Teza

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The Era of Prosperity: Chinese Commodities

Dr. Misha Malyshev,
CEO and CIO, Teza Technologies

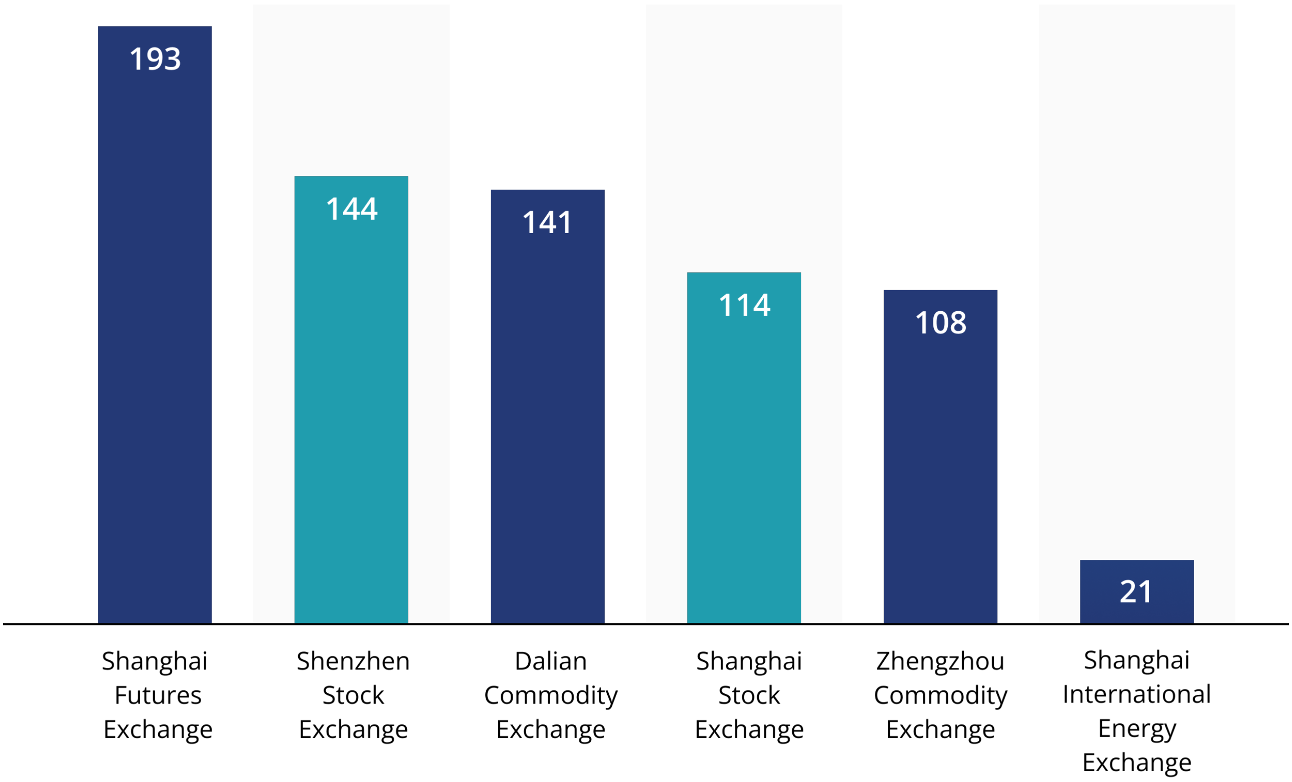
The Largest Gap in The World's Institutional Portfolio

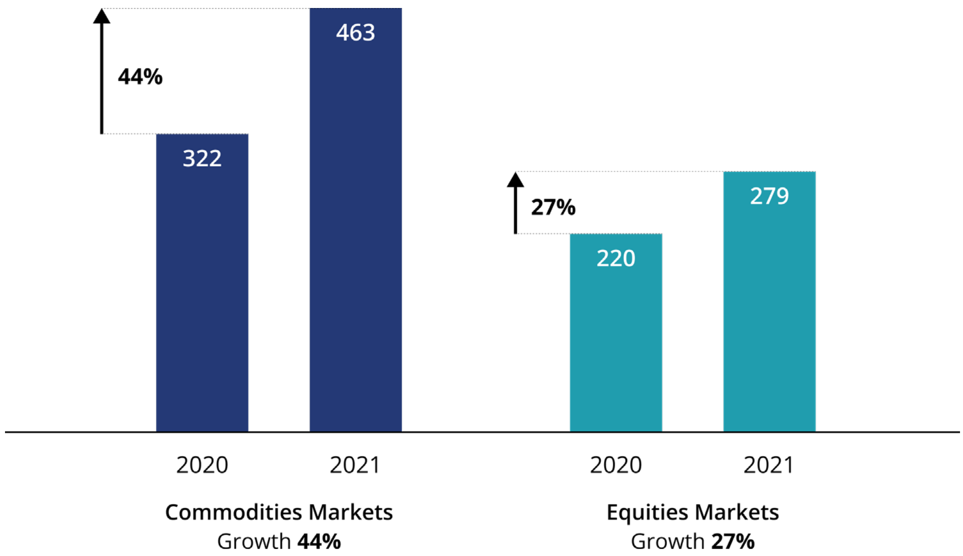
What do bitumen, eggs, rebar, and apples have in common? They are all traded actively in deep, liquid Chinese onshore commodities futures markets yet they are not part of the typical institutional investor's portfolio.

Ok, that is interesting, but why would a pension or endowment CIO worry about, say, polypropylene futures? The answer, of course, is diversification. Markets are becoming increasingly more efficient. It is becoming harder and harder to identify a new marginal alpha in the set of existing products, and even more challenging to do it at scale. It is far easier to access alpha in nascent markets that are not yet institutionalized.

China is one of the last non-institutionalized markets in the world, viewed by many investors as the final frontier for alpha. While Western investors have explored Chinese stocks through H shares, ADRs and thematic ETFs, they have long overlooked Chinese commodities. This is a point of curiosity, as the size of Chinese commodities markets exceeds that of Chinese equities markets (see Pic. 1) and the growth of China's commodities markets outpaces the growth of their equities markets (see Pic. 2). While still relatively nascent and largely dominated by retail activity, Chinese commodities markets are growing rapidly and have exhibited significant liquidity and diversity, making them an essential place for the institutional investor to look for both diversification and new sources of alpha.

Pic. 1. 2021 volumes on the commodities (blue) and stock (green) exchanges in China.
Source: China exchanges.





Pic. 2. Volume growth from 2020 to 2021 on the commodities and stock exchanges in China.
Source: China exchanges.

Diversity and Scale of Chinese Commodities

In 2021, trading volume in Chinese futures markets hit a record high, following significant increases over the three years prior. The four Chinese futures exchanges have been steadily climbing the trading volume rankings In the global exchange-traded derivatives market. In the global rankings for trading volume (by the number of contracts), Chinese futures now occupy the top 11 spots for agricultural products, 9 of the top 10 spots in metal futures, and 7 of the top 20 in energy futures. In dollar weighted trading volumes, Chinese agricultural commodities are exceeding those of the western world. For example, the Soybean Oil contract in China is 10x more liquid than the Soybean Oil contract on CME; China base metals dollar volumes exceed LME base metals volumes by almost two orders of magnitude (up to 100x).

Chinese commodities are also a more diversified group than their western peers. Chinese commodities are a set of products with varied uses and unique relevance to the modern world. Below we introduce key examples of Chinese commodities futures, looking at the largest sectors:

Construction futures:
- Iron ore
- Thermal coal
- Coking coal
- Coke
- Rebar
- Rolled coils
- Stainless steel
- Glass

Energy futures:
- Crude oil
- Fuel oil
- Low sulphur fuel oil
- Liquefied petroleum gas

Chemical futures:
- Methanol
- Ethylene glycol
- Polyethylene
- Polypropylene
- PTA
- PVC
- Soda ash
- Bitumen
- Rubber

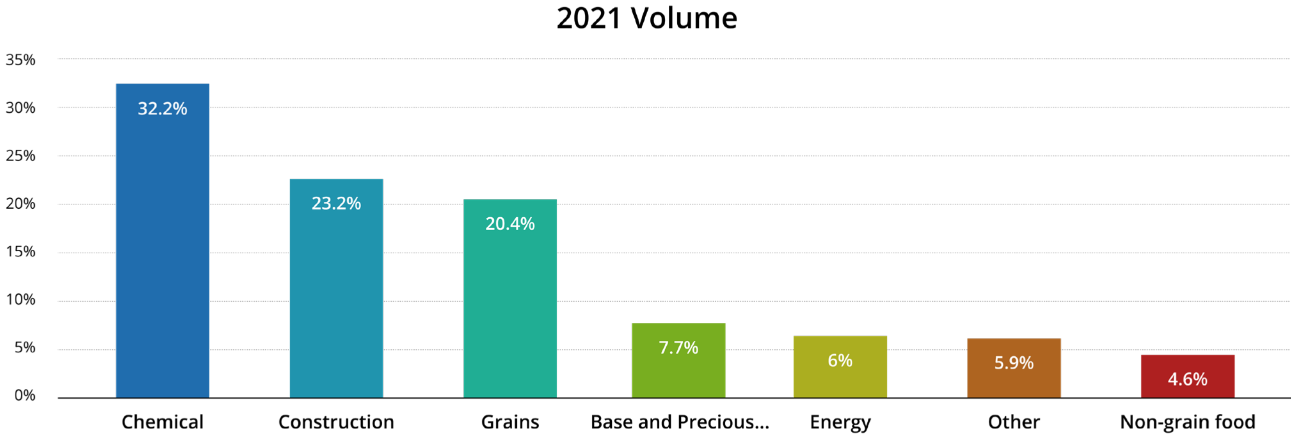
Base and Precious Metals futures:
- Gold
- Silver
- Aluminum
- Copper
- Zinc
- Nickel
- Lead
- Tin

Grains:
- Soybean
- Soybean oil
- Soybean meal
- Corn
- Wheat
- Rapeseed oil
- Rapeseed meal
- Palmolein

Non-grain food futures
- Eggs
- Apples
- Sugar
- Live hog
- Dried Chinese jujubes

In additions there is a variety of specific futures contracts:
- Cotton
- Silicon manganese
- Ferrosilicon
- Wood pulp

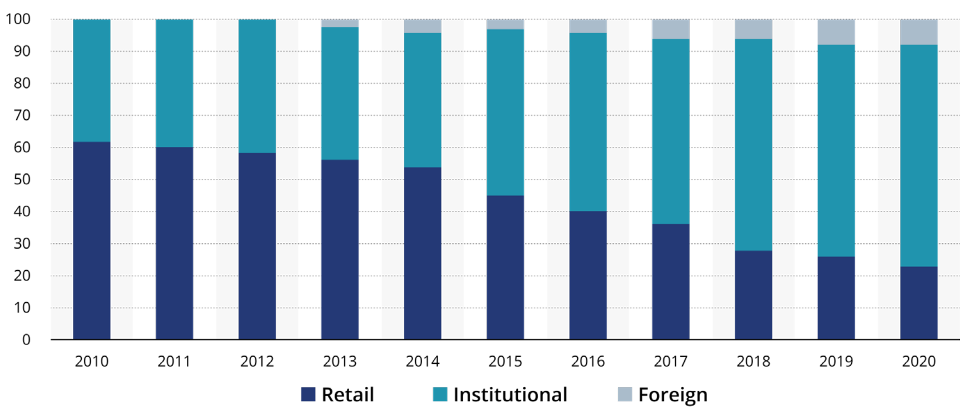
Pic. 3. Distribution of Chinese commodity futures by sector (in number of contracts traded).
Source: Teza analysis.



From the return covariance matrix point of view, such a variety provides an unprecedented number of degrees of freedom in portfolio factor movement. That in turn leads to maximum diversification. It is also important to note that even between the "same" set of commodities (e.g., Chinese corn vs western corn, Chinese soybean oil vs western soybean oil) the return correlation is relatively low. It is below 30-50% measured on a long term (monthly) basis and under 10-30% on a daily basis. That means that the Chinese corn futures contract is essentially a different product than the CME corn futures contract, making the addition of Chinese futures products to the portfolio even more appealing.

Retail Participation

One unique characteristic of Chinese markets is the level of retail investor participation. This is clearly illustrated in the case of stock trading where there is an abundance of reliable data. While in the U.S. a retail order in stocks practically never sees the market due to large wholesaler domination and PFOF (Payment for Order Flow), Chinese equities markets still have significant access to retail liquidity. And while the individual retail order flow is continuously decreasing, it is still a very large portion of Chinese markets (Pic. 3). Moreover, more sophisticated international players are still only a tiny fraction of the total volume.



Pic. 4. Retail investors represent a significant participant pool in Chinese markets.

Note: Institutional holdings include state and corporate strategic investments
Source: China Renaissance, Financial Times

For a sophisticated international investor, a market that is dominated by retail investors and less advanced domestic participants presents a unique and attractive opportunity.

Market Access

Historically, outside of a handful of internationalized contracts, the opportunity to trade on Chinese commodities exchanges was limited to investors with capital onshore in China. However, recent changes in the regulatory landscape will pave the road for wider acceptance of Western capital in China.

Certain restrictions on Western investors' access to Chinese markets were eased in 2019, and in October 2020 the China Securities Regulatory Commission (CSRC) announced that the Qualified Foreign Institutional Investor Program (QFI) would significantly expand access to include futures contracts and private investment funds. Certain qualified non-Chinese investors will soon invest directly in futures contracts in Chinese markets under the QFI program, with relaxed regulations around deposits and withdrawals. Additionally, swap programs through Chinese banks now allow for capital to be held offshore while banks manage margin requirements onshore. Investment managers with a presence in China and strong relationships with banks and regulators have been able to take advantage of these regulatory changes more quickly than their newcomer peers, enabling them to make their strategies available to non-Chinese investors.

Current Investment Landscape

Capitalizing on relative inefficiencies of Chinese commodities markets, most of the existing futures-based strategies in China are relatively simplistic. Both domestic and international players rely on the "simplest thing that still works". These are predominantly trend followers across various horizons, broadly characterized under the name of CTAs.

While many CTA strategies have generated outsize returns for years, they've experienced significant drawdowns recently. Wang Li, chairman of Hangzhou Liberty Fund Management Co., articulated the cause quite plainly – While rapid-trading strategies that capitalize on momentum "could create very beautiful performance charts," once big money rushes in "the strategies no longer work."

As access expands and global CTAs continue to enter the market, herding and overcrowding will undoubtedly increase, changing the opportunity set and opening the door for traders who are able to capitalize on these dynamics.

Where will the market go from here

There are two major factors that will determine the direction of China's commodities markets in the years to come:
1. Growth of domestic institutional investor base
2. Growth of international institutional investor base

As retail investment activity becomes less dominant, "easy" opportunities in the market will disappear. Market efficiency will inevitably increase with years.

On the plus side, liquidity and capacity will continue to increase dramatically. The latter will be driven not only by the inflow of institutional capital but also by the growth of the region as a global commodities hub. Paired with government policy aimed at making Shanghai a leading global financial center, Chinese commodities markets will become a central piece of investors' portfolios.

Given the ever-increasing market efficiency, savvy investors are positioning themselves now to capture diversification from simple momentum strategies and capacity from the next generation of commodities trading leaders.

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