A share Sector Rotation Analysis Based on Big Data Under the Epidemic Situation in China

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Abstract. Due to the global coronavirus-related economic turbulence, the economy of China several transition phases. Developments throughout the geopolitical scene accelerated the its strategic change to embracing shifts from growth consumption in favor of value sectors, particularly innovation-based ones, as it was vital that investors re-consider their investment vehicles in order to maintain their profit margins. Transformations in demographic trends coupled with global technologies plus digitization, reforms, and nurturing a free market motivated the drive for equity performance on the long-term. This resulted in significant sector rotations, particularly in China's A-share market, which witnessed sector rotations shifting from growth in favor of value sectors. Through event analysis, this paper discovered that investors majorly shifted to electronic components, computers, and healthcare.

Keywords: A-shares; Sector rotation; Stock market; COVID-19.

1. Introduction

This paper is going to adopt an event study – a technique often deployed by financial scholars to assess an event's impacts – to evaluate China's A-share rotation during the Covid-19 pandemic. A-shares in China refers to mainland Chinese corporations with listings on either the Shenzhen or the Shanghai stock markets, which are normally exclusively accessible for trade to nationals of the People's Republic of China. Foreign investment for such enterprises, nevertheless, is permitted under a controlled system. A-shares are traded in Chinese yuan (CNY) or Renminbi (RMB) and are generated within Chinese legislation. In so doing, it is envisaged that the essay will help to draw meaningful conclusions on how the pandemic shaped Chinese firms and industries, as a prelude towards preparedness and responsiveness, especially in the face of the effects of future external shocks to the economy [1].

2. Industry Rotation Phenomenon

In the stock market, an industry refers to a collection of stocks of companies operating the same or similar businesses. Due to the influence of economic factors such as macroeconomics and industries, the business prospects of companies in the same industry are highly correlated with changes in earnings. Therefore, stock prices in the same industry or sector often rise and fall at the same time. Industry rotation is a type of sector phenomenon, which refers to the phenomenon that stocks of different industries in the stock market show alternate rises or falls, that is, the so-called "rotation". There are various reasons for industry rotation, which may come from technical factors or fundamental factors. For example, the news of a company's merger and acquisition has caused a large number of buy orders in the market. This could be seen by the market as a signal of future upside prospects for the sector's stocks, leading to a massive inflow of capital that in turn propels the entire sector higher. Fundamental factors can also lead to industry rotation, such as adjustments in fiscal and monetary policies, the emergence of new technologies, and changes in the economic environment [2].

3. A-Share's Corrections & Rebounds

When the pandemic hit, twice, the A-share market witnessed corrections and rebounds in Q1 2020.

Month 1 Q1 2020 shows that the market for A-shares was on the rise in comparison to Q4 2019, all the way through late January, coinciding with more reports about the Covid situation in Wuhan. Even so, Q1 2020 saw mid-size and small stocks outshining their larger cap counterparts. Stock prices fell towards end of February through early March as the virus spread across North America & Europe, amidst growing market concerns with regard to the worsening international financial systems, a decline in foreign demand, high unemployment rates, as well as disrupted supply chains, A-shares launched the second wave of adjustment [3].

	1 – 23 Jan	3 – 25 Feb	26 Feb – 31 Mar
Shanghai Composite	-2.41%	1.23%	-8.72%
Shenzhen Composite	2.41%	10.99%	-15.97%
ChiNext Index	7.21%	18.65%	-18.16%
CSI 300 Index	-2.26%	3.00%	-10.61%
CSI 500 Index	2.09%	9.67%	-14.52%

Fig. 1 Major A-Shares Index Q1 2020 Performance

4. Industry Performance

According to the performance of the first quarter of 2020, it can be clearly seen that there are obvious differences between industries. The period only had 5 sectors recording positive returns, comprising of agriculture, healthcare, computers, telecommunications as well as construction materials. On the other hand, the worst hit sectors in terms of performance included those that were affected by social distancing and related restrictions, encompassing travel and hospitality, home appliances, transport, coal, plus diversified financials [4].

5. Covid-19 Company-based Implications

Economic fundamentals rapidly worsened, as was witnessed in the severe downward profit revisions. By end of Q1 2020, 1,614 A-share firms had reported initial Q1 profits, with 69 percent expecting earnings to fall with a mere 31% expecting their incomes to rise, the lowest percentage since 2013.

Most firms in transportation, tourism, and hotels; building and engineering, construction materials; and home appliances recorded reductions in initial earnings releases for Q1 of 2020. For example, only two of the transportation industry's 26 businesses anticipated increases in their earnings, for instance.

6. Company Q1 2020 Earnings

The graph below (Fig. 2) was computed from1659 A-share company earnings of Q1 2020, comparing increases and corresponding decreases in A-shares.

However, Q1 2020 earnings will merely show the period's slowdown in domestic economic activity. The effect of delayed work resumes, a drop-in export growth, as well as disrupted supply chains will be seen in subsequent quarters, inclusive of the possible effects of negative consumer mood as well as a delayed smartphone replacement cyclicity in a major global tech supply chain.

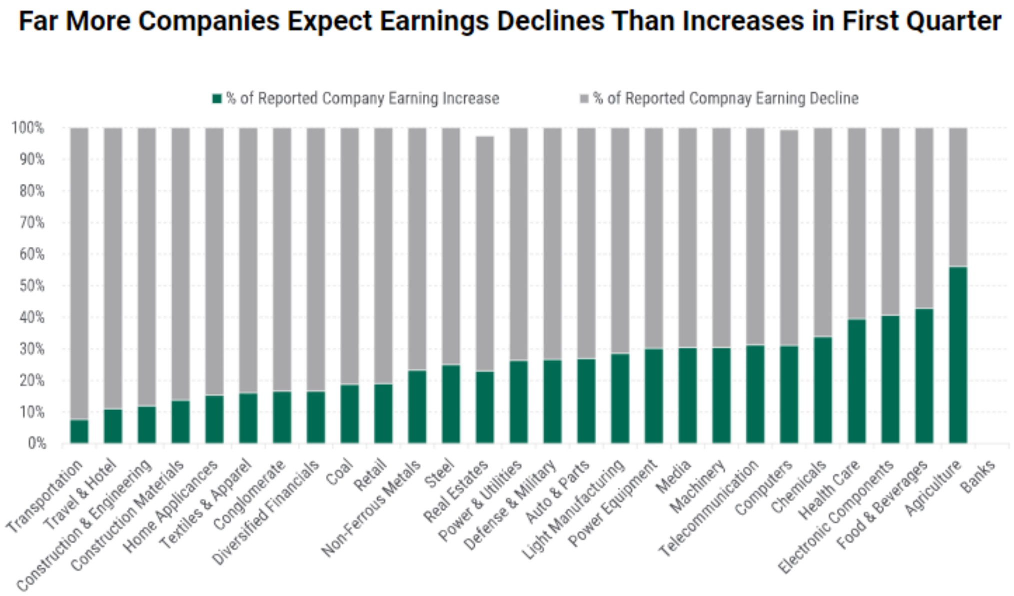

Fig. 2 A-Share decreases and increases in Q1 2020 earnings

7. Outlook: 2021 and 2022

Fast forward to 2021 and 2022, whereas the Chinese A-share sector saw substantial market turbulence throughout 2021 owing to a number of tighter policies from the government, experts anticipate a more favorable policy climate throughout 2022, in which China's top aim is to maintain steady economic development. When compared to outside markets, notably the United States, China's domestic policy situation still bears plenty of potential for liberalization [5].

Following the widely predicted RRR (Reserve Requirement Ratio) reduction in Q4 2021, the nation witnessed sector rotations shifting into value sectors, moving away from growth throughout Q1 2022. For instance, the housing sector, construction, building supplies, as well as financials had recovered as a result of anticipation of more accommodating fiscal and monetary policies. The market anticipates that the present policy environment would assist small and medium-sized firms (SMEs) in increasing employment and so indirectly supporting consumer recovery. Furthermore, it gives some room to recover and satisfy their financial obligations, inclusive of paying their contractors and purchasing land, among others. Likewise, experts have predicted further fiscal stimulus in the infrastructure sector, with infrastructure investment growth likely to accelerate in 2022 to assist mitigate the decline in property investment [6].

Given this, it is worthwhile noting that that historically, rallies in Chinese cyclical stocks resulting from policy stimulus have been fleeting owing to China's high debt ratio that precludes a large stimulus, whilst the economic effect of policy stimulus on cyclical industries has grown more limited in recent years [7].

The resurgence of China's consumption will be determined by how the COVID-19 outbreak unfolds in the immediate future. Whereas the nation's ‘zero-tolerance' stance remains largely efficacious in stopping Delta variant transmission, the current Omicron variation may present some short-term uncertainty. In the foreseeable future, rules placed on the property as well as the education industries in 2021 are anticipated to have a favorable impact on the buying power of consumers down the line. Household consumption might be redirected toward consumer goods and services should real estate prices in major cities fall along with related reductions in educational costs.

The other component of the dual circulation concept is exports expansion. Export figures in the nation have been extremely high throughout the last 2 years since China managed halting the pandemic's spreading more quickly compared to many other countries. Nevertheless, if the worldwide COVID epidemic ends in 2022 and results in the recovery of international production and supply chains, the current export growth rates are likely to fall in 2022 as well.

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8. Discussion

Notwithstanding the economic shock created by the Covid-19 outbreak, there was a return to normalcy in the risk appetite throughout China's A-shares market and investors focusing on business fundamentals, which augurs well for a fundamental-based quantitative strategy. This approach allowed the study to distinguish betwixt market noise and themes, choosing to disregard noise, which is usually fleeting and unsupported by business profitability. On the other hand, business themes tend to stay longer and may be linked to increased company profitability or government policy backing. Government policy backing should include macroeconomic policies, fiscal and tax policies, and science and technology incentive policies [8].

In this volatile environment, rigorous monitoring of multiple exposures such as industry, themes, and risk exposures is also critical for alpha creation. In the midst of the worldwide drop in demand, experts have been watching A-share businesses and industries with significant exposure to overseas sales for abrupt changes in profitability compared to past trends. Some equities tied to big tech company's supplier chains, for example, showed strong first-quarter profits increases, which may not be sustainable given the temporary closure of associated retail outlets throughout the world (except in Greater China) [9]. This selectivity, according to the study's findings, will be important in collecting alpha during this period of uncertainty.

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9. Conclusion

The academic circles have given many explanations on the reasons for the fluctuation of China's stock market. The change of Chinese investors' sentiment is considered to be the main reason for the fluctuation of the A-share market. The change of Chinese investors' confidence in the fundamentals of the domestic economy and the fluctuation of the Chinese stock market will affect investors' confidence in the international economic and financial environment; In the medium and long term, the change of Chinese investors' confidence in domestic economic fundamentals and domestic economic policies is an important reason for the China's stock market [10].

Through the previous data analysis and trend, experts anticipate that investor confidence in the A-share sector will steadily improve as the implications of these supporting measures begin to take effect. With a continual of demand's structural movement in favor of mutual funds against wealth management products, analysts forecast market liquidity within the A-Share sector will stay robust throughout 2022. Experts favor the electric vehicle (EV) supply chain, technology, as well as healthcare sectors in 2022 as they tend to have robust long-term foundations.

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