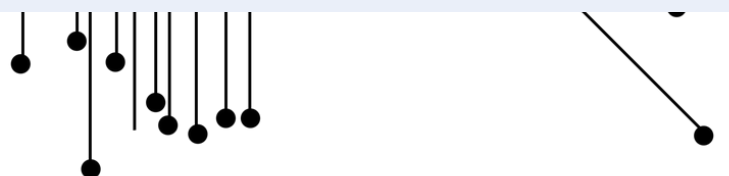


Business Activity Monitoring

Swiss All Caps

Published: January 03, 2023



Research Scope

Object: Swiss All Caps
Type: Market Segment
Parent Universe: SIX-Listed Companies
Data Set: Firm-Specific Ad Hoc Disclosure
Evaluation Period: From: 2018-01-01 To: 2022-12-31

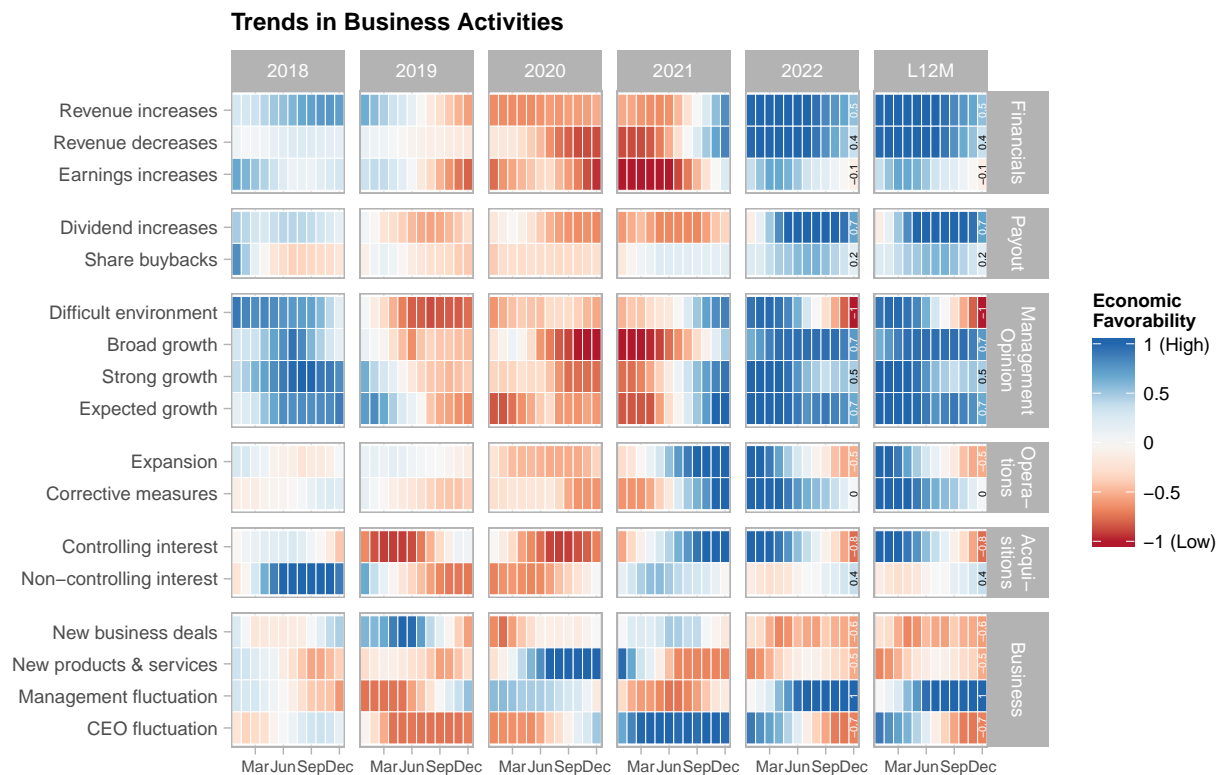
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Executive Summary

This report provides an assessment of aggregate business activities for Swiss All Caps. We measure business activities in terms of the frequency of economically favorable and unfavorable events announced in firms' ad hoc disclosure.

- Increases (decreases) in the number of favorable events signal favorable (unfavorable) business trends.
- Increases (decreases) in the number of unfavorable events signal unfavorable (favorable) business trends.

The figure below summarizes the development of 17 event types from 6 key areas characterizing business activities. Blue consistently indicates economically favorable trends and red indicates unfavorable trends.



Why Business Activity Monitoring Matters

Strique has created tools using leading data to identify the state, trend, and cyclicity of business activities. We highlight these tools and implications in this report, *Business Activity Monitoring*. The report focuses on firm-specific ad hoc disclosure, which is the most up to date information source for stakeholders. It originates from companies and is enforced by listing authorities.

We continuously collect and systemize ad hoc publications of listed companies. On that basis, we measure business activities in terms of the frequency of announced events. Furthermore, we categorize the events as economically favorable or unfavorable and aggregate the event frequency across the sample. This way, we derive indicators of business activities. Tracking these indicators over time makes it possible to analyze market conditions and identify corporate trends.

Our systematic data collection and analysis covers 6 key areas, which characterize business activities and can be used independently or jointly with one another:

- Financials
- Payout
- Management Opinion
- Operations
- Acquisitions
- Business

To assure all market participants have the same level of information, exchange regulation requires listed companies to immediately disclose price-relevant events. This duty comprises any event that might affect the price of a share beyond normal fluctuations. Examples of events include financial figures, changes in key personnel, mergers and acquisitions, significant new products, or restructuring of operations. Companies also include additional information targeted at their stakeholders in ad hoc publications. Therefore, ad hoc disclosure is a rich data source to timely identify the state, trend, and cyclicity of business activities.

The next section introduces the basic idea underlying the analysis of business activities. Readers familiar with the report may want to skip this and move directly to subsequent sections that exhibit the event frequency. Each event captures a certain aspect of business activities. Furthermore, each section contains a discussion of the economic rationale underlying the event, including whether a higher event frequency is a favorable or an unfavorable signal. The summary section provides an overview of key developments. Finally, the appendix of the report includes examples of events and additional details on the methodology.

If you require additional analyses or data on events not covered in this report, please visit our website or contact us directly at info@strique.ch for more information.

Business Activity Landscape

This report is based on the frequency of economically favorable and unfavorable events announced in firms' ad hoc disclosure. For each company in the sample, we periodically count the number of announced events over the past twelve months. This time frame overcomes seasonal reporting fluctuations and firm-specific reporting cycles. On that basis, we monthly compute

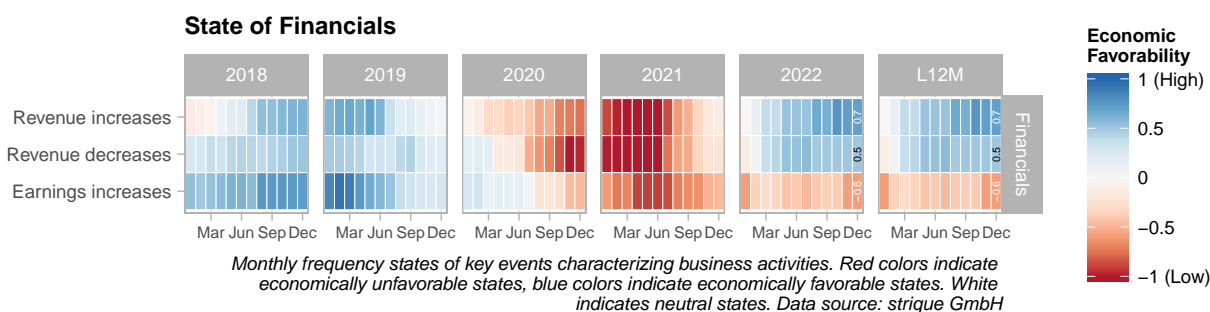
- the average event frequency to reflect the *state* of business activities,
- the time trend of the average event frequency to reflect the *trend* in business activities,
- the percentage rates of companies announcing the event n times to provide additional details on the *state*, and
- the percentage rates of companies announcing the event n times more/less often to provide additional details on the *trend*.

We provide the data in plots that are simplified by an intuitive color scheme spanning from red indicating economically unfavorable to blue indicating economically favorable development.

State of Business Activities

With regard to a specific event, the state of business activities at time t is defined as the difference between the mean event frequency at time t and the long-term sample mean.

- For economically favorable events, positive differences are colored blue and negative differences are colored red.
- For economically unfavorable events, positive differences are colored red and negative differences are colored blue.

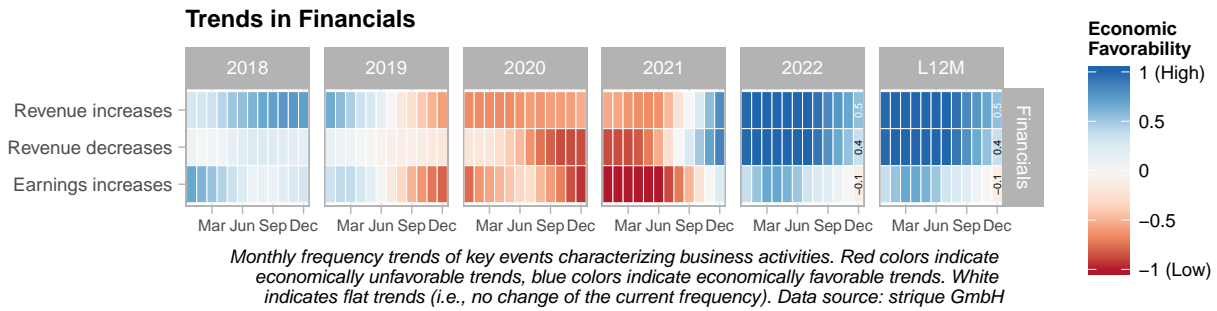


The color intensity reflects the scale of the difference. White indicates that the mean at time t equals the long-term sample mean. For example, revenue increases had a favorable state at the end of 2019 because the mean frequency was above the long-term sample mean. By the end of 2020, the state was unfavorable because the mean frequency was below the long-term sample mean.

Trend in Business Activities

With regard to a specific event, the trend in business activities at time t is defined as the change in the mean event frequency over time. It is based on the slope coefficient of a linear time trend model.

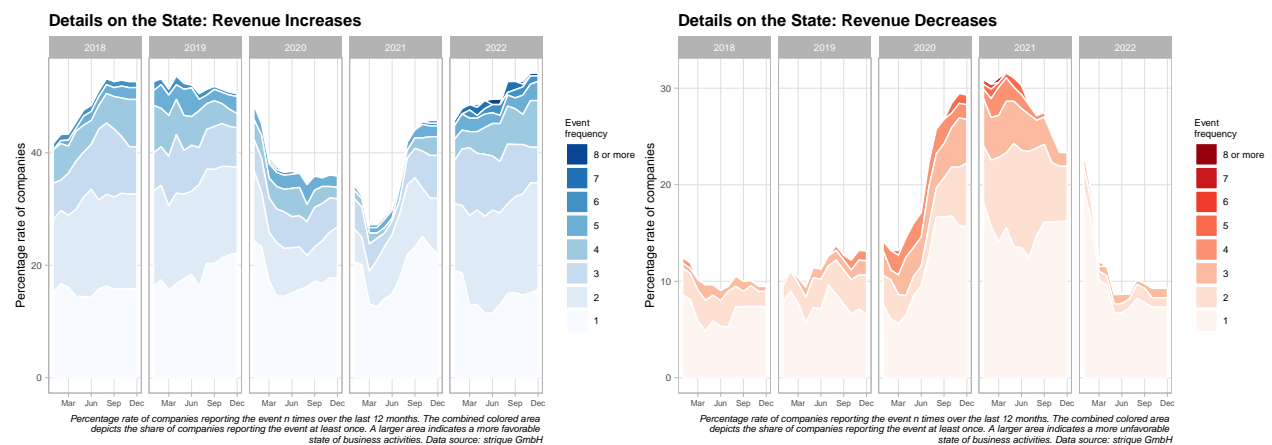
- For economically favorable events, positive slopes (i.e., increases in the mean frequency over time) are colored blue and negative slopes (i.e., decreases in the mean frequency over time) are colored red.
- For economically unfavorable events, positive slopes are colored red and negative slopes are colored blue.



The color intensity reflects the strength of the trend. Flat trends are colored white. For example, revenue increases showed an increasing trend at the beginning of 2019. Over the course of the year this trend flattened and finally turned negative.

Additional Details on the State

In addition to the mean, we provide complementary information about the distribution of the event frequency. Namely, we show the percentage rate of companies reporting the event *n* times over the past twelve months as stacked areas. The combined area shows the percentage rate of companies reporting the event at least once.

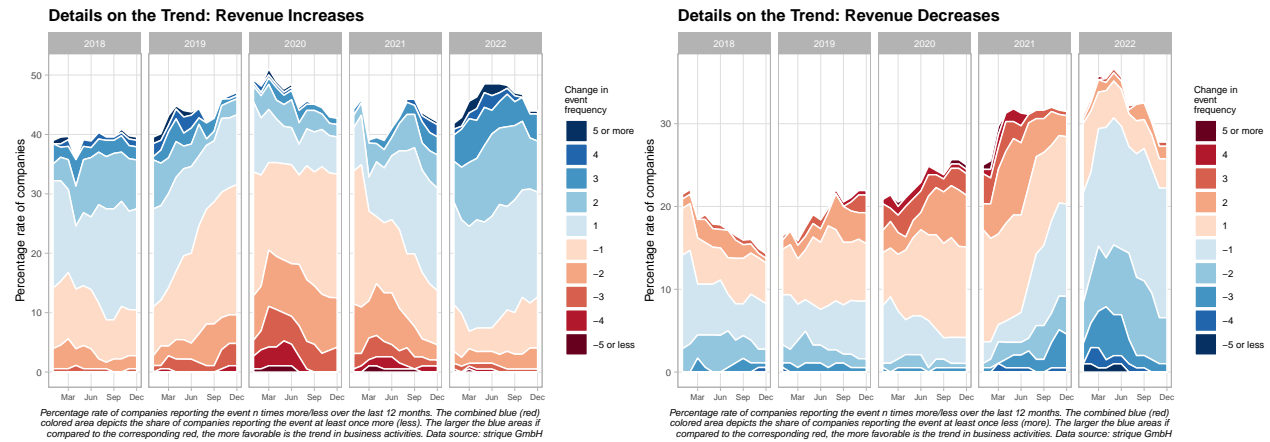


Following the color scheme, favorable events are colored blue and unfavorable events are colored red. A higher percentage rate of companies announcing a favorable (unfavorable) event indicates a more favorable (unfavorable) state of business activities. For example, the blue-colored plot shows the colored area is comparatively large in 2019 and, accordingly, this signals a favorable state of business activities. In contrast, the red-colored plot shows a comparatively large colored area at the end of 2020. Accordingly, this signals an unfavorable state.

Additional Details on the Trend

In addition to the trend, we provide complementary information about changes in the distribution of the event frequency. Namely, we show the percentage rate of companies reporting the event *n* times more/less often over the last twelve months as stacked areas.

- For favorable events, increases in the event frequency are colored blue and decreases are colored red.
- For unfavorable events, increases in the event frequency are colored red and decreases are colored blue.



In general, the larger (smaller) the blue area if compared to the corresponding red area, the more (less) favorable the change in the event frequency is. This serves as an additional indicator of the current trend in business activities. In particular, the areas reveal details on the drivers of the time trend, which we will discuss next.

Navigating the Landscape

In combination, the plots reveal the state and the trend of business activities. Consider for example the above plot of the states of Financials in the first half of 2019. It indicates that the mean event frequency is above the long term average. The detail plot adds the insight that the combined blue area is about 50%. Hence, half of the companies have reported at least one revenue increase over the last twelve months. This level was relatively stable from Q3 2018 to Q2 2019 and it is above previous levels. Consequently, the overall state of business activities in the first half of 2019 is favorable.

The above time trend plot of revenue increases shows that the color scheme changed from dark blue to white in the first half of 2019. That is, the trend in the mean event frequency switched from increasing to flat. This signals slowing business momentum—at least with respect to this event.

Finally, the detail plot shows that the portion of companies announcing less revenue increases (i.e., the red area) grows substantially at the beginning of 2019. At the same time, the portion of companies announcing more revenue increases (i.e., the blue area) stays relatively constant. Consequently, the flattening time trend at the beginning of 2019 is not just the result of stagnating event numbers. Rather, the trend change is driven by a declining number of announced revenue increases. This signals the potential transition into a less favorable business environment.

If you require further consulting on the event frequencies or the trends in business activities, please contact us directly at info@strique.ch for our advisory services.

Financials

Financial reporting includes the periodic disclosure of accounting data. It is a key tool for companies to inform stakeholders about the business development and financial status. In this section, we focus on written statements in ad hoc publications that highlight changes in revenues and earnings. If a company explicitly reports a percentage change exceeding a certain threshold, this is recorded as a financial event (please refer to the appendix for examples). Hence, the focus is on the mentioning of the change in the text. Specifically, we consider the following 3 events:

- Revenue increases: favorable event (threshold +5%)
- Revenue decreases: unfavorable event (threshold -1%)
- Earnings increases: favorable event (threshold +1%)

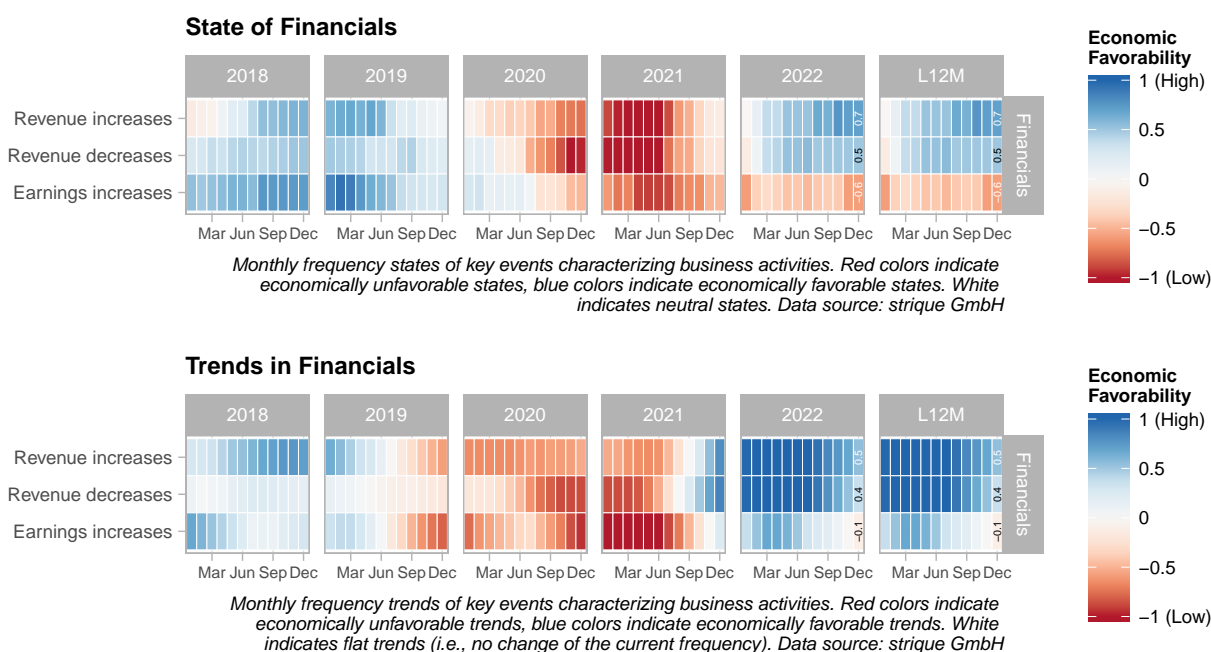
Economic Rationale

Companies highlight positive as well as negative changes in financials in written form. The economic rationale of the event is that an increasing number of references of positive changes indicates a favorable trend in business activities. A decreasing number of positive references indicates an unfavorable trend. The opposite is true for references of negative changes.

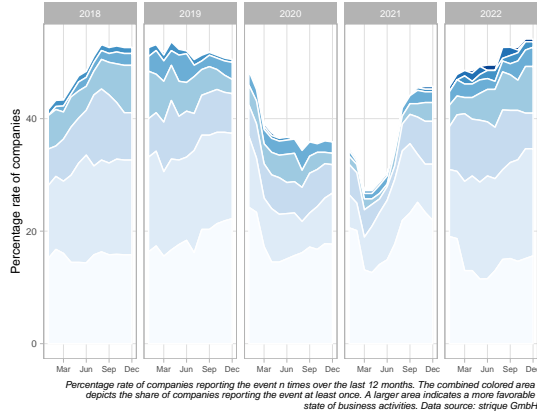
Similarly, a higher (lower) frequency of references of positive changes indicates a favorable (unfavorable) state of business activities. Again, the opposite is true for references of negative changes.

The events in this section capture information not accessible from financial statement analysis. First, they add an additional layer of assessment to the mathematical change of financials. Namely, it is a prerequisite that the company considers the change as material enough to mention it in the text. Second, the events are not restricted to annual or interim financial reporting but can occur in any ad hoc publication. Hence, the event frequency can timely reflect new information like preliminary result announcements or investor updates.

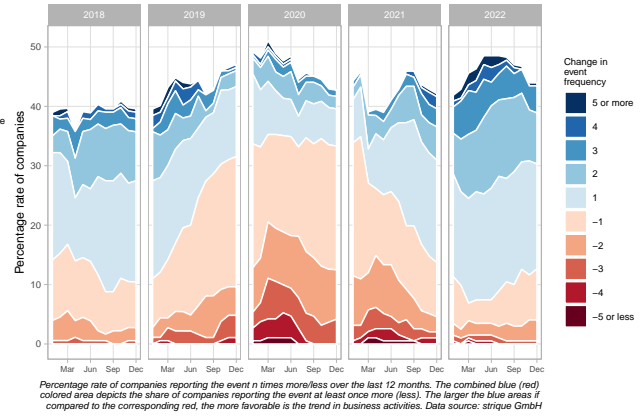
Sample Period Data



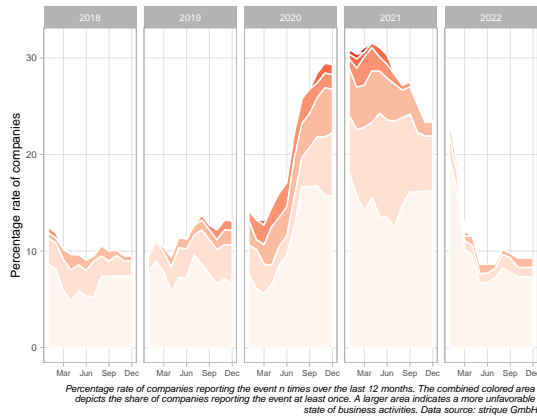
Details on the State: Revenue Increases



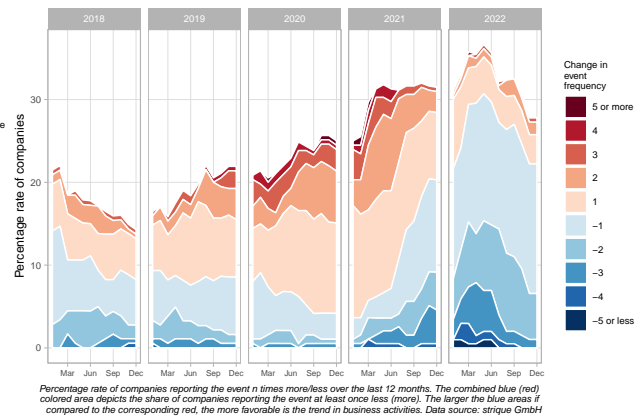
Details on the Trend: Revenue Increases



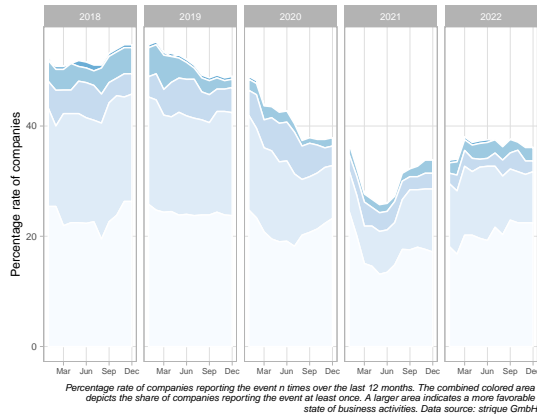
Details on the State: Revenue Decreases



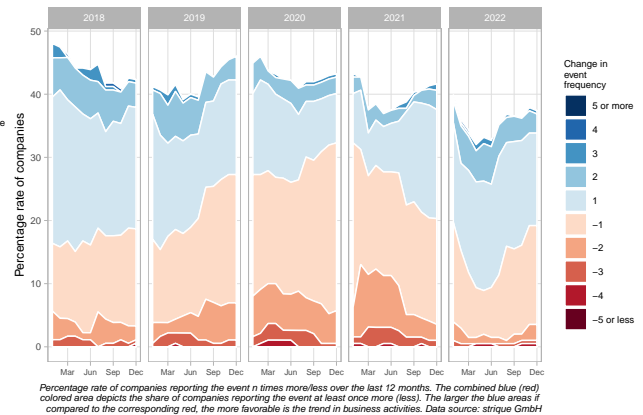
Details on the Trend: Revenue Decreases



Details on the State: Earnings Increases



Details on the Trend: Earnings Increases



Payout

Companies can pay out earnings to shareholders through dividends and share buybacks. In this section, we focus on ad hoc publications announcing increases in payout. If a company announces either a dividend increase or launches new share buybacks, this is recorded as a payout event (please refer to the appendix for examples). Specifically, we consider the following 2 events:

- Dividend increases: favorable event
- Share buybacks: favorable event

Economic Rationale

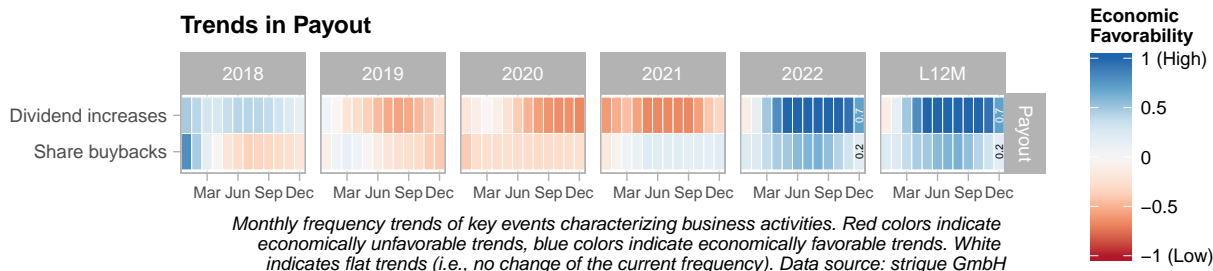
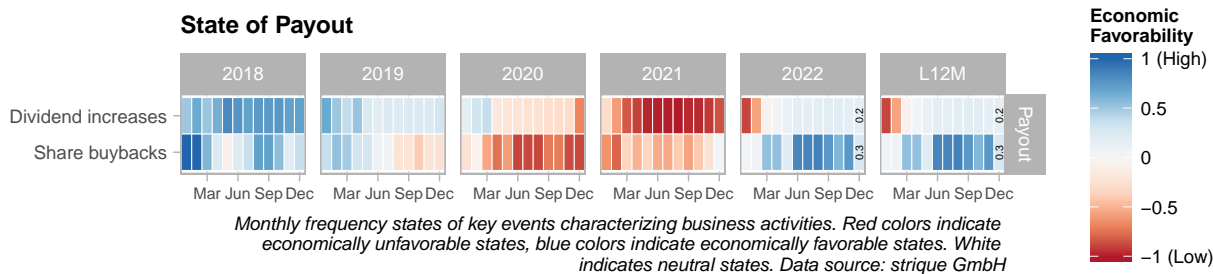
Companies pay dividends to distribute earnings and return cash to shareholders. In general, companies manage their dividend policy closely and are reluctant to cut dividends because this can be understood as a signal of poor performance. Hence, a company will increase its dividends if it expects its future earnings to be able to maintain the higher payout. If the business outlook deteriorates, the company will likely suspend further dividend increases.

Repurchasing shares by the issuing company is another tool to distribute cash to shareholders. Two important rationales of share buybacks address the company’s business situation and prospects. First, share buybacks tend to occur if the company has good financial health and does not need excess equity capital. Second, share buybacks tend to occur if the management is confident in the company’s prospects. A related reasoning is that companies tend to launch share buybacks if they communicate optimistic outlooks, which are not yet adequately reflected in share prices. The company may then decide to repurchase its undervalued stock to resell it after future price corrections.

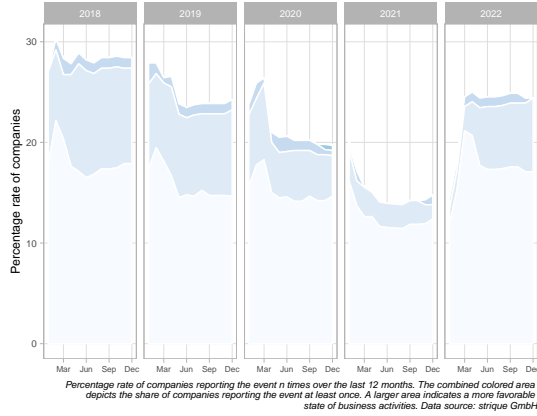
The arguments outlined above imply that an increasing number of payout announcements indicates a favorable trend in business activities. A decreasing number of announcements correspondingly indicates an unfavorable trend. Similarly, a higher (lower) frequency of announcements of payouts indicates a favorable (unfavorable) state of business activities.

The payout events in this section capture additional information not accessible from financial statement analysis. In particular, the events can occur in any ad hoc publication. Hence, the event frequency can timely reflect new information like proposed dividend increases or intended share buybacks. As a result, the events provide early indications of payout activities.

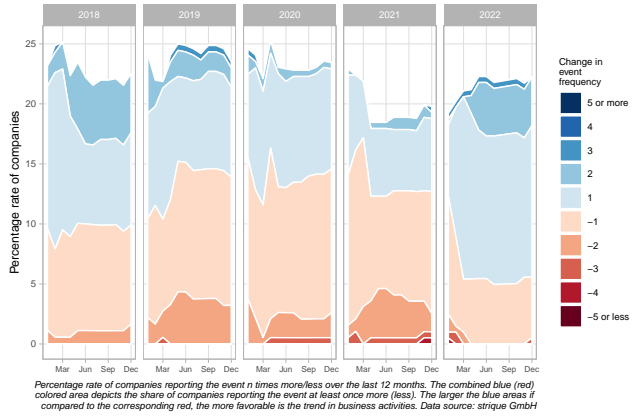
Sample Period Data



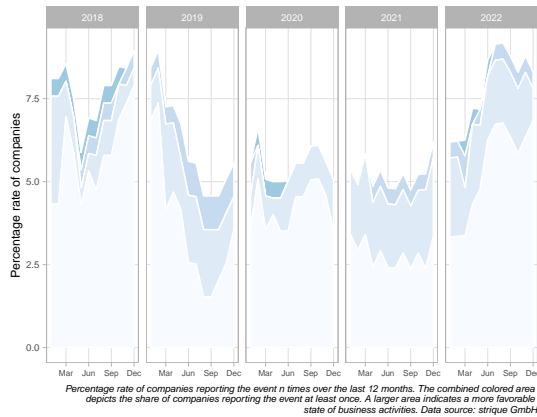
Details on the State: Dividend Increases



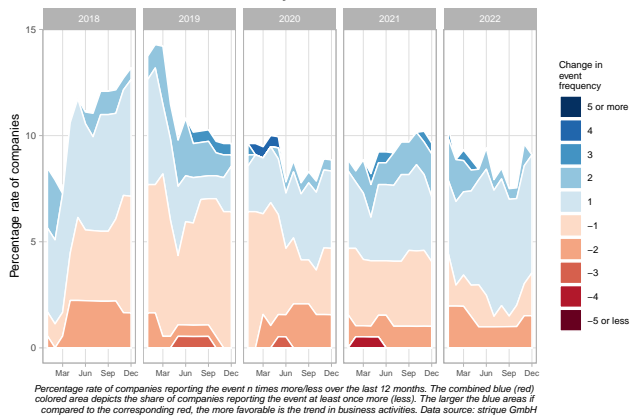
Details on the Trend: Dividend Increases



Details on the State: Share Buybacks



Details on the Trend: Share Buybacks



Management Opinion

Companies’ annual and interim reports usually feature sections in which management analyzes and discusses performance. These sections are not audited and solely represent the opinions of the management. Ad hoc publications like earnings release announcements, publications of preliminary results, or investor updates also feature management’s opinion. In this section, we focus on written statements, which address the market environment and company growth. If a company emphasizes a difficult market environment or highlights broad, strong, and expected growth, this is recorded as a management opinion event (please refer to the appendix for examples). Specifically, we consider the following 4 events:

- Difficult environment: unfavorable event
- Broad growth: favorable event
- Strong growth: favorable event
- Expected growth: favorable event

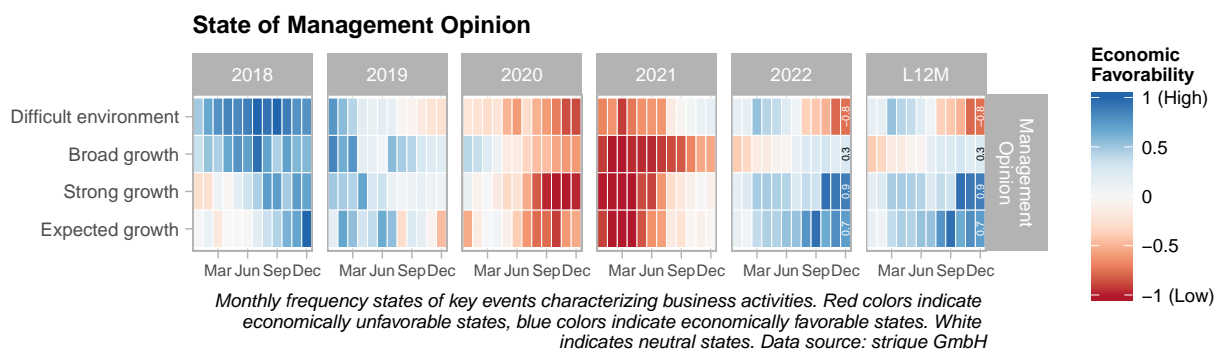
Economic Rationale

Companies highlight a difficult as well as a beneficial business environment in ad hoc publications. However, positive statements are relatively rare. Rather, the absence of negative statements can be an indicator of a positive environment. The economic rationale of the event is that an increasing number of references mentioning a difficult business environment indicates an unfavorable trend in business activities. A decreasing number correspondingly indicates a favorable trend. Similarly, a higher (lower) frequency of references of a difficult business environment indicates an unfavorable (favorable) state of business activities.

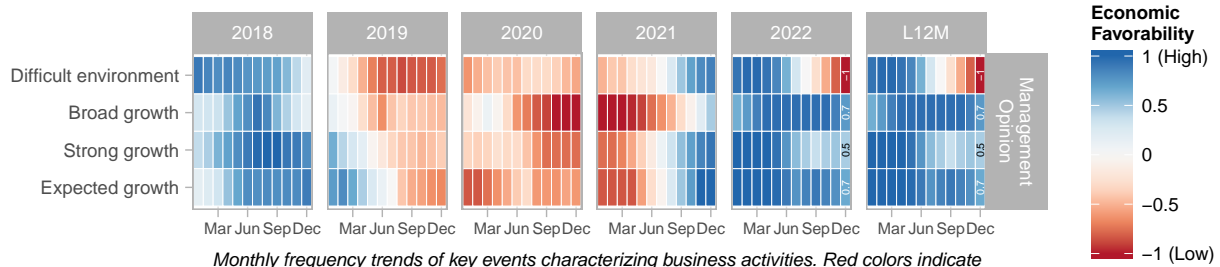
In addition, companies highlight growth success and growth expectations in ad hoc publications. The economic rationale of the event is that an increasing number of references of broad, strong, and expected growth indicates a favorable trend in business activities. A decreasing number of references correspondingly indicates an unfavorable trend. Similarly, a higher (lower) frequency of references of growth indicates a favorable (unfavorable) state of business activities.

The management opinion events in this section capture otherwise hard to quantify information about the current state and the future prospects of business. The business environment event cross-sectionally captures a unique ensemble of expert opinions. The growth events are rooted in management’s assessment whether the company’s growth is strong, broadly based, and expected in future. In addition, the growth events can occur in any ad hoc publication and thus timely reflect new information outside of the financial reporting cycle.

Sample Period Data

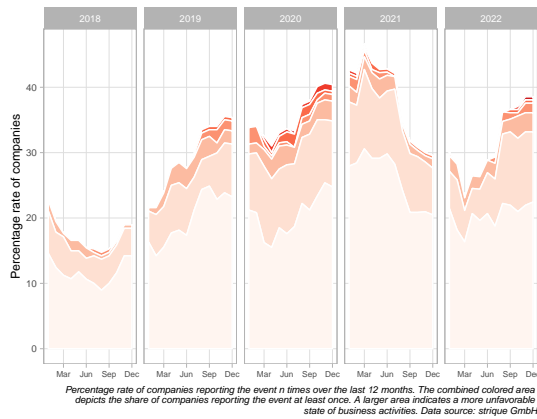


Trends in Management Opinion



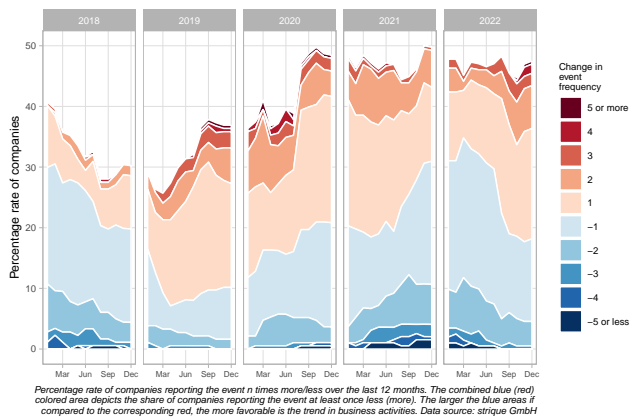
Monthly frequency trends of key events characterizing business activities. Red colors indicate economically unfavorable trends, blue colors indicate economically favorable trends. White indicates flat trends (i.e., no change of the current frequency). Data source: strique GmbH

Details on the State: Difficult Environment



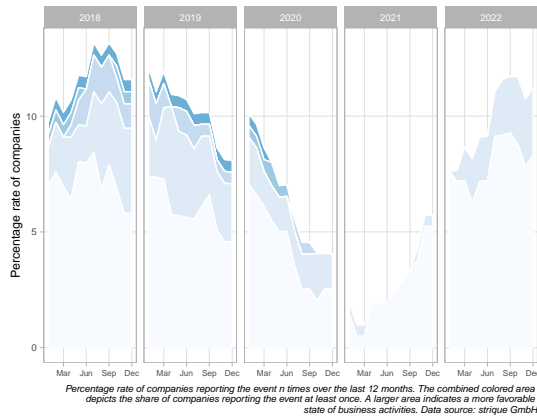
Percentage rate of companies reporting the event n times over the last 12 months. The combined colored area depicts the share of companies reporting the event at least once. A larger area indicates a more unfavorable state of business activities. Data source: strique GmbH

Details on the Trend: Difficult Environment



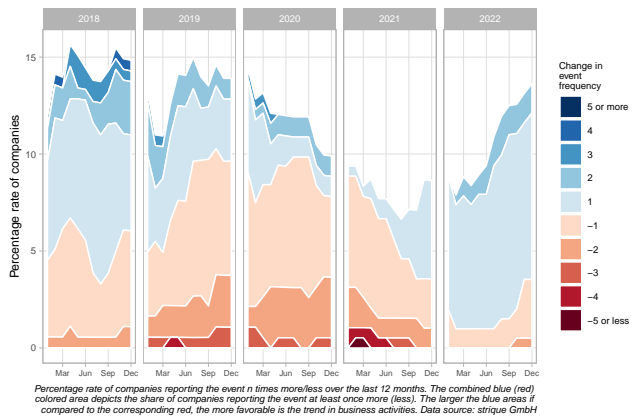
Percentage rate of companies reporting the event n times more/less over the last 12 months. The combined blue (red) colored area depicts the share of companies reporting the event at least once less (more). The larger the blue areas if compared to the corresponding red, the more favorable is the trend in business activities. Data source: strique GmbH

Details on the State: Broad Growth



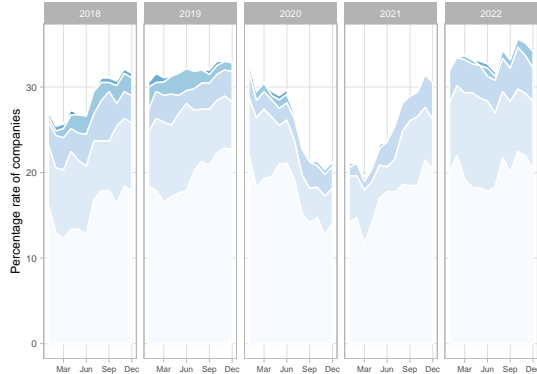
Percentage rate of companies reporting the event n times over the last 12 months. The combined colored area depicts the share of companies reporting the event at least once. A larger area indicates a more favorable state of business activities. Data source: strique GmbH

Details on the Trend: Broad Growth



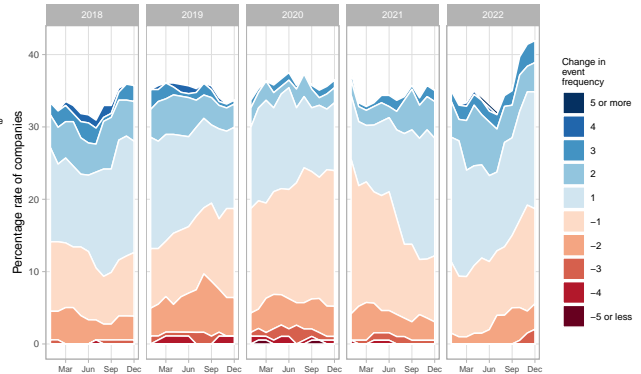
Percentage rate of companies reporting the event n times more/less over the last 12 months. The combined blue (red) colored area depicts the share of companies reporting the event at least once less (more). The larger the blue areas if compared to the corresponding red, the more favorable is the trend in business activities. Data source: strique GmbH

Details on the State: Strong Growth



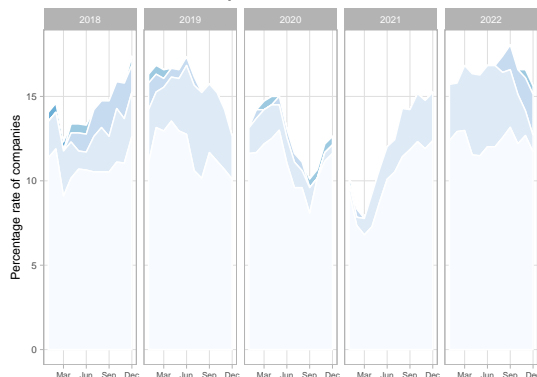
Percentage rate of companies reporting the event n times over the last 12 months. The combined colored area depicts the share of companies reporting the event at least once. A larger area indicates a more favorable state of business activities. Data source: strique GmbH

Details on the Trend: Strong Growth



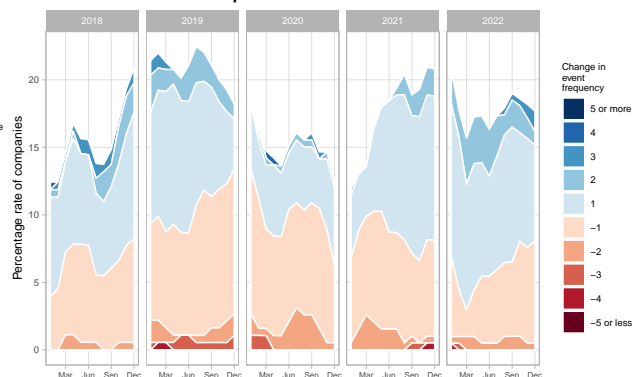
Percentage rate of companies reporting the event n times more/less over the last 12 months. The combined blue (red) colored area depicts the share of companies reporting the event at least once more (less). The larger the blue areas if compared to the corresponding red, the more favorable is the trend in business activities. Data source: strique GmbH

Details on the State: Expected Growth



Percentage rate of companies reporting the event n times over the last 12 months. The combined colored area depicts the share of companies reporting the event at least once. A larger area indicates a more favorable state of business activities. Data source: strique GmbH

Details on the Trend: Expected Growth



Percentage rate of companies reporting the event n times more/less over the last 12 months. The combined blue (red) colored area depicts the share of companies reporting the event at least once more (less). The larger the blue areas if compared to the corresponding red, the more favorable is the trend in business activities. Data source: strique GmbH

Operations

Business operations include the activities within a company to transform input into output. The goal is to convert production factors as, for example, materials and labor into goods and services as efficiently as possible. In this section, we focus on ad hoc publications announcing changes in business operations. If a company announces either the expansion or the corrective adjustment of operations, this is recorded as an operations event (please refer to the appendix for examples). Specifically, we consider the following 2 events:

- Expansion: favorable event
- Corrective measures: unfavorable event

Economic Rationale

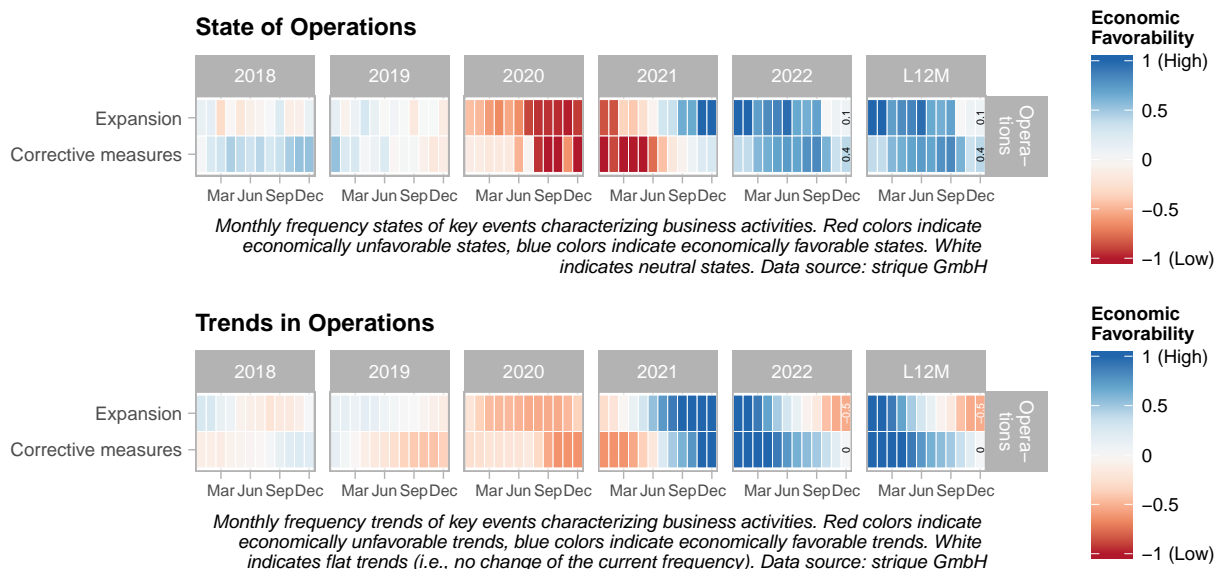
To achieve continuous business growth, companies must increase their capacities and expand operations from time to time. Limiting factors include capital expenditures and higher fixed costs. Hence, it can be expected that a company expands its operations if it has the financial health to make the investment and if its business projections justify the higher cost base. If the business outlook deteriorates, the company will likely suspend further expansion.

The arguments outlined above imply that an increasing number of announcements of business expansion indicates a favorable trend in business activities. A decreasing number of announcements correspondingly indicates an unfavorable trend. Similarly, a higher (lower) frequency of references of business expansion indicates a favorable (unfavorable) state of business activities.

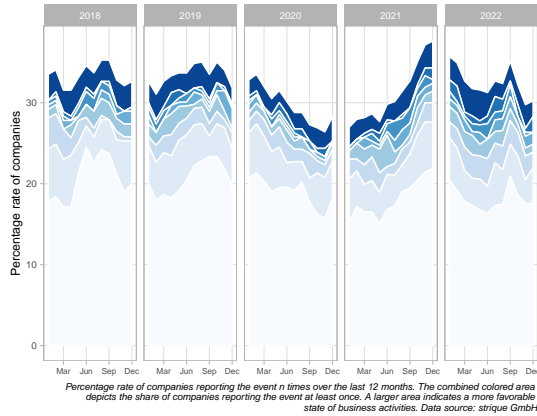
In addition to expansion efforts, companies continuously implement measures to modify and improve their operational activities. In this section, we focus on a subset of corrective actions taken during times of financial distress and/or economic downturns. In particular, cost cutting measures, restructuring measures, and reorganization measures. Cost cutting measures intend to quickly reduce expenses as a reaction to current or expected profitability issues. Restructurings and/or reorganizations involve actions to substantially modify the operational activities of the company to overcome structural problems and economic pressure.

The arguments outlined above imply that an increasing number of announcements of corrective measures indicates an unfavorable trend in business activities. A decreasing number of announcements correspondingly indicates a favorable trend. Similarly, a higher (lower) frequency of announcements of corrective measures indicates an unfavorable (favorable) state of business activities.

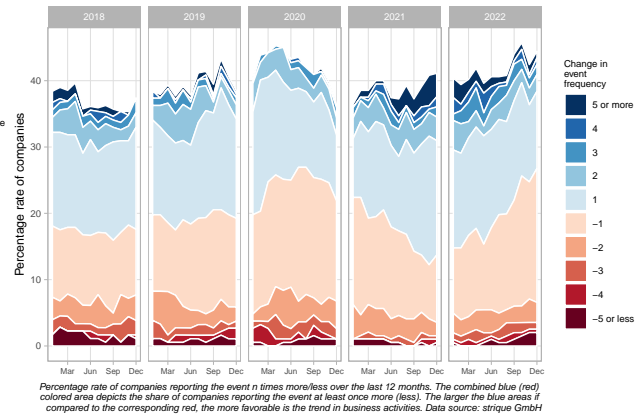
Sample Period Data



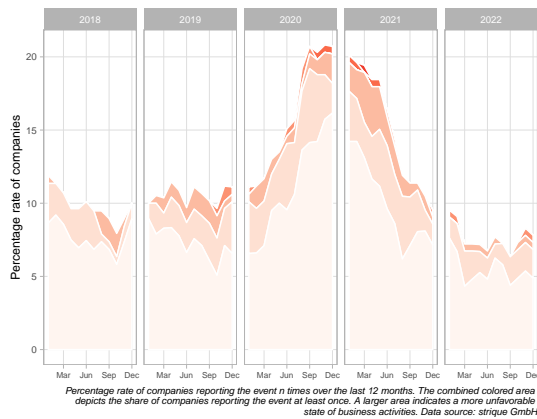
Details on the State: Expansion



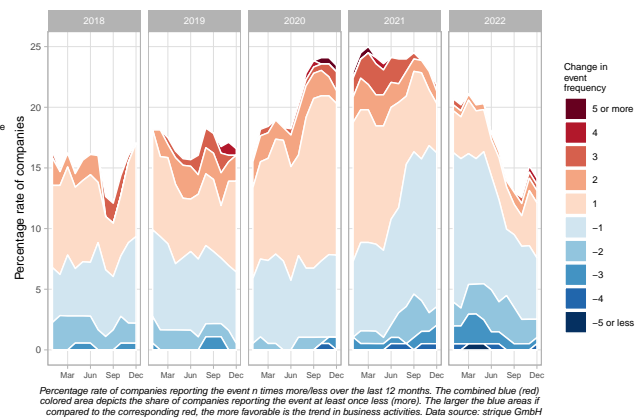
Details on the Trend: Expansion



Details on the State: Corrective Measures



Details on the Trend: Corrective Measures



Acquisitions

Transactions in which a company acquires the shares of another company are common business practice. In this section, we focus on ad hoc publications announcing acquisitions with the issuing company acting as the buyer. If it purchases more than 50% interest in the target’s stock, it gains legal control. Hence, the 50% threshold is a key feature of the transaction. If a company announces the purchase of either a non-controlling or a controlling interest in another company, this is recorded as an acquisition event (please refer to the appendix for examples). Specifically, we consider the following 2 events:

- Controlling interest: favorable event
- Non-controlling interest: favorable event

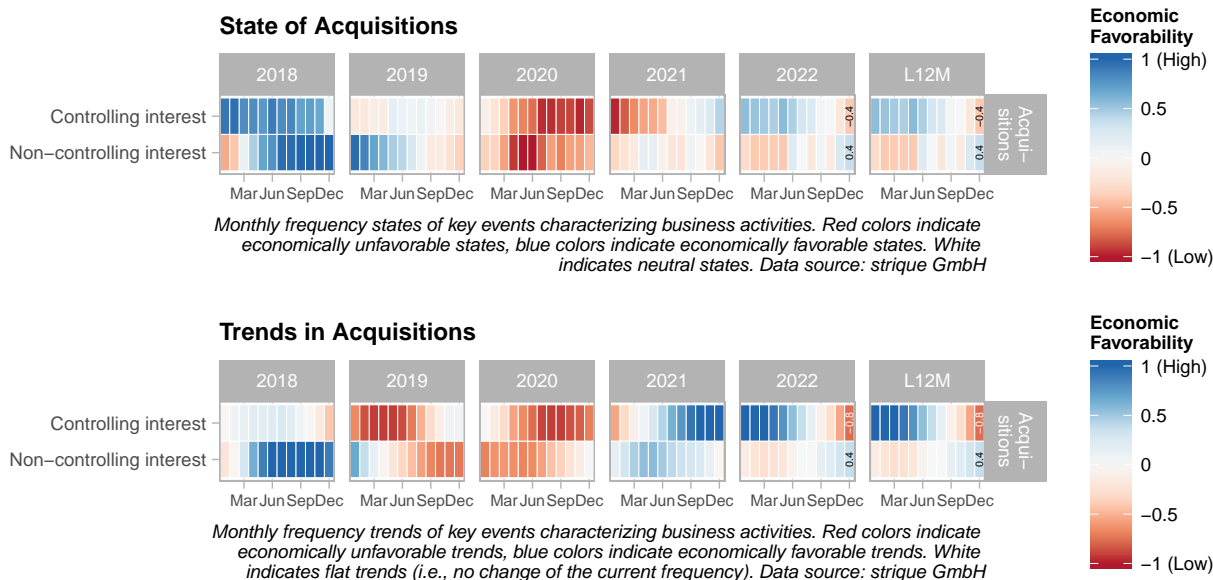
Economic Rationale

Companies acquire control of other companies for various reasons including accessing new markets, gaining larger market share, obtaining new products or services, and gaining new skills or know-how. Acquisitions of non-controlling interest can have the same purpose and secure access to these kinds of strategic resources. They may also precede the acquisition of controlling interest if the buyer is not yet willing or capable to take full ownership control of the target.

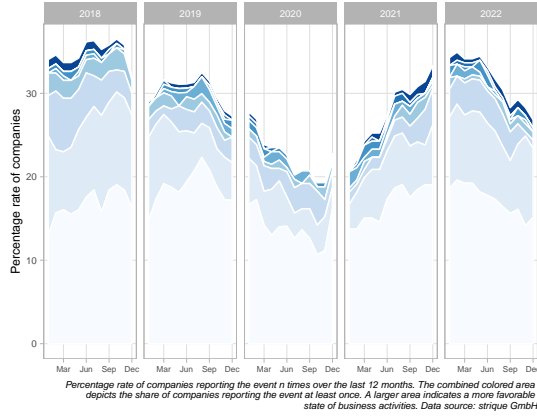
The above reasons are economic at their core and they reflect efforts of business expansion and diversification. Such efforts require capital budgeting like the assessment of the investment’s internal rate of return. In addition, the company must possess the capability to finance the acquisition. Therefore, if the company’s business forecasts dampen expected investment returns or if its current or expected financial situation deteriorates, it will likely suspend further acquisitions.

The arguments outlined above imply that an increasing number of acquisition announcements indicates a favorable trend in business activities. A decreasing number of announcements correspondingly indicates an unfavorable trend. Similarly, a higher (lower) frequency of acquisition announcements indicates a favorable (unfavorable) state of business activities.

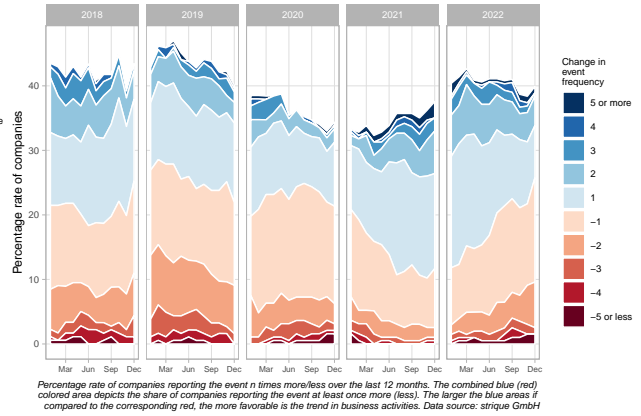
Sample Period Data



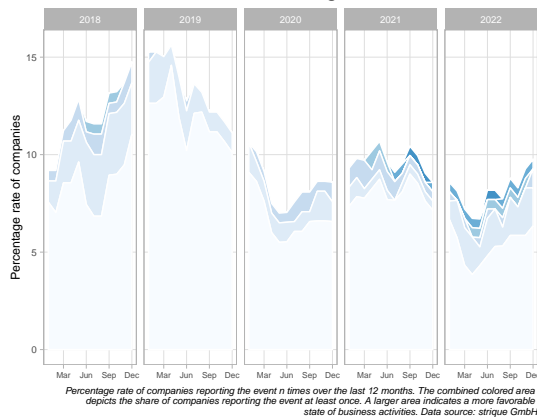
Details on the State: Controlling Interest



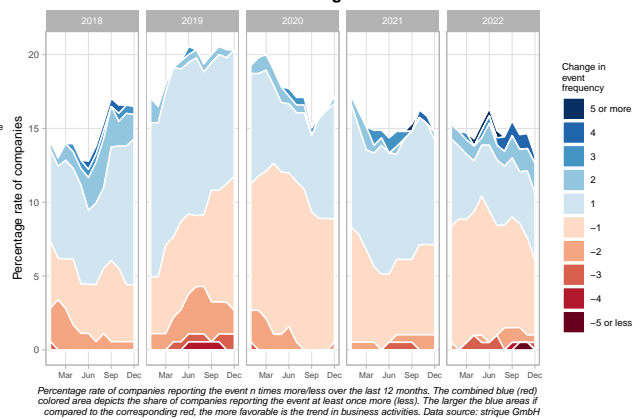
Details on the Trend: Controlling Interest



Details on the State: Non-Controlling Interest



Details on the Trend: Non-Controlling Interest



Business

Companies engage in a wide variety of activities in the course of their business. In this section, we focus on ad hoc publications announcing commercial success, innovations, and changes in personnel. If a company announces either new business deals, new products and services, or changes in CEO and top management positions, this is recorded as a business event (please refer to the appendix for examples). Specifically, we consider the following 4 events:

- New business deals: favorable event
- New products & services: favorable event
- Management fluctuation: unfavorable event
- CEO fluctuation: unfavorable event

Economic Rationale

To earn profits and stay in business, companies must ultimately sell their products and services. Hence, securing new business deals is a prerequisite for short- to mid-term success. The economic rationale of the business deals event is that an increasing number of announcements of new deals indicates a favorable trend in business activities. A decreasing number of announcements correspondingly indicates an unfavorable trend. Similarly, a higher (lower) frequency of announcements of new business deals indicates a favorable (unfavorable) state of business activities.

Longer-term business success requires companies to consistently prove their innovative power. Otherwise, they can be forced out of the market. Accordingly, new products and services are an indicator of the company's ability to stay in the market. The more innovative a company is, the better its chances of future market success. Since the launch of products and services is usually preceded by development phases, it can be expected that the event is less correlated with short-term business prospects.

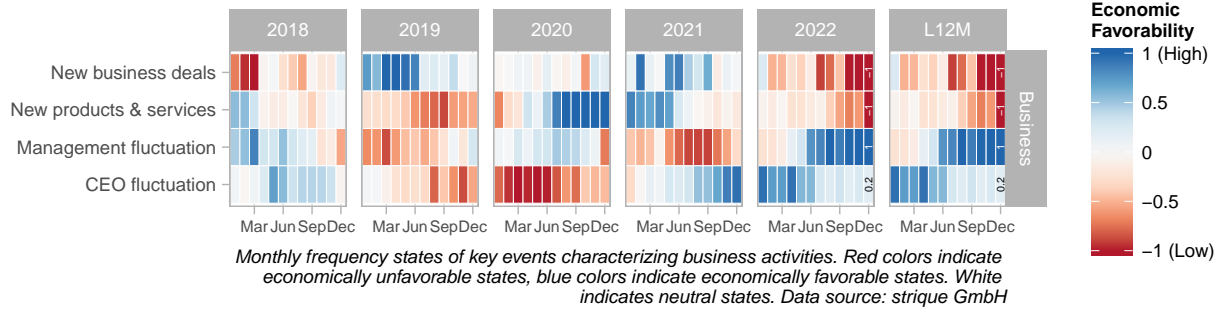
The economic rationale of the event is that an increasing number of announcements of new products and services indicates a favorable trend in business activities. A decreasing number of announcements correspondingly indicates an unfavorable trend. Similarly, a higher (lower) frequency of announcements of new products and services indicates a favorable (unfavorable) state of business activities.

In the course of their business, companies experience employee departures as the result of, for example, resignations, retirements, or layoffs. The higher the percentage rate of employees who leave the company and are replaced by new employees over a specific time period, the higher is its employee turnover. In a particular case, the change in personnel can be desirable, for example, if an employee's performance does not meet the company's expectations. However, in general, higher turnover comes at substantial expenses because each departure means a loss of know-how as well as hiring, recruiting, and onboarding costs. The same applies to changes in top management positions including CEO replacements. While some fluctuation is normal, increases in fluctuation can signal a phase of organizational instability, reduced productivity, and higher staff cost. In addition, the company may have difficulties to retain key personnel.

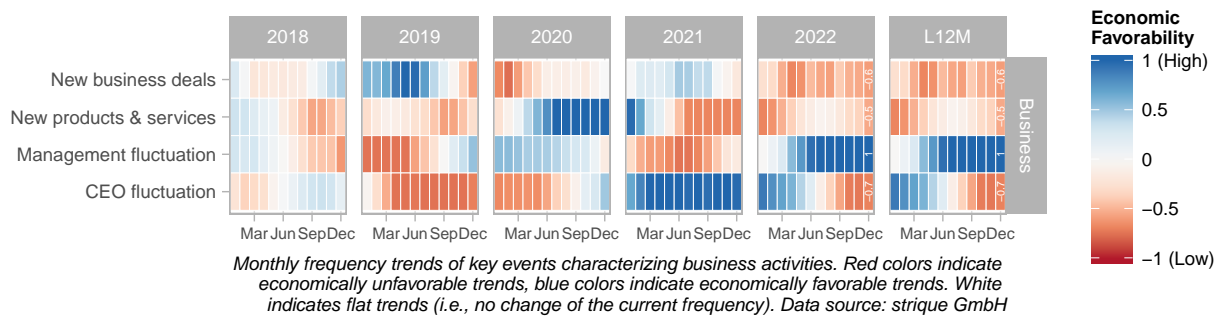
The economic rationale of the event is that an increasing number of announcements of top management or CEO changes indicates an unfavorable trend in business activities. A decreasing number of announcements correspondingly indicates a favorable trend. Similarly, a higher (lower) frequency of announcements of management changes indicates an unfavorable (favorable) state of business activities.

Sample Period Data

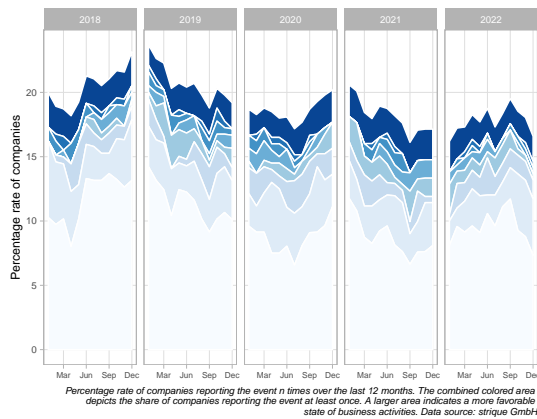
State of Business



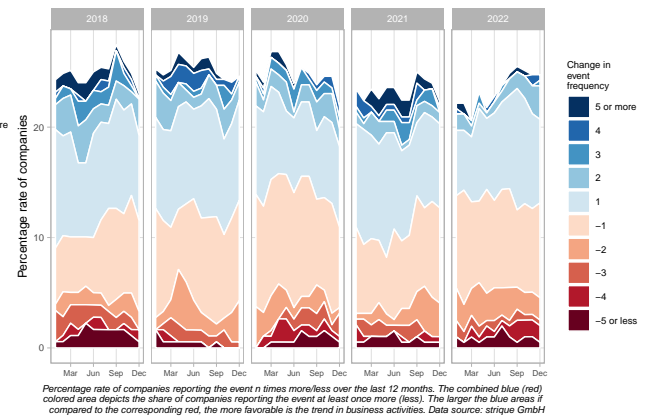
Trends in Business



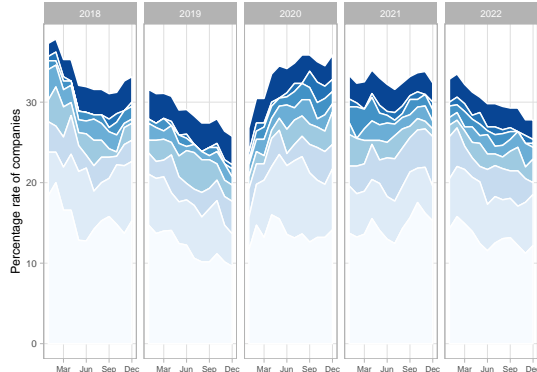
Details on the State: New Business Deals



Details on the Trend: New Business Deals

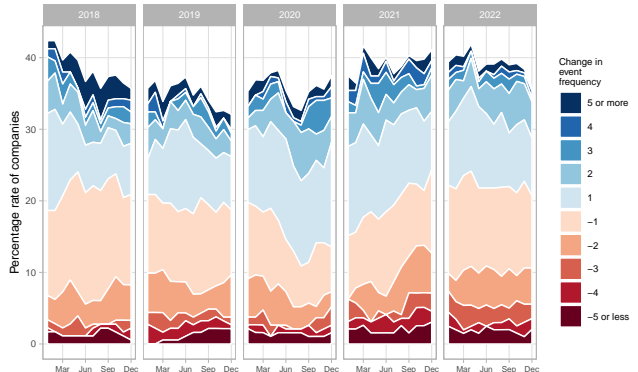


Details on the State: New Products & Services



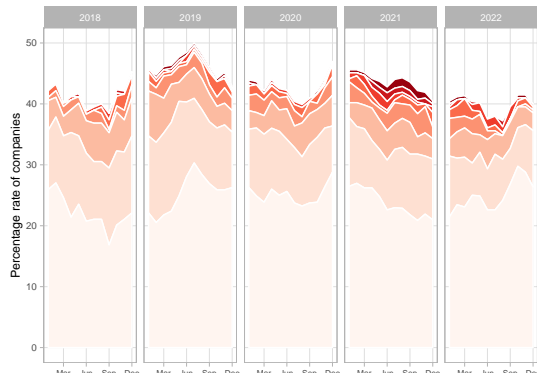
Percentage rate of companies reporting the event n times over the last 12 months. The combined colored area depicts the share of companies reporting the event at least once. A larger area indicates a more favorable state of business activities. Data source: strique GmbH

Details on the Trend: New Products & Services



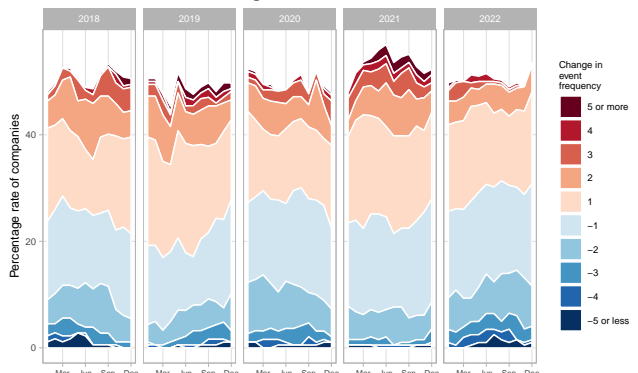
Percentage rate of companies reporting the event n times more/less over the last 12 months. The combined blue (red) colored area depicts the share of companies reporting the event at least once more (less). The larger the blue areas if compared to the corresponding red, the more favorable is the trend in business activities. Data source: strique GmbH

Details on the State: Management Fluctuation



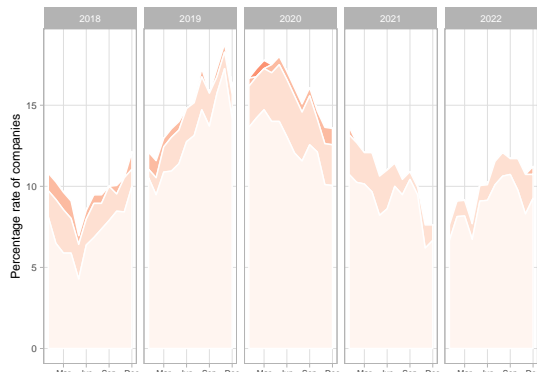
Percentage rate of companies reporting the event n times over the last 12 months. The combined colored area depicts the share of companies reporting the event at least once. A larger area indicates a more unfavorable state of business activities. Data source: strique GmbH

Details on the Trend: Management Fluctuation



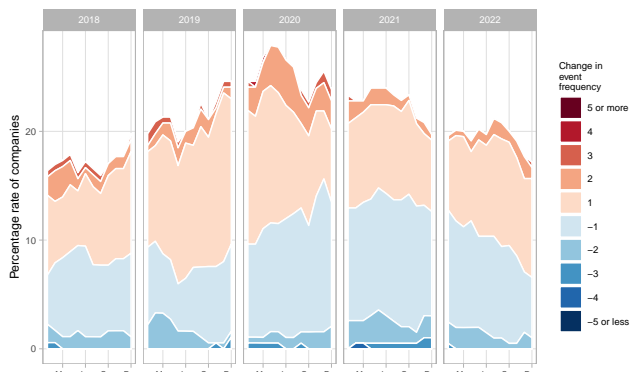
Percentage rate of companies reporting the event n times more/less over the last 12 months. The combined blue (red) colored area depicts the share of companies reporting the event at least once less (more). The larger the blue areas if compared to the corresponding red, the more favorable is the trend in business activities. Data source: strique GmbH

Details on the State: CEO Fluctuation



Percentage rate of companies reporting the event n times over the last 12 months. The combined colored area depicts the share of companies reporting the event at least once. A larger area indicates a more unfavorable state of business activities. Data source: strique GmbH

Details on the Trend: CEO Fluctuation



Percentage rate of companies reporting the event n times more/less over the last 12 months. The combined blue (red) colored area depicts the share of companies reporting the event at least once less (more). The larger the blue areas if compared to the corresponding red, the more favorable is the trend in business activities. Data source: strique GmbH

Summary

This report provides an assessment of aggregate business activities for Swiss All Caps. We measure business activities in terms of the frequency of events announced in firms' ad hoc disclosure (see the table below for an overview). Furthermore, we categorize the events as economically favorable or unfavorable and aggregate the event frequency across the sample. This way, we derive indicators of business activities. Tracking these indicators over time makes it possible to identify the state, trend, and cyclicity of business activities.

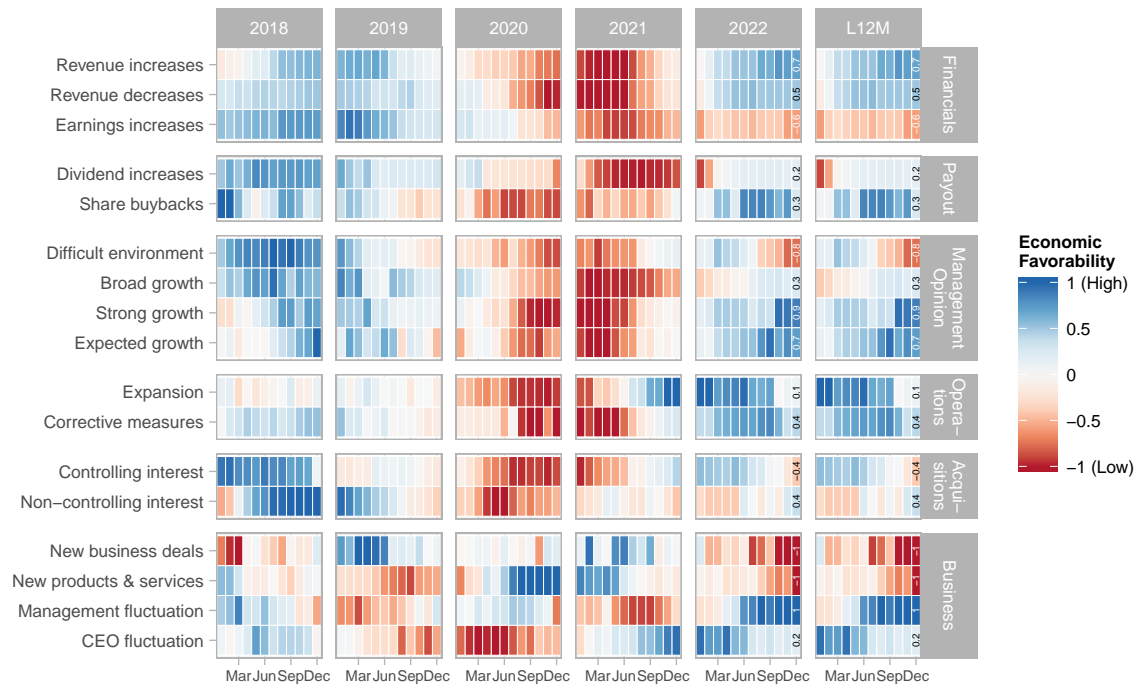
Table 1: Applicable events, economic rationales, and corresponding areas of business activities.

Event Name	Event Area	Economic Rationale
Revenue increases	Financials	Favorable
Revenue decreases	Financials	Unfavorable
Earnings increases	Financials	Favorable
Dividend increases	Payout	Favorable
Share buybacks	Payout	Favorable
Difficult environment	Management Opinion	Unfavorable
Broad growth	Management Opinion	Favorable
Strong growth	Management Opinion	Favorable
Expected growth	Management Opinion	Favorable
Expansion	Operations	Favorable
Corrective measures	Operations	Unfavorable
Controlling interest	Acquisitions	Favorable
Non-controlling interest	Acquisitions	Favorable
New business deals	Business	Favorable
New products & services	Business	Favorable
Management fluctuation	Business	Unfavorable
CEO fluctuation	Business	Unfavorable

- A high (low) frequency of favorable events indicates a favorable (unfavorable) state of business activities.
- A high (low) frequency of unfavorable events indicates an unfavorable (favorable) state of business activities.
- Increases (decreases) in the frequency of favorable events indicate a favorable (unfavorable) trend in business activities.
- Increases (decreases) in the frequency of unfavorable events indicate an unfavorable (favorable) trend in business activities.

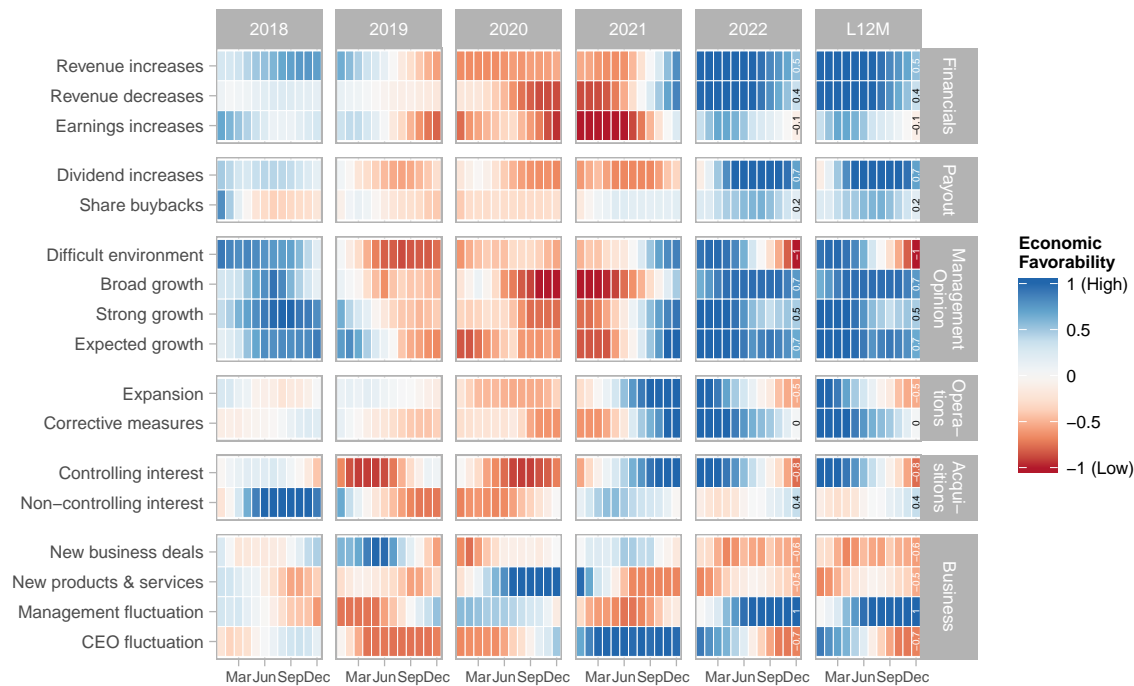
The figures below summarize the state and the trend of the frequency of 17 events from 6 key areas characterizing firms' business activities. The state reflects the difference between the mean event frequency at time t and the long-term sample mean. The trend reflects the linear time trend of the mean event frequency at time t .

State of Business Activities



Monthly frequency states of key events characterizing business activities. Red colors indicate economically unfavorable states, blue colors indicate economically favorable states. White indicates neutral states. Data source: strique GmbH

Trends in Business Activities



Monthly frequency trends of key events characterizing business activities. Red colors indicate economically unfavorable trends, blue colors indicate economically favorable trends. White indicates flat trends (i.e., no change of the current frequency). Data source: strique GmbH

Appendix

Methodology

Twelve Months Periods In this report, we focus on the frequency of events announced in firms' ad hoc disclosure over twelve months. This time frame overcomes seasonal reporting fluctuations and firm-specific reporting cycles. For each company, we compute the monthly event frequency $e_{i,j,t}$. This is the total number of observations of the event i for company j in month t . The number of observed events of the same type per ad hoc publication and per day is limited to one. Given $e_{i,j,t}$, we compute 12-months rolling sums of the event frequency as $s_{i,j,t} = \sum_{k=0}^{11} e_{i,j,t-k}$. The observations $s_{i,j,t}$ of the companies included in the research object of this report form the basis to compute the sample means (see below). In addition, they underlie the detail plots of the state and the trend.

Sample Mean We monthly compute the sample mean $\bar{s}_{i,t}^*$ of observations $s_{i,j,t}^*$. $s_{i,j,t}^*$ are observations $s_{i,j,t}$ winsorized at the 95th percentile. That is, observations $s_{i,j,t}$ above the 95th percentile $p_{i,t}^{95}$ at time t are set to $p_{i,t}^{95}$. We consider all observations of the parent universe in this step. Thereupon, we compute the mean $\bar{s}_{i,t}^* = \frac{1}{n} \sum_{j=1}^n s_{i,j,t}^*$, where n is the number of companies included in the research scope of the report. The sample means $\bar{s}_{i,t}^*$ form the basis to plot the state of business activities.

Time Trend of the Mean We compute monthly time trends $\hat{\beta}_{i,t}$ of the mean value of the event frequency. This is the slope coefficient of a linear model of time variance in the mean value over the last twelve months. The standard form of the model is $y = \alpha + \beta x + \epsilon$, where x is a simple time index. In our specific case, it is $x = (1, 2, \dots, 12)$. The dependent variable is the mean $\bar{s}_{i,t}^*$ of observations $s_{i,j,t}^*$. The model is estimated for rolling 12-month windows of observations $\bar{s}_{i,t-11}^*, \bar{s}_{i,t-10}^*, \dots, \bar{s}_{i,t}^*$ to get $\hat{\beta}_{i,t}$.

Winsorizing For certain events, it can be observed that the frequency distribution of observations $s_{i,j,t}$ has distinct outliers. For example, if a consumer products company announces all additions to its product range, it can record a large number of product innovation events if compared to other companies. From an economic viewpoint, it seems unlikely that each new product has a significant impact on the company's expected future market success in that case. As a consequence, changes in the mean value resulting from outliers are not necessarily a good indicator of changes in aggregated business activities. For that reason, we measure the state and the time trend using the mean value of the winsorized observations.

Examples of Events

Event Name	Example
Revenue increases	In the reporting period, [Company]'s revenue increased by 5.0% to CHF 1.2 billion
Revenue increases	[Company] announces strong growth in recurring revenue up 16%
Revenue decreases	Net sales of CHF 68.3 million 6.9% lower than previous year
Revenue decreases	[Company] reports a revenue drop of 6.6%
Earnings increases	Operational EBITA was up 15.4% to CHF 159 million
Earnings increases	Corporate earnings increased by 5.9%
Dividend increases	New dividend increase proposed: by +CHF 0.50 to CHF 22.50/share
Dividend increases	The shareholders approved the 7th consecutive dividend increase
Share buybacks	[Company] intends to enter into a new share buyback program
Share buybacks	[Company] expands share buyback program
Difficult environment	[Company] held up well despite the difficult environment
Difficult environment	Weak market environment leads to decline in order intake of 17%
Broad growth	[Company] experienced solid growth across all its business units
Broad growth	Significant revenue growth in all markets
Strong growth	Strong sales growth in first quarter
Strong growth	[Company] maintained its strong organic growth
Expected growth	CEO [Name] expects further growth in revenues and profit
Expected growth	For the business year 2020 a revenue growth of 8–10 % is expected
Expansion	[Company] expands production capacities in Egypt
Expansion	[Company] to build new global distribution center in Belgium
Corrective measures	[Company] intends to restructure some business units of the current production
Corrective measures	[Company] streamlines organization and launches global cost savings initiative
Controlling interest	[Company] is to acquire a majority stake of 67 percent in [3rd Party]
Controlling interest	[Company] to acquire wind energy marketer [3rd Party] in full
Non-controlling interest	[Company] has acquired a strategic minority stake in [3rd Party]
Non-controlling interest	[Company] has made an investment to acquire 25% of [3rd Party]
New business deals	[Company] receives major order in the US
New business deals	[Company] has been awarded a new three-year contract to handle warehousing services
New products & services	[Company] launches UPS devices for desktop and entry-level network applications
New products & services	[Company] launches an innovative and expert medical equipment installation service
Management fluctuation	[Company] appoints [Name] as chief financial officer
Management fluctuation	Board of directors appoints new head of marketing, sales and production planning
CEO fluctuation	[Company] has appointed [Name] as new CEO
CEO fluctuation	[Name] becomes the new CEO of [Company]



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