" gross return. The total wrap fee includes all charges for trading costs, portfolio management, custody and other administrative fees. The standard wrap fee schedule currently in effect is as follows: 1.50% on total assets. Actual fees may vary depending on, among other things, the applicable fee schedule and portfolio size.

6. The Bloomberg Barclays U.S. Credit Index Total Return (TR) is an unmanaged index considered representative of publicly issued, SEC-registered U.S. corporate and specified foreign debentures and secured notes. The benchmark is used for comparative purposes only and generally reflects the risk or investment style of the product. For comparison purposes the index is fully invested, which includes the reinvestment of income. The returns for the index do not include any transaction costs, management fees or other costs.

7. The dispersion of annual returns is measured by the equal-weighted standard deviation of account returns included in the composite for the full year. For periods with five or fewer accounts included for the entire year, dispersion is not presented as it is not considered meaningful.

8. The three-year annualized ex-post standard deviation measures the variability of the monthly returns of the composite and the benchmark over the preceding 36 months. The standard deviation is not presented where there is less than 36 months of performance history.

Past performance is not indicative of future results. As with any investment vehicle there is always the potential for gains as well as the possibility of losses.

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