

Economic Bulletin.

8 October 2020



New Zealand's exports to China: where is New Zealand most exposed?

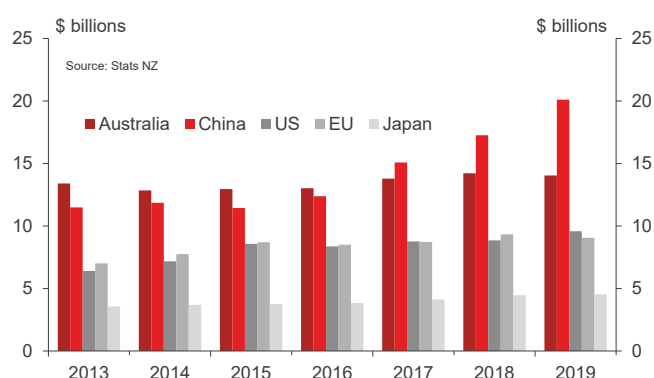
- New Zealand exports have become more heavily concentrated on China.
- In this paper, we assess which New Zealand export sectors would be most at risk if New Zealand's trade relationship with China changed.
- We judge that the tourism, seafood and export education sectors plus gold kiwifruit exports specifically have high exposure risk to China.
- On the flipside, we judge that the wine and dairy sectors have low risk exposure.
- The meat, wood and overall fruit sectors lie somewhere in between.

Nathan Penny, Senior Agri Economist

+64 9 348 9114

China is big and its market is highly profitable. Unsurprisingly then, New Zealand exporters have tapped heavily into this market since New Zealand signed the China Free Trade Agreement (FTA) back in 2008. China is now comfortably our largest export market, accounting for the largest share of our exports in all but a few sectors.

Goods and services export values by country



But as exporters have shifted focus to China, New Zealand's exports have become less diversified. This concentration comes with risk and thus a trade-off with potential profits.

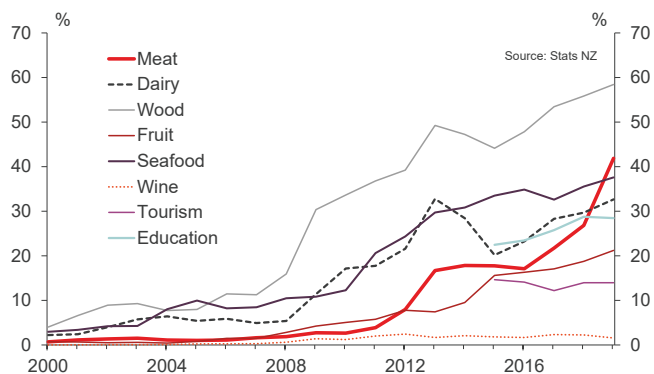
Over recent years, China has in some cases restricted access to its lucrative market in order to advance its wider strategic interests. At times China has used border delays, decertification, social media influencing campaigns, and official statements in order to impact trade in particular products and from particular countries. Furthermore, the trade rules that New Zealand businesses operate under in other markets are not necessarily relevant nor enforceable in China, and breaches of intellectual property rights have occurred.

In this paper, we assess which of New Zealand's export sectors would be most at risk if the trade relationship



changed and China chose to influence New Zealand trade flows. Importantly, the risk is not simply a question of how much a sector exports to China. We believe the more relevant questions are how strategically important is New Zealand's export supply to China and/or how readily China can source supply from either other countries or domestically.

Share of export values to China by export sector



At a high level, NZ-China trade flows reflect each economy's relative strengths. Indeed, the New Zealand and Chinese economies are very complementary. China can produce manufactured goods significantly cheaper than New Zealand can, while New Zealand's comparative advantage lies in agriculture and forestry.

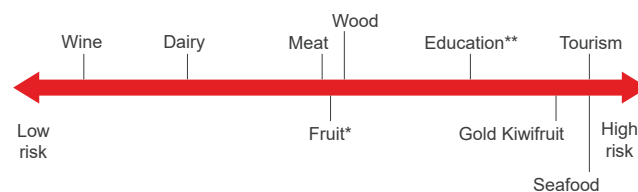
By and large, the complementary nature of our trade relationship means New Zealand's risk exposure is less than

the outright level of exports would suggest. Put simply, Chinese needs our food (and wood) as it cannot produce enough (efficiently) on its own. Similarly, New Zealand will continue to source much of its manufactured goods from China, while China remains the most competitive supplier.

But China is not without options. Where it does have options New Zealand export sectors face greater exposure risk. And the sectors with the highest risk are those that we also classify as neither strategic nor essential.

With the above in mind and for New Zealand's major export sectors, our view is that tourism, seafood and gold kiwifruit specifically have the highest exposure risk to China. Export education (university and English language school sectors) also faces high risk, while we place meat, wood and fruit (excluding gold kiwifruit) in the medium exposure risk bracket. The dairy and wine sectors have the lowest risk exposure in our view. Below and in the subsequent pages, we discuss more fully each individual sector's risks.

China exposure risk by export sector



* Fruit sector exposure risk excluding gold kiwifruit
 ** Education sector exposure risk includes universities and English language schools

Dairy.

Overall risk rating:	Low
Export values to China (2019):	\$5.4bn
China's share of NZ export values:	32.6%
NZ's share of China's import values:	54.4%
Availability of substitutes:	Low
Strategic importance:	High

We judge that the dairy sector's exposure risk is low. This judgement is largely based on the fact that China is very dependent on New Zealand dairy imports. In 2019, New Zealand accounted for over half of China's imports. In other words, China has very few other options available to fill its dairy production deficit.

On top of this fact, dairy is a strategic food for China, with few direct substitutes. China's dietary guidelines advise for a daily intake of 300g of dairy, well beyond current per capita consumption levels. Notably, several Chinese agencies, including the Chinese Centre for Disease Control crafted guidelines aimed at lifting dairy consumption in

a bid to lift public health and immunity levels amid the Covid outbreak.

Also, China's dairy industry is struggling to keep up with domestic consumption growth, meaning that imports will continue to play an oversized role in meeting dairy demand. These struggles may be due to China's competitive disadvantage in dairy. Anecdotally, production costs are in excess of NZ\$10 per kg of milk solids compared to New Zealand's average cost of circa NZ\$6 per kg. More broadly from a protein perspective, China is a relatively efficient (low cost) producer of pork and chicken, and thus over the long term we suggest that it is likely to focus its scarce agricultural resources (land and water) on production on these instead of dairy.

Similarly, Chinese dairy production suffers from a poor reputation in terms of food safety and quality. The Chinese government is acutely aware of these facts and products like infant formula are often regarded as essential household items. Thus any disruptions to supply potentially could be a social and political flash point that Chinese officials will be keen to avoid.

Meat.

Overall risk rating:	Medium
Export values to China (2019):	\$3.4bn
China's share of NZ export values:	41.9%
NZ's share of China's import values:	11.5%
Availability of substitutes:	Medium
Strategic importance:	High

We judge that the meat industry has medium exposure risk. Notably in the beef export market, New Zealand is a small-to-medium global player, ranking the 7th largest country in export values terms in 2019. In that sense, China is not reliant on New Zealand supply. For sheepmeat, New Zealand is a large exporter, ranking second behind Australia in 2019. However, New Zealand does export more than five times the amount of sheepmeat than third-placed UK.

In the context of this paper, however, the availability of substitutes matters. In that sense, New Zealand's combined beef and sheepmeat exports can relatively

easily be substituted with meat from other countries and/or by other meats like pork or chicken whether sourced domestically in China or via exports. More broadly, there are a range of proteins which can be substituted for meat, including seafood and plant-based proteins.

Nonetheless, New Zealand is a highly reliable source of meat supply and this fact helps partially offset the lack of scale. In particular, the quality of New Zealand's meat is high from a food safety perspective. New Zealand, unlike some key meat export competitors, has not had outbreaks of diseases such as BSE or Swine flu nor recently have processing plants been closed to due to Covid outbreaks. The proof of New Zealand's relative importance as a reliable meat exporter to China is in the investments into the sector e.g. Shanghai Maling's purchase of Silver Fern Farms.

We also note that in the short and medium term, the impact of African Swine Flu has amplified China's reliance on imported meat. China will take several years to rebuild its pig herd, and during this time, the New Zealand meat sector's exposure risk will be lower than it would otherwise be.

Wood.

Overall risk rating:	Medium
Export values to China (2019):	\$2.9bn
China's share of NZ export values:	58.4%
NZ's share of China's import values:	10.9%
Availability of substitutes:	Medium
Strategic importance:	Medium

We judge that the exposure risk of New Zealand's wood exports to China is medium. Note most of New Zealand's wood exports to China are in the form of logs.

New Zealand is very reliant on Chinese exports, with China's share of New Zealand exports the highest of all the export categories we discuss in this paper. China's share has also steadily increased over the past 10 years or so to the point where other markets such as Japan, Korea and India are very much secondary.

New Zealand logs end up in the construction industry (in concrete framing) and packaging (crates and pallets etc.). These uses are very much aligned with Chinese economic activity, including the housing market and broader activity i.e. the movement of goods throughout the economy via packaging.

Arguably, China is also reliant on New Zealand logs as few alternatives are available to China. While wood can be sourced elsewhere, it is often too expensive and/or unsuitable for these uses. Also, some potential competitors like Russia have decided to develop (effectively subsidise) their own sawmills and thus no longer compete with New Zealand in selling logs to China. We note that New Zealand's share of total Chinese wood imports is modest at 10.9%, but when narrowing this down to softwood imports, New Zealand currently accounts for around a fifth of China's imports, with Europe accounting for a similar share. New Zealand's share was much higher in earlier years, particularly prior to the relatively recent influx of spruce logs from Europe. More generally, we note New Zealand is a highly competitive and efficient softwood producer.

Also supporting our overall judgement is that we view logs as a medium strategic priority for China. The above uses, while not essential in the same sense as food, do support economic activity and notably housing construction.

Finally, we note log demand is a very much a function of Chinese economic fortunes. If the Chinese economy fares well, so too will demand for New Zealand logs. However, the opposite will also apply!

Fruit.

Overall risk rating:	Medium (overall); High (for gold kiwifruit)
Export values to China (2019):	\$0.7bn
China's share of NZ export values:	21.2% (overall); 32.9% (for Gold Kiwifruit)
NZ's share of China's import values:	4.5%
Availability of substitutes:	High
Strategic importance:	Medium

Overall, New Zealand's fruit sector has medium exposure risk to China.

While New Zealand is the world's largest kiwifruit exporter and the fifth largest apple exporter, fruit is very readily substitutable. Indeed, global exports of fruit such as bananas and pineapples dwarf New Zealand's key fruit exports. This fact is borne out by New Zealand's low share (4.5%) of China's fruit imports.

Tempering the exposure is the fruit sector's export market diversification. China accounts for a relatively low share of New Zealand's exports at a little over a fifth. Meanwhile,

markets such as Japan, Europe and the US are well-established, and in the case of kiwifruit exports to the US, the market is growing steadily. It also pays to note that Chinese domestic fruit production is competitive in some sectors.

While we classify overall exports as having low exposure risk, we classify gold kiwifruit separately as having high exposure risk. Indeed, gold kiwifruit is a special case for several reasons. First up, it is New Zealand's single largest fruit export, accounting for \$1.4 billion or over 40% of the \$3.4 billion of total annual fruit exports. Gold kiwifruit export values have also been surging, jumping from around \$0.5 billion in the 2015 year to \$1.4 billion as at the end of 2019. On top of this, China accounts for around a third of gold kiwifruit exports.

This success has not gone unnoticed in China, with Chinese growers planting unlicensed Zespri SunGold kiwifruit vines. Reportedly, China is growing around 4,000ha of SunGold or around two-thirds of New Zealand's total planting area. At this scale, China is a competitive threat to New Zealand's exports. Adding to this threat is that the quality of Chinese fruit is said to be good and the fact that enforceability of Zespri's SunGold licensing appears limited in China.

Seafood.

Overall risk rating:	High
Export values to China (2019):	\$0.7bn
China's share of NZ export values:	37.5%
NZ's share of China's import values:	3.1%
Availability of substitutes:	High
Strategic importance:	Medium

The New Zealand seafood sector is highly exposed to China.

Over a third of New Zealand's exports are destined for China. Meanwhile, New Zealand is a very small supplier to the Chinese market, accounting for only 3.1% of China's seafood imports in 2019. In other words, China can easily find substitutes for New Zealand seafood.

Wine.

Overall risk rating:	Low
Export values to China (2019):	\$0.03bn
China's share of NZ export values:	1.5%
NZ's share of China's import values:	1.0%
Availability of substitutes:	High
Strategic importance:	Low

The wine sector's exposure to China is very low.

China only accounts for 1.5% of New Zealand's wine exports. There is a developing market for red wine in China, but less demand for white wines. As a result, New Zealand's concentration on Sauvignon Blanc means the sector is underweight in the Chinese wine market relative to its global market share. If anything, the New Zealand wine industry would like to increase its exposure to the Chinese wine market, given the broader rapid growth (both experienced and potential) in household expenditure on luxury items like wine.

Tourism.

Overall risk rating:	High
Export values to China (2019):	\$1.9bn
China's share of NZ export values:	14.0%
NZ's share of China's import values:	Very low
Availability of substitutes:	High
Strategic importance:	Low

We judge that the New Zealand tourism sector has high exposure risk to China. While China only accounts for

around 14% of tourism export values, China has been one of New Zealand's fastest growing markets and Chinese tourists are relatively high spenders once in New Zealand.

Moreover, New Zealand is a very small niche market compared to tourism heavyweights such as France, Spain and the US. In other words, Chinese tourists could comfortably fully divert away from New Zealand to any number of destinations globally.

In addition, tourism has little strategic importance as it is a luxury or non-essential.

Education.

Overall risk rating:	High (for the university and English language school sectors)
Export values to China (2019):	\$1.3bn
China's share of NZ export values:	28.5%
NZ's share of China's import values:	Very low
Availability of substitutes:	Medium
Strategic importance:	High

The New Zealand export education sector has high exposure risk to China.

The New Zealand university sector is a small player in a very large market, dominated by heavyweights, the US and UK. Of the top ranked universities globally, five and four of the top 10 are located in the US and UK, respectively (QS World University Rankings, 2020). For an indication of New Zealand's relatively modest standing globally, only Auckland University is ranked in the top 100 (83rd equal), while another three (Otago, Canterbury and Victoria) are ranked inside the top 250.

This makes New Zealand education readily substitutable. Online learning will also exaggerate this trend over time as students gravitate to larger universities in the same way the internet creates winners in other sectors (e.g. social media). That said, tuition in English (the global language of business) does differentiate New Zealand to a degree. For example, only 14 out of the top 50 global universities are located in non-English speaking countries.

China also lacks educational capacity at the university level, and with education being a strategic priority, this lack of capacity is heightened. Indeed, China's universities still lag overseas institutions in terms of quality as China accounts for only six of the world's top 50 universities. In other words, Chinese students are likely to continue to head offshore for study over the long term even as China invests heavily into its own education sector.

Looking beyond the university sector, English language schools are similarly highly exposed. Chinese students make up the lion's share of students in this sector. The primary and secondary school sectors plus tertiary providers other than universities are less reliant on Chinese students and therefore less exposed.

Contact the Westpac economics team.

Dominick Stephens, Chief Economist

+64 9 336 5671

Michael Gordon, Senior Economist

+64 9 336 5670

Satish Ranchhod, Senior Economist

+64 9 336 5668

Nathan Penny, Senior Agri Economist

+64 9 348 9114

Paul Clark, Industry Economist

+64 9 336 5656

Any questions email:

economics@westpac.co.nz

Past performance is not a reliable indicator of future performance. The forecasts given in this document are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The ultimate outcomes may differ substantially from these forecasts.

Disclaimer.

Things you should know

Westpac Institutional Bank is a division of Westpac Banking Corporation ABN 33 007 457 141 ("Westpac").

Disclaimer

This material contains general commentary, and market colour. The material does not constitute investment advice. Certain types of transactions, including those involving futures, options and high yield securities give rise to substantial risk and are not suitable for all investors. We recommend that you seek your own independent legal or financial advice before proceeding with any investment decision. This information has been prepared without taking account of your objectives, financial situation or needs. This material may contain material provided by third parties. While such material is published with the necessary permission none of Westpac or its related entities accepts any responsibility for the accuracy or completeness of any such material. Although we have made every effort to ensure the information is free from error, none of Westpac or its related entities warrants the accuracy, adequacy or completeness of the information, or otherwise endorses it in any way. Except where contrary to law, Westpac and its related entities intend by this notice to exclude liability for the information. The information is subject to change without notice and none of Westpac or its related entities is under any obligation to update the information or correct any inaccuracy which may become apparent at a later date. The information contained in this material does not constitute an offer, a solicitation of an offer, or an inducement to subscribe for, purchase or sell any financial instrument or to enter a legally binding contract. Past performance is not a reliable indicator of future performance. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The ultimate outcomes may differ substantially from these forecasts.

Country disclosures

Australia: Westpac holds an Australian Financial Services Licence (No. 233714). This material is provided to you solely for your own use and in your capacity as a wholesale client of Westpac.

New Zealand: In New Zealand, Westpac Institutional Bank refers to the brand under which products and services are provided by either Westpac or Westpac New Zealand Limited ("WNZL"). Any product or service made available by WNZL does not represent an offer from Westpac or any of its subsidiaries (other than WNZL). Neither Westpac nor its other subsidiaries guarantee or otherwise support the performance of WNZL in respect of any such product. The current disclosure statements for the New Zealand branch of Westpac and WNZL can be obtained at the internet address www.westpac.co.nz. For further information please refer to the Product Disclosure Statement (available from your Relationship Manager) for any product for which a Product Disclosure Statement is required, or applicable customer agreement. Download the Westpac NZ QF Group Financial Advisers Act 2008 Disclosure Statement at www.westpac.co.nz.

China, Hong Kong, Singapore and India: This material has been prepared and issued for distribution in Singapore to institutional investors, accredited investors and expert investors (as defined in the applicable Singapore laws and regulations) only. Recipients in Singapore of this material should contact Westpac Singapore Branch in respect of any matters arising from, or in connection with, this material. Westpac Singapore Branch holds a wholesale banking licence and is subject to supervision by the Monetary Authority of Singapore. Westpac Hong Kong Branch holds a banking licence and is subject to supervision by the Hong Kong Monetary Authority. Westpac Hong Kong branch also holds a license issued by the Hong Kong Securities and Futures Commission (SFC) for Type 1 and Type 4 regulated activities. This material is intended only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance. Westpac Shanghai and Beijing Branches hold banking licenses and are subject to supervision by the China Banking and Insurance Regulatory Commission (CBIRC). Westpac Mumbai Branch holds a banking license from Reserve Bank of India (RBI) and subject to regulation and supervision by the RBI.

UK: The contents of this communication, which have been prepared by and are the sole responsibility of Westpac Banking Corporation London and Westpac Europe Limited. Westpac (a) has its principal place of business in the United Kingdom at Camomile Court, 23 Camomile Street, London EC3A 7LL, and is registered at Cardiff in the UK (as Branch No. BR00106), and (b) authorised and regulated by the Australian Prudential Regulation Authority in Australia. Westpac is authorised in the United Kingdom by the Prudential Regulation Authority. Westpac is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. Westpac Europe Limited is a company registered in England (number 05660023) and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority.

This communication is being made only to and is directed at (a) persons who have professional experience in matters relating to investments who fall within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order") or (b) high net worth entities, and other persons to whom it may otherwise lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons"). Any person who is not a relevant person should not act or rely on this communication or any of its contents. The investments to which this communication relates are only available to and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such investments will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely upon this communication or any of its contents. In the same way, the information contained in this communication is intended for "eligible counterparties" and "professional clients" as defined by the rules of the Financial Conduct Authority and is not intended for "retail clients". With this in mind, Westpac expressly prohibits you from passing on the information in this communication to any third party. In particular this communication and, in each case, any copies thereof may not be taken, transmitted or distributed,

directly or indirectly into any restricted jurisdiction. This communication is made in compliance with the Market Abuse Regulation (Regulation(EU) 596/2014).

Investment Recommendations Disclosure

The material may contain investment recommendations, including information recommending an investment strategy. Reasonable steps have been taken to ensure that the material is presented in a clear, accurate and objective manner. Investment Recommendations for Financial Instruments covered by MAR are made in compliance with Article 20 MAR. Westpac does not apply MAR Investment Recommendation requirements to Spot Foreign Exchange which is out of scope for MAR.

Unless otherwise indicated, there are no planned updates to this Investment Recommendation at the time of publication. Westpac has no obligation to update, modify or amend this Investment Recommendation or to notify the recipients of this Investment Recommendation should any information, including opinion, forecast or estimate set out in this Investment Recommendation change or subsequently become inaccurate.

Westpac will from time to time dispose of and acquire financial instruments of companies covered in this Investment Recommendation as principal and act as a market maker or liquidity provider in such financial instruments.

Westpac does not have any proprietary positions in equity shares of issuers that are the subject of an investment recommendation.

Westpac may have provided investment banking services to the issuer in the course of the past 12 months.

Westpac does not permit any issuer to see or comment on any investment recommendation prior to its completion and distribution.

Individuals who produce investment recommendations are not permitted to undertake any transactions in any financial instruments or derivatives in relation to the issuers covered by the investment recommendations they produce.

Westpac has implemented policies and procedures, which are designed to ensure conflicts of interests are managed consistently and appropriately, and to treat clients fairly.

The following arrangements have been adopted for the avoidance and prevention of conflicts of interests associated with the provision of investment recommendations.

- (i) Chinese Wall/Cell arrangements;
- (ii) physical separation of various Business/Support Units;
- (iii) and well defined wall/cell crossing procedures;
- (iv) a "need to know" policy;
- (v) documented and well defined procedures for dealing with conflicts of interest;
- (vi) steps by Compliance to ensure that the Chinese Wall/Cell arrangements remain effective and that such arrangements are adequately monitored.

U.S.: Westpac operates in the United States of America as a federally licensed branch, regulated by the Office of the Comptroller of the Currency. Westpac is also registered with the US Commodity Futures Trading Commission ("CFTC") as a Swap Dealer, but is neither registered as, or affiliated with, a Futures Commission Merchant registered with the US CFTC. Westpac Capital Markets, LLC ("WCM"), a wholly-owned subsidiary of Westpac, is a broker-dealer registered under the U.S. Securities Exchange Act of 1934 ("the Exchange Act") and member of the Financial Industry Regulatory Authority ("FINRA"). This communication is provided for distribution to U.S. institutional investors in reliance on the exemption from registration provided by Rule 15a-6 under the Exchange Act and is not subject to all of the independence and disclosure standards applicable to debt research reports prepared for retail investors in the United States. WCM is the U.S. distributor of this communication and accepts responsibility for the contents of this communication. All disclaimers set out with respect to Westpac apply equally to WCM. If you would like to speak to someone regarding any security mentioned herein, please contact WCM on +1 212 389 1269. All disclaimers set out with respect to Westpac apply equally to WCM.

Investing in any non-U.S. securities or related financial instruments mentioned in this communication may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the SEC in the United States. Information on such non-U.S. securities or related financial instruments may be limited. Non-U.S. companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in effect in the United States. The value of any investment or income from any securities or related derivative instruments denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related derivative instruments.

The author of this communication is employed by Westpac and is not registered or qualified as a research analyst, representative, or associated person under the rules of FINRA, any other U.S. self-regulatory organisation, or the laws, rules or regulations of any State. Unless otherwise specifically stated, the views expressed herein are solely those of the author and may differ from the information, views or analysis expressed by Westpac and/or its affiliates.