

Overview

The **martinwolf** IT Index is a proprietary analysis of selected securities of global IT companies, with separate indices for IT Services companies in India and China. The securities are weighted according to the market value of their outstanding shares.

Individual indices are composed of companies determined by the **martinwolf** staff to be representatives of their space, and are evaluated on a regular basis to ensure ongoing accuracy.

The **martinwolf** IT Index is tracked on a 5-year basis and is accompanied by commentary on the latest industry news and trends. **(See Page 10 for the formula used to calculate the martinwolf IT Index)**

martinwolf IT Index May 2018 Analysis:

Overview

All things considered, the US economy stands strong in 2018. GDP rose 2.3 percent in the first quarter of this year, the latest in a series of seven that form the longest streak of quarterly year-over-year GDP growth since data tracking began.

Economic expansion continued to hit major milestones: May 1st marked the second-longest expansion on record, and employment dropped down to 4.1 percent, the lowest in 18 years.

In April, the private sector beat expectations by adding 204,000 jobs, and the consumer confidence index climbed to 128.7 in April from 127 in March. This number puts the index close to the 18-year high it hit a few months ago. Supplementing the growth was an earnings season that proved to be one of the strongest in history, with an approximate 25 percent year-over-year growth since the Great Recession.

On the global stage, the nation continued to cement its economic influence. The US trade deficit dropped in March, as exports hit a record high of \$208.5 billion. Exports to China alone jumped 26.3 percent in the same month.

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At the same time, the stock market experienced historic volatility this year, particularly in reaction to significant developments from Washington and the Federal Reserve. President Trump's unrelenting America-first policy contributed to market uncertainty, as he threatened tariffs on up to \$150 billion worth of Chinese goods. Investors grew tense as the president imposed broad tariffs on imported washing machines and solar panels, in addition to import duties on steel and aluminum at 25 percent and 10 percent, respectively. How negotiations with Chinese president Xi Jinping will affect the economy in the long run is still up in the air, but the market has been watching closely.

In addition, investors have been keeping a close eye on the Fed. After the Fed decided to keep interest rates unchanged on May 2, the markets responded unfavorably. On the day of the announcement, the Dow dropped more than 10 percent below its intraday record high on January 26, and the S&P 500 dropped 8 percent below its intraday record high on the same day, with both closing in the red.

Despite the relative volatility of the stock market, the tech industry showed no signs of halting its rapid pace of growth. The FANG companies all beat earnings estimates this past quarter, and the four companies well on their way toward a trillion-dollar market capitalization have been dominating in their respective markets. Apple, Amazon, Microsoft and Google were the stars of the show.

Apple had several reasons to celebrate. The company reported \$61.1 billion in revenue, beating estimates, and witnessed significant growth in Asia; growth in greater China shot up 21 percent. Apple also announced it would invest \$100 billion in share buybacks, making it one of the largest repurchase plans in history.

As the cherry on top, the Oracle of Omaha reiterated his confidence in the giant. Berkshire Hathaway bought 75 million Apple shares in the first quarter, adding to the 165.3 million shares Berkshire already owned.

Amazon has had a terrific earnings season as well. The giant reported a huge beat for its first-quarter earnings, with strong

The proven profitability of cloud has given companies a lasting boost.

growth from AWS and advertising. AWS sales generated \$1.4 billion in operating income, growing 49 percent year-over-year, and revenue totaled just over \$51 billion. The company also announced it has over 100 million Prime users.

Microsoft, for its fiscal third quarter, reported revenue of \$26.82 billion, beating estimates by over \$1 billion. Coming second place in the cloud market behind AWS has proven to be quite profitable. Azure revenue rose 93 percent year-over-year, driving commercial cloud-service revenue at large up 58 percent.

Meanwhile, Google parent Alphabet, in its first quarter earnings, beat expectations on both the top and bottom line. With revenue of \$31.15 billion, the company revealed its advertising business rose 20 percent year-over-year.

Though AWS remains the market leader in cloud, companies with strong cloud services have seen significant jumps in revenue. Not only have Microsoft and Google been reaping profit, but SAP and Oracle reported solid growth in their cloud revenues as well.

Cloud subscription and support revenues for SAP grew 18 percent to exceed approximately \$1.2 billion, setting a new record. SAP's \$2.4 billion acquisition of CallidusCloud, which closed in April, suggested how serious the German ERP giant has been about gaining market share. Meanwhile, Oracle's total cloud revenues advanced 32 percent to \$1.4 billion. Oracle's total cloud and on-premise software revenues rose 8 percent to nearly \$8 billion.

Overall, the proven profitability of cloud has given companies in the SaaS and Software space a lasting boost, made evident by their rapidly growing revenues and share prices. On a greater scale, the value of tech has given rise to an IPO market that had its best quarter by proceeds in three years, in addition to an M&A market that experienced a historic \$1.2 trillion in value this quarter.

For this period, the ***martinwolf*** US SaaS Index and US Software Index reflected those shifts, as the indices continued to outperform the major-cap indices. The IT Supply Chain Index

The BPO space saw mixed results.

and IT Services and BPO Index posted solid gains as well, though at a slower pace.

In line with these statistics and the rampant M&A activity around the globe, ***martinwolf*** anticipates more consolidation in the tech industry at large.

***martinwolf* Index Commentary**

IT Services and BPO

The ***martinwolf*** US IT Services and BPO Index recorded a growth of 15.9 percent YTD, closely in line with the NASDAQ's growth of 17 percent.

The Managed Services and Infrastructure Services segment contributed to the steady growth. Market leaders Equinix and Digital Realty Trust both beat expectations for this quarter, posting revenues of \$1.2 billion and \$744.4 million, respectively. Equinix's revenue rose 28 percent from the year-ago quarter, while Digital Realty Trust's rose 35.2 percent. Financial IT Services market leader Fiserv also beat estimates, announcing a slight 3.6 percent rise in revenue for the quarter, totaling \$1.4 billion.

In the Commercial IT Professional Services segment, leader Accenture delivered better-than-expected results, with net revenues increasing 15 percent year-over-year to \$9.6 billion.

The BPO space saw mixed results. Offshore firm Genpact Limited announced total revenue was up 11 percent year-over-year to \$689 million. The company also recently repurchased 3.2 million shares for \$100 million.

Meanwhile, leader Convergys has seen a sizeable decline; in its fourth quarter and full year 2017 earnings, the company reported a decrease in revenue of 9 percent to \$689 million, due to volume fluctuations with its largest clients.

In terms of M&A, DXC Technology announced acquisitions of Microsoft Dynamics 365 VAR Sable37 and Microsoft Gold Partner eBECS in early April (***martinwolf*** advised DXC in its acquisition of eBECS, a two-part transaction that was first announced in Nov. 2016). The two companies have been

Growth in hardware led to a decline in gross margin.

combined with DXC's Eclipse division, signifying greater geographic reach.

IT Supply Chain

The ***martinwolf*** US Supply Chain Index recorded a growth of 7.5 percent YTD, the lowest of the tracked indices.

In the IT Product Distributor segment, Arrow Electronics reported first quarter sales of \$6.9 billion, an increase of 20 percent from the year-ago period. Avnet, in its third quarter fiscal 2018 results, reported quarterly revenues of \$4.8 billion, increasing 8 percent year-over-year. The company repurchased 1.7 million shares worth \$209.4 million during the first three quarters, and paid dividend worth \$66.2 million during the same time frame.

IT Direct Marketers CDW and Insight both reported revenue growth for the first quarter of 2018, with an increase in hardware sales largely contributing to the growth. CDW reported revenue rose 10.8 percent to \$3.5 billion year-over-year, while Insight reported a revenue hike of 19 percent to \$1.8 billion in the same period.

Though more companies are focusing on the shift to emerging technologies in the channel, strong notebook, server and storage sales reflected demand still to be seen in hardware. However, the growth in hardware led to a decline in gross margins for both companies.

Software and SaaS

The ***martinwolf*** US SaaS Index recorded the strongest growth out of the indices, with a rise of 39.1 percent YTD. The ***martinwolf*** US Software Index also recorded robust growth at 26.1 percent YTD.

Current SaaS market leader Salesforce, for the fourth quarter of its 2018 fiscal year, reported a 25 percent rise year-over-year in revenue to \$10.5 billion.

Meanwhile, Workday reported better-than-expected results, with quarterly revenue rising 32.5 percent to \$582.5 million.

M&A activity has been rampant in India.

China and India

The *martinwolf* China and India IT Services Indices outgrew the US Index. The China IT Services Index rose 32.3 percent YTD, while the India counterpart rose even higher at 40 percent YTD.

For the first quarter of the year, China's GDP rose 6.8 percent year-over-year, beating analysts' estimates and marking the third-straight quarter of 6.8 percent growth. However, risk may come for the remaining quarters, especially as the government handles international and domestic affairs while it attempts to reduce debt.

Yet, the Chinese IPO market may see a new record in the making. Xiaomi Corp., one of the nation's top smartphone makers, announced it would launch an IPO in Hong Kong—many believe it will be the world's biggest IPO this year.

As for India, which has seen a five-year average GDP growth rate of 7.1 percent, the country may be on its way to achieve higher results as a result of M&A. M&A deals from January to March of this year saw an increase of 2.3 times in deal value, as deals totaled \$18.5 billion for the quarter.

More transformative M&A deals are expected to come in India, especially as private equity firms continue to find valuable targets to spend cash on. Private equity and venture capital investments in India totaled \$7.9 billion from January to March this year, the best first quarter in a decade.



About the *martinwolf* IT Index

The *martinwolf* IT Index includes approximately 100 companies that are a composite representative sampling of enterprise values in the following categories:

1. **IT Services & Business Process Outsourcing (BPO)**
 - 38 companies, including 16 in BPO
2. **IT Supply Chain Services**
 - 14 companies
3. **Software**
 - 11 companies
4. **SaaS**
 - 32 companies

Below are category descriptions and representative companies:

1. IT SERVICES & BPO

The IT Services category includes companies that provide a range of IT services such as application development, application management, data center operations, testing or quality assurance to organizations on an outsourced basis. Some IT Services companies provide horizontal services to organizations in any industries, while others deliver services by specialized by function or industry. The Business Process Outsourcing (BPO) subcategory includes companies providing both voice (call center) and non-voice based services that are considered "non-core" to an organization's primary business strategy.

IT Services subcategories and representative companies are:

- **Managed Infrastructure Services:** Digital Realty Trust Inc.
- **Commercial IT Professional Services:** Accenture, Unisys
- **IT Staff Augmentation:** Computer Task Group Inc., ManpowerGroup Inc.



- **Governmental IT Professional Services:** MAXIMUS, Inc., ManTech International corporation
- **Business Process Outsourcing – Voice:** Convergys Corp., Harte-Hanks, Inc.
- **Business Process Outsourcing – Non-Voice:** Automatic Data Processing, Inc.



2. IT SUPPLY CHAIN SERVICES

The IT Supply Chain Services category includes companies providing one or more services that are directly linked to the flow of products, services, finances and information from a source to a customer.

IT Supply Chain Services subcategories and representative companies are:



- **IT Solution Providers:** Connection, Systemax Inc., Presidio
- **IT Product Distributors:** Arrow Electronics,

3. SOFTWARE

The Software category includes companies involved in the development, marketing, sale and maintenance of computer software using various distribution models.

Software subcategories and representative companies are:

- **Enterprise Applications:** Microsoft, SAP
- **IT Management Software:** Check Point Software Technologies, Symantec
- **Business Software:** Adobe



4. SAAS

The Software as a Service (SaaS) category is broken out for further analysis. Software as a Service includes companies delivering software of all types only through an on-demand distribution model in which software and its associated data are hosted centrally by a third party, typically in the cloud and accessed by customers using a web browser over the Internet.

Representative SaaS companies are:

- Salesforce.com
- Workday



martinwolf IT Index (India Edition)

The ***martinwolf IT Index (India Edition)*** includes 38 IT Services and Business Processing Outsourcing (BPO) companies traded in the U.S. (NYSE and NASDAQ) and Indian (BSE) stock markets that are a composite representative sampling of enterprise values.

Representative companies are:

- Cognizant
- HCL Technologies
- Infosys
- Tata Consultancy Services
- Wipro



martinwolf IT Index (China Edition)

The ***martinwolf IT Index (China Edition)*** includes 23 IT Services and Business Processing Outsourcing (BPO) companies traded in the U.S. (NYSE, NASDAQ, and OTC), London (LSE AIM), Chinese (SZSE, SHSE, SEHK) or Taiwanese (TSEC) stock markets that are a composite representative sampling of enterprise values.

Representative companies are:

- Chinasoft International
- Beyondsoft Corporation
- Hundsun Technologies, Inc.



Description and Formula

The *martinwolf* IT Index is a market-value-weighted index. The representation of each security in the index is proportional to its last sales price times the total number of shares outstanding, relative to the total market value of the respective index.

The formula used to determine the index value is as follows:

$$\text{Index Level} = \frac{\text{Current Market Value}}{\text{Adjusted Base Period Market Value}} \times \text{Base Value}$$

$$\text{Adjusted Period Market Value} = \frac{\text{Current Market Value After Adjustments}}{\text{Current Market Value}} \times \text{Previous Base Period Market Value Before Adjustments}$$

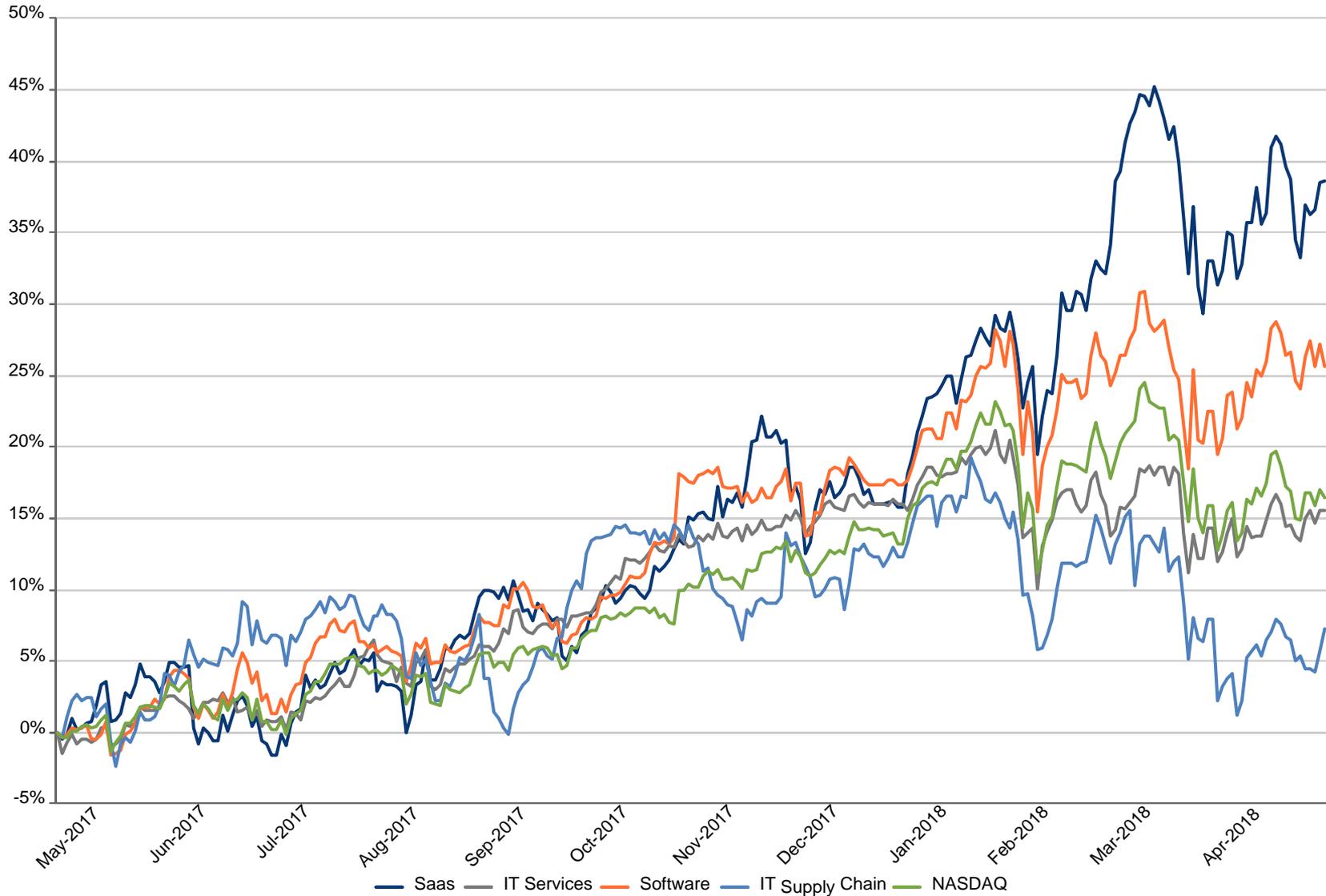
Adjustments for securities being added to or deleted from the index, or capitalization changes, are made periodically. Stock splits and stock dividends are likewise adjusted for during the process. In the case of cash dividends, no adjustment is made.

About *martinwolf*

martinwolf is a leading middle market IT M&A Advisory. Headquartered in Scottsdale, Arizona with offices in the San Francisco Bay Area and New York, *martinwolf* is focused on companies in the IT Services, IT Supply Chain, IT-Enabled Business Process Outsourcing and Software as a Service (SaaS) space. Since 1997, our team has completed more than 155 transactions in over 20 countries and has sold seven divisions of Fortune 500 companies.

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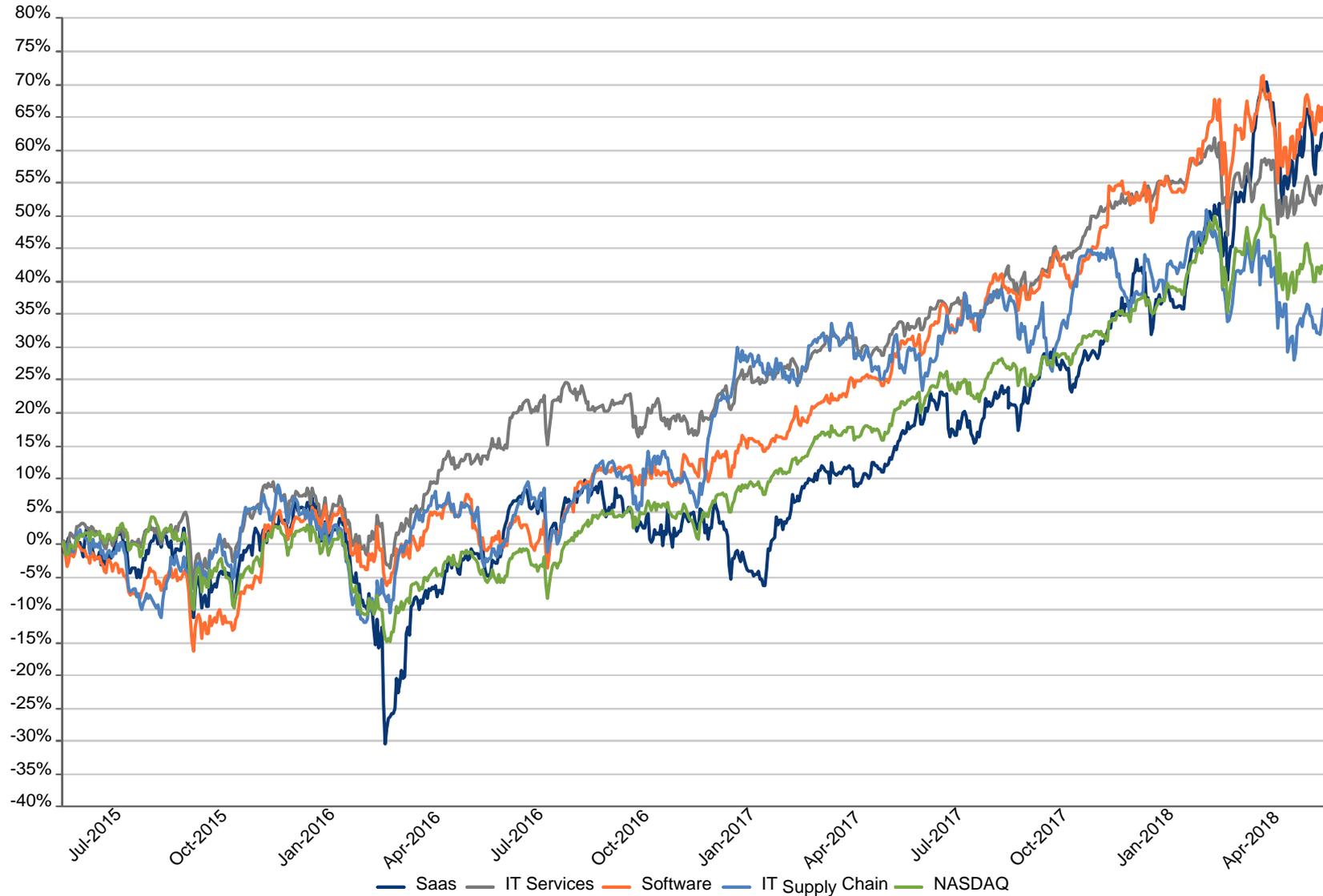


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3 Years

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