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COMMODITIES

L'AGEFI

Along a turbulent path

EDITORIAL

Along a turbulent path

The political context delivers greater uncertainty than usual, and we are witnessing structural changes that will greatly influence the commodities markets. Though the shift from globalisation to global protectionism may be grounds for concern, commodity prices are picking up and the evidence suggests that we may be in the early stages of a new bull market. Rising supply risks can be expected to underpin higher prices with the prospect of accelerated infrastructure building in the US and surprise demand growth in China.

Changing weather and demographics, combined with geopolitical uncertainty, may have a negative impact on food security, threatening the livelihood of millions. The world's population is expected to reach nine billion by 2050, and the food supply chain will have to respond to the growth in demand without compromising sustainability, and despite rising temperature. Commodity traders must remain adaptable, if they are to negotiate this difficult path.

Extraordinary times call for an extraordinary response, in this case new collaborations and innovative solutions. State-owned enterprises (SOEs) have become influential in the global economy in the past decade, and with their declared intent to increase control over supply, they are gaining ground in commodity trading. Over the years, SOEs considered several strategies for entering the sector, from direct purchase to minority or majority equity participation in existing trading houses. They have often become direct competitors of existing players, but recently exposed vulnerabilities in the sector suggest that partnership rather than competition may be a better way to make their mark.

Theory indicates that supercycles recur every 20 to 40 years, and as the last one peaked in April 2011, we shouldn't see another until 2030 at the earliest. Yet, following a significant drop between April 2011 and February 2016, the average commodity index has increased by nearly 40% over the last year. Are there potential drivers for the deep shift in the supply/demand balance that could trigger a new supercycle? The question is open to debate. Trump's $1 trillion plan for the renewal of US infrastructure has raised some people's expectations of commodity price increases, while others believe that the demand resulting from an increase in infrastructure spending in the US is likely to be limited.

Some drivers impact the supply/demand equilibrium in smaller markets too. With the energy transition, lithium is expected to experience the fastest increase in demand of any significant commodity over the past century. Demographic growth in India, and associated food habits, are curbing the supply/demand ratio for pulses, which are no longer considered a niche market. Many agricultural commodities are under severe threat from global warming. As an example, coffee production is likely to drop by 20 to 25% by 2050.

The Swiss commodity hub continues to function efficiently, sailing through price movements, evolving political agendas and continuous innovation. Traders redefine their business strategies in order to address ethical and regulatory challenges, engaging with the Swiss authorities and civil society to build proper governance. Last but not least, traders are consistently integrating new technology to minimise risk throughout the supply chain. ■

Nicolette de Joncaire
Editor in chief

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Working together through challenging times

In an environment full of uncertainty, constructive collaboration across all stakeholder groups is critical.

DAVID FRANSEN
President, STSA

After the global political surprises of 2016 I suspect we all began 2017 with a degree of caution and uncertainty. It is difficult to anticipate how this year will evolve but some things have been clearly signalled. It is evident that some of the regulation resulting from Dodd Frank will unravel, though in what way and how it impacts our sector remains unclear and the potential resurgence of the US banks' presence in the commodities sector is a real possibility. In this context Swiss trading companies are looking to Switzerland for consistency, both in its approach to Swiss based businesses and its implementation of the FinfraG regulation.

At the same time we recognise that the anti-globalisation sentiment which influenced some of 2016's political outcomes is present and relevant in Switzerland. It is incumbent upon all global businesses to explain how they add value to society, as well as their shareholders, and engage with stakeholders both in Switzerland and beyond.

The Swiss vote in February of last year regarding the speculation in agricultural products is a clear example of how our sector can benefit from clear communication and a programme of active engagement and we should learn from this experience and integrate these behaviours in our day-to-day conduct

That said, on its part, Swiss society must appreciate the limits of businesses' reach; that the context in which they operate is complex and that they do so at the pleasure of the government in whichever country they are operating. No business, however large, should be able to impose its will on a government, anywhere in the world, limiting how much companies can achieve.

In this context the 'Dirty diesel' publication by Public Eye was disappointing. Pollution in developing economies is important and complex. Household pollution from cooking with solid fuels causes twice as many deaths as ambient air pollution per year in sub-Saharan Africa. But instead of meaningfully considering the issues of pollution, or even fuel quality in the developing world, Public Eye regrettably opted to maximise misleading headlines. Just as we, businesses, have a duty to explain and inform, NGOs have a duty to accurately represent the facts. Both sectors have room for improvement.

On a more positive note, I have been extremely encouraged by how the gatekeepers to the solution of improving fuel quality, that is governments and refiners, have actively engaged with all participants with a view to addressing the situation as soon as is practicable. I am confident that by working together we will be able to deliver real progress.

We were very pleased that the STSA implemented a Code of Conduct, accepted by all its members, during 2016. Whilst many companies already operate to or beyond the levels set, the Code is an important symbolic step which indicates the sector's willingness to publicly embrace high standards of behaviour and the acceptance that trading companies will be judged unfavourably if they do not adhere to them.

NO BUSINESS, HOWEVER LARGE, SHOULD BE ABLE TO IMPOSE ITS WILL ON A GOVERNMENT.

During 2017 we shall continue to work on a number of important governance and transparency initiatives including the Swiss multi-stakeholder dialogue on the UN guiding principles on business and human rights ("Ruggie principles") and commodity trading corporate responsibility. In parallel, the Swiss based energy sector continues to work with stakeholders in the EITI commodity trading working group to establish an appropriate framework for transparency of payments in relation to trading activity. The participation of the National Oil Companies from some producing countries has been critical. They are our customers and without their participation and support, this process is simply not possible.

These initiatives are relevant and important and, we hope, will result in real and meaningful positive outcomes. Paperwork takes time and costs resources, which is particularly difficult for some of our smaller members to handle and if this were to no real benefit it would be a waste indeed.

Our industry, Switzerland and indeed the world faces uncertain times at present. Many of the challenges we face transcend borders and they are all complex. Switzerland has long benefited from having a large and successful trading community, attracted by its stability and collaborative approach. In a world where confrontation is driving schisms through our society and our politics, collaboration is a rare and valuable behaviour. Only by working together, as an industry, with our stakeholders in Switzerland and beyond, will we be able to drive progress and the positive benefits that global trade can bring. ■

Switzerland: a 150-year trade leader only recently awakening public curiosity!

STÉPHANE GRABER
Secretary General, STSA

Did you know that Switzerland was already a trade leader 150 years ago? And that in the 16th century Geneva was already one of the "hottest" places for trading goods between northern and southern Europe, leading the Medicis to develop the first banking activities in Switzerland to support such trade? Later in the 18th century, returning Swiss expatriates brought with them the unique wealth of an international network, and trade went on to enrich Swiss families such as the Stockalpers, silk merchants of Brig. Did you also know that after World War II, the only freely convertible currency with the US dollar was the Swiss franc? Finally, in today's increasingly protectionist environment, who remembers that Switzerland's wealth is partly a product of immigration, being a safe haven for foreigners and refugees who contributed to the development of important industries for the Swiss economy such as watchmaking, Egyptian cotton trading, and even Nestlé's iconic powdered milk?

Nevertheless, it is only over the last few years that the commodity trading sector has become of particular interest to Switzerland. Continuous growth has taken this historical activity to the rank of top GDP contributor (3.8% in 2015). Moreover, its role as a purveyor of employment has been largely underestimated until now, with figures showing that the Swiss commodity trading sector in fact employs over 35'000 people.

With increased importance and visibility comes heightened responsibility. This was evidenced in the 2016 federal referendum spurred by the Young Socialists' initiative against speculation on foodstuffs, and the successful campaign of STSA and its members at the national level (leading to almost 60% voting against the initiative). These events are still relevant in 2017, as the broad NGO coalition behind the Responsible Multinationals Initiative seeks to make use of few specific industry examples to promote their initiative, aided by the lack of public understanding of commodity trading activities.

This should be viewed as an extraordinary opportunity – not a threat – to engage with the public on the economic significance of commodity trading which is indispensable to our day-to-day lifestyles. Five years ago, who cared about the origin of their Nescafe coffee, its cultivation, transportation and processing? It is precisely this new-found curiosity that represents a unique opportunity for our industry to inform the public about our complex value chains, as well as the issues and challenges our members face in their day-to-day operations in order to bring essential foods to our tables, to supply energy to our households, and to source rare metals indispensable to our mobile phones.

Since last year, this has resulted in STSA proactively embracing the opportunity to communicate to the general public and promote an enhanced transparency of actors, activities, and corporate governance. Notable milestones have included the creation and publication of an animation movie and the enforcement of a Code of Conduct endorsed by all of the Association's members. This has taken shape through a multi-channel approach to reach interested members and the public at large in order to better inform their understanding of the commodity trading sector. In addition to the use of LinkedIn and Twitter, this has also taken form through the launch of a new Youtube channel and a brand new website.

CONTINUOUS GROWTH OF THE COMMODITY TRADING SECTOR HAS BROUGHT IT TO THE RANK OF TOP GDP CONTRIBUTOR IN SWITZERLAND.

STSA together with its members are testament to the ability of the industry to adapt to the changing environment and to prepare the industry to successfully overcome future challenges. The importance of our industry cannot be underestimated, as it can play an influential role in global issues such as food security. The landscape is changing, with the emergence of new actors and the evolution of technology (perhaps leading to the next supercycle). Moreover, increased regulation has brought higher financial costs linked to its implementation, and has highlighted the persistent lack of regulatory harmonisation. The ability of STSA to bring together the industry around these important issues as demonstrated in this magazine and to work together despite the diversity of industry members in terms of size, activities, and types of commodities will be the industry's strongest asset for its future success.

We hope you enjoy reading our magazine "Commodities" written by our members and important stakeholders, which provides a first-hand depiction of our industry; an indication of how collectively, we can overcome these challenges. Together with the STSA team, we would like to thank all the contributors for their valuable work. ■

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Commodities – Business environment

Business environment for Swiss based commodity trading companies: insights from the 2016 survey

NINA EGGERT
CSR Officer, STSA

The survey conducted by the University of Geneva between March and July 2016 provides a first static picture of the interplay between commodity trading companies and their environment in Switzerland. These companies are characterised by their international outlook and activities. In the 20th century they have increasingly made Switzerland their home to the point that over the decades they have grown to represent a significant share of the national economy. Considering the high mobility of the activities of such companies, it is imperative to understand how they perceive the business environment in Switzerland and how it determines their continued presence in the country.

Overall, the commodity trading companies appear to be satisfied with the general business environment in Switzerland, with over 70% of the respondents considering it good to very good. It is also considered as one of the most important factors for three quarters (75%) of the companies surveyed (see graph 1 and 2). The regulatory environment ranks as the most important factor with 80% describing it as being very important. However, this factor is only ranked 4th when it comes to the level of satisfaction since 70% consider it as good or very good. While it remains an excellent result, we might assume that it reflects the increasing regulatory burden on the industry since 2006, with for example the recent new rules on the use of derivatives as part of a larger financial regulatory body introduced after the 2008 financial crisis, the REMIT regulation of wholesale energy markets, as well as other rules such as the REACH regulation on hazardous chemical substances. In a context where new regulatory proposals are flourishing every day, the relevance and international consistency of such regulatory projects should be dealt with caution and clearly assessed before moving forward.

Political and economic stability is clearly considered by the surveyed companies as the most positive element in Switzerland, since around 90% perceive it as good to very good. Not only is it considered as very important, it ranks as one of the three most important factors.

The results also show some interesting insights into companies' perception of corporate tax. 70% of the responding companies consider corporate tax as a very high priority, however the level of satisfaction is in comparison with other factors rather low, as 40% of the surveyed companies consider it very bad or bad. It is even worse when it comes to individual tax, where Switzerland seems to underperform compared to other factors. This clearly reflects the fierce fiscal competition from other trading hubs.

CENTRAL TO TRADING COMPANIES IS THE GENERAL QUALITY OF THE ENVIRONMENT: KNOWLEDGE, COMPETENCE, AND EXPERTISE.

A last important finding is the quality of the workforce and the ease to recruit staff. While it is not the most important priority for companies (65% consider it very important), around 60% consider it as good or very good. This finding highlights the importance of training and education in the area of commodity trading and the quality of the expertise available in the country.

Thus, in addition to a favourable tax policy, these figures suggest that what is central to commodity trading companies is the general quality of the business environment, combining knowledge, competence, and expertise. However, the economic and political stability that characterises Switzerland has undergone some changes. The Minder Initiative against excessive corporate pay that was accepted in 2013, the Initiative Against Mass Immigration accepted in 2014, and more recently the rejection of the Corporate Tax Reform III on 12 February 2017 contribute to give the perception of a less stable and foreseeable business environment in Switzerland. While the Swiss population tended in the past to always support the business community in referendums and initiatives on economic issues, the global financial crisis also affected the trust of the Swiss population in its companies, which are more challenged than ever before in public votes. These findings underline the importance for economic actors to better address public concerns in order to ensure a stable and foreseeable legal outlook for companies. This also holds for an industry such as the commodity trading sector that represents an important part of the Swiss economy. ■

Commodities – The Swiss sector analysis

Publication of the first scientific study on commodity trading in Switzerland

NINA EGGERT
CSR Officer, STSA

The Swiss Research Institute on Commodities (SRIC) recently published the first scientific study on the commodity trading industry in Switzerland[1]. While commodity trading is an important economic sector representing 3.8% of the Swiss GDP[2], it is still largely unknown to the public. The publication of the results of a unique representative survey on commodity trading companies provides a first preliminary overview of the sector and offers important insights that are of particular relevance in the current debate and that have important policy implications. The SRIC study thus informs the discussion on commodity trading in Switzerland that often relies on widespread public perceptions of the industry supported by little empirical evidence and draws a very different picture from these.

The study was conducted by the Institut de recherche appliquée en économie et gestion (IREG) from the University of Geneva and the Haute Ecole de Gestion. The Swiss Trading and Shipping Association contributed to the study by providing a list of about 500 companies active in the sector which constituted the population from which the representative sample was drawn (the Federal authorities estimated the number of commodity trading companies at 550 in 2013).

Thanks to the definition of the population of commodity trading companies in Switzerland, one of the major outcomes of the survey is the update of the so far under-estimated number of direct jobs provided by the industry. As of 2016 it provides over 35'000 direct jobs, bringing the commodity trading sector more in line with the typical employment to output ratios that are observed in other comparable sectors. In addition it informs about the distribution of these jobs across companies and shows that the commodity trading sector in Switzerland is dominated by small and medium enterprises. Indeed, over 80% of the entities performing commodity trading activities in Switzerland have less than 100 employees (see Graph 1). This goes against the commonly held view that the commodity trading industry in Switzerland is mainly comprised of large multinational enterprises. Of those surveyed, 44% have less than 50 employees and 65% have less than 1000 worldwide.

It also depicts a very diverse sector in terms of origination and destination of commodities, but with Europe dominating in both cases. Indeed, almost 40% of the traded commodities originate from Europe, and close to 40% are destined to Europe. Switzerland's position at the heart of the continent clearly provides trading companies with a strategic location. Therefore, whilst common perceptions suggest that the sector is operating from Switzerland mainly in order to benefit from favourable regulations, the importance of commercial factors such as customer proximity and geographic advantages should not be overlooked. A commodity trading company needs a presence in Europe, and Switzerland is a well-suited option, offering a stable business climate, which plays an important role in explaining their presence in Switzerland (see article on the general business environment in Switzerland on page 6).

The study also addresses financial aspects of the sector in Switzerland. An important finding - that tackles the common assumption on the lack of regulation of the sector - is that over 80% of the companies are dependent on bank financing. This has important implications in terms of regulation. Banks, under FINMA supervision, are subject to strong national and international financial regulations. Consequently, being under the direct supervision of banks, commodity traders are regulated through banks. This offers support to and is consistent with the Federal Council's practice according to which a direct FINMA supervision is of no additional use. (Federal Council 2013).

THE MAJOR OUTCOME OF THE SURVEY IS THE UPDATE OF THE NUMBER OF DIRECT JOBS IN THE SECTOR IN SWITZERLAND: 35'000 AS OF 2016.

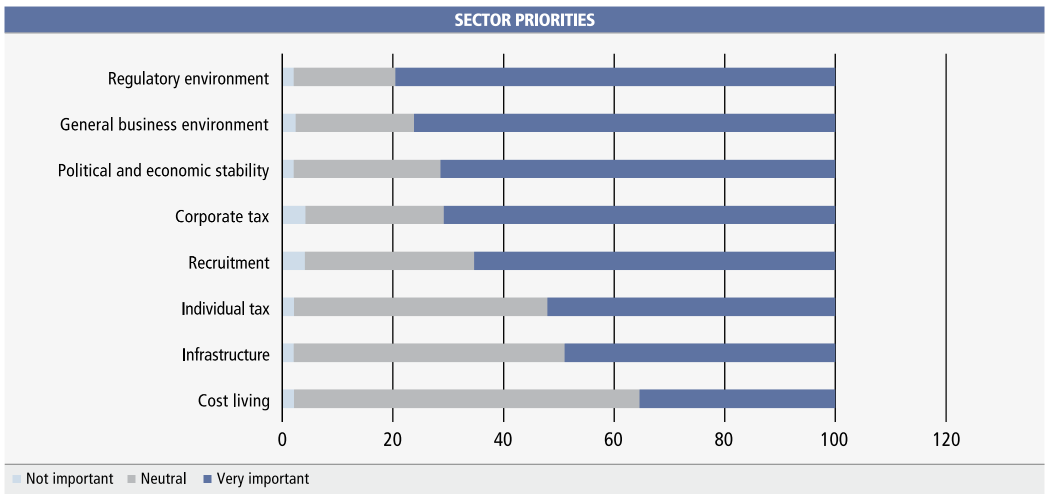
Some insights on the turnover figures of commodity trading companies can also be found in the study, which underlines the strong dependence of the turnover on the type of commodities traded. It shows considerable differences across families of commodities given the price differences across commodities. This finding illustrates the fact that turnover figures are not the best indicators of the size of the industry since they strongly depend on the commodity traded.

In sum, the findings depict an industry in Switzerland dominated by SME structures that are mainly privately owned (91.5% are privately owned). The surveyed companies are strongly rooted in Europe since their main geographical markets are located in this region, focusing their activities on trading and trade finance, and concentrated in the three historical areas of this activity in Switzerland (Lake Geneva Region, Lugano and Zug). It also shows that, for Switzerland at least, the sector's companies cannot be assimilated to large multinational enterprises. Commodity trading companies' strong links to Switzerland have much to do with the overall business environment, expertise in the field, in particular the availability of highly skilled workers, and proximity to their markets (Europe).

This publication is thus a first step towards the systematisation of information on the sector, helping to overcome some common misunderstandings about the industry in Switzerland. It calls for a regular monitoring under the auspices of the Swiss Research Institute on Commodities. The monitoring should also be completed by the development of a code for commodity trading in the Swiss classification of industries (3-digit NOGA code), that so far does not capture commodity trading specifically but incorporates these activities within different categories. This would significantly improve our knowledge of the sector and overall grasp of a heterogeneous industry sector that is largely unknown from the general public, and ally misconstrued notions of opacity. ■

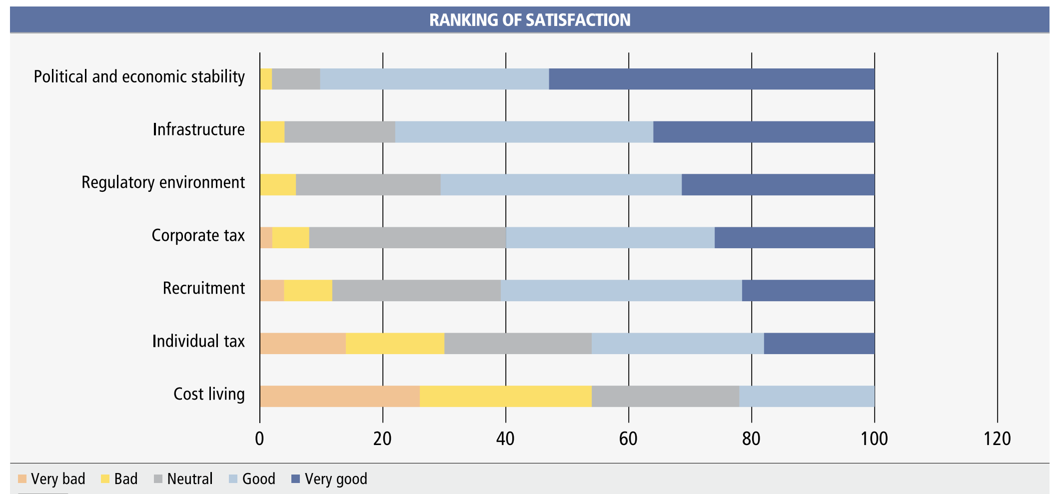
(1) The complete report of the study is available at https://goo.gl/WlZMRP
(2) Source: Background Report : Commodities. Third status report on the implementations of recommendations, Federal Council, 2016

SECTOR PRIORITIES



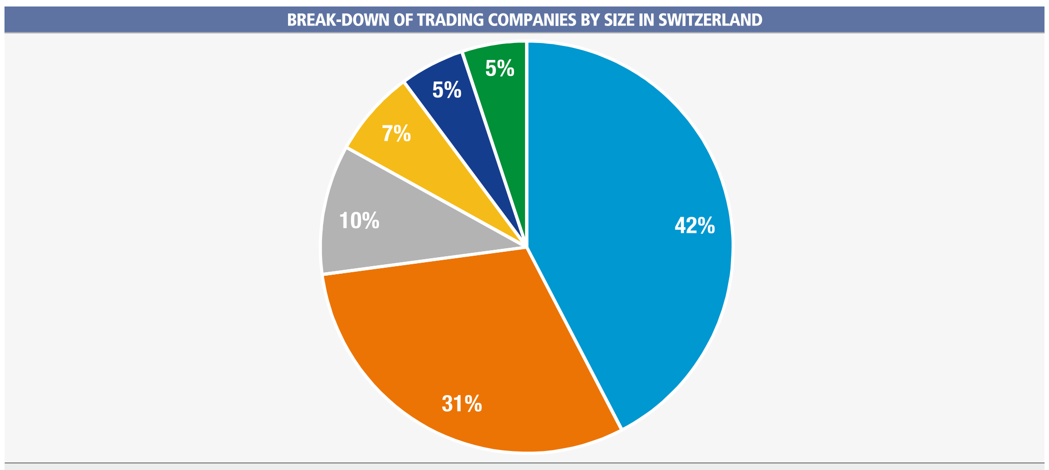
Source: Nina Eggert and Giovanni Ferro-Luzzi. 2017. Commodity Trading Monitoring Report, SRIC Foundation

RANKING OF SATISFACTION



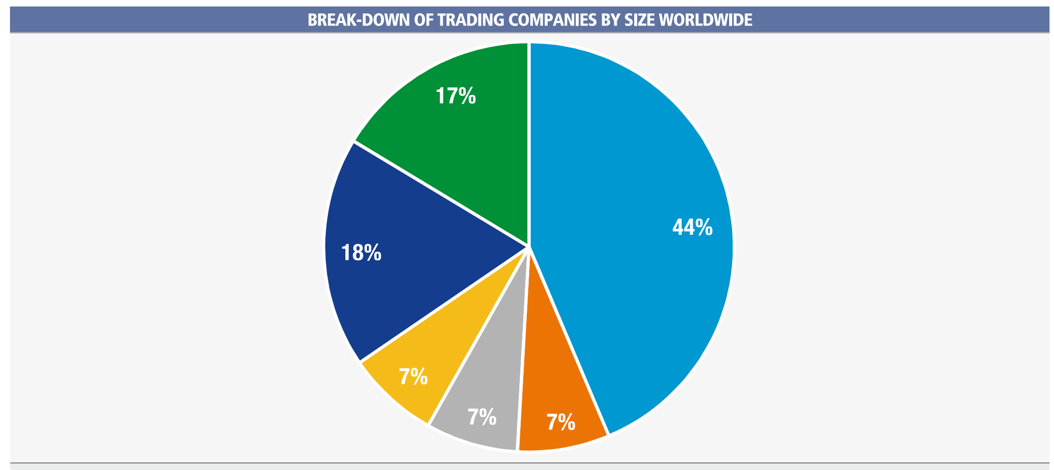
Source: Nina Eggert and Giovanni Ferro-Luzzi. 2017. Commodity Trading Monitoring Report, SRIC Foundation

BREAK-DOWN OF TRADING COMPANIES BY SIZE IN SWITZERLAND



Source: Nina Eggert and Giovanni Ferro-Luzzi. 2017. Commodity Trading Monitoring Report, SRIC Foundation

BREAK-DOWN OF TRADING COMPANIES BY SIZE WORLDWIDE



Source: Nina Eggert and Giovanni Ferro-Luzzi. 2017. Commodity Trading Monitoring Report, SRIC Foundation

ENSURING FOOD SECURITY

We must give greater attention towards the sustainability of our value chains if we are to meet the objective of global food security.

THOMAS ESDAILE-BOUQUET & ANDREA TANG, STSA

Ensuring food security for the approximately 7.3 billion people in the world is an onerous and increasingly complex task. Not least considering that this number is set to rise rapidly to an estimated 9.7 billion by 2050. Yet this is precisely what governments worldwide committed to under the Sustainable Development Goals (SDGs) and the 2030 Agenda's 'zero hunger' target: to eliminate all forms of world hunger and malnutrition by 2030.

Today, we have fortunately survived the record high spikes in world global food prices in 2011, which led to volatile market conditions and trade deficits as demand overtook supply. However, the effects continue to be felt with the now-defeated JUSO Anti-Speculation Initiative in Switzerland, and the EU's strict stance on position limits for agricultural derivatives. Moreover, despite a steep decline in world food prices making food imports far more affordable worldwide, fresh challenges continue to arise.

Rising populations combined with higher incomes and lifestyles have markedly changed consumer demand. China for example, with its growing middle classes and rapid urbanisation, is set to become the world's largest market for imported foods by 2018. It has already almost singlehandedly contributed to a strong increase in global meat consumption, despite an overall reduction worldwide. In comparison, demand for grains has slowed considerably, representing a unique departure from China's typical high grain and low meat diet. China now grapples with agricultural sector reforms set to rebalance production output away from grains towards foods such as meat and dairy, as well as value-added products. The same is true for South East Asia but not India, indicating that cultural traits play a defining role when it comes to diets.

With an estimated 60% growth in demand by 2050 and a rise in extreme climactic events on the agenda, we must give greater attention towards the sustainability of our value chains if we are to meet the objective of global food security, including giving smallholder farmers better access to markets. The issues of soil biology and biodiversity have already become increasingly central to efforts to mitigate these challenges.

More and more soft regulation is taking place in this area, as seen with the FAO's Committee on World Food Security. Traders will continue to play an instrumental role. For example, investments in agricultural storage since 2012 have represented an important opportunity to better meet demand by minimising waste and bridging the gap between harvests, thus decreasing volatility. As production increases, regard must also be had to its environmental impacts, requiring life-cycle assessments of the products we consume. We will also need to think more about unconventional nutritional sources, particularly non-traditional protein sources, whilst producing lower 'cradle-to-plate' carbon footprints. With the aid of technology and innovation, we can ensure both greater interconnectedness and greater efficiency at every stage of the value chain.

Governments must be mindful to ensure regulation has a positive impact on food security. This will include the promotion of liberalised international trade, whilst at the same time taking domestic measures to ensure adequate access to food. This will also include greater transparency regarding their 'State trading enterprises' as they are known in WTO parlance. As demonstrated in the aftermath of Russia's export ban on grain in 2010, protectionist state reactions to global food price volatility have the potential to detrimentally impact those most in need of access to affordable food staples.

In tandem, traders must grapple with issues of food safety, which have also been shaping major food markets. Although the WTO system has led to a worldwide reduction in tariff barriers, non-tariff barriers such as sanitary and phytosanitary (SPS) measures are growing in significance. The criteria for these measures (scientific risk assessment, protection of life or health from harmful substances) are clearly provided for in the SPS Agreement. However, their potential to be exploited pose severe obstacles for traders. Measures should not detract from their public health and environmental goals to instead be used as protectionist measures to hinder trade. Governments will need to take greater steps towards transparency and carefully balance harmonisation with scientifically sound food safety standards.

Trade's essential role in the quest for food security and safety

AHMAD MUKHTAR
Economist, Trade and Food Security,
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As patterns of consumption and production continue to evolve, the rise in global agricultural trade is expected to continue over the coming decades. So too will the anti-trade sentiments, in the form of policies and regulations such as non-tariff measures (NTMs), which will increase in frequency and impact.

Trade in basic food items is affected by public policy objectives such as self-sufficiency and the pursuit of value-added agriculture products (and exports). Not every country can achieve self-sufficiency in food due to varied resource endowments. This is where a fair global trading system would help in ensuring availability and access which are the key pillars of food security.

The linkages between trade and food security have been subject to intense debate. A key challenge that pervades these discussions is the compatibility between measures intended to address national food security concerns on one hand, and their effect on the food security of trading partners on the other. It is argued that the food security of one country ought not to be at the cost of food insecurity in another.

Trade will increasingly influence the extent and nature of food security across the globe. The challenge, therefore, is how to ensure that the expansion of agriculture trade works for, and not against, the elimination of hunger and malnutrition. Greater participation in global trade is an inevitable part of most countries' national trade strategies. However, the process of opening to trade, and its consequences, will need to be appropriately managed if trade is to work in favour of improved food security outcomes.

It has been witnessed in recent years that episodes of food price spikes are important for their potential negative impacts on food security. Geopolitical and weather uncertainties, as well as governmental responses, are likely to exacerbate these episodes in the future, with increased potential for disruptions to trade flows. The likelihood of spikes, even if episodic, needs to be factored into longer-term decisions related to the management of trade in food and agriculture products.

Trade, though not sufficient, is an essential tool for ensuring food security as it affects many of the economic and social variables that ultimately determine a population's food security and nutritional status. These include growth, incomes, poverty levels, food process and government budgets. They also cover market structures, infrastructure development, the productivity and composition of agricultural output, the variety, quality and safety of food products, and the composition of diets. Changes in these variables affect all four dimensions of food security to different degrees. The figure below shows how this trade-food security nexus works.

Trade and food security concerns can be better articulated within the multilateral trading system through improvements to the World Trade Organization's (WTO) Agreement on Agriculture. However, the right balance must be struck between the benefits of limiting trade-restrictive measures, and the policy space required by developing countries according to their specific country-level needs.

In the area of food safety, growing awareness by regulators and consumers on matters such as health and environment, particularly in developed countries, have led to the tremendous rise of the role of regulatory policies and use of NTMs such as Sanitary and Phytosanitary (SPS) measures and Technical Barriers to Trade (TBT). With the reduction of tariffs worldwide, NTMs have become the major and predominant source of market access impediments.

Food safety is a legitimate and prime concern in many countries. This is particularly evident in developed countries, but also in developing countries and least-developed countries (LDCs) which are disproportionality affected by NTMs in the agricultural and food sector. Exporters from such countries are disadvantaged in complying with technical regulatory measures, in particular SPS measures, due to lack of capacity and resources. This, in turn, reduces trade flows and the opportunities for smaller economies to integrate into the global marketplace. An empirical analysis[1] of OECD imports confirms that the agricultural exports of developing countries and LDCs are significantly affected by regulatory measures while having negligible effects on trade between OECD countries. Interestingly, the analysis also reveals some positive impacts on trade resulting from SPS and TBT measures tailored to specific sectors, demonstrating the possible dual effect of regulatory measures.

Food safety is imperative but policies and tools should not be applied in a trade restrictive manner, which in turn may lead to food losses and wastes.

At present, we have enough food for every human on this planet; the challenge is how to make it available and accessible for everyone. A dynamic, fair and rules-based system for international trade in agriculture could help in overcoming the global distribution challenge of food. This will be even more imperative in the future when consumption trends in highly populated areas surpass domestic production levels.

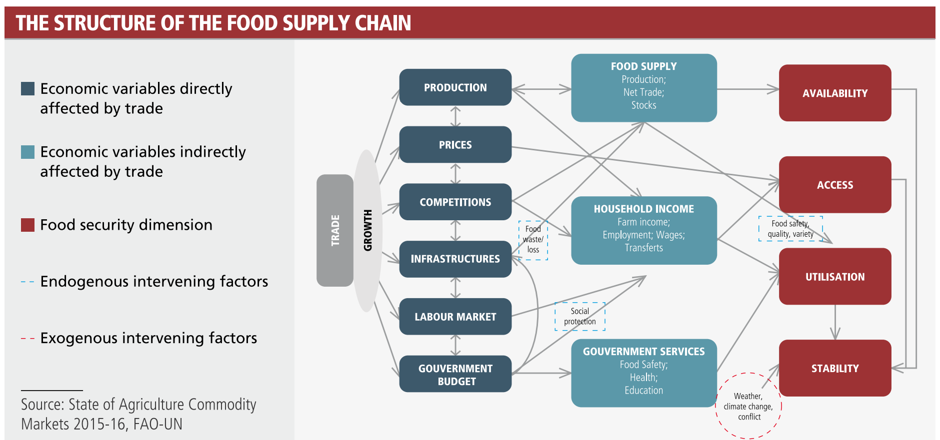
Food security is a global challenge that could be better tackled through globally agreed solutions implemented at regional and national levels. ■

Acknowledgement: This article is largely based on the "The State of Agriculture Commodity Markets 2015-16" of the Food and Agriculture Organization of the United Nations.

Disclaimer: The views expressed in this article is those of the author and do not necessarily reflect the views or policies of FAO.

(1) Disdier, A-C., Fontagne, L. and Mimouni, M. (2008) "The Impact of Regulations on Agricultural Trade: Evidence from the SPS and TBT Agreements", American Journal of Agricultural Economics 90(2): 336–350

THE STRUCTURE OF THE FOOD SUPPLY CHAIN



Source: State of Agriculture Commodity Markets 2015-16, FAO-UN

Reshaping the agricultural supply chains

GERT-JAN VAN DEN AKKER
President, Cargill Agricultural Supply Chain
President and Chief Executive Officer,
Cargill International SA

It's been said that "the pace of change will never be slower than it is today." At Cargill, we are seeing rapid industry and geopolitical shifts – from rising protectionism and rejection of international trade agreements deals – that have immediate impacts on our business, our communities and our ability to build a resilient food system.

In the midst of all this change, the world's population is expected to grow to at least nine billion people by 2050 – a more than a 25 percent increase from today. The food industry will have to become more sustainable from farm to fork, and big questions on nutrition will need to be addressed.

At least one thing is clear: we are at a critical point as we consider the role of industry in responding to these challenges and what we need to do today to ensure the longevity of agricultural supply chains.

We see three key areas that will chart a path forward.

Firstly, the business imperative for advancing farmer livelihoods has only increased in relevance and urgency. Farmers are, after all, at the frontlines of the intersection between food security, sustainability and nutrition. As agricultural traders, it is part of our day-to-day business to talk to farmers and to customers in the food and feed sectors in order to bridge supply and demand. With the market seeing more reassurance than ever before, we have an opportunity in front of us. Since 1975, the world's farmers have doubled the annual amount of grains, rice and oilseeds they produce – without putting much new land under cultivation. Productivity gains in agriculture and sustainability need not be opposing forces. Sustainable intensification is possible, and is responsible and necessary to nourish a growing planet. Improving farmer incomes, promoting sustainable agricultural practices and strengthening rural communities will help improve resilience and help provide that reassurance – and the market will recognise it.

Secondly, when it comes to the future of food and agriculture, there is no one-size-fits-all solution. Unprecedented times call for new collaboration and innovative solutions. Cargill is working with non-profits, governments, and customers to nourish the world in a safe, responsible, sustainable way. New alliances will lead to creative solutions to tackle these issues in the agriculture and food supply chains and the private sector has a critical in role to play in helping scale up smart solutions. Collaboration will power investments across the entire supply chain, inclusive of consumers, governments, farmers and their communities.

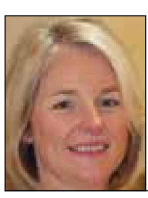
There are examples where action is already being taken. As an example, earlier this year the Cargill Report on Forests set out our progress against a series of commitments to eliminate deforestation in all of our supply chains. Operating alone will not enable us achieving these commitments and we have established new alliances with NGOs and other private sector partners to help us advance long-term solutions to end deforestation. These partnerships are helping us reach more than 148,000 farmers and suppliers to protect forest regions in Brazil, Indonesia, Paraguay, Zambia, Côte d'Ivoire and Ghana. They have provided invaluable expertise to help monitor and manage deforestation risk in our supply chains. Partnering with the World Resources Institute's Global Forest Watch we have mapped nearly 2,000 Cargill sourcing points for cocoa, palm and soy to establish a baseline for tree cover loss and gives us a way to concretely and transparently measure our progress. These early results signal an important path forward: to make serious and long lasting changes in global supply chains then new – and sometimes unlikely – alliances need to become a critical part of the equation.

WHEN IT COMES TO THE FUTURE OF FOOD AND AGRICULTURE, THERE IS NO ONE-SIZE-FITS-ALL SOLUTION.

Thirdly, as leaders in an ever changing world, we all need to be looking forward. We need to anticipate disruption. This means envisioning what finance structures and reassurances are needed to address a reality where new uncertainties, more volatility and more risk are the new normal. And at a time when the signs of protectionism are re-emerging we need to establish the benefits of global trade. Open trade means farmers can continue to ensure that crops are grown in the right places at the right times. It means as an industry, we can continue to move food from areas of surplus to areas of deficit without facing more barriers. It means governments can adequately support farmers in mitigating against crop failures from extreme weather events through trade – events that are likely to become only more common with a changing climate. As business leaders, we need to stand up and call for inclusive trade policy and to participate in public debate, for example in Switzerland in 2016 around the JUSO initiative on foodstuffs to dispel the misconceptions on the actual role of trading companies in agricultural markets.

While the focus has been on addressing the intersection of food security, sustainability and nutrition, a new, complex layer of challenges is emerging as food security, climate and political stability become inextricably linked. We need to be cognisant of these dependencies, and what anticipated, unexpected or unintended consequences they create. How well we prepare to deal with those consequences will in no small part determine the resilience of our food system to cope with this pace of change in the months and years to come. ■

The lack of harmonised regulation on food safety and security



JUNE ARNOLD
Head of Policy
The Grain and Feed Trade Association
(GAFTA)

The agricultural commodity trade plays a crucial role in providing people all around the world with safe and reliable sources of affordable, high-quality food. Although international food trade has existed for thousands of years, the amount of food traded internationally has grown exponentially over the last decade. This has resulted in a complex global food system with commodities coming from many sources and travelling great distances. Trade is critical to food security and the ability to trade food is central to the livelihoods of many of the world's poor, so food safety is paramount.

Trading companies are ready to confront the challenge of feeding a world with 9 billion people by 2050, and will continue to provide high quality, safe food all the time and everywhere. In addition to processing and transporting tens of millions of tonnes every year, commodity companies are helping people make oilseeds and grains part of a healthy diet, bringing these foods from farm to table. They connect farmers to the global marketplace and supply end customers, from nations to small livestock producers, with high-quality commodity products derived from a variety of crops. It is crucial that policies focus on sustainable agricultural practices, improving market access and productivity for farmers, and supporting childhood nutrition and education around the world. Companies have invested heavily in systems applying broad, comprehensive, science- and risk-based approaches to food and feed safety to ensure the safety and integrity of products worldwide. However, the industry must do more to raise awareness on the impact of inconsistent regulation and the lack of coordination across governments, NGOs, policy-makers and consumers.

Social and environmental goals need to be taken seriously, but food and feed safety challenges are at the forefront given their impact on food security. Issues around the lack of import tolerances for pesticides, lack of data submissions on active substances or residues, and slow renewals of active substances cause uncertainty and increasingly disrupt trade. Trading houses apply international food safety standards and Codex principles in international trade to food and agricultural products. These standards act as a global reference point for consumers, food producers and processors on the protection of public health and fair practices in the food trade. Codex standards are based on sound scientific analysis by experts, providing a common set of standards. Gafta engages with governments and promotes wider global acceptance of these standards. The aim is for the Codex Maximum Residue Limits (MRLs) to facilitate international trade, and to avoid having importing countries impose zero tolerances on contaminants or pesticide residues which have a negative impact on food security and food price inflation. Of concern is the application of the 'precautionary principle' to regulation (under which the burden of proof is to establish that something is not harmful). Coupled with increasingly non-scientific arguments in the regulatory decision-making process, it creates compliance difficulties for the industry and misconceptions of actual food safety risk for consumers.

INCREASINGLY NON-SCIENTIFIC ARGUMENTS IN REGULATORY DECISIONS CREATE COMPLIANCE DIFFICULTIES.

Similarly, the lack of harmonised approvals of GMO crops globally means trading between markets becomes increasingly difficult with diverse sets of rules for approval worldwide and a time lag between different jurisdictions. Again, this is not a safety issue, but one of compliance for a period of time until all government safety authorities have tackled the approval process in their relevant jurisdiction. A low level presence solution (LLP) is needed on a global level to provide the industry with a commercially feasible level of certainty. We are also seeing a lack of harmonisation globally in how to deal with new plant breeding innovations, as well as techniques which hamper innovation and investment. A recent example is the proposed EU rules on comitology to approve GMOs or MRLs, which are expected to impact trade and create further delays in adoption. These rules must be based on sound science.

Trading companies hold themselves accountable to fully implement global food safety approaches and continuously seek ways to improve the food safety system, implementing food safety and quality policies and procedures to guarantee access to a growing population and to control food safety. The industry needs to focus strongly on increasing its involvement in certification processes which will have a positive effect on consumer confidence. Awareness at the heart of the international community is needed on the market access constraints for agricultural commodities, along with the challenges of slow and cumbersome regulatory systems that discourage the adoption of innovation and new technologies. ■

Soil biology plays a big role in crop production, whether managed directly or not. Green Tech is ushering in agriculture's biological Era.

Soil biology: third wave ag

SIMON NEUFELD
MSc, CCA, Chief Agronomist
Earth Alive Clean Technologies Inc.

Climate change is often discussed in abstract terms, but it was recently made a reality for banana growers in Dominican Republic. The island nation suffered through a prolonged drought in 2015 followed immediately by torrential rains and flooding the following year. Unfortunately, bananas require large amounts of soil moisture but cannot tolerate flooded soils, making them especially sensitive to the increased variability caused by climate change. The two years of extreme weather in Dominican Republic were devastating for the country's banana industry.

Bananas are not the only crop feeling the impact of climate change: coffee and cacao, for example, are also under threat, and some estimate that suitable coffee production area will be cut in half by 2050. The UN Food and Agriculture Organization launched the Climate-Smart Agriculture initiative in 2010 to create a framework for developing tools to help mitigate the effects of climate change and build climate resilience. It describes an approach that is comprehensive and regionally adaptable, combining technology, policy, and investment. The fact that large international institutions are implementing these kinds of programs hints at the large-scale shifts taking place in the way we farm.

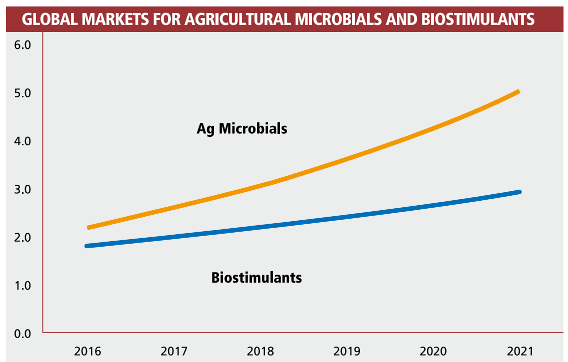
Looking at the history of agriculture, it is clear that the world is entering a new agricultural era – an era focused on the biological aspects of agro-ecosystems. It might be useful at this point to place our current situation into its larger context within farming's 10,000-year history, which can be divided into three broad eras.

The Physical Era began with the dawn of farming and continued right up until the 20th century. During this era, productivity was mainly limited by a farmer's ability to manage the crop's physical environment. Techniques such as tillage, seeding, and mechanical weed control were the primary management practices. As new innovations brought increasing physical power to farming, new challenges emerged – the large dust storms in the US mid-West in the 1930s are a testament to poor physical soil management. The Physical Era solution to wind erosion was to plant shelterbelts: these physical barriers preserved valuable topsoil by slowing down wind speeds.

The Chemical Era began in the mid-20th century, when an explosion of scientific innovation allowed farmers to manage the crop's chemical environment in ways they never dreamed of. While the tillage and seeding practices of the Physical Era continued, the use of chemical fertilizers allowed massive yield increases. Of course, these increases came with their own challenges: poor management could lead to nutrient leaching, runoff, and other environmental problems. Solutions to these challenges have included technologies like slow-release fertiliser coatings, and increasingly strict regulatory restrictions on fertiliser use.

Now, in the face of increased climate variability and shifting climate "normals" around the world, agricultural innovation has been exploring and developing tools that use biological processes to improve crop production. Physical and Chemical Age technologies and practices have always been affecting these biological processes indirectly – but in the Biological Era of agriculture, new technological and agronomic developments have made it possible for farmers to manage soil biology directly through integrated soil fertility management, and with technologies like biofertilizers, inoculants, and biostimulants.

GLOBAL MARKETS FOR AGRICULTURAL MICROBIALS AND BIOSTIMULANTS



See graph in the attached file: Microbial market growth.xlsx
Title: Global markets for agricultural microbials and biostimulants
Source: Markets and Markets

THE WORLD IS ENTERING A NEW AGRICULTURAL ERA. AN ERA FOCUSED ON THE BIOLOGICAL ASPECTS OF AGRO-ECOSYSTEMS.

Soil biology is still largely a mystery, and scientists have only identified somewhere between 5-10% of the microbial species living in soil. However, we know enough by now to see that "good" biology is crucial for agricultural production. Soil biology has been identified as a key factor within the Climate-Smart Agriculture framework for climate change mitigation and adaptation. For example, soil biology builds soil organic matter to store carbon, and breaks organic matter down to release carbon back into the atmosphere. The balance between these two processes determines whether a soil is a carbon source or a carbon sink, and the goal is to tip the scale in favour of building soil organic matter. Soil biology can also be managed to help farms adapt to climate change. Building soil organic matter not only sequesters greenhouse gases from the atmosphere, but also makes soils more resilient in the face of changing temperature and moisture regimes.

Ag tech developments have been increasingly focused on biological solutions – as evidenced in the growth of biological agricultural products sold on the market today (see figure). In 2016 marketsandmarkets.com estimated the size of the global agricultural microbial market at US$2.2 billion, with projected growth to $5.0 billion by 2021. Similarly, biostimulants were estimated at US$1.8 billion, with expected growth to $2.9 billion by 2021.

Back in Dominican Republic, some banana growers had been using biological technologies – including Earth Alive's Soil Activator biofertilizer – at the beginning of the drought in 2015. We learned that while the plantations in their region had seen yields drop by 50% or more during the drought, their yields had been similar to previous years. The successful management of the biology of their soils had a profound effect on their farm's climate resilience.

The results we saw in Dominican Republic led us to establish our Mocha Initiative, a collaborative research program in the coffee and cacao sectors that seeks to develop new sustainable production methods built on healthy soil biology. The biological approach will surely bring significant value to all members in the agricultural sector as we move into a future increasingly defined by the challenges posed by climate change. ■

Biodiversity is of existential meaning for food security protocol

Biodiversity needs agriculture and agriculture needs biodiversity. This may sound like a paradox but it isn't.

BERNARD LEHMANN
Director General,
Swiss Federal Office for Agriculture

The message of the International Year of Biodiversity in 2010 was clear: biodiversity needs agriculture and agriculture needs biodiversity. Amid growing environmental concerns around agricultural activities (for example ammonia emissions and pesticides), this symbiotic relationship will be instrumental in fostering the right environment for food security.

Biodiversity is not a static state. It continuously evolves and adapts within our changing environments. Until the end of the 19th century, the development of various farming activities led to a multitude of different habitats. These new habitats formed to provide a living space for new or evolving species, which in turn adapted over time to changing conditions within these habitats. Later, industrial advances led to the use of machinery and production inputs which demanded more uniform units. This shaped agriculture and its structures in different ways, leading to monotonous landscapes, a loss of different habitats and subsequently, the loss of biodiversity.

Despite these changes, agriculture nevertheless continues to rely heavily on biodiversity. Indeed, we still have a diversity of land-use types and environments that would not exist without farming, providing habitats for various wild and domesticated plant and animal species. This vast reservoir equips us with a myriad of possibilities for adapting to future changes in the environment, such as the looming threat of climate change for plant and animal production.

Genetic diversity for example enables us to select the variety most suitable in any given change. Take apples. In fact, our domesticated apple varieties are highly susceptible to fire blight, a severe pathogen in apple production. On the other hand, some wild living apple varieties are resistant to this bacterium. Using various breeding technologies, researchers are working to transfer resistance from the wild variety to our domesticated varieties.

Biodiversity can also support the regulation of pests and plant diseases. Whilst diversity in any ecosystem develops even without any action from farmers, beneficial organisms must be maintained and fostered in order to control pests and diseases. In Switzerland, an intensive study is currently taking place in order to support the diversity of beneficial organisms. To that end, research is being conducted on strips in crop fields which are used to grow plants and provide living spaces for these beneficial organisms. Through the abundance of these species, also called functional biodiversity, the pressure from insects and other pests on crops is reduced, allowing for lower pesticide use.

GENETIC DIVERSITY ENABLES US TO SELECT THE VARIETY MOST SUITABLE TO ANY GIVEN CHANGE.

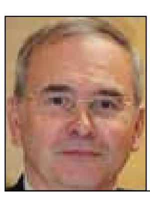
Biodiversity is therefore crucial for global food security in different ways. It provides a basis for stable yields both today and in the future. Whilst mankind has relied mainly on a limited selection of crops (rice, wheat and corn) and meat (stemming from only one parental line), biodiversity can ensure a diverse diet, thereby supporting nutritionally-sensitive agriculture.

However, there are many trade-offs in the relationship between attaining biodiversity and food security. In the short term, it may make sense for a farmer to reduce diversity in his fields and rely only on those varieties that are best adapted to our current natural, economic and social environment and the technologies used. Thus, the important task of fostering wild and functional biodiversity lies with our policy makers and agricultural research and development.

Through a forward-looking policy design, production systems may be potentially guided towards a direction in which agricultural systems foster biodiversity. This may be through regulation. Other methods may also prove fruitful, such as payments for production systems that provide space for different wild species, and better informing both farmers and consumers about the utility of biodiversity for food security and nutrition-sensitive agriculture.

And it is not only farmers, scientists and policy makers that have a responsibility for biodiversity and food security. Consumers, too, have the potential to foster biodiversity through dietary choices and seasonal eating. Taken together, these efforts will better foster biodiversity. ■

Phytosanitary regulations: the need for a better middle-ground



JEAN-CHRISTIAN FAGES
Head of International Execution,
Louis Dreyfus Company Suisse SA

Trading activities in agricultural products often revolve around balance sheets, quality specifications and futures markets, in addition to the more practical elements concerning the products themselves, such as transportation and shipping. Within the confines of this area of the business, phytosanitary organisations and their specific requirements can sometimes be overlooked.

People in our business, especially traders, could benefit from taking a closer look at such requirements. Any harmful pest or plant disease could lead a trade to fall through, or goods to be refused at the port, causing unnecessary waste and inefficiencies. At a time when the world is facing the challenge of feeding a growing population, the loss of 0.85% of agricultural products[1] (equivalent to US$ 4 billion) due to rejection at import borders is not insignificant.

Phytosanitary organisations have their roots in two important events. The first was the phylloxera crisis, commonly known as the Great French Wine Blight. The outbreak of a severe parasite destroyed many French vineyards and nearly obliterated the local wine industry in the mid-19th century, which highlighted the need for more careful use of certain practices and products. This led to the adoption in 1881 of the International Convention Respecting Measures to be Taken Against the Phylloxera Vastatrix. The second was the Berne Convention, a binding international legal instrument in the field of nature conservation which came into force in 1982. The former became a part of the International Plant Protection Convention (IPPC), which was adopted in 1952.

The IPPC aims to ensure coordinated, effective prevention of the spread of plant blights, and to control the introduction of plant products. It also aims to facilitate trade through international standards that regulate the safe movement of plants and plant products.

Nevertheless, there seems to be a market trend towards adopting international standards, almost blindly, in order to facilitate trade. This may not necessarily have a positive impact on the market. While it is easy to acknowledge that proper regulation could protect the industry and ultimately the consumer, there is some room for improvement where the enforcement of international phytosanitary standards is concerned.

Over time, the market has experienced some challenges as between phytosanitary organisations and trade actors. This is illustrated by outdated or unrealistic rules, both of which can lead to inefficiencies. For instance, phytosanitary organisations require that products be fumigated with methyl bromide, a fumigant that has been forbidden in several countries around the world. Further examples include stringent regulations on products, to ensure they are entirely pest- and disease-free. While it would be foolish to disagree with this in principle, the reality is more complex. The standards outlined in these regulations bring our products nearly to the same level as pharmaceuticals. But because of the conditions in which our products are shipped (in bulk, in the belly of Panamax vessels), these standards are practically impossible to meet in full.

THE CURRENT SITUATION REFLECTS A WIDER LACK OF INDUSTRY COOPERATION INTERNATIONALLY.

In addition to these restrictions, even at a time when communication is easy and instantaneous, some phytosanitary organisations do not always provide sufficient information to merchants. Only a few organisations inform the industry appropriately when a product's destination or origin is not accepted for certification. As a result, we may discover too late that we are unable to distribute our goods. This causes products to be quarantined at the border. Due to the number of cases of pending phytosanitary regulations in relation to quarantines, ensuring their release can be a difficult, lengthy and costly process.

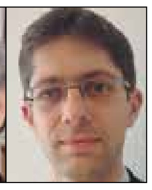
Finally, a further challenge includes the occasional lack of flexibility encountered at some of the organisations, as well as a complex bureaucratic process that is the practice in some of the certified countries.

Undoubtedly, the current situation is, to a certain extent, a reflection of a wider lack of industry cooperation internationally. Phytosanitary organisations are, however, essential to the international trade of agricultural protection products. With some improvement, they could be very beneficial to the industry and consumers around the world. In order to get there, improved communication flows by means of an electronic phytosanitary certification system (such as ePhyto), as well as clearly defined, realistic requirements, could be a good place to start. ■

(1) Jaffee and Spencer, "Standards and agro-food exports from developing countries: rebalancing the debate", World Bank p. 21

Trade policy can help governments achieve the targets of the 2030 Agenda for Sustainable Development to end hunger and malnutrition.

Why policies on trade and markets matter

EUGENIO DÍAZ-BONILLA
Visiting Senior Research Fellow
International Food Policy Research Institute
JONATHAN HEPBURN
Senior Programme Manager, Agriculture, International Centre for Trade and Sustainable Development

Recent international commitments on food and nutrition security could have significant implications for trade and markets between now and 2030, if governments follow through on the Sustainable Development Goals (SDGs) they agreed at the UN General Assembly in September 2015. However, doing so will require them to work together towards shared objectives.

The 2030 Agenda for Sustainable Development sets a ground-breaking new commitment for all countries: to end hunger and all forms of malnutrition by 2030. The new goals will require governments to address the "triple burden of malnutrition": under-nourishment, micronutrient deficiencies and over-nutrition. However, achieving this will require closer collaboration in policy areas ranging from trade to climate change, all of which could affect food and agriculture markets in the years ahead.

Trade policy and rules can help governments to achieve the 2030 Agenda targets, such as doubling productivity and incomes for small producers by improving access to markets and opportunities for value addition, and creating rural jobs. Governments also committed to promoting "a universal, rules-based, open, non-discriminatory and equitable multilateral trading system" under the World Trade Organization (WTO).

Governments have made rapid if uneven progress in fighting global hunger, with 200 million fewer people undernourished since the 1990s according to FAO data. Reductions in under-nourishment have been driven primarily by progress in Asia, especially China, while in Africa the number of undernourished people increased by almost 49 million over the same period – despite a drop in the overall share (due to rapid population growth). Meanwhile, recent success in reducing micronutrient deficiency has still been too slow to hope to end malnutrition by 2030, while overweight and obesity have worsened.

Despite falling food prices in recent years, many poor countries also remain vulnerable to sudden market shocks, given the evidence that climate-related extreme weather events will become more frequent and intense. Changing climatic conditions are also causing fish stocks to migrate, with potential consequences for nutritional outcomes in low-latitude countries. At the same time, OECD and FAO analysis suggests that in the medium term both production and consumption are due to grow, in line with the requirements of a growing global population with higher average incomes. However, Africa's consumption of rice, wheat, vegetable oils, and sugar is expected to grow much faster than production, while Latin America is set to continue producing more oilseeds, meat, fruit and vegetables than the region is set to consume. Similarly, fish production and trade is also projected to expand in coming decades, with the volume of trade in fish products growing by some 40% towards 2030. While Africa is expected to export more, Asia is due to become a larger importer.

Agriculture and trade policies have also changed significantly in recent decades. Some developed countries which previously provided heavy subsidies to their farm sectors have now reduced the levels of trade-distorting support they provide. Meanwhile, several large developing countries have moved towards providing increased domestic support for the sector. Tariffs on farm goods have also fallen in all world regions due to unilateral liberalisation and preferential trade deals. Tariffs and non-tariff barriers nonetheless remain significant on 'sensitive' farm goods such as beef, dairy, rice, and sugar.

Current WTO rules provide considerable scope for governments to boost farm productivity and raise rural incomes – for example, by allowing unlimited support for "public goods" such as pest control, research, rural infrastructure, sustainable irrigation schemes or farm advisory services. Governments will nonetheless also need to fast-track multilateral talks on meaningful new rules in areas such as agricultural domestic support, fisheries subsidies and access to markets for farm goods. Governments could also usefully prioritise trade policy initiatives that aim to create jobs and raise rural incomes among food-insecure group, including through steps to improve the functioning of non-agricultural markets. They will need to expand domestic food aid for poor consumers, perhaps financed through international collaborative action. Effective trade policy measures to mitigate volatility in global markets are also likely to become more important – such as better global rules on export restrictions to prevent price spikes from harming consumers in poor food-importing countries.

STEPS FORWARD ON AGRICULTURAL EXPORT SUBSIDIES SUGGEST THAT INCREMENTAL PROGRESS IS BOTH FEASIBLE AND REALISTIC.

However, governments must not shy away from the difficult questions. If 'business as usual' continues, the FAO and OECD estimate that over 600 million people will be undernourished by 2024, a number which is far short of the 2030 zero hunger target. At the same time, the world is facing a nutritional transition leading to serious problems of obesity and related health problems that need to be addressed. Negotiators will therefore need to demonstrate they are willing to tackle thorny subjects such as the issue of agricultural domestic support: many hope that the WTO's 2017 ministerial conference in Buenos Aires can achieve progress in this area, despite the historical difficulties in doing so.

While policy-makers may feel daunted by the scale of the task ahead, steps forward on agricultural export subsidies at the WTO's Nairobi ministerial conference in 2015 suggest that incremental progress is both feasible and realistic, so long as governments are willing to work together to achieve shared goals. If they can agree to do so, government officials now have an opportunity to take concrete measures towards ensuring that more equitable and sustainable markets actually contribute to the goals of ending hunger and malnutrition. ■

** This piece is based on the report Trade, Food Security, and the 2030 Agenda, published on 10 October 2016 by the International Centre for Trade and Sustainable Development*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SOEs ARE RESILIENT TRADING FORCES

State-owned enterprises are increasingly present in trading. As commercial operators and as government entities.


THOMAS ESDAILE-BOUQUET & ANDREA TANG, STSA

State-owned enterprises (SOEs) are proving to be a dominant and resilient force in the global trading environment. Once focused predominantly on domestic markets, growing integration via trade and investment has increasingly expanded their role in the global marketplace. Thus the proportion of SOEs in the Fortune Global 500 grew from 9% in 2005 to 23% in 2014, driven primarily by Chinese SOEs.

Their dual capacity positions them uniquely as both a commercial operator and a government entity providing social goods. SOEs differ in their levels of government ownership and may take the form of other government vehicles such as national pension funds.

Their increased trading presence and complex structures present a marked change from their duopolistic past. Recent decades have seen the emergence of highly liquid global markets with an explosion of independent actors. Take the gas markets, for example. Previously characterised by long-term contracts between two SOEs, market liberalisation since the 1990s has led to spot contracts involving a variety of different actors.

Nevertheless, governmental influence remains significant. And justifiably so, as it allows them to pursue various legitimate commercial and non-commercial objectives. Once thought of as candidates for privatisation, SOEs are now seen as powerful tools for public value creation.

In recent years, a growing focus on commercialisation has swept SOEs within the commodity trading industry. In the past, the state or SOE (operating outright or in joint ventures) would simply sell the physical resources, often to private trading companies. However, Socar's takeover of a commodity trading house in 2015 was just one example of SOE commercialisation efforts as countries such as Azerbaijan, Saudi Arabia, China and Russia increasingly build on their activities to both procure and market commodities directly, investing in downstream consumer markets. Indeed, government-owned Chinaoil is one of the biggest traders of Middle Eastern crude today, handling some 2.6 million barrels in 2014.

Governments may also use SOEs (and so-called 'state-trading enterprises' under WTO terminology) to pursue particular strategic objectives. For example, the Ivory Coast under the auspices of the Coffee-Cocoa Board (a regulatory marketing board) has restructured its national cocoa and coffee value-chains with the stated overriding aims of increasing farmer livelihoods, and improving quality and sustainability. These investments are also said to be directed towards public goods, such as facilitating access to health, education, and water. As with any state-owned entity however, success hinges on good governance and stakeholder buy-in both locally and from trading partners.

SOEs are therefore powerful tools for countries to better position themselves in today's competitive global economy. The Chinese SOE model demonstrates that, properly managed, SOEs can be an important macroeconomic driver in speeding up a country's economic development. With the benefit of government backing, they can stand resiliently in the face of economic turbulence compared to some of their private sector counterparts. This is particularly valuable in developing and emerging economies to enable the maintenance of jobs, or help to sustain a network of suppliers to troubled companies. SOEs may also be an alternative to developing necessary regulatory frameworks in a rising economy. Indeed, governments of emerging economies are now pursuing explicit policies of SOE internationalisation, as seen with China's 'Made in China 2025' strategy to enable its SOEs to compete more effectively in overseas markets and improve their high-end export capability.

The regulatory environment is also adjusting, albeit more slowly. Common concerns include their governance structures which may insulate them from the legal framework applicable to other companies, and the potential anti-competitive effects of government-granted advantages. However, moves towards legal harmonisation have already commenced. This could facilitate a more systematic use of corporate governance instruments and impact upon the applicability of financial reporting standards. For SOEs, juggling these complexities within their supply chains may prove difficult as relative newcomers to trade, but could induce ground-breaking new synergistic partnerships with their private counterparts. For traders, this means that rather than outright competitors, SOEs increasingly offer attractive partnership opportunities. ■

SOEs: competitors who become partners

SOEs are looking for a new way to participate in global commodity markets by announcing agreements with existing trading companies.

BENOIT LIOUD
Senior Analyst, Mercuria Energy Trading

In the SOE (State-Owned Enterprise) sector, not a year goes by without hearing about a rapprochement with a commodity trading company. The latest news update was the announcement of Sinochem oil group being in strategic investment talks with Noble Group, one of the world leaders in energy and agricultural products trading, while injecting $1.5 billion into the company whose debt ratio is very high.

If the news could have come as a surprise a little while ago, logic takes over surprise today. SOEs have become commodity mastodons, giants who have become important competitors of existing companies, even threatening the stability of market-based mechanisms. However, vulnerabilities are emerging and SOEs are now looking for a new way to actively participate in global commodity markets. By announcing agreements with existing trading companies, will SOEs become partners rather than competitors?

New entrants with considerable firepower

Focusing mainly on the energy sector in China (but recognising that the same is true in India where the energy sector is currently being reorganised), big national groups are initially producers or refiners who are implicitly responsible for supplying and implementing the country's energy policy. Over time, the simple supply needs have been outgrown and SOEs have become key market players, keeping in the hands of a few the access to large amounts of oil, coal, metals and oil products. Pressure to reinforce security of supply has led SOEs to diversify their commodity access, from bilateral negotiations and sourcing control to more regular participation in markets, including peer transactions.

It is not without causing real stability problems for markets whose price-fixing principles are based on reference price systems (benchmarks) and whose representativeness is based on the diversity of stakeholders and a fair balance of negotiated volumes. Unlike trading companies buying and selling on the market on a daily basis, some SOEs naturally turn only in one direction, like buying for example. On several occasions, record volumes have been negotiated by some lead actors in the so-called "Platts Windows", the reference period that sets product prices when the market closes each day. SOE trading subsidiaries are obviously on both sides of the market but the trading volumes are so important that there are benchmark bias risks (see August 2015 incident on Dubai's market).

SOEs have strategies that are primarily dictated by strategic considerations. Market interventions are quite massive which makes them relatively readable for all the participants. Decisions are politically motivated and sometimes "disconnected" from regular market considerations. For instance, interventions in the corn market aimed at increasing food safety and Chinese farmers' average income have led to large overstocks that have to be discarded. Turning those overstocks into plastic bags or ethanol will probably have an impact on other markets and some major supply chain actors.

To further strengthen their presence and influence in the markets, the Chinese authorities increased the number of SOEs authorised to use derivative products in May 2015. Moreover, the financial strength of SOEs is not comparable with that of private companies.

In this context, SOEs have become direct competitors of existing actors with all the risks of distortion that can be created by behemoths close to monopsony. Some companies have been able to buy out trading houses (Cofco/Noble/Nidera) or compete with existing companies (merger of China National Cereal and Chinatex in July 2016).

A model reaching its limits

However, vulnerabilities are becoming apparent and authorities now want to reorganise the sector in order to improve its effectiveness. SASAC, an entity optimising Chinese state assets, is in charge of implementing structures that have the flexibility and financial means to lead to strategic investments and partnerships with foreign entities.

Over the years, SOEs have considered several options to enter the commodity trading sector. The rationale has not evolved much: ensuring a large access to commodities, protecting supply, diversifying sources, and optimising cost. SOEs developed several structures that have not always been successful. Struggles encountered by COFCO with Noble and Nidera, Sinopec's disappointment with Addax, show how difficult it is to succeed. Success cannot be imposed!

PARTNERSHIP RATHER THAN COMPETITION SEEMS TO BE A BETTER ANSWER TO THE GROWING EXPECTATIONS OF SOEs.

Several options have been tested: direct purchase, minority and majority equity participation. Mixed success and management issues have demonstrated a need for new forms of cooperation. Over the years, the economic and financial environment has progressed a lot, and access to resources is more complicated. Chinese authorities want to increase their impact on pricing, but it is obvious that credible Asian benchmarks implementation will take more time than expected. An effective and controlled participation to existing mechanisms would probably be more efficient.

At the same time, the entire trading sector has become more professional, and advanced expertise is now needed to implement more complex and structured supply chain strategies. It is now time to combine logistics, financial, legal, and risk management expertise. Debt financing also has limitations, and we need to find more proactive funding tools suitable fore market realities.

Ultimately, partnership rather than competition seems to be a better answer to the growing expectations of SOEs. By partnering with trading specialists, they get access to their expertise while offering clear synergies. This win-win situation for both sides marks a new era in commodity trading's long history. ■

State-Owned Enterprises in trading

MICHIEL MANNAERTS
Director Commodity Trading, PwC

SOEs have been gaining influence in the global economy over the past decade. For instance, the proportion of SOEs among the Fortune Global 500 has grown from 9% in 2005 to 23% in 2014, including a greater presence in the top rankings. A recent trend observed is the increasing presence of SOEs in commodity trading.

SOEs are known by many names – government corporations, government-linked companies, public sector enterprises and so on. While the varying forms of SOEs may provide nation states with a means to play a role in the international private sector, these multiple forms may also serve to make them less transparent and insulate SOEs from the legal framework applicable to other companies, including competition laws, bankruptcy provisions or securities laws.

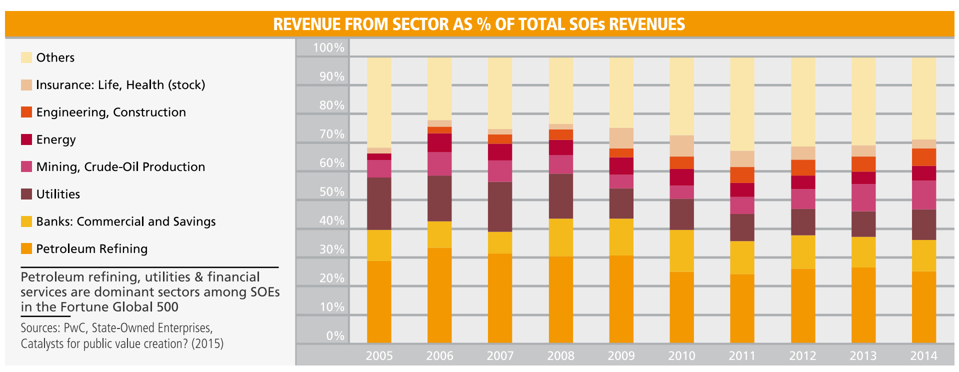
The increased SOE presence in the Global 500 has been driven primarily by Chinese SOEs. In fact, three Chinese SOEs (Sinopec Group, China National Petroleum and State Grid) have consistently made the top ten since 2010. This also underscores the growing revenue share of Chinese-owned SOEs (and from the rest of Asia) among the biggest companies in the world.

For some time SOEs have been increasing presence in the trading space, initially through National Oil Companies, such as SOCAR in Geneva, along with other well know examples such as Saudi Aramco and Gazprom Marketing, moving into a space previously occupied by independent trading houses. This has been a driving force for traders to move more into assets, upstream and towards origination in search of added value in the supply chain.

A more recent trend shows SOEs expanding through acquisitions. China's Cofco Corp obtained full ownership of Noble Agri and Nidera last year. At the time of writing Noble Group is in early discussions with China's Sinochem about an equity investment. State-owned China National Chemical Corporation acquired a 12 percent stake in Mercuria last year, and is currently in the process of obtaining regulatory approvals for its acquisition of Syngenta.

Driving factors in many of these acquisitions are threefold. Firstly, there is an interest from SOEs in increased control over supply. This is particularly the case for agricultural commodities, due to changes in global food consumption patterns. A second driver is to gain access to marketing capabilities. As shown in some recent headlining SOE-trading joint ventures in the energy sector, synergies may exist between SOEs and trading houses, allowing increased trading volumes with access to supply and distribution. Lastly, the access to funding that may be provided, again shows an area of synergy between traders and SOEs.

The aforementioned is also visible in global statistics, with petroleum refining as a dominant sector in the Fortune Global 500 SOEs as shown in the figure. While SOE involvement in this sector is not surprising, it is interesting to observe emerging sectors in the "Others" category, where metals and trading stand out.



Petroleum refining, utilities & financial services are dominant sectors among SOEs in the Fortune Global 500

Sources: PwC, State-Owned Enterprises, Catalysts for public value creation? (2015)

IT IS IMPORTANT TO NOTE THAT THE DRIVING FORCES BEHIND SOEs ARE DIFFERENT TO PROFIT-DRIVEN TRADING HOUSES.

SOEs are now a global force. Many, if not most, large SOEs are active internationally and engaged in trade, with some emerging country governments pursuing explicit policies of SOE internationalisation. Increased global competition for financing, talent, and resources are seeing some countries turn to SOEs as tools to better position themselves for the future in the global economy.

Many of the countries with the highest SOE shares of gross domestic production are also important traders. For instance, the top eight countries with the highest SOE shares (China, United Arab Emirates, Russia, Indonesia, Malaysia, Saudi Arabia, India and Brazil) collectively accounted for more than 20% of world trade.

This could be a result of one of the top five megatrends we have observed i.e. a shift in economic power (the other four megatrends being rapid urbanisation, demographic and social change, technological breakthroughs, and climate change and resource scarcity).

In our report World in 2050, we indicate that the aggregate purchasing power of the 'E7' emerging economies – Brazil, China, India, Indonesia, Mexico, Russia and Turkey – will overtake that of the G7 by 2030. China will clearly be the largest economy by 2030, while India could challenge the US for second place by 2050. This shows us the future of where global trading is moving.

It is important to note that the driving forces behind SOEs are different to profit-driven trading houses. For SOEs, the global megatrends and growing scarcity of resources mean a long-term view on control over supply and distribution and safeguarding national interests is likely the leading driver. ■

Gas markets in transition

DAVID FYFE
Head of Market Research and Analysis, Gunvor Group

Global gas markets are transforming. LNG trade has doubled in a decade, new buyers and sellers have emerged and inter-regional barriers are falling. A looming LNG supply glut brings opportunity for new players, not least traders, in a market formerly the preserve of integrated majors and national utilities. As the geography and dramatis personae of world gas changes, so too will contracts and pricing.

From the 1960s to the 1980s, gas supply chains outside North America were run by state-owned producers, shippers and buyers. Gas transportation typically costs 7-10 times that for oil or coal on a btu shipped basis. This affects trade (30% of gas supply trades internationally vs. 60% for oil), but also pricing. When gas and oil were interchangeable, there was logic to long-term, oil-indexed gas contracts. Upstream investors sought security of offtake, buyers prized security of supply and banks were happier lending to projects with predictable flows. Asian buyers, lacking alternative pipeline or local supply, happily paid premia for secure LNG supply.

All that is changing, as regional markets coalesce, participation broadens and market efficiencies permeate the supply chain. The value of gas in the US and, to an extent, Europe, has de-linked from oil, so new mechanisms are needed to make markets more liquid, flexible and responsive. Gas is being transformed by resurgent US supply and increasingly savvy players in a globalising LNG market.

The US shale revolution has driven change domestically and globally. US dry gas production, stuck below 20 tcf (560 bcm) from the 1970s to 2000s, leapt 50% during 2005-2015. The US today remains a net importer of 20 bcm, albeit well below 2005's 105 bcm. Net US exports of 100 bcm are now expected by 2020, a reversal of expectations even five years ago. LNG import facilities have morphed into low cost liquefaction plant, opening a pandora's box, exporting not only US gas, but also gas-on-gas pricing to an international market accustomed to oil indexation.

The US and Australia will add 115 million tons of LNG capacity by 2021, contributing to a near-50% global LNG fleet expansion. Australian projects confront cost and project over-runs, so peak new supply may arrive nearer 2020 than initial expectations of 2017/2018. Nonetheless, additional supply will outstrip incremental demand through the early-2020s, even though 2016 demand recovered sharply amid double-digit growth from China and India.

East of Suez demand remains key: Asia takes 75% of today's LNG and will remain predominant in future. China and India are to the fore, though growth is also taking off in Egypt, Pakistan, Malaysia, Indonesia and Thailand. Asian LNG imports could increase to 250-300 million tons by 2025 from 175 million in 2015.

Calls for gas contract flexibility accelerated after the 2011 Fukushima disaster, when Japanese buyers sought emergency spot supplies amid nuclear shut-down. This highlighted inflexibility in existing contracts, and buyers have since mixed spot and long term supply, seeking offtake flexibility and hybrid spot, hub and oil linkage, all with an eye on sub-$4/mmbtu US Henry Hub prices. Lower post-2014 crude prices gave oil-indexation a respite, leaving US LNG less attractive to Asian buyers. Now, with crude prices rising faster than gas, and with power mix uncertainties, Asian buyers will again prioritise flexibly-contracted gas from diversified suppliers.

LONG TERM CONTRACTS WILL LINGER BUT A PRECEDENT FOR DIVERSE, FLEXIBLE SOURCING HAS BEEN SET.

New business models have emerged to help deal with an LNG surplus that may stretch to the early 2020s:

- traders deploying infrastructure to arbitrage from diverse LNG portfolios to disparate buyers;
- supplier/traders investing downstream in regasification (including flexible, floating capacity) and power generation;
- buyers forming collectives to seek supply contract concessions;
- spot and short term deals, now 30% of LNG trade from below 10% in 2005;
- producers, long-wedded to oil-indexed, take-or-pay, point-to-point contracts increasingly accepting hub linkage.

Oil indexation and long term contracts will linger (especially for new supplies needed post-2020) but a precedent for diverse, flexible sourcing has been set. A prolonged buyers' market may ultimately kill destination clauses. Asian price benchmarks and hubs may eventually emerge, around which liquid futures contracts can develop. It won't happen overnight (European markets took a decade to liberalise), but nor should we dismiss Asia's ability to progress more quickly.

From a standing start in 2009, Gunvor's pipeline gas and LNG business now accounts for 25% of total traded volumes and some 20% of Group turnover. Gunvor delivered nearly 4 million tonnes of LNG globally in 2016. Building on our established European business, and medium/long term LNG contracts, volumes will rise as the LNG portfolio grows and as our fledgling US gas business gets underway this year. If there's a flood on the way, we're well placed to help manage it. ■

Structuring the coffee-cocoa sector in the Ivory Coast

MASSANDJÉ TOURÉ LITSÉ
Director General,
Ivory Coast Coffee-Cocoa Board

The coffee and cocoa sectors make up an important share of the Ivory Coast's economy, with cocoa alone accounting for 14% of GDP over the past 5 years. Moreover, the Ivory Coast plays a decisive role on international cocoa markets with its 40% share of global production. In order to rationalise the industry and improve the livelihoods of producers, the government reorganised the national cocoa and coffee value chains with a sweeping reform introduced in November 2011. Inspired by the President of the Republic, its stated objective aims at strengthening good governance and transparency in resource management, developing a sustainable cocoa and coffee economy, safeguarding farmer's income and establishing strong inter-professional bodies. The Commission for the Regulation, Stabilization and Development of the Coffee-Cocoa Sector, known as the Coffee-Cocoa Board, was created in December 2011, laying down the rules for the marketing of coffee and of cocoa in the Ivory Coast.

A joint undertaking by the State and sector representatives

The Cocoa Coffee Board is responsible for implementing the sector reform, whose main objective is to secure income for producers by setting up a guaranteed minimum price (at least 60% of the CIF price). The Coffee-Cocoa Board acts as a civic enterprise, also working for the well-being of coffee-cocoa producers and their communities through the activities of the Rural Investment Fund (MRIF). Administered on a joint basis by the State and the inter-professional trade body, the Council falls under the supervision of several ministries, notably the Ministry for Agriculture and Rural Development, the State Budget and Planning Ministry and the Ministry of the Economy and Finance, while its Board of Directors is evenly composed of twelve members, with six representatives of the State and six representatives of the industry and of the banking and insurance trade associations.

Three main mission areas with the ultimate goal of benefiting producers

The Coffee-Cocoa Board has three main mission areas: regulation of the coffee-cocoa sector, market stabilisation missions and development missions. Since 2011, the efforts of the Coffee-Cocoa Board have led to an improvement of the overall quality of the coffee thanks to common standards and enhanced controls, besides a strengthened compliance framework, in keeping with the Council's regulatory missions. The role of the Coffee-Cocoa Board in organising the domestic and export marketing of national production is also key to creating stable buying prices for coffee and cocoa producers. The mission of the Coffee-Cocoa Board however goes far beyond simple market management and supervision. The central policy of ensuring a stable income for producers by providing them with a guaranteed minimum price of at least 60% of the CIF price is supplemented by a number of initiatives aimed at improving the sector's productivity and improving the wellbeing of local populations. With the financial backing of the Rural Investment Fund ("FIMR" in French), the Coffee-Cocoa Board has been investing in a number of basic socio-economic infrastructures such as health centres, schools, rural trails, water points and solar energy. Hence its slogan: "the Coffee-Cocoa Board at the service of producers". The Coffee-Cocoa Board thus regularly publishes tenders for equipment that will directly benefit the populations of the growing areas, such as school kits, water pumps or even housing units. In general, significant investments have been made in the areas of health, education, safety, agricultural access roads, village water supply and solar power. The Coffee-Cocoa Board has also actively engaged with many public and private sector stakeholders both domestically and abroad and has entered into a number of agreements in the framework of the Ivory Coast's Public-Private Partnership Platform (PPPP) for sustainable coffee and cocoa value chains. In addition, it works closely with the Agricultural Council and other sector partners on spreading technical skills. Finally, the Coffee-Cocoa Board organises the strategic and sanitary monitoring of the coffee-cocoa sector with a view to anticipating the issues and challenges of the sector.

Conclusion

The new organisation of the coffee-cocoa sector in the Ivory Coast under the Coffee-Cocoa Board is an example of how the State can look to address the challenges of market fragmentation, productivity and farmer income. An improved market governance framework built around a strong public-private partnership can deliver the sustainable development called for in the President of the Republic's government programme. ■

INTERVIEW

ARZU AZIMOV | SOCAR TRADING

Do State-Owned Enterprises have a competitive advantage in trading?

Socar Trading is fully owned by SOCAR, the national oil company in Azerbaijan. As the trading arm of SOCAR, the company's mission since 2008 has been the marketing of the oil and gas products owned by SOCAR. Additionally, Socar Trading has been developing third party trading activity since 2013. Today, the gross trading profit on third party barrels represents over 90 percent of its revenues. According to Arzu Azimov, CEO of Socar Trading, having a state-owned enterprise (SOE) as a unique shareholder does not affect Socar Trading's modus operandi, being more pertinent to issues related to compliance and Know Your Customer. "We simply operate as a commodity trading house established on the foundation of a state-owned oil and gas producing company."

What is the general role of an SOE in trading?
The majority of SOEs in the energy sector are represented by national oil and gas producing companies, operating on the international market alongside private trading companies. However, their interests are not always aligned. Where energy or fuel markets grow constantly, the revenues of producing companies increase proportionally. But for traders this makes no sense as they need volatility. In competitive markets, following the model of IOCs such as BP or Shell, many national energy companies have established their own trading arms. Some trading arms of SOEs even step into alternative markets unrelated to the business profile of their "mothership". To give an example, SOCAR does not produce steel, nor does it generate coal burning power, so it has no footprint in the coal market. On the other hand, Socar Trading trades coal and develops LNG projects. In the strongly competitive trading market where nothing is stagnant, we are constantly learning and expanding our role.

Does Socar Trading own exclusive rights to Azerbaijani oil?
There is no "exclusivity", at least *de jure*. In de-facto however, Socar Trading – as the trading arm of the national oil company of Azerbaijan – has a mandate from SOCAR to effectively market the so-called "system" production of the state oil company. As you may know, a major part of the oil and gas exportable from Azerbaijan is produced by international consortiums. The state-owned share of this production is also marketed by our company. Regarding volumes allocated to contracting parties in return for investments, we trade those cargos on a competitive basis. As a market leader since 2008, we have managed to build quite an efficient marketing system of Azeri oil.

How much of a competitive advantage does Socar Trading have compared to private companies?
Having an SOE as a unique shareholder does not affect our modus operandi. Rather, the differences relate more to compliance. Of course, the status may affect our Know Your Customer (KYC) qualification. However in certain projects, having the status of a state-owned entity may help us to participate in government programs or projects.

Because of the nature of its relationship with the authorities, does Socar Trading trade differently than it would were it private?
The sole difference is based on reputation. The reputation and rating of the SOE would impact Socar Trading. I would see it more as a virtual factor than a material one, except when we talk about access to credit facilities.

ARZU AZIMOV. CEO OF SOCAR TRADING GROUP OF COMPANIES WITH HEADQUARTERS BASED IN GENEVA

1960	Born in Baku, Azerbaijan
1994	Joined SOCAR in Baku as Head of Export / Import Division
2008	Joined Socar Trading in Geneva as Deputy General Manager of Trading & Operations
2011	Chief Operating Officer at Socar Trading
2014 - Present	Chief Executive Officer at Socar Trading

With privileged access to Azerbaijani oil, what are Socar Trading's obligations to the authorities?
The major obligations of Socar Trading are linked to the trading agreements with SOCAR and therefore to the system barrels that we market for them. In general business activity, we follow the resolutions of the company's board of directors.

Can the national company SOCAR, your unique shareholder, work with alternative trading houses?
At times, national companies need to justify the existence of their trading arms. Three years ago, SOCAR decided to find out how good Socar Trading's strategy was. They mandated the Boston Consulting Group to lead a survey around the world. Socar Trading was therefore challenged by its unique shareholder but performed well on the survey. Indeed, our global presence allows us to cover its immediate needs and during the last couple of years we have expanded our network in London, Calgary and Houston. Our trading teams operate as global profit centers.

Socar Trading has very recently implanted offices in North America.
The United States is one of the biggest oil producing countries as well as the biggest oil importing country. It provides a huge market for arbitrage opportunities. In Houston, we are at the very beginning of the operational process as we are currently recruiting staff. Calgary is not an international trading hub but it is the centre of the big Canadian oil and gas market. Both examples demonstrate the expansion of our international network. This strategy has nothing to do with the status of SOE. We would have taken the same steps had we operated as a private trader.

Socar Trading also trades products from other sources. Which ones and how does it proceed?
As mentioned, our teams have global presence and operate in Geneva, London, Singapore, Dubai, Houston and Calgary, as well as in developing countries in Africa and Asia. Our portfolios are getting more and more diversified and we trade crude oil, petroleum products, coal, gas and LNG, all around the world.

Does Socar Trading also assist SOCAR in expanding its assets? In which way? Can you give examples?
Unlike SOCAR, Socar Trading does not own large fixed assets. It is purely a matter of equities. We are a trading house established as a subsidiary of an SOE. Socar Trading has invested in some projects such as Electrogas, an LNG-to-power project in Malta, where we own 33.33% of the equity and a contract of exclusive supply of LNG. We invested into equity to obtain privileges to source LNG for power generation, and we plan to expand this type of business activity. Of course, we provide all necessary support to new investment projects of SOCAR. For example, we act as both supplier of crude oil and off-taker of refined products for the new refining asset of our mother company in Turkey. We also provide throughput for the transhipping terminal of SOCAR in Fujairah and manage the oil tank ships fleet owned by SOCAR.

SOCAR has other foreign representations such as in Frankfurt and Tehran. Do these other offices also trade? What is the role of each office?
As an SOE, SOCAR fulfils certain objectives for its country relating to the development of its oil and gas industry. Trading is not part of its strategy. SOCAR's offices in Ukraine, Switzerland, Russia, Romania, Georgia and Turkey exist to operate downstream assets and oversee local activities of SOCAR in these countries. SOCAR's offices in Frankfurt and Tehran play a purely representative role, ensuring regional coverage in order to assist SOCAR in expanding its global presence and further developing its activities around the world. ■

Interview Elsa Floret

NICOLETTE DE JONCAIRE
Commodity Editor, l'AGEFI

DRIVERS FOR A SHIFT IN THE SUPPLY/DEMAND BALANCE

The current upbeat trend in commodity prices may be a temporary glitch … or a sign of structural change.

After a significant drop of 60% between April 2011 and February 2016, commodity prices are picking up. Over the last year, the average index has increased by nearly 40% with the bulk of the rise attributable to fuel (+64%) and metals (+31%). We are still way below the levels of the last peak but the evidence suggests that we are in the early stages of a new bull market. Is this just a bull episode in a bear market or the beginning of another supercycle?
Following the great commodity depression of the 1980s, the last rally that began in 2000 was largely fuelled by the emergence of the Chinese economy and its seemingly insatiable appetite for industrial commodities. As the theory states that supercycles recur every 20 to 40 years, and as the last one reached its peak in April 2011, we shouldn't be seeing another one until 2030 at the earliest.
So what are the potential drivers for the deep shift in the demand/supply balance that could trigger a new supercycle?
One of these is Trump's $1 trillion plan for the renewal of US dismal infrastructure, set to cost trillions of dollars in lost output and possibly countless lives (as recently seen with the adverted disaster at the Oroville dam). Similarly, after decades of underinvestment and mismanagement, India's infrastructure is posing a significant threat to its economic growth. According to Finance Minister Arun Jaitlev quoted by the Economic Times last summer, India needs over $1.5 trillion in investment in the next 10 years to bridge its gap. Last but not least, according to the Africa Infrastructure Country Diagnostic (AICD), the infrastructure needs of Sub-Saharan Africa alone exceed US $93 billion annually over the next 10 years. Beyond these, some Southeast Asian countries could also start to invest more heavily in their infrastructure and fill part of the growth void created by a slowing China. On the topic of China, it may also be useful to remember that it still represents half of the demand for industrial metals (46%) – with $1.7 trillion spent in 2016 alone - and that its needs are still increasing (+15% for copper and + 11% for nickel last year).
On the offer side, low prices have discouraged investment and capacities have shrunk. As an example, fundamentals are favourable to copper where, from a peak of circa $71 billion in 2012, diversified total capex shrank to an estimated $25 billion in 2016. Old mines are closing and new ones won't cover the loss in output. Social and political tensions – in Indonesia, in Chile, in the Philippines - aren't helping either. Rising supply risks can be expected to underpin higher prices[1].The prospect of accelerated building in the U.S. has helped to extend a metals rally that began in early 2016 with surprise demand growth in China and copper posted its biggest price gain last year since 2010[2]. How large producers - such as Russia - will respond is yet unknown.
Other aspects of the offer/demand equilibrium are also changing. Although, according to BP's recent outlook,"… oil and gas, together with coal, remain the main source of energy to 2035", fossil fuels may eventually become "legacy". The energy transition impacts a whole range of new products from lithium to graphite and from cobalt to neodymium. As an example, lithium demand is expected to rise 16 percent a year from 175,000 tonnes in 2015 to 775,000 tonnes by 2025, "an increase that would be the fastest of any significant commodity over the past century"[3].
Beyond innovation, demographic growth and associated food habits also curb the offer/demand ratio. The India Pulses and Grains Association states that global trade in pulses has increased almost six fold over the past three decades. With the value of global exports increasing more than 11 times and the unit value of exports nearly four times. Some agricultural products will be severely impacted by global warming. Coffee production is under threat and may drop by 20 to 25% by 2050 at a time when demand is growing by 2.5% p.a.
Supercycles are about timing. If unexpected increases in demand – say in the US and in India – converge and offer cannot respond in time, we may be at the dawn of another supercycle. ■

(1) Ivan Glasenberg, Glencore media conference, 23rd February 2017.
(2) Bloomberg: https://goo.gl/KuPrhp
(3) Financial Times: https://goo.gl/U1nSo0

Will there be another supercycle in metals?

Although paper markets for steel and iron ore recently reflected optimism, the supercycle is not obvious at all for these products

SIMEON LACHEV
Head of Insurance & Credit Control Department
Metinvest International SA

Exactly one year ago, experts and specialised press all over the world were predicting a gloomy future: an ailing Chinese economy, drastic decreases in the consumption of metals, oversupply which would bring the market down to well-forgotten lows, and a darker and blurrier tunnel (in particular thanks to the smog above the main Chinese cities). And these same experts continued to repeat one of their preferred leitmotifs: "when China's economy is sneezing, the world will automatically get ill."
What happened afterwards seemed to prove that 2016 was a really bad year for…forecasters and analysts. Some of these predictions were indeed true: there was oversupply on the market and the Chinese central government determinedly pursued its policy to dismantle inefficient and polluting steel producers. These tightened pollution controls may have led to the cut of nearly 50 million metric tonnes of crude steel capacity. But these very same measures permitted the local industry to rationalise its operations, consider mergers and increase synergies. In the meantime, steel prices continued to rise in China, pushed by unprecedented demand, governmental stimuli to local infrastructure, and speculations about a tighter supply in the future. As a result, those local producers made solid profits that gave them further incentives to boost production and maximise capacity utilisation. The World Steel Organization recently published the Chinese crude steel output for January 2017, which showed an increase of 7.4 percent from the same month a year earlier. Paper markets for steel and iron ore reflected this optimism, with some contracts reaching levels not seen in the last 3-4 years. Experts analysing these figures have concluded that there is something very suspicious about these numbers, particularly when steel (and iron ore) inventories remain very high. Are we facing a new super-cycle in the industry or rather, a new bubble that could strike a fatal blow upon the steel industry?
There is a general consensus among the market players that Chinese exports will not be growing significantly in 2017, nor in the following years. As an additional challenge to exports, more and more countries have imposed protectionist measures against Chinese products (including steel and metals). The question remains whether Chinese economic growth can efficiently switch from export-driven to domestic-oriented and, even more importantly, whether the domestic market can provide sufficient opportunities to support demand for steel and metal products.
The new US president and the current Republican-controlled Congress give to the struggling American steel and metals industry some grounds to be reasonably optimistic with promises of decreased income taxes to encourage local business, additional funding of infrastructural projects, increased military budget, a renewed focus on local execration for strategic rare earths, and public-private partnerships.

ARE WE FACING A NEW SUPERCYCLE IN THE INDUSTRY OR RATHER A NEW BUBBLE THAT COULD STRIKE A FATAL BLOW UPON THE STEEL INDUSTRY?

In the EU, the morale of the market players is on its way to recovery, but at a high price. It is difficult to say whether the anti-dumping measures taken by the European Commission against mainly Chinese, Turkish and Russian suppliers will have a long-term effect. European governments remain very sensitive to the symbolic and social dimension of heavy industries. But due to lengthy and bureaucratic regulatory processes, the proposed solutions have not been entrenched in the market dynamics in a timely manner and therefore their positive effect remains remote.
Main steel industry players like Ukraine and Turkey suffer from political instability, economic turmoil, and loss of confidence amongst investors, which will inevitably affect not only their incremental growth, but also their capacity to compete with other exporters, in particular Russia.
In the coming years, Iran will count among the significant players in the steel and metals market. After years of sanctions, the Iranian government recently announced an ambitious plan to boost steelmaking capacity, local consumption and exports. This plan could, however, face some serious practical hurdles, such as financing and underdeveloped transportation infrastructure.
Finally, for the countries of the Gulf region, positive signals of recovering oil prices should reignite the spark which will allow both the local authorities and market players to consider with greater optimism the advent of major international forums, in particular the Expo 2020 in Dubai and the 2022 FIFA World Cup in Qatar.
The beauty of the steel industry is that you never know what tomorrow will bring. This is why we are always eager to face change and seize new opportunities. ■

A tale of two countries

Rabah Arezki
Head of the Commodities Unit
Research Department
International Monetary Fund

In spite of the anticipated fiscal stimulus in the United States, the outlook for metals continues to be dominated by developments in the Chinese economy. Base metals — such as iron ore, copper, aluminum and nickel — are the lifeblood of global industrial production and construction. Shaped by shifts in supply and demand, they are a valuable weathervane of change in the world economy. While metals prices have been on the decline since 2011 reflecting the growth slowdown in emerging markets, they have rebounded more recently (see Chart 1).

The rally is on account of the anticipated possibility of a fiscal stimulus in the United States and Chinese authorities' policies in support of credit growth including toward the construction sector, which is intensive in metals. Indeed, following the U.S. election by the then President-elect Trump a $1 trillion infrastructure plan (over 10 years) was announced. Notwithstanding the limited amount of details available about the stimulus plan in the U.S. there are several reasons to believe it will have a moderated impact on metals prices.

First, the United States account for a small share of global metals consumption (see Chart 2). In 2016, the U.S. accounted for less than 8 percent of global refined copper demand and 3 percent of iron ore demand according to the World Bureau of Metal Statistics and the World Steel Association. In contrast, China accounted for about 50 percent of global copper demand and 60 percent of global iron ore demand. That said, China's intended rebalancing, aimed at shifting away from investment and toward consumption, is likely to lead to a significant reduction of its demand in metals in the medium run.

Second, the increase in infrastructure spending in the U.S. will likely be directed mostly toward brownfield as opposed to greenfield projects. In other words, U.S. infrastructure spending will likely be directed mostly toward maintaining and rehabilitating existing infrastructure as opposed to building new infrastructure projects as is the case of China. The service component involved in the infrastructure spending is likely to be much bigger per dollar spent in the U.S. than in China. The increase in metals demand and hence in prices from an infrastructure spending in the U.S. is thus typically much smaller than from a dollar equivalent infrastructure spending in China.

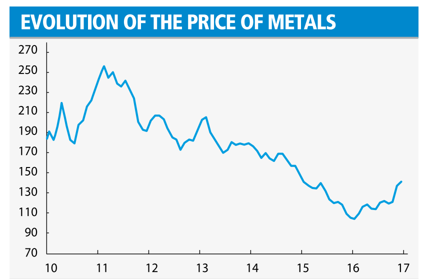
Lastly, the U.S. and China differ markedly in the amount of recycled metals used in their domestic consumption. That difference again suggests that the demand increase resulting from a potential U.S. increase in infrastructure will be limited while any increase in China infrastructure spending will have a strong impact on metals prices. In 2015, 9 percent of China's steel production came from scrap compared to 65 percent in the U.S. according to the World Steel Association. That is however likely to change. China's scrap ratio is expected to rise to around 20 percent by 2020, and 30-39 percent by 2030 according to BHP Billiton.

MARKETS SUGGEST THAT METALS PRICES WILL CONTINUE TO STAY "LOW FOR LONG".

All in all, the demand for metals resulting from an increase in infrastructure spending in the U.S. is likely to be limited. In contrast, policy developments in China which focus not just on managing the demand side but also on the supply side would have dramatic effect on metals prices. Indeed, the Chinese authorities are actively curtailing excess capacity in the steel sector by reducing production of outdated factories, among other things to reduce pollution. Steel mills in mainland China have increased the volume of imported higher grade iron ore, which has helped increase iron ore prices.

Markets suggest that metals prices will continue to stay "low for long". Futures markets indeed point to most metal prices staying around the current level except for iron ore prices, which are expected to decline sharply. The downside risks for metal prices could result from waning of policies in support of credit growth in China or from an economic upset in China. ■

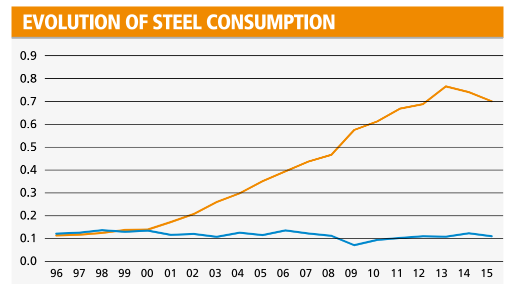
EVOLUTION OF THE PRICE OF METALS



Metals Price Index, 2005 = 100, includes Copper, Aluminum, Iron Ore, Nickel, Zinc, Lead, and Uranium Price Indices

Source: IMF, Primary Commodity Price System. Markets 2015-16, FAO-UN

EVOLUTION OF STEEL CONSUMPTION



Source: IMF

India: a commodity trading powerhouse

India offers an attractive long-term future for the commodity industry powered largely by its economic growth, a consumer class expected to more than triple, and a business friendly environment.


AMIT SREEDHARAN, Director, Client Services, Energy and Resources, Infosys, Geneva
VASANT SEKSARIA, Manager, Client Services, Energy and Resources, Infosys, London

Ranked as the seventh most valued "nation brand" in the world, India recently became the sixth largest economy by nominal GDP and the third largest in PPP terms, at US$2.3 trillion and $8.6 trillion respectively. With a future growth rate projected by the World Bank at 7.6% for 2017, far ahead of other nations amid global business and political headwinds, India is poised to lead the future of global change and is undergoing a transition in terms of investor perceptions of its market potential.

India's story in commodity trading started way back in 1875. Its futures market was vibrant until 1960, when it was closed due to war and political changes. The era of economic liberalisation since 2002 reintroduced commodity futures in India and the market has grown at a staggering pace since. In 2014-15 the Indian futures market had an aggregate turnover of approximately $92 billion across all exchanges in the domestic commodity derivatives segment.

With a population base around 1.3 billion, continuous increase in per capita income, and great climate diversity nurturing growth and creation of diverse commodities, India is one of the biggest consumers and producers of most commodities worldwide. The government's move to transfer the supervision of the commodity derivatives market to SEBI (Security and Exchange Board of India) under the Securities Contract Regulation Act, a stronger law than the former framework, ensures better regulation and increased confidence. SEBI has shown greater inclination to listen to the market players with the introduction of new commodities and options trading. Also, with the expected entry of new participants in India's commodity markets - such as mutual funds, insurance companies, and domestic and foreign banks -, volumes are expected to increase and so will better price discovery. These changes will also bring out improved risk management opportunities for the trading houses and the investment banking community.

The government's strategic initiatives around Make in India, Digital India, ENAM Agri platform and MyGov e-governance along with an enhanced outlook in the commodity trading section has attracted a large number of global manufacturers and commodity trading houses to invest heavily in India. Vedanta has committed to $3 billion over 3 years, Trafigura has set up India's first online refined metal platform Lykos, while Bosch and GE have been expanding their manufacturing base and GM has just rolled out the first "Made in India" Mercedes E class.

One of the biggest challenges faced by organisations in India is infrastructure whose improvement is a major focus area for the government. India plans to spend north of $59 billion to modernise its railways, airports and roads, in order to improve flows, reduce traffic and facilitate the movement of goods. There is an action plan to revive 160 airports and airstrips, as well as modernising the 125 already in existence. More suburban railways are to be developed across the country, allowing ventures with logistics companies which will provide enhanced connectivity to ports. Road expansion will lead to 21,000 km of economic corridors and 14,000 km of feeder routes. India's infrastructure build-up will also drive metals and mining demand in the coming years.

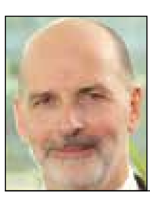
THERE IS A HIGH PROBABILITY THAT THE RISE IN DEMAND MAY OUTPACE OUTPUT GROWTH.

While the Indian commodity industry has been growing due to suitable conditions across the board, there is a high probability that the rise in demand may outpace output growth given that supply response will be constrained by several resources, including financial and human ones. By leveraging a strategy to continuously invest in innovation, many commodity firms can reduce their cost per trade, reduce leakages in their supply chain, increase yield, productivity and profitability. They can also use machine learning, robotic process automation and artificial intelligence to perform some of the common tasks across support functions like human resources, finance, and procurement, thus enabling the up-skilling of existing teams. Commodity firms have the chance to ride the digital wave that is sweeping India and harness the country's existing technology foundation.

With the right environment, vast natural resources, participants, and technology in place, India is emerging from a submissive price taker to a dominant "price maker" of global commodities. The influence of India on the global commodity markets is both at the greatest it has ever been and the smallest it will ever be. And maybe, India can fire the next commodity super-cycle. ■

Africa: delivering energy to the people

Africa, a resource rich continent, suffers from a lack of energy. How can the trading community help?



PIERRE BARBE
Head of Africa, Vitol

In many ways the countries in Africa are in an invidious position. Whilst Europe ages, Africa remains young – 60 percent of its population is under the age of 25. At the same time it faces significant development challenges, particularly in the energy sector. If Africa is to capitalise on its young and growing population, these are challenges which need to be addressed.

The most important source of energy that Africa needs is power. Only 42% of the population has access to electricity, compared with 75% in the developing world. In sub-Saharan Africa it is 30% overall and only 14% in rural areas. Even those with electricity face interrupted supply and the African Development Bank estimates that the opportunity cost of an unreliable power supply is as much as 2% of GDP.

The solution to this is complex and multifaceted, encompassing all points along the chain from generation, through distribution and delivery to the end consumer. Yet Africa has extensive natural resources which could be harnessed for its benefit. One example of such a project is our development, with ENI, of the Sankofa Gye Nyame gas fields in Ghana. This project will power Ghana's thermal power sector to 2036 and beyond, but it has taken ten years from the awarding of the license to date, with first gas not anticipated until next year. In addition to producing the gas, the project requires an overhaul of Ghana's infrastructure, from gas compressor plants to power stations and would simply not have been achievable without the support of the World Bank and IFC, as well as the Ghanaian authorities. We hope this project will serve as a 'proof of concept' and that other countries with natural gas resources look to develop them for domestic use.

Other countries which do not have the benefit of natural gas will look to a range of power solutions; from renewables including hydro, solar, wind and geothermal to more traditional fuels such as coal. Many African power stations still burn fuel oil, current demand is 300,000 barrels per day (bpd), and businesses and industrial units which require a reliable power source have their own diesel generators. These are well positioned to benefit from a 70% surge in the supply of Liquid Petroleum Gasses (LPG – eg butane, propane) since 2010, largely from US shale. LPG offers a cleaner and more efficient fuel solution which also emits less CO_2 and fewer particulates.

At the other end of the spectrum, LPG could also displace solid fuels for cooking. As well as the environmental issues associated with deforestation, household air pollution is a significant cause of premature deaths in sub-Saharan Africa – almost 500,000 a year according to the World Bank, over twice as many as those affected by ambient air pollution. Traders are ideally placed to facilitate the trade in LPG and also contribute to the underlying energy infrastructure through the investment in importing and storage facilities. For example our investment in the Navgas terminal in Nigeria which, at 16,000 cubic meters, is among Africa's largest LPG storage facilities.

FROM A TRADER'S PERSPECTIVE THE LARGEST OPPORTUNITY IN AFRICA REMAINS THE TRANSPORT SECTOR.

Notwithstanding the above, from a trader's perspective the largest opportunity in Africa remains the transport sector – jet, petrol and diesel. We anticipate that, over the next decade, transport driven demand will increase by 27% or 650,000 bpd. Today, Africa's refineries operate at 65% of capacity with an output of 2.21 million bpd. This is much less than the current demand of 3.99 million bpd. Without significant investment refinery output will not increase sufficiently, and the gap will have to be filled by imports.

As has been highlighted, with varying degrees of accuracy, in the Swiss press, the specification for fuels sold in Africa is equivalent to European specs from the 1990s. We are pleased to be part of the stakeholder groups which are working to improve local specifications, but the challenge should not be underestimated. To oversimplify the issue may be good propaganda, but does nothing to make a material difference to the problem.

There is no doubt that Africa faces many challenges. At the same time, it has the opportunity to harness new technologies and to forge its own path of development, leapfrogging phases and technologies which Europe experienced. It is incumbent on us to recognise these differences and work with our African partners to help them find the best solutions for their continent. ■

Can Europe find its green energy in trees?

Wood pellets have emerged as a significant substitute fuel, in Europe but also increasingly in other regions.

JEAN-MICHEL SYLVESTRE
Chairman & CEO
La Compagnie du Charmont

The legend has it that Rothschild made a fortune by spotting von Blücher early at the battle of Waterloo and buying government bonds just before the news broke in London. But neither a wandering Prussian general nor a duty bound imperial French army are expected to come out the woods behind Brussels these days. However, wood pellets have emerged as a significant substitute fuel across the world and particularly in Europe. There is also a growing following in other regions, especially among insular communities. Its use by converted coal fired power stations or district heating networks has suddenly broken the forest gates that the pulp and paper industry once kept to themselves as "their" resource. Wood is coming back with a vengeance in the fuel market, all the more because basic refining and better furnaces deliver massive efficiency gains. This is not going unnoticed by policy makers who identified renewable heat as a pillar of support for industry (almost every production process includes a heat treatment of some sort). Zero marginal cost power may one day be the outcome of the renewable or nuclear power rollout, but in the meantime, on-demand energy generation remains the order of the day, and fuels do meet that demand. As for wood, it comes as a close second after waste on the merit curve. As forests in temperate climate regions need to be managed to prevent fire and diseases from spreading, the amount of fibre that has to come out of the wood is reaching many billions of tons per year, while the current volume of wood pellets consumed in the world is still far off the 100 million tonne mark. The value chain linking the tree to the power plant is worth about €25-€30/MWh LCV (or $275/tonne of heating oil equivalent). This eye catching spread with current energy market prices reads well, but the €8 to €20/MWh LCV additional cost for heating plants is a major hurdle, currently keeping wood pellets out of the power market…for the time being.

Supply side elasticity

The good news is that the time to market of a new forest resource is relatively short. It takes the best part of 5 years, mostly spent on negotiation, planning and construction to deliver the first shipment of industrial grade wood pellets. Most of the "exploration" has been done in the form of long-standing negotiations with NGOs and governments on understanding "sustainability". This nicely translates into a never depleting reservoir! That story does not read as well with the timber jack or with the oil man. The former does not have a ready market for his fuel when the few major off-takers are weaned off their subsidy scheme… and there is little on the horizon. Consequently, only medium-scale schemes are taking advantage of the relative oversupply which allows for the low-hanging fruits to be picked on the cheap. The British Renewable Heat Incentive, the European continental VAT spread and fossil fuels levies are leveraging this situation to the benefits of residential customers and light industry. Their demand increases at the tune of an average of one million tonnes per year (far from a linear growth though) and is met by the timber industry with products such as saw dust. Meanwhile, larger-scale demand growth is awaiting a new raft of subsidy schemes or an increase in fossil fuel prices, whichever comes first.

> WOOD IS COMING BACK WITH A VENGEANCE IN THE FUEL MARKET. THIS IS NOT GOING UNNOTICED BY POLICY MAKERS.

Looking at a merchant world

In the meantime, industrial wood pellets producers are getting excited. Large new facilities are scarce, and the average duration of their in-force contracts is just above 5 years. They have little to fear from the merchant world with amortised assets and only a few new competitors! Trading opportunities ought to abound around relative value trades and weather related risk arbitrage. Investment opportunities will also emerge, either with the few listed names (Enviva LLP, DRAX PLC…) or in private equity looking at port infrastructure or distributors consolidation.

Trading houses

The cost of reporting a losing position from one season to the next still represents about a quarter of the notional value of the trade. This paves the way for diversified trading houses to underwrite that risk -too heavy to bear by many distributors- or at least for those interested in better understanding that market, with a view to acting on that information to make private equity investments upstream or downstream. Vertical integration is the name of the game, which plays in favour of energy service companies with a captive downstream portfolio.Bio-sourcing of materials is also flirting with the resource with a special interest in bark, chemically the richest part of the tree. Should the regulator keep on forcing more bio-materials into the market, this would increase the amount of wood available for energy or other traditional applications. As this trend favours agriculture, domestic resources overall and pleases public opinion, one may want to take a downstream position early on. ■

Towards a policy-driven green supercycle

The SDGs and climate policies are creating the conditions for a new take on trading

ELISABETH DRIAY
Founder & Advisor, Nishati

Commerce has always been the first factor of development. A trading company is first and foremost a merchant trying to position itself where it has a competitive advantage, thereby creating economic growth, for a company, a region, a country. This requires international exposure, finance, transportation means, while market views implicitly shape storage, transformation and distribution choices.

New policy drivers creating new risks and opportunities

Risks and constraints are the way to opportunities. And while policy makers tend to be risk adverse and look to regulate these risks, from a trading perspective regulations are constraints but equally risks.

Despite seeming part of a far-fetched future not applicable to traders, international agreements and policies increasingly shape market outlooks. Could the latest climate and development policies usher in a new trading cycle?

The corpus of 17 Sustainable Development Goals[1] (SDGs), followed by the Paris COP21 treaty, provide a framework to include green and environmental objectives at the global level. These SDGs address development and amongst them Goals 8 "decent work and economic growth" and 9 "Industry, innovation and infrastructure". What the SDGs in fact advocate is a reconsideration of risk management in trading, including financial risk[2].

A fragmented outlook: countries in multiple policy gears

Each country will have its own targets to simultaneously address climate change and development goals. A reliance on "bottom-up" principles means that there is not one single rule but that each single country can decide on which aspect to prioritise.

This should be perceived as a renewed opportunity to revive trading and differentiate one company from the other. Even spurred by politicians, economic actors remain the dominant force in opening up new markets and selling "developed" services and consumer goods.

Moreover, there is a need to fill in the various gaps across the globe and foster exchanges of natural resources worldwide.

Whether we are cynical or not, in both cases trading companies must identify which specific risks they are willing to trigger to keep on playing with volatility and arbitrage.

The imperative of adapting business practices

One cannot aim to be a major trader in Africa, with its major growth potential and reserves of natural resources, without ever going there. Or be unwilling to deal under the local law or with a local bank while simultaneously asking a local partner to take all these risks and fill in a KYC (why require a utility bill when power is produced from a generator?).

Capacities to address and reconsider risk appetite and management at the individual level, for specific countries, and a willingness to be part of a specific market will be key to reviving a commodity trading cycle.

As the Paris treaty/SDGs call for local financial services enforcement, trading houses and financial institutions need to work on this to improve local practices, without systematically striking out the option to use local institutions. For example "International First Class banks" are not defined anywhere but the term used in all contracts. When published, lists of accepted banks prove tremendously concentrated.

> TRADING HOUSES HAVE THE KNOWLEDGE AND ABILITIES TO REVIVE A TRADING CYCLE WITHOUT WAITING ON REGULATORS.

Green funds ushering in a new era?

How would the commodity trading community react if a coastal and commodity rich country would impose to have only LNG bunker fuelled vessels calling at their port? One should not assume that stricter regulations will always come from the "developed side". While economically risky, this might be vital to protect their communities and be linked to a major loan from a green fund, just as banks are seeking to develop their green portfolio.

One major rating agency has already started to include sustainable elements in its rating. However, this was done hardly out of conviction, but because the risk was high that their index would underperform now that investors are looking at these very factors.

Trading houses have the knowledge and abilities to revive a trading cycle without waiting on regulators. It is about day-to-day business, the ability to identify risks and trigger constraints, it is about partnership: SDG number 17!

In this respect the next trading cycle is likely to be green! ■

(1) https://sustainabledevelopment.un.org/sdgs
(2) Country and counterparty risk and even the way of rating these risks

Critical metals: how is the supply chain evolving?

LAURENT KRULL
Director, Ethore SA

Critical metals represent about 70% of the critical raw materials identified by the EU Commission. These metals are of economic importance, but face a supply risk with a lack of substitution. According to the EU Commission[1], these materials are "linked to all industries across all supply chain stages".

Over the last two decades, these metals have gradually and almost insidiously invaded our lives. This has taken place not only at the private and professional level, but also in relation to their essential roles in reducing greenhouse gas emissions. At the dawn of Industry 4.0, we are in the age of efficient materials that help improve on how we meet the needs of a modern world in search of miniaturisation, speed, mobility and sustainable energy.

The supply chain of critical metals has evolved due to technological advances and related innovations. In order to deliver the quality and purity required by manufacturers for integration in their process flows, precise ore concentrate specifications have been developed.

This has led to the rapid evolution of the automobile, telephone, internet and even energy. Miniaturisation in high speed computing represented a major technological advancement, making us more interconnected than ever and able to work from anywhere through a "cloud". Our cars have drastically shed weight and are full of electronics and servo motors. Autonomous cars will become safer than with us as the driver! Our bridges and buildings have also replaced cast iron and traditional steel components with lightweight materials such as high-strength steel. Going forward, smart automation through robotics will also significantly impact the supply chain.

In this context, and in view of the still limited progress in substitution and recycling means, critical metals continue to be indispensable for the design of these new materials. Moreover, they can provide a decisive competitive advantage for end-user products.

The global supply chain will evolve around new players outside of China who will ensure a continuous and high-quality supply upstream. As there are no Tesla cars without lithium, graphite and cobalt, nor offshore wind turbines without neodymium, vertical integration for original equipment manufacturers (OEMs) can mitigate the risk of security of supply within the supply chain.

Before 2010, supply chains were not concerned with dependency. China fulfilled its primary role in a globalised world, increased its market share and became the essential supplier of critical metals. This came at the expense of preserving its environment and of respect for its mining laws (30% to 40% of Rare Earth Elements ('REE') came from the black market). Western industrialised countries relied on this supplier and relocated some production units to China.

In 2010, China sent a strong signal to the rest of the world with a sharp reduction in its rare earths export quotas. However, efforts to revitalise supply chains outside China were thwarted by slower economic growth and the effects of the debt crisis. Additionally, China maintained its low prices by subsidising its industry to promote the attractiveness and development of its products, whilst consolidating its own value chain.

Today, the sole producer outside China is Lynas Corp. In China, six major groups control REE production. All are Chinese state-owned companies, and five of them are listed. The REE industry consolidation effort has been supported by massive subsidies which are disappearing progressively. The Chinese REE industry faces profitability challenges, and the environmental cost will be integrated into the production cost. The successive five-year plans have always aimed to reinforce the Chinese REE domestic market and Chinese market share. However, the COP 21 and the "Made in China 2025" policy will have new impacts on supply and demand, and on reaching a sustainable price for rare earth raw materials.

The COP 21 Paris Agreement might be a catalyst for critical metals demand, giving baselines to assist the reduction of global warming. The "Made in China 2025" policy has listed ten priority sectors which need rare earths. Both initiatives favour the increase in renewable energy in all developed and emerging countries, and will consequently boost demand for REE (neodymium, praseodymium, terbium, dysprosium, and lanthanum oxides) and other specialty metals such as lithium, cobalt, carbon graphite, vanadium, manganese, titanium, and niobium.

The near future may see a pivotal point in the deployment of critical metals supply chains outside of China amid security of supply concerns and increased demand for consumer goods. This would better equip supply chains to keep up with global demand. However this will require collaborative efforts, including the support of OEMs, governments, and possible new trade alliances. ■

(1) European Commission website
(2) L'Europe face aux défis de la substitution des métaux stratégiques
(3) Supply Chain Evolution: beyond the paradox; Feb 2017
(4) Métaux critiques et Industrie 4.0: Dec 2016
(5) CSIS: Made in China 2025

The irresistible rise of pulses

ROBIN PACHE
Managing Director
Alliance Grain Traders (Switzerland) SA

Pulses have been part of human diet from the beginning of civilization. Fossilised chickpeas and split lentils, preserved by Mount Vesuvius ashes some 2000 years ago, can still be seen at Pompeii today.

Although the global production and consumption of pulses has only grown moderately over time[1], the world market has deeply changed. The total production of pulses has increased by just around 69% over the last half century, from 40.35 million tonnes to 68.2 million tonnes, but global trade increased almost six fold over the past three decades, from 1.7 million tonnes in 1981 to 12.4 million in 2011. With the value of global exports increasing more than 11 times over the same period and the unit value of exports almost four times from $133.8 in 1961 to $654.6 in 2011 (an annual average increase of 7.6%)[2]. Demand for pulses is running ahead of supply and prices traded in the international markets are rising swiftly.

Until the 1980s the world market remained balkanised, with a multitude of small players. Drastic changes started in the 1990s, due to several factors including growing demand in line with demographic growth, the liberalisation of Indian pulses import policies and the imposition of export curbs, disintermediation through the internet and globalisation. Traditional exporters such as Turkey turned to importers. New origins took the lead in production and export. Canada emerged as the largest world exporter, followed by the US, Myanmar and Australia.

Still, global trading houses would not invest in a sector then considered as a small niche market. Many small industrial processors had the know-how but not the finance or the international network to go global. Changes accelerated from 2001, through vertical integration from the fields down to the shelves, largely under the impulse of a handful of players who for, the first time, managed to consolidate and scale up the supply chain, putting together origins, industrial know-how and assets, finance and destinations, one of them capturing today a 30% market share.

Demand is destined to rise further, with anticipated population growth and increasing incomes in developing economies, not only in India but also across the MENA region, Southeast Asia and Western and South Africa. With 1.3 billion people (of which 80% vegetarian), India is the biggest consumer and its population increases at the rate of 30 million people p.a. But consumption picks up all over the world, due to agricultural, ecological and health concerns, in a general trend to substitute animal with vegetable proteins. Pulses currently constitute around 11% of consumed protein worldwide. For farmers, pulses not only represent an opportunity to increase their revenues with valuable crops, but to save on fertilisers through crop rotation as pulses regenerate the soils naturally with nitrogen.

The next decades looks bright for the pulse industry: acreage and exchanges will keep increasing. While containers remain the main portion of the traffic, some raw pulses are transported today in bulk vessels of up to 35000 MT. Tomorrow's challenges will be on quality, which can vary significantly depending on weather, and in logistics in order to cope with growing volumes and optimise the costs to end users. ■

(1) FAO
(2) India Pulses and Grain Association

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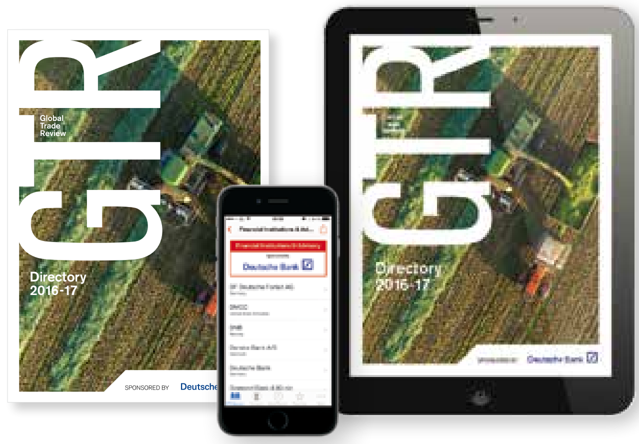
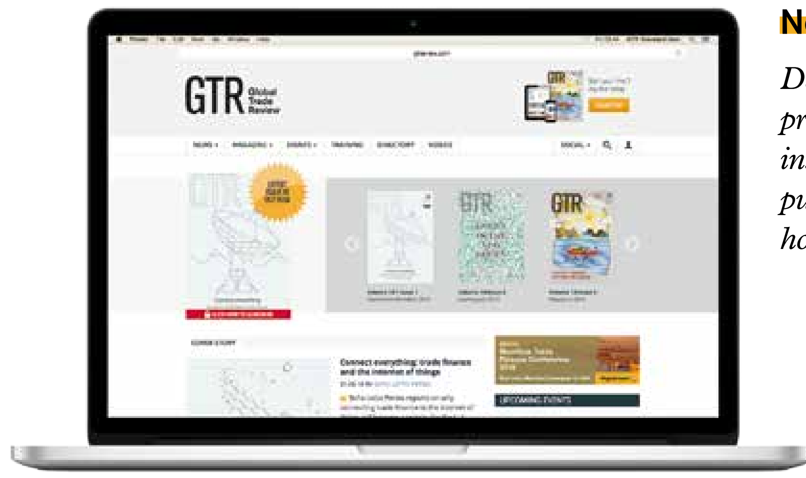
The ultimate 'Who's Who?' in the market.





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INTERVIEW

MARCUS COOPER | ROSNEFT TRADING

"A new super cycle is inevitable"

Russia is the second largest world exporter of crude and oil products with Rosneft a major market stakeholder. The country has diversified its exports, in particular towards the East and China. Rosneft recently extended its agreement with CNPC on oil supplies to China and has signed an agreement setting out the framework of the Far-Eastern Petrochemical Company (FEPCO) with ChemChina. Russia is also turning towards India and Rosneft has invested in the Essar oil project in India that includes the country's second private refinery at Vadinar (Gujarat). Although Russia has increased production last year, it has agreed to limit output alongside OPEC. We met Marcus Cooper, General Director of Rosneft Trading, on the outlook for oil, infrastructure build-up, price trends, capital expenditure, joint ventures and the role of the Swiss hub.

Rosneft recently extended its agreement with CNPC on oil supplies to China. What is your view on the Chinese market?
Chinese oil consumption per capita remains significantly lower than in other parts of the world, 4 times lower than equivalent per capita consumption in Switzerland suggesting that demand will remain robust over time as the Chinese economy continues to grow despite technological advances in the efficiency of how resources are consumed. In terms of diversification, China and Russia share a border of 4,200 kilometers, 12 times the length of Switzerland, presenting a logical geographic opportunity for Russian exports overland via rail and pipeline into China.

MARCUS COOPER. GENERAL DIRECTOR, ROSNEFT TRADING

1994	Graduates from Imperial College London with a Master's degree in Energy Policy & Environmental Technology
1994	Joins BP's graduate development program specialising in Russian crude
2000	Becomes Head of BP Russian desk
2003	Joins TNK-BP in Moscow as Director for crude & product trading
2008	Re-joins BP as head of BP's worldwide gasoline trading then moves to Singapore for three years to lead BP's worldwide fuel oil trading business & marine business
2013	Joins Rosneft

With substantial expenditure planned over the next 15 years, Russia's infrastructure development programme is ambitious. Are the investment levels realistic?
Russia's infrastructure development plans are carefully thought through to calibrate with the demands of a growing and ever more affluent world population. When seen in context these investment levels are realistic and necessary to ensure security of supply and reliable price stability in the commodities markets.

Infrastructure programmes are one of the main buzz throughout the world. How do you believe that the major Chinese, South East Asian and Indian programmes will impact the demand for commodities?
We consider that Chinese, South East Asian and Indian commodity demand will remain vibrantly robust over the coming years putting upwards pressure on prices and volatility in the event that supply is not able to adequately satisfy demand.

As a major oil producer and trader, are there any concerns that technological innovation could significantly displace demand for oil?
Based on the massive underlying potential for oil demand growth globally over time a variety of technologies will inevitably enter into the market place at the margin to help satisfy energy demand as prices trend higher over time.

Rosneft is working with Chinese entities but also with European companies (Rosneft sold BP a 20% of the Taas-Yuryakh Project). How important are JVs for Russian energy companies in the future?
Joint ventures are very important for Russian energy companies as a means towards addressing the considerable energy challenges of the future via sharing of skills, technologies and best practices for mutual benefit.

Rosneft has also invested in the Essar oil project in India. Do you believe that India will be one of the major players of tomorrow?
The Indian population is now similar in size to China's, together making up 36% of the world's population despite combined oil demand in both countries being 5-6 times lower than in the developed world. As these economies further integrate into the world economy demand for resources will increase rapidly – Indian oil demand grew 500kbd year on year last year. India and China are already major players and will be the major centres for demand growth for some time to come.

Russian production has significantly increased last year. Do you believe that this trend will last?
Russia and Rosneft have one of the lowest cost centres of production in the world meaning that they are well poised to be able to address the considerable resources challenges of the future as demand continues to grow over time, even after taking into account agreements to re-balance markets over the short term.

Do you think that a new supercycle with high demand driving high prices as well as investments is likely over the next few years?
If everyone in the world consumed oil at the rate being consumed in the developed world oil production would need to increase 3-4 times. Despite this context investments in exploration capex have fallen by 40% over the last two years in response to the recent downturn in oil prices suggesting that a rebound in price and the beginning of a new super cycle is inevitable over the next few years.

Rosneft Trading was established in Geneva in 2011. How do you value your partnership with Swiss trading companies?
Geneva and Zug are key trading hubs in the global energy markets alongside London, Houston, Dubai and Singapore. Being physically located in one of the major hubs enables Rosneft to interact more readily in the global market place, including with co-located Swiss based trading companies.

How important is it for a State-owned enterprise to own a separate trading company?
Rosneft has been substantially expanding its international activities over the recent past, including in India, Indonesia, Egypt, Venezuela, Kurdistan and Libya as well as via long term supply contracts into CNPC in China. An internationally based trading company is key to optimising this expanding asset base, particularly in the event that resources are more efficiently sourced from the market vs from Russia.

What is your view of Switzerland as a trading hub as we enter a new era of global dynamics with Brexit, the election of Trump and the rise of populism and protectionism?
Switzerland has always been a beacon of stability in an ever changing world. Markets perform most efficiently when the rules of the game are clear and understood by all participants; Switzerland's stability lends itself as an anchor to Switzerland's future as a key trading hub. ■

Interview Thomas Esdaile-Bouquet, STSA

SUSTAINABILITY & THE SWISS HUB

With success comes accountability. STSA is working on developing guidance in a multiple stakeholders process.

THOMAS ESDAILE-BOUQUET
Chief Coordination Officer, STSA

Rapid economic change has presented our industry with a multitude of opportunities to conduct activities in a range of jurisdictions. However, with success comes accountability. More and more, our industry with its complex value chains finds itself in the public eye. Its future depends on how it meets these concerns to ensure a more sustainable and transparent business environment. To help facilitate this, STSA and its members adopted a Code of Conduct in 2016. Pressures in Switzerland to increase corporate responsibility come just as new frameworks tighten in a number of areas, leading to a complete overhaul of standards across the industry, as seen with the fuel products market.

A growing number of international initiatives have shaped the development of soft law, with a particular focus on corporate responsibility and sustainability including the OECD Guidelines for Multinational Enterprises. Notably, the UN Guiding Principles on Business and Human Rights (UNGPs) have been a global game-changer in the development of regulation and soft law.

In Switzerland, the Responsible Business Initiative is the top political agenda item moving forward. STSA is working on developing guidance with the Institute for Human Rights and Business. It is clear that we as an industry have a vital part to play in continuing to undertake due diligence and risk assessments throughout our entire value chains, and communicating our efforts internally and externally. The commodity trading sector in Switzerland is at the forefront in designing sector-specific guidelines based on the UNGPs as part of a multistakeholder process, aided by the Swiss Federal Department of Foreign Affairs which is committed to assisting with their implementation.

In recent months these issues of corporate responsibility have played out in the media, centring on the supply of high sulphur fuels to Africa. Trading companies play a crucial role in supplying markets with the desired products while mitigating price distortions. However, wide variations of fuel specifications across the globe continue to fragment markets. This fragmentation, together with outdated national legislations on fuel standards in a number of developing countries, has led to concerns over public health implications. With countries in some cases lagging several decades behind in terms of regulations and traders responding to predefined fuel specifications through tenders, it is therefore governments – not just NGOs and corporations – that have a decisive role to play.

Similar concerns regarding SOx emissions exist in the shipping industry and the introduction of global IMO sulphur content limits are leading to a rapid transition towards cleaner fuels. Challenges abound however, as the lower costs of environmental externalities come at a high cost for traders and shippers as low-sulphur marine fuels cost 60-70% more. These costs will ultimately have to be passed on.

Financial regulations are also being tightened. In Switzerland, the Financial Markets Infrastructure Act (FinfraG) entered into effect on 1 January 2016, imposing a number of reporting obligations on all open derivatives positions. It comes at a time of intense scrutiny generally, as seen with the EU's tough stance on position limits under MiFID II. For firms reporting under the new regulations, the impacts will be long reaching, affecting processes, skills, training requirements, technologies, and partners management. Compliance will entail heavy upfront costs, requiring a complete overhaul of all internal systems. On a positive note, the complex automation technology that firms will inevitably need to implement will have long-term benefits with a reduction in costs, fewer errors, and better risk management overall.

STSA and its regional associations will continue to tackle these challenges head on, working closely with the Swiss authorities and rallying members around these issues so that we can truly represent the interests of our industry. The STSA Code of Conduct will be instrumental as a first step in aiding compliance by its members and promoting transparency and sustainability for the industry at large. STSA will also continue to ensure its members stay fully abreast of all new developments, providing information and guidance. ■

Challenges in conducting an ethical business

The integration of sustainability must be a strategic priority for all international companies.

LUCREZIA MEIER-SCHATZ
Former Member of the Swiss Parliament

If international companies are to avoid growing pressure and future regulations, they must engage in constructive dialogue on practical ways forward.

Ethical Challenges

Ethical questions have and will continue to be raised as to the complex global business environment which drives companies to make certain choices in order to fulfill the expectations of their shareholders and stakeholders. Shareholder interests, however, may differ substantially from those of stakeholders. But once companies enter markets with different legal structures and ethical frameworks, they can no longer ignore the interests of their stakeholders.

All companies, not just trading and shipping companies, face problems in a number of countries which they must solve in accordance with the ethical business standards defined by international actors. These include corruption, the respect for human rights, and environmental issues.

Growing international pressure

In the last decades, globalisation has brought increased public and political attention upon the role of international companies. This has prompted the launch of various initiatives across the international spectrum. 40 years ago the OECD formulated guidelines for international companies. Since then, the UN Global Compact initiative was launched (1999), and the UN approved the Ruggie Principles (2011) and the 2030 Agenda for Sustainable Development Goals (2015).

> BUSINESS LEADERS CAN NO LONGER ATTRIBUTE MALPRACTICES TO LOCAL "CULTURE".

Persistent failures to meet relevant standards undermine efforts to promote growth in developing and emerging countries given the far-reaching impacts of the corporate behaviour of international companies. For example, child labour undermines the development of decent education systems. Tax avoidance schemes deprive countries of the funds necessary to develop their infrastructure. Corruption cheats countries out of a fair price for their goods. These issues have become of global concern. This has led to growing pressure from international and national agencies, as well as non-governmental organisations (NGOs) to increase the regulatory burden for businesses.

Nowadays, companies must align their strategies and operations in order to comply with international ethical standards. In the face of current social, economic and environmental problems worldwide, companies can no longer ignore the externalities that create costs for the whole society. They must endorse a new role.

Redefining business strategies

The rapid expansion of trading companies in Switzerland has put them firmly and regularly into the headlines. Despite recent commitments made by these companies, civil society and political actors remain suspicious. As noted by the Swiss Federal Council, the most imminent risk for our country is the reputation attributed to commodity trading companies directly involved in the mining and processing of raw materials. This represents a growing foreign policy challenge.

These potential dangers must be anticipated by adapting working practices where necessary in order to avoid, on the one hand, further critics and on the other hand, a stream of regulations in the years ahead.

Nowadays, international companies are required to play an active role in promoting development. Companies who recognise that they can play an important role in societal and environmental change tend to work together with local or national governments and NGOs. In doing so, they redefine their business strategy and combine the potential for increasing growth and profitability whilst improving societal welfare. As noted by Prof. Michael E. Porter (Harvard Business Review 2011), "what is good for business is good for society, we are saying the opposite, what is good for society is good for business". It is therefore critical that all corporate players embrace this new role as it is they who have the potential to make a positive and long lasting difference.

NGOs challenging companies and governments

In the last decades, NGOs have become high-profile actors in the field of international development. Despite possessing few formal powers, they have many accomplishments to their credit. They challenge companies to promote change on a global level. The attention they receive from the media and public requires business leaders to listen and engage in dialogue and ultimately search for new forms of collaboration with both NGOs and political actors.

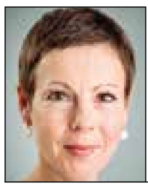
The obstacles of doing business in developing and emerging countries are known. Business leaders must often overcome local regulatory and institutional barriers that inhibit the development of a sustainable business in those countries. But they cannot attribute these malpractices to local "culture". They must do everything they can to eradicate them, with or without the help of local politicians. The alternative is not only continuing misery in the countries involved, but also seeing millions of people continuing to look for a better place to live. It is a challenge, but management must address these critical ethical business issues.

Sustainability as a strategic priority

Some companies have subscribed to the guidelines of the UN Global Compact, the EITI (Extractive Industries Transparency Initiative) or the Ruggie Principles. Some are members of the Plenary of the Voluntary Principles on Security and Human Rights Initiative, which brings extractive sector businesses and NGOs together. Some have adopted the concept of Creating Shared Value (CSV) and developed for their sustainability reports a set of performance metrics to better understand the social and environmental impact of their activities, including by detailing their activities and performance and reporting on core aspects.

The integration of sustainability throughout their business must be a strategic priority for all international companies in this century. This includes publishing sustainability reports in order to respect the political requirements for greater transparency. Accepting responsibility in the prevention of human rights violations and environmental impacts is an important step, one that acknowledges the role of business leaders in upholding and protecting them. It is also a necessity in order to avoid negative exposure and reputational risks for our country. ■

UNGPs: new standards for commodity traders



KRYSTYNA MARTY LANG
Ambassador, Deputy State Secretary
Swiss Federal Department of Foreign Affairs

In a world where some multinationals have a turnover comparable to the GDP of a number of the world's largest economies, effective human rights protection efforts must integrate the private sector. The United Nations Guiding Principles on Business and Human Rights (UNGPs) are the internationally recognised framework that sets out the responsibility of corporations to respect human rights.

Respect for human rights is becoming an integral part of the operational management systems of companies active in the commodities trading sector. These companies are increasingly referring to the UNGPs in their codes of conduct, standards and in the sustainability reports they publish on a voluntary basis. Despite this progress, respect for human rights by commodity trading companies remains a much debated topic, both in parliamentary debates and in the campaign associated with the Initiative for Responsible Multinationals. This lively debate is encouraging the various stakeholders to find innovative solutions together.

ONE OF THE FDFA'S PRIORITIES is to take the issue of human rights into consideration across the board in our activities, with a particular focus on the contribution made by respect for human rights to peace, security and prosperity. Given that some of the world's largest multinational companies are based on its territory, Switzerland needs to pay particular attention to efforts made by the private sector and the commodity trading industry in particular to ensure their own respect for human rights. The realisation of human rights is a *sine qua non* of sustainable economic and social development for the benefit of every individual. Many companies have also understood this.

THE COMMODITY TRADING sector fits well in the FDFA strategy as it operates in almost all regions of the world and affects the entire production chain from extraction to the end-consumer. The FDFA must therefore maintain a regular dialogue with this sector and assist it in designing and implementing measures to ensure respect for human rights. These exchanges include a six-monthly round table which brings together the state secretaries of the FDFA, the State Secretariat for Economic Affairs and the State Secretariat for International Financial Affairs, the directors of the largest trading companies, representatives of Swiss cantons and representatives of Swiss civil society. The last session of the round table, which was devoted to the issue of respect for human rights, was a valuable point of reference, provided us with critical and constructive feedback, and served as a forum for all interested parties to discuss different initiatives.

DESPITE THEIR EFFORTS to improve management of human risks, particularly in countries with low governance, companies are still coming under criticism from NGOs, as much remains to be done and they cannot always control events. Constructive criticism from representatives of civil society maintains the pressure on the commodities trading sector, stimulates dialogue and encourages innovative efforts to address this issue. While the FDFA appreciates the fact that the sector is seeking dialogue with civil society, we should also encourage that exchanges remain fact-based and do not lead to confrontation.

SWITZERLAND HAS PUBLISHED A NATIONAL ACTION PLAN TO IMPLEMENT THE RUGGIE PRINCIPLES.

SWITZERLAND PUBLISHED a National Action Plan (NAP) in December 2016 and is actively involved in implementing the 'Ruggie' principles across the Swiss commodity trading sector. With this plan, the Federal Council sets out various measures and the duties of the State in the protection of human rights and the remedies available to potential victims. The NAP contains 50 instruments to promote respect for human rights among Swiss companies in Switzerland or abroad. These include, among other instruments, the promotion of business and human rights issues through political consultations, raising corporate awareness by Swiss representations abroad, and the preparation of sectoral guides such as one that is currently being drawn up for the commodities trading sector.

THE MULTI-STAKEHOLDER process currently under way for the development of a sectoral guide for the implementation of UNGPs by the trading sector is exemplary because it takes into account the views of civil society and business and promotes understanding between the various actors. The development of the NAP was also conducted through a multi-stakeholder process, as was the implementation of the Voluntary Principles on Security and Human Rights, and the International Code of Conduct for Private Security Service Providers. This approach, though time-consuming, guarantees having the various partners on board and benefits from the complementary expertise which will make it possible to obtain a final product usable by all. We are particularly pleased with these exchanges. ■

Cleaner fuels for Africa

ROB DE JONG
Head of the Transport Unit
UN Environment

Reducing global emissions from vehicles is essential to reduce urban air pollution and to meet global climate change targets. Introducing cleaner fuels and vehicles is the key to achieving this. The oil industry, including oil traders, plays an important role in this.

Every year, about 7 million people die prematurely due to air pollution, with outdoor air pollution accounting for around half of them. Air pollution is particularly acute in urban centres, vehicles being a main contributor. Reducing emissions from the global vehicle fleet is therefore essential to achieve the Paris Climate Agreement to keep global warming to 2 degrees centigrade.

While in the long term societies will move to electric mobility, in the next few decades we need to introduce cleaner vehicles. And to do that we first need cleaner fuels as petroleum fuels account for almost 95% of the energy used in the transport sector. A key issue is the level of sulphur, especially in diesel fuels. High sulphur levels not only increase emissions of pollutants (small particulates) but also damage modern engine technologies. Many developing countries are now importing vehicles, new and used, that require low sulphur fuels.

The combination of low sulphur fuels and modern engines can reduce emissions by 90% or more. Most countries worldwide have now introduced low sulphur fuels. But standards in many developing countries still lag behind, with some allowing sulphur levels of 5,000 parts per million (ppm) or more, compared to, for example, 10ppm in Europe since 2009.

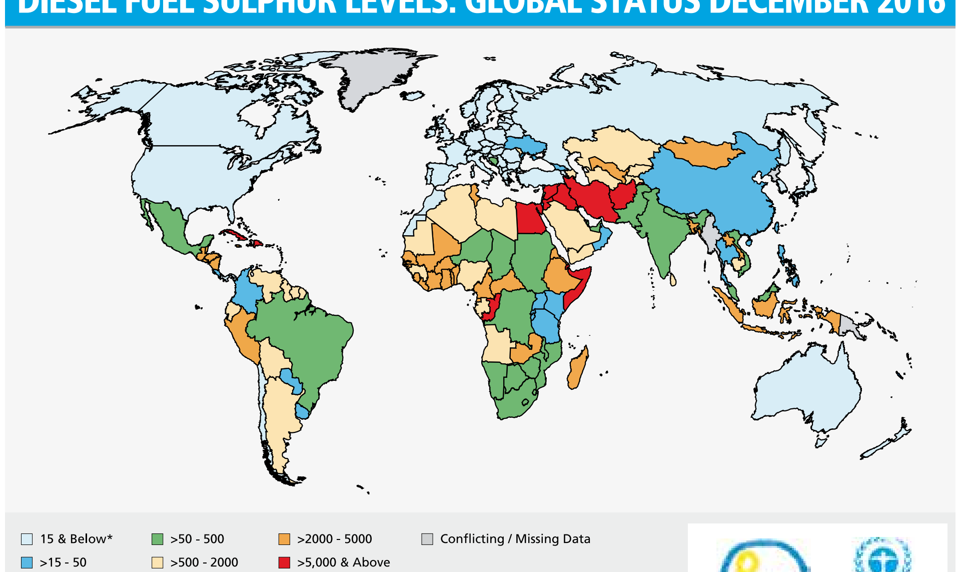
Partners in the public and private sector have been working together in the Partnership for Clean Fuels and Vehicles hosted by UN Environment (formerly UNEP). It has supported over 100 countries in introducing cleaner fuels and vehicles through unleaded petrol, low sulphur fuels, and vehicles emissions standards.

The challenge of dirty fuels and vehicles in developing regions remains real. In Africa, only 7 of the 54 countries have achieved low sulphur fuels. In fact, not one of the 15 West African countries market cleaner fuels, despite the sub-region importing most of its fuels from Europe where low sulphur fuels have been mandatory for years.

A recent report by a Swiss NGO, Public Eye, shows how the blending of fuels takes place in European ports for export to African markets. High quality, low sulphur fuels are mixed with low-spec components before shipment to African countries that have lax and outdated standards. African citizens have been bearing the brunt in terms of health. Particulate matter pollution in Africa – mainly transport-related – costs the continent an estimated USD 215 billion annually.

IN AFRICA, ONLY 7 OF THE 54 COUNTRIES HAVE ACHIEVED LOW SULPHUR FUELS STANDARDS.

DIESEL FUEL SULPHUR LEVELS: GLOBAL STATUS DECEMBER 2016



* Information in pa rts per million (ppm)
For additional details and comments per country, visit www.unep.org/transpo rt/pcfv/

Exporting and importing countries, along with the UN are working together to stop this practice of dumping high sulphur fuels in Africa.

Last December, the Governments of The Netherlands and Nigeria, together with UN Environment, organised a meeting in The Hague with all stakeholders including governments, the oil industry, civil society, media and the UN to identify ways to stop the export of low spec fuels to Africa.

Importing West African countries have decided to introduce new harmonised low sulphur standards. Ghana has already announced that its new standards will come into force before mid-2017.

The countries together with UN Environment are also reviewing if the trade in polluted fuel products is illegal under the Basel and Bamako Conventions that regulate the trade in hazardous substances. The Bamako Convention states that export of substances that are not allowed in exporting countries for health and environment reasons should not be exported to African countries. A recent review by an environmental law think tank concluded that the trade in high sulphur fuels is illegal.

Other African countries are now developing new low sulphur fuel standards. Countries are also starting to restrict old vehicles from entering their markets in order to ensure a combination of low sulphur fuels and modern vehicles that will reduce pollution.

With both exporting and importing countries seeking to stop the export of dirty fuels to Africa and international agreements supporting this, UN Environment will continue to work with all partners involved to achieve cleaner fuels for Africa. ■

INTERVIEW

MICHAEL POSNER | NEW YORK UNIVERSITY
Measuring human rights performance

Switzerland is one of the world's most important hubs in the global trade of commodities. The Swiss commodity sector is under continuous scrutiny for human rights as calls for social responsibility question its governance. Ethics and human rights are important to Switzerland, which has adopted the United Nations Guiding Principles on Business and Human Rights as set by John Ruggie (ex-UN Special Representative for Business and Human Rights) and endorsed by the UN Human Rights Council in 2011 in Geneva. Michael Posner, Co-Director for the Center of Business and Human Rights at New York University Stern School of Business, was recently the guest of the Swiss Research Institute on Commodities.

MICHAEL POSNER. CO-DIRECTOR FOR THE CENTER OF BUSINESS AND HUMAN RIGHTS AT NEW YORK UNIVERSITY STERN SCHOOL OF BUSINESS

1972	B.A. with distinction and honours in History from the University of Michigan
1975	J.D. from the University of California, Berkeley Law School (Boalt Hall)
1978	Founding executive director of the Lawyers Committee for Human Rights later renamed Human Rights First
1990	Drafted, and campaigned for the Torture Victim Protection Act (TVPA), signed into law in 1992
2009-2013	Assistant Secretary of State for the Bureau of Democracy, Human Rights and Labor at the State Department in the Obama Administration

How well does Switzerland fare in terms of human rights?

The Swiss government is ahead of many, including many European countries, in terms of advancing human rights principles. I would even say that it is a pioneer, with clear leadership in this matter. To cite one example, following the killing of 23 people in Iraq by the private security contractor, Blackwater, the Swiss government has led a multi-stakeholder initiative to develop a code of conduct for security companies which is evolving into a global standard[1]. Over a hundred companies have joined The International Code of Conduct for Private Security Providers' Association (ICoCA), a multi-stakeholder initiative established as a Swiss non-profit association, largely funded by the Swiss government.

What is the role of companies in ensuring that human rights are respected?

The concept of human rights is quite recent and dates back to the first years of the United Nations and its commission on Human Rights which was created in 1946. The Universal Declaration of Human Rights was adopted by the United Nations General Assembly at the end of 1948 largely in response to the Holocaust and the experience of the Second World War. Had it existed before, countries would have had grounds to intervene against the Nazis in Poland. The Declaration grants civil and political rights, free press, fair trial, and economic rights for example relating to health work and education. It was initially the business of States to ensure these rights were respected, but many States have not lived up to these expectations. There is a growing public awareness of this failure which has increased with social media. So the rising trend is to expect global companies, which have grown larger and more powerful, to protect populations where States fail to do so. On the other hand, there is increasing distrust for the global trade system, with a feeling that it is not serving the public interest, that there is a growing gap between rich and poor. Some are advocating restrictions on trade as a way to address this gap. The expectations of companies to correct the failures of States are high, sometimes unreasonably so. What can companies do? This is where the UN came in by setting up a broad framework for a discussion of these issues with the creation of the Global Compact Network and later developing the UN Guiding Principles on Business and Human Rights (Ruggie principles). These are only first steps because States are not meeting their duties. While it is now clear that companies have some role to play companies' responsibilities are not clearly set out.

What does it mean for the industry to take on such responsibility?

Each industry faces different challenges. Human rights challenges are different for coffee trading, energy, textile, fishing or security. Therefore each industry together with governments, civil society and consumers need to develop industry specific standards and metrics through some form of a multistakeholder process. There are issues related to security, land or labour for which standards exist but need to be applied at the industry level. The challenge is to think about these questions in practical ways to actually measure performance. There also is a need for metrics to help companies, but also investors and consumers evaluate company performance.

What type of metrics?

Whether it is in measuring profitability, products or service quality, or other key business priorities most aspects of company performance are subject to metrics. So should human rights. Measuring allows for reputational risk to be used as leverage for better behaviour. Sustainability costs are real and require long-term investments. Unfortunately, most companies cannot afford them because of the short-term pressures they face from investors. Only the stronger ones can. To take one example, Unilever scrapped quarterly earnings guidance for investors to avoid compromising long-term missions such as improving working conditions and the environment. This also applies to Apple. Today there are some strong measures around companies' governance and some metrics on companies' environmental footprint but social metrics are very weak and assessments of performance practically non-existent. However, investors are beginning to recognise that companies with strong ESG performance make sustainable long-term investments.

What would it require to build and implement such metrics?

It would require setting concrete industry standards, for example relating to labour practices in global supply chains. The next step is to develop metrics based on these broader standards. This process starts by examining the central business model for companies in a particular industry that is how they make money. Usually the application of these metrics will reveal the need for money to be invested to correct problems. For this to be possible more investors will need to be supportive and to move from short term to longer term investment horizons and thinking. The results could be measured in terms of fewer hours worked, better pay, avoidance of forced or child labour or fewer incidents of discrimination or harassment. Implementing some of these standards and remedying gaps often involve extra costs and we need to acknowledge that and find ways to allocate those costs fairly. One reason I am hopeful about this is that we can already observe a generational change that will make these changes more feasible. Younger people are becoming increasingly uncomfortable with using products or services which are improperly made. These will be the next generation of investors and consumers, so there attitudes really matter. In addition there are more NGOs everywhere working on these issues and more enlightened industry leaders are tackling them in ways they would not have 25 years ago.

Isn't it easier for large companies than for SMEs?

It is much harder for SMEs as they are younger and have smaller margins. This is why we are looking at the largest global companies first because they have the means to move forward. The solutions for SMEs may need to be different and we do not have an answer in the short term. On the other hand, SMEs often work on a personal relationship basis and know their partners, which allow them to have better control over their environment.

Commodity traders change suppliers often so it is hard for them to influence their partners on a long-term basis.

Long-term partnerships allow trust and reliability to be built so they are a better way forward. Traders may get a better deal from the next guy, but he may also bring greater risks. Faster and cheaper is not always the most efficient solution.

Swiss trading houses have been criticised for selling fuel below European standards to African countries. Although these fuels were way within the standards set by the countries themselves, should they do more?

Trading houses should ask themselves whether there are global standards that need to be set. Companies have an obligation to take on such challenges as an industry. Following local laws is not likely to be sufficient especially if local laws fall below international standards. We need to recognise differences, but we also need companies to take a more global view. ■

(1) This code became the International Code of Conduct for Private Security Service Providers (ICoC)

Interview Nicolette de Joncaire

Regulatory challenges for shipping

Kitack Lim
Secretary-General
International Maritime Organization (IMO)

Shipping – the most cost effective and environment-friendly means of transporting goods – is the vital ingredient which supports the global movement of cargo.

When commodities such as iron ore, grain and other goods are moved around the world, they are largely carried by ships. So it is in the interests of everyone to ensure that shipping continues to become safer, greener and cleaner, as well as more efficient.

The International Maritime Organisation (IMO) is the United Nations agency charged with regulating international shipping. For nearly 70 years, IMO has developed and adopted stringent global shipping standards. This has been achieved through collaboration between the IMO's 172 Member States (and three Associate Members), with welcome input from interested international non-governmental and inter-governmental organizations.

Of critical importance, is the concept of global regulation for shipping. It is crucial for regulations to apply worldwide - and equally to all. Global regulations do not allow anyone to gain an advantage either by cutting corners or by imposing unilateral requirements. And they ensure that ships have to comply with the same rules and technical standards wherever in the world they operate and regardless of which flag they fly. The countries that came together in 1948 to draft the IMO Convention recognised these principles and embodied them in its first two articles. As IMO prepares to celebrate the 70th anniversary in 2018, those principles remain just as important today.

And IMO has been successful in living up to those principles to date. Against a background of more trade and more ships – responding to the ever-increasing desire for consumer goods and the basic need for raw materials and commodities that support economic growth and sustainable development – casualty rates have decreased and regulations to prevent pollution from ships have been strengthened. Shipping has never been safer, cleaner or more efficient.

IMO's work continues. January 2017 saw the entry into force of a mandatory code for ships using gases or other low-flashpoint fuels, as well as the Polar Code, which introduces additional safety and pollution prevention rules for ships in Arctic and Antarctic waters.

Further key measures are set to be implemented soon. First, IMO has set 1 January 2020 for the 0.50% mass by mass (m/m) sulphur limit for fuel oil used by ships operating outside designated SOx Emission Control Areas (ECAs) or not making use of an equivalent such as an exhaust gas cleaning system. This marks a significant cut from the current 3.50% m/m limit and will impact significantly on ships operating outside ECAs, but in turn will bring significant health and environmental benefits.

Greenhouse gas emissions from ships also remain under the spotlight. IMO Member States, meeting in the MEPC in October 2016, collectively and by consensus agreed a "roadmap" for developing a comprehensive strategy on the reduction of GHG emissions from ships, which foresees an initial GHG strategy adopted in 2018 and a revised strategy in 2023.

This will build on the technical and operational measures for ship energy efficiency, which became mandatory in 2013, and pave the way for future global action.

From 2019, ships globally will be required to provide data on their fuel-oil consumption and some other data to ascertain 'transport work'. Robust data collection will be the first in a three-step approach, the second step being the analysis of the data collected, leading to an informed decision on whether further measures are needed. If so, policy options would then be considered. The aim is to deliver realistic and pragmatic solutions which work from a technical and a political perspective, and are applicable to all ships regardless of flag. Important discussions on GHG emissions from ships will take place in a dedicated working group, which will meet before, and report to, the MEPC in July.

GREENHOUSE GAS EMISSIONS FROM SHIPS ALSO REMAIN UNDER THE SPOTLIGHT.

Meanwhile, IMO is supporting capacity-building work to create global, regional and national partnerships to address maritime energy efficiency and for countries to bring this issue into the mainstream within their own development policies, programmes and dialogues.

Another key challenge for shipping is the entry into force in September 2017 of the Ballast Water Management Convention. This treaty requires ships to manage their ballast water to prevent the spread of aquatic nuisance species and harmful pathogens, by using treatment systems which will have to be installed on board ships. The aim is to protect vulnerable ecosystems from potentially invasive aquatic species carried in ballast water.

All these measures will have a significant positive effect on the environment. In 2017, IMO will also continue its work to enhance safety and marine pollution prevention regulations in general and energetically pursue IMO's overall mandate which embraces safety, security and efficiency in shipping.

I am also particularly keen, this year, to highlight the importance of 'joined-up' maritime activity across all sectors and how this can reap great benefits in terms of development, especially in the context of the United Nations Sustainable Development Goals.

Our World Maritime Day theme this year – "Connecting ships, ports and people" – has particular resonance for all involved in the transport of commodities around the world. I would encourage readers to visit our website (www.imo.org) and get involved. ■

The impact of regulation on the Swiss hub

Philip Goodswen
Senior Lawyer
Cargill International SA

The last few years have seen comprehensive new regulations on financial services, including on clearing and margining requirements, capital adequacy, and market abuse. Add to this the focus on anti-bribery and corruption, business and human rights, and trade sanctions and this regulatory package has posed a serious challenge to commodity-focused companies.

The current flood of financial services regulations came from a series of G20 commitments starting in 2008. The intention was to implement these commitments in a consistent way, and what legislators have achieved is quite impressive given the complexity of the goals, but varied implementation has still created technical legal and operational problems for market participants.

The success of the Swiss commodities hub is primarily based on international trade – buying, selling, refining, storing and transporting of physical commodities – plus related activities such as financing and inspection services. Switzerland has no commodity futures exchanges, but it does have a large number of commodity market participants within its borders, some of whom enter into large volumes of exchange traded derivatives and some over-the-counter derivatives, primarily for hedging purposes. Critical for the success of this group is easy access to international commodity derivatives markets.

The G20 commitments that directly affect commodity derivatives are the clearing requirement, pre- and post-trade transparency, and the use of risk mitigation techniques, including margining. The Dodd-Frank, EMIR and FinfraG regulatory regimes are the key ones for Swiss commodity companies. In addition, the EU wanted to update the Markets in Financial Instruments Directive and remove the transitional commodity trading exemption that was reluctantly granted back in 2004.

On MiFID II the main battles for commodity companies have been over the ancillary activities exemption and the position limits regime, set out in Regulatory Technical Standards 20 and 21, respectively. Both RTS' raised issues about the scope and purpose of regulation, the impact of regulation on commodities, and the political dimension of regulation. In particular, at what level of derivatives activity should a commodity company be treated as a financial services company, and whether there is speculation in futures markets that needs to be dampened and if position limits could or should be used to do this? Both appear to have now been settled in a way that should not adversely impact commodity companies, but it has been a long and uncertain process.

An unresolved issue is whether non-EU derivatives activity can or should be used to determine market size when doing calculations under RTS 20. In principle, it makes sense for regulators to do this, but in practice, where are they going to get accurate and timely information and how are market participants going to know when they are at risk of exceeding a threshold? Similarly, there are practical difficulties in implementing the EU's anti-avoidance rules. We have seen the consequences of unequal regulation as some market operators start to offer equivalent specification contracts on less highly regulated exchanges which can assist market participants to optimise their regulatory footprint. We should expect this process to intensify as optimisation strategies become clearer and there is only so much that a regulator can do in terms of anti-avoidance rules before losing the argument, either legally or practically.

THE NEW SWISS REGULATIONS ARE LARGELY LIMITED TO THE CORE ASPECTS OF THE G20 COMMITMENTS.

The main grievance with the scope of these new regulations is that the commodity derivatives markets exist to serve the needs of the physicals markets, but that the impact of new regulation has been to impose rules on derivatives markets that negatively impact the efficiency of the physicals markets. This is particularly concerning as there is no evidence that commodity derivatives pose a systemic risk to the global financial system. The clearest example of this mission creep is the EU's market abuse regime where derivatives regulations step into the physical commodity markets by linking physical markets behaviour to derivatives markets behaviour in a way that prioritises control of conduct in derivatives markets over the very real needs of the physical commodity markets – a case of the tail wagging the dog.

By comparison, the new Swiss regulations are largely limited to the core aspects of the G20 commitments and the main concern for commodity companies is practical implementation where guidance has been hard to get and where technical equivalence with the EU and US regimes is crucial.

Ultimately, the lasting impact is increased cost of operating and greater use of capital in commodity businesses. The risk of Swiss companies being shut out of commodity derivatives markets has not materialised and the Swiss hub remains viable. ■

DISRUPTING COMMODITIES TRADING


ROGER DISCH, Partner, Ernst Young
JEAN-NOËL ARDOUIN, Senior Manager, Ernst Young

Adapting to changes is part of the commodity traders' DNA. However, the industry is facing its next major challenge in technological advances, which are set to fundamentally disrupt the way commodities are traded.

The amount of information available on commodity trading floors has reached levels that have never been seen before. So much so, in fact, that arbitrage opportunities are becoming increasingly rare and margins are melting away like snow in the sun. Extracting the predictive power from such a vast amount of data has become a key element in remaining competitive and finding alternative trading paths. One typical example includes the analysis of market prices combined with weather and shipping data or even satellite imagery to identify new trading patterns or optimised flows. Advanced predictive analytic techniques, such as artificial intelligence and machine learning, applied to unstructured data will provide the companies that use them with a clear competitive advantage in the not too distant future. While it is highly unlikely that robots will replace traders, the latter are already benefiting from new analytical tools. We expect that it will soon become part and parcel for traders to be supported by dedicated data scientists, who will turn data into actionable insights.

New technologies also make it possible for commodity trading firms to implement streamlined and more cost-efficient processes. For instance, the whole trade finance documentation chain can be made more efficient by replacing manual steps with automated robotics processes. Cost savings are even more remarkable when we take a look at blockchain technology: trading companies can virtually eliminate paperwork by using distributed ledger technologies. Indeed, some major companies have already taken stock of this strategic challenge. The same applies to trade reconciliation and other finance processes that can be eliminated through the use of blockchain, or at least automated using robotised processes with an estimated average run time decrease of 75%.

We live in an age that offers vast and exciting opportunities for commodity traders. It will be highly interesting to see how commodity trading firms will adapt to this new reality – and who will be able to take the leading edge. ■

The unintended products of innovation

Innovation and technology will make commodity markets more efficient, transparent and safe.

GÉRARD DELSAD
CIO, Vitol Group

In financial markets, the abstract and fungible nature of contracts has enabled breakneck speed innovation and automation, with trades occurring in fractions of a micro-second. Physical markets, with their complex logistics and multitude of distinct physical features, have had a slower pace of innovation. But innovations which relate largely to the use and interpretation of data are likely to bring a new level of transparency to commodity markets worldwide, a trend that began with the advent of the internet.

Physical trading is about moving commodities from where they are abundant to where there is demand, with price driving market responses. The internet first enabled the sharing of widespread and immediate price information. This eroded traders' margins and forced economies of scale across the sector. Today, the deployment of technologies that are new to the commodities sector are likely to engender the next round of innovation and structural change across the industry. Those that use them effectively will be the industry leaders of the future.

WE ARE ON THE CUSP OF A NEW ERA IN TRADING, DRIVEN BY INNOVATION.

These technologies, which include machine learning and Big Data, are enabling traders to identify, capture and interpret data in a completely new way. Historically, a network of contacts was essential in order to glean vital insights into, for example, activity at a given port or location. Some years ago, the satellite tracking of ships enabled traders to build up a real-time picture of product flows globally. Today, clearer and more readily available satellite imaging will soon be combined with machine visioning techniques which are able to identify key signs, such as the level of product in a tank, thereby converting huge amounts of geospatial data into valuable information.

Similarly, the overlay of machine learning on the vast amount of market data already available, from pricing to physical product flows and shipping routes, may reveal unidentified patterns or trends, theoretically enabling the prediction of future trends. Once identified, these will result in the optimisation of logistics, increased efficiencies and, for the first movers, a brief window to capture flows.

This level of analysis will increase transparency across the sector, empowering customers and driving traders to seek new ways of adding value. The real winners will be both the producers and consumers, with the former benefiting from enhanced information and the latter keener prices.

In addition to transparency, trading may come to benefit from blockchain, a distributed database technology which also underpins Bitcoin and which, if implemented by all parties within the trading ecosystem, has the potential to dramatically improve efficiency, streamline processes and reduce costs.

As well as creating business opportunities, innovation is also impacting risk management in trading and the physical movement of commodities. Both risk management and regulation have benefited from systems that can identify and capture trading patterns in the derivatives that traders use to hedge. This enables exchanges and regulators, as well as the companies themselves, to identify, control and minimise risk through the use of transactional reporting, position limits, etc.

Many physical traders are also invested in related asset portfolios, and a significant amount of management's focus is dedicated to ensuring these facilities operate to high HSE standards. The implementation of the Internet of Things (IoT) across assets has significant potential to improve HSE, as well as enhancing reliability and optimising operations. So long as the cybersecurity risks are appropriately managed, it will benefit both the industry and stakeholders.

In short, we are on the cusp of a new era in trading, driven by innovation. It is well-known that today we can do business faster and in more locations. But what we have to realise is that technology is set to bring new levels of transparency. As with all technologies, the associated risks have to be carefully managed. Nonetheless, there is no holding back this change and we should all prepare for the new future. ■

How can a multi-stakeholder platform like the SRIC promote research?

PROF. MARIA-PIA VICTORIA-FESER
Professor of Statistics, University of Geneva

The Swiss Research Institute for Commodities (SRIC) was created in December 2014 to promote research in the complex field of commodity trading and its related environment. It involves stakeholders from the professional sector, governmental agencies, civil society and academic institutions.

Commodity trading companies must invariably generate revenues, both for their survival and to contribute to the distribution of commodities around the world. They are hence faced with a continuous optimisation problem with a set of constraints that evolve with time. These constraints include technical aspects bound to the type of commodities (energy, agriculture, and natural resources), to business practice (regulations, financial markets) as well as civil and environmental interests.

Research is a powerful means to create knowledge. Proper knowledge is essential to understand the constraints that one has to consider in decision-making processes. The SRIC aims to promote research that will ultimately improve commodity trading practices.

The SRIC is not a new type of platform. However, it is innovative in that it offers the opportunity to bring important stakeholders around the same table, with the clear motivation to understand each other's positions and collect comprehensive and transversal knowledge. The University of Zurich, for example, has created a Centre for Child Wellbeing and Development with internationally renowned Professor of Economics Ernst Fehr. It is co-financed by the Excellence Foundation, with notable partners such as UNICEF and the Development and Cooperation Department of the Swiss Government.

A platform like the SRIC enables the transfer of knowledge in a suitable manner so that it can be understood as widely as possible. The organisation of the Geneva Trading Forum is a notable example of such knowledge transfer. Taking advantage of its geographical position in Switzerland, where most of the commodity trading companies are established, the SRIC can also serve as the reference institution for the production of state of the art reports on the commodity trading sector.

Research, or the proper creation and transfer of knowledge, obeys a sustainable cycle. In short, the most complex yet fundamental questions are embedded in long-term projects, and nourish the short-term needs for knowledge. For example, the question of "How can innovation, business practices and regulations enable commodities supply to structurally meet demand within a sustainable environmental and social framework?" facilitates the essential questions of "How is agricultural production in a specific region meeting the local and international needs?" and "Which are the main factors that contribute to reaching a dynamic and sustainable equilibrium in a specific market?". In addition, the question of proper measurements is determinative. Again, high quality research is essential, at least in order to avoid the globally unproductive "war of statistics".

THERE IS NO FREE LUNCH. RESEARCH, KNOWLEDGE CREATION AND TRANSFER, ALL REQUIRE MEANS.

Academic institutions such as the University of Geneva, and more specifically the Geneva School of Economics and Management, are at the core of independent knowledge building through research and actively participate in its transfer. The Master in Commodity Trading, created in 2008, is currently undergoing a reform that will allow its students to be exposed to broader academic questions and methodologies so that they can provide sustainable added value to businesses and institutions. Supervised by professors, their Master theses can be either theory oriented or more focused on the trading market, and are used as a basis for executive papers that are distributed through the SRIC platform to interested stakeholders.

Additionally, long-term research projects are also required, involving experienced researchers (professors) connected to an interdisciplinary academic community, possibly together with Ph.D. students. Supporting and helping to develop long-term research projects constitutes the next main objective to be reached by the SRIC foundation.

Finally, there is no free lunch. Research, knowledge creation and transfer, all require means. These means are not just financial, but also in-kind, such as information sharing, data collection, and available human resources that can freely contribute to the research network. It is now time to invest in serious assets so that we can enter a dynamic and virtuous knowledge creation and sharing cycle for highly valuable long-term returns for all stakeholders. ■

INTERVIEW

MARCO DUNAND | MERCURIA ENERGY
"All our jobs are influenced by technology"

The pace of innovation may have seemed slower in physical markets than in financial markets. Yet the energy markets have been deeply affected by innovation: from the introduction of fracking as a drilling technique to the spread of wind and solar energy and distributed energy. Faced with the necessity of dealing with massive amounts of data – ranging from vessel tracking to climate prediction –, trading houses are introducing new analytical tools. Technology has also reached the core of traders' daily business. Earlier this year when shipping an oil cargo to China, Mercuria introduced blockchain to energy trade. We met Marco Dunand, co-founder with Daniel Jaeggi of Mercuria Energy Trading.

MARCO DUNAND. FOUNDER OF MERCURIA ENERGY TRADING

1980	Studies economics and management at the University of Geneva.
1986	Joins Cargill International SA in Geneva and specialises in oil trading.
1987	Joins J. Aron, the Goldman Sachs commodity trading division based in London, as Head of Crude Trading for Europe.
1994	Becomes head of European and Asian operations for Phibo, Salomon Brothers in London.
1999	Launches Sempra Energy Trading in Europe and Asia.
2004	Founds Mercuria Energy Trading with Daniel Jaeggi.

Uncertainty is shaping the economy. How difficult is it to read the current context?
The political context delivers more uncertainty and risk than usual. We are seeing structural changes that will greatly influence the energy markets. The latest OPEC agreement with countries outside the cartel has brought Saudi Arabia closer to Russia in a most unusual move, an unexpected reconciliation between the two countries' interests. President Trump's threat to penalise imports would have significant implications for the crude industry. His sharp criticism of President Obama's nuclear deal and the possibility of new sanctions against Iran would also have a major impact on oil flows. So would his push for better US-Russia ties free US investment in Russian projects? The future is extremely difficult to predict. Uncertainty is at its highest level in years and as you know, uncertainty boosts volatility. At the moment, the volatility range is narrow but we may be on the brink of brutal disruption.

How will you manage such disruption?
Our structures are built to deal with volatility and shifts in the forward price curve. Our fundamental role is to reduce imbalances. If markets were stable and well-adjusted, we would bring little added value.

Isn't volatility precisely what scares investors off?
We take charge of the volatility. From an investor's viewpoint, commodity trading has proven to offer extremely stable results, a bit like coupons on a bond. Generally speaking, when trading houses have experienced losses, these losses came from the asset part of the company.

Does innovation disrupt or support your strategy?
Innovation may have a disruptive effect and create imbalances on energy markets as we have seen with shale technology. Other types of technologies help us manage the information overload. The vast amounts of data now available in our business create massive demand for analytical capabilities that can be resolved only through solutions coming from the field of information technology. Technology is also overturning organisational structures and lowering the barrier to entry on new markets. The landscape changes very quickly and all jobs at Mercuria are influenced by technology, which is why we constantly hire new experts.

You have long supported academic training in Geneva and signed last year an agreement with the U.S. Department of Labor to formalise an apprenticeship program. How important is training?
The right skills make a significant difference so training is essential. In Geneva, the training works rather well. We take in two to three people every year and so far, we have kept them. The US programme is a bit different. It draws on the Swiss tradition of apprenticeship – something that does not exist in America - and involves training and hiring war veterans. For this reason, it has the support of both Democrats and Republicans.

Mercuria has recently introduced blockchain to oil trade with the first large transaction based on this technology. Why?
It is said that the bill of lading and other shipping documents date back to the Roman Empire of Constantinople. When a cargo is shipped, the ship captain stamps the bill of lading to acknowledge receipt for the shipment. This document has to go to customs officials and multiple agents for clearance which is an extraordinarily slow process. Generally speaking, cargoes must be settled within 30 days of delivery but the paperwork is so time-consuming that it never gets handled in good time. As a result, issuing Letters of Indemnity has become common practice[1]. Bills of lading are also vulnerable to falsifications and fraud has increased. The whole process is archaic and progress was long overdue. Distributed ledger technology allows information to be captured and transferred quickly and securely as one of the components of blockchain is a complex cryptosystem which is hard to crack. The paperwork related to our first blockchain transaction took four days to complete rather than forty. In the future, blockchain technology will be safer and thus decrease the cost of physical transactions. Shortening the transaction cycle has also directly impacted upon financing costs. The challenge is now to get governments to recognise its use. The Geneva authorities are progressing with the topic and we anticipate the Swiss legal framework to move quite fast. It may not be so easy with other governments, however the International Chamber of Commerce is already working on it.

Can you see other applications of blockchain in the trading environment?
It could definitely be adapted to warehouse receipts as forged commodity-storage receipts are an increasing concern.

Renewable energies also stem from innovation and have introduced further disruption. How do they affect the energy market?
Renewable energies are indispensable to reach the COP21 objectives. They are often subsidised which favours the energy mix but triggers enormous price volatility. At times of high offer (high winds or sunshine) and low demand, electricity prices may even become negative. Furthermore, decentralised production means that the volumes available on the grids are hard to predict. This creates uncertainty around investment in power units as ultimately no one really knows what the price of electricity is. Another aspect is the impact of environmental concern over existing capabilities. For example, one third of French nuclear plants were stopped between October and December for check up and maintenance with great loss in production. Extreme volatility and environmental concerns discourage investment in renewables but also in other sources of power such as fossil fuels or nuclear plants. This means that, with time, prices may soar. It may also mean that newcomers - information providers such as Google for example – could enter the electricity market because they own information about end users' behaviour.

In January 2016, ChemChina completed a strategic investment in Mercuria. A year on, what is your assessment? Are you looking for other investors?
Over the past year, we have found numerous examples of synergies between the two companies and are considering re-enforcing our cooperation further. As we are already overcapitalised, we are looking for other partnerships rather than for investors.

(1) According to INCE & Co, it is common practice for traders, usually when they are the sellers of the goods and the charterers of a vessel, to instruct the carrier to discharge cargoes without production of the original bills of lading and to agree to indemnify the carrier against the consequences of doing so. This is done by providing a Letter of Indemnity ("LOI").

Interview Nicolette de Joncaire

The past year has seen a common culture of research slowly but steadily taking root within the commodity trading industry.

Bridging the gap to greater knowledge

SABINE DE MATTEIS
Coordinator, Swiss Research Institute for Commodities (SRIC)

Knowledge cannot exist in a bubble. Dialogue between a wide range of stakeholders is vital to help build a meaningful body of knowledge and ensure its dissemination across borders. Today, more than ever before, our interdependent world of transnational activities positively requires an approach bridging various views and sensibilities. We now see bridges being built with the Swiss Research Institute on Commodities (SRIC) unifying actors that traditionally were opposed, providing opportunities to bring together a broad array of perspectives and find common understanding on important issues facing the world today.
The past year has seen a common culture of research slowly but steadily taking root within the commodity trading industry. Through the SRIC, academics, students, members of the industry, and even the general public have been brought together to engage in lively dialogue on a number of important issues facing the commodity industry – both today, and in the future.

DIALOGUE BETWEEN STAKEHOLDERS IS VITAL TO HELP BUILD A MEANINGFUL BODY OF KNOWLEDGE AND ENSURE ITS DISSEMINATION ACROSS BORDERS.

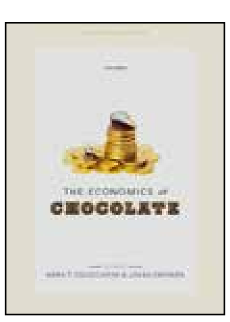
Knowledge is power, and today's students are tomorrow's future. The outstanding works emanating from the Master in Commodity Trading at the University of Geneva in partnership with STSA are testament to this. The Master's students work part-time within the commodity trading industry, and are at the same time supervised for their theses by leading professors in their respective fields. They are therefore equipped with an understanding of the intricacies of the industry, going well beyond mere theory to create robust framework, analyses, and predictions which will undoubtedly prove vital for the industry in years to come. The students of the Master in Trading are one more example of the successful bridging of professional and academic worlds with the creation of particularly outstanding pieces of research work by students as accessible on the SRIC's website.
Let's put the spotlight on just a few of the exciting theses featured on the website:
• Alexandru Cor's thesis on *'Base Metals Inventories and their Influence on Futures Markets'* reviews the theoretical relationships between LME-traded base metals and their official stock with the aim to uncover any causality between them, particularly between stock levels to prices. This includes examination of the relationship between periods of economic turmoil and the relative abundance in aggregate metals, the significant effect of the China Factor, and the inverse relationship between convenience yield and aggregate metals inventories.
• *'Investing in Copper Futures: Evaluation of Absolute Return Strategies Within a Discrete-State Hidden Markov Model'* by Cédric Pellet makes a technical comparison between alternative investment strategies using copper futures as assets. This is significant, given the ability for copper performance to gauge global economic activity. Thesis supervisor Prof. Tamvakis states this paper to be "novel and timely, given that this particular commodity has attracted interest as an investment vehicle for money managers, in addition to its staple for hedging operations by physical suppliers and users".
• In the context of China's increasing prominence in the economic order and growing concerns regarding climate change and new forms of energy, Jules Carl Alegre and Anne-Charlotte Journe's thesis on *'China and Coal: An Imminent Break-Up?'* looks at China's changing attitudes to coal, the US-China climate agreement, and China's reliance on coal as its main source of electricity (also its greatest pollutant). They draw parallels with key pioneering countries of alternative sources of energy to draw assessments and predictions of the near and long-term future.

THE STUDENTS OF THE MASTER IN TRADING ARE AN EXAMPLE OF THE SUCCESSFUL BRIDGING OF PROFESSIONAL AND ACADEMIC WORLDS. OUTSTANDING RESEARCH IS ACCESSIBLE ON THE SRIC'S WEBSITE.

In addition to the promotion of research work, the SRIC has successfully brought together academics and industry members under one roof, as well as NGOs, authorities and the public at large. Under its auspices, these direct encounters crucially provide a vital voice to all types of stakeholders to ensure to engage in informed dialogue and find common ground. For example, the annual Trading Forum brings together this wide audience to examine some of the hot topics and challenges in the commodity trading industry, such as technology and trends in business ethics. Many students are in attendance, meeting with industry members and engaging in a continuous culture of learning with different perspectives being heard from all sides.
Additionally, other public multi-stakeholder dialogues have been able to take place, focused on important issues on the global agenda such as human rights and climate change. The outcomes have been impressive, providing solid grounding for researchers and industry members to further develop fundamental and practical knowledge and identifying innovative solutions. For example a discussion on 'Measuring Human Rights Performance, Metrics that Drive Change' provided food for thought in the context of turbulence and mounting anxiety over the trade system. Professor Posner highlighted the need for industries to take greater steps to meet public expectations by defining metrics to concretely measure the human rights performance of companies. More recently, in a dialogue on 'Climate Change and the Post-COP21 Dynamics', Professors Beniston (co-recipient of the Nobel Peace Prize 2007) and Di Falco examined climate change developments in the current political and economic context.
More is set to take place over the course of 2017. Following the next Trading Forum on 21 March 2017 on innovation and business ethics, new seminars are planned for 2017-2018, with several keynote speechs under preparation.
These snippets from the past year are only the tip of the iceberg. Though in their early stages, these bridges have already proven to be solid and effective ways to expand upon knowledge and research across the spectrum. Time and time again we have heard of the major challenges that lie ahead for the commodity trading industry. But by crossing these bridges to engage in knowledge sharing, we can transform these challenges into exciting new opportunities for a joint future. ■

THE ECONOMICS OF CHOCOLATE
MARA P. SQUICCIARINI AND JOHAN SWINNEN
OXFORD UNIVERSITY PRESS, 2016 (512 PAGES)
ISBN: 978-0198726449

Written by researchers from KU Leuven, this book covers the history of cocoa and chocolate from its origins in Central America to the recent consumption boom in emerging markets, as well as the growing importance of sustainable sourcing and the demand for high-quality specialty chocolate. It reviews the role played by product innovation, analyses the determinants of consumers' choices, and the regulation of markets as well as the trade implications related to its south-to-north orientation.

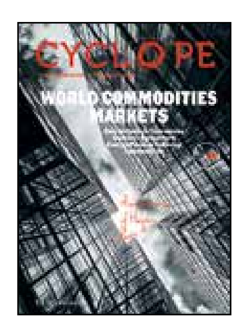


BANQUE ET MATIÈRES PREMIÈRES
DAVID LEBOITEUX & FABIEN CONSTANT
REVUE BANQUE EDITION, 2016 (128 PAGES) - IN FRENCH ONLY
ISBN: 978-2-86325-778-4

From pre-financing to receivables financing, this book provides an illustration of banks' current role in the industry, their place in the commodity ecosystem and how they finance various players, notably trading houses. For while banks have always played a significant role in the field of commodities, stricter regulations and new compliance patterns have forced them to evolve. This book is a welcome addition to the limited literature on the interplay between banking and commodity trading.

2016 CYCLOPE REPORT UNDER THE DIRECTION OF PROF. PHILIPPE CHALMIN
EDITIONS ECONOMICA, 2016 (791 PAGES) - IN FRENCH & ENGLISH
ISBN: 978-2-7178-6890-6 (FRENCH)

The 30th edition of CyclOpe, "Remembrance of Heights Past" was published last May. An industry reference, the CyclOpe Yearbook presents a detailed analysis of all major commodity markets "from pineapple to zirconium" and builds on the contributions of over 50 experts tracking the trade and outlook for dozens of commodity classes. The 2016 edition paints a situation far from the happy globalisation anticipated in the early 2000s. The 2017 edition is due in May in French and in June in English.



Transfers aim to better use talents and to offset shortages in some countries. This is particularly true for the commodity trading industry.

How to boost talents in a mobile world

SILVIANE CHATELAIN
Education & Training Manager, STSA

Mobility can take many shapes and forms. It can be either professional or geographical, or sometimes even both. It can also be for a short or a prolonged period of time. With the fast development of emerging countries and the international expansion of commodity trading activities, all companies have gone global. This has led to the transfer of employees to other locations on a regular basis, making global mobility within the workforce a common reality and putting pressure on staff. More than ever the ease of recruiting local staff of quality has been a top criteria in companies' evaluations of their business environment (see results of the Sizing Study on pages 6-7).

EMPLOYEES ARE REGULARLY REQUESTED TO CHANGE POSITIONS OR TO SWITCH FROM ONE BUSINESS UNIT TO ANOTHER AND TO ADAPT VERY QUICKLY.

Employees are now being transferred to another country or continent for a period of time, and may not return to their initial working location for years, while managers are often called to share their working time between different business units located in Europe or elsewhere. In parallel, the increasing diversification of businesses and the rapid development of new technologies require professional versatility. Employees are regularly requested to change position or to switch from one business unit to another and to quickly adapt.
This trend of internal transfers aims to better utilise employee talents within the company and to compensate talent shortages in certain countries. This situation is particularly true for the specific set of professions that are central to the commodity trading industry.
Switzerland plays a leading role in preparing young talents for these demands through internationally-renowned training programmes designed specifically for the industry. Following completion of their studies, they will often be sent immediately to another country within the company group. These international assignments are no doubt a great career development tool and no company would send their talents around the world without purpose.
Rising in the ranks of today's globalised workforce are Generation Y or Millennials (defined as born between 1980 and 1995), who tend to seek a work/life balance that is both interesting and meaningful, and are generally keen to be mobile. They grew up travelling abroad (being the first generation growing with low-cost travel) and they enjoy a far greater degree of international exposure than previous generations. Millennials often do not consider international assignments as a "big deal". Universities prepare students to meet today's challenges and to thrive in a global economy by offering exchange programmes around the world and opening their classes to a vibrant mix of international students. As experienced with the Commodity Trading Master of Geneva University run in partnership with STSA, Master degree candidates do not hesitate to cross oceans to find more suitable programmes for their career aspirations, giving them a first taste of expatriation.

MANY OF OUR GRADUATES HAVE SUCCESSFULLY ENTERED COMMODITY TRADING, ON THE BANKS OF LAKE GENEVA AND MUCH FURTHER AFIELD.

In this highly competitive professional environment, training is more than ever a prerequisite. Switzerland, with its high concentration of actors and experts, has become a centre of excellence producing a major talent pool brimming with training and employment opportunities (see the Swiss sector analysis by STSA/UNIGE on pages 6-7). Switzerland has become a springboard for new talents to enter the industry
STSA continues to address this need for mobility and versatility to better serve the interests of its members and reinforce the Swiss commodity trading hub. Not only does STSA offer in partnership with the University of Geneva two internationally recognised academic programmes (a Master of Arts and a Diploma of Advanced Studies), but on the request of its members STSA has developed its own competence centre providing a full range of professional trainings that evolve constantly, in line with new trends and industry needs.
Recognising the increasingly diversified activities of commodity trading companies and the fact that no company today trades only in one type of commodity, all educational programmes organised by STSA cover the three main families of commodity (agri, energy and metals). This equips young professionals with the tools to respond quickly to changing demands within the industry and to cross internal bridges, both locally and internationally. These programmes continue to yield proven results. Many of our graduates have successfully entered the commodity trading industry, and many have benefited from mobility, working both on the banks of Lake Geneva and much further afield.
The challenge for STSA is to continue to create value and keep up with the pace of new trends and technologies. Ultimately, we must maintain the Swiss commodity trading hub's competitive advantage of unique and local expertise to be transmitted to next generations of physical commodity trading specialists. ■

This special edition has been produced with contributions from STSA,

industry professionals and the support of the following organisations

AUGUSTA energy

BCGE

BCV

BIC-BRED (Suisse) SA Commodity Trade Finance & Corporate Banking

CRÉDIT AGRICOLE CORPORATE & INVESTMENT BANK

ECOM

GUNVOR

ING

LDC. Louis Dreyfus Company

LUKOIL OIL COMPANY

MERCURIA

mocoh

UBS

Vitol

Walter Matter coffee & cocoa specialists

WEBCOR SWITZERLAND