



PREFERENTIAL TRADE

US-GSP provision expired, and reinstated

Pacific Island countries regularly express interest in improving opportunities to access the US market. In the absence of formal trade agreements between PICs and the US, one market access option has been the Generalized System of Preferences (GSP), a trade preference programme that the US offers to promote economic growth in the developing world. US-GSP offers preferential treatment for specified products from 'beneficiary developing countries' (BDCs), including many least-developed beneficiary developing countries (LDBDCs).² GSP-eligible countries include all PICs, except Federated States of Micronesia, Palau, Republic of Marshall Islands (the Compact Countries), as well as Palau and Nauru. A summary of US-GSP offerings and basic requirements is as follows:

- US-GSP provides zero duty on **Chapter 3** products, which include live, fresh, frozen, fillets and steaks.
- US-GSP BDC tariffs on **Chapter 16** products (cans, pouches and loins) are equivalent to the US Most Favored Nation, or Normal Tariff Relations preferences that apply to all countries and range from 6-35 per cent.
- Kiribati, Samoa, Solomon Islands and Vanuatu are presently listed as **LDBDCs**, a status that offers duty free access to not only Chapter 3 products, but also to loins, cans in brine and cans in oil. Papua New Guinea does not qualify for this status, and thus, canned tuna and other Chapter 16 products made in PNG do not benefit from the GSP duty free access.
- To qualify for GSP provisions, products must meet US **rules of origin**, which require that (1) fish are caught by US or beneficiary flagged/ registered vessels AND 2) 35 per cent value added must take place in the country utilising the GSP preference.

The US Congress has allowed the GSP programme to expire several times in recent years. Most recently, the programme expired on 31 December 2017. As a result, imports entering the US after that date were subject to the Normal Trade Relations duty rates. On 23 March 2018, US Congress signed into law an extension of the GSP through to 31 December 2020. The new law, which went into effect 22 April 2018 also provided for the retroactive refund on all duties (without interest) to the importer of record on GSP-eligible goods entered during the period of expiration.³ While PIC exporters can count on GSP preferences through 2020, it is worth noting that the programme also experienced a nearly two-year long lapse in 2013-2015, when the US Congress also let the programme expire.

The Solomon Islands has taken advantage of the United States' GSP programme for tuna products. However, to date, it has done so only in small volumes and primarily for loins, rather than canned products. The programme has remained of interest to Solomon Island because of the potential to take advantage of it to further develop its domestic tuna industry, and particularly, for Tri Marine, the majority shareholder of SolTuna to grow and diversify into the US market, including through its US-canned tuna brand, Ocean Naturals. However, the UN's Committee for Development Policy has recommended that the Solomon Islands graduate from the Least Developed Country category. While graduation can be seen as a reflection of improvements in healthcare, education and earning power among Solomon Islanders, it would result in loss of LDBDC status (as well as other international support measures), and as a result, the duty free access for Chapter 16 products into the US market (and others, including the EU, which is significant importance to Solomon Islands tuna exports).⁴ Following graduation, canned tuna not in oil would be subject to a 6 per cent tariff rate and canned tuna in oil would be subject to a 35 per cent tariff, which would render Solomon

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Island exports to the US uncompetitive.⁵ Kiribati is also slated for graduation from LDC status, but given that it does not presently have large-scale loining or canning capacity, there are fewer implications of the loss of LDBDC preferences in the short-medium term.⁶

US steel and aluminium tariffs: potential impacts on seafood

The tuna industry is among sectors racing to calculate the actual and potential impacts of the Trump Administration's March announcement of new tariffs on steel and aluminium. The new tariffs aim to protect the US domestic industry, national security and to combat a global 'glut' of metals that the Administration blames on excess production in China.⁷ The new tariffs – at rates of 25 per cent on imported steel and 10 per cent on imported aluminium – have received mixed responses.⁸ Supporters have applauded the measure for holding the potential to boost struggling domestic metal production sectors, and played down the potential impacts on firms – including tuna processing firms – that rely on inputs that will be subject to the new duties. According to Commerce Secretary Wilbur Ross, 'The impact on Bumble Bee tuna packages, again, trivial'.⁹ Opponents have waged two main criticisms: 1) that a mismatch between demand and domestic production capacity will mean that most US firms that use steel and aluminium will see increase costs for material inputs, and 2) that the duties could spark a trade war with wide-reaching impacts on industries and consumers.

Food and beverage companies in particular argue that under the new tariff scheme they will have no choice but to purchase higher-cost imported inputs, and that the new costs will generate unintended consequences that could include increased food prices and worker layoffs.¹⁰ These concerns extend to the canned tuna sector. The most frequently used form of packaging for canned fishery products is 'tin plate' steel. Tin plate consists of a base plate of low-carbon mild steel, onto each surface of which is a deposited layer of tin. In the US, 42 per cent of tin plate steel for food cans is imported, and thus subject to the tariffs. The canned food lobby argues such costs would need to be passed to consumers, including those on low-incomes who disproportionately rely on canned foods for fruit, vegetable and meat products.¹¹

Canning remains an important component of the US tuna industry with Starkists' major canning operations in American Samoa, and Chicken of the Sea and Bumble Bee's high volume 'can-only' operations on the mainland. Unless these firms secure tin plate that has been made in the US, or in countries exempted from the tariffs (see below), they will face increased input costs. American Samoa Congresswoman Radewagen has expressed concern over the tariffs and the threat that they may pose to the cannery and the fishing industry in the Territory.¹²

The impact of the tariffs extends beyond the cost of cans. For example, thermal insulated panels that keep food are made with aluminium, steel, or both. Todd Construction Services, a company that has built food processing and storage facilities for Bumble Bee, reports that prices for such panels have jumped by 25 per cent since Trump announced the tariffs.¹³

Understanding the impacts of the tariffs is complicated by (at least) two issues. First, the scope of countries affected by the tariffs and the timeline for implementation has been unclear as the Trump Administration has offered a series of temporary exemptions. In early May, the Administration postponed imposition of the tariffs on Canada, Mexico, and the European Union countries until 1 June, but indicated that no further exemptions would be offered after that date without agreements that would impose import quotas. Canada, Mexico and the European Union have rejected this option.

Solomon Islands is likely to graduate from LDC status, at which time it will lose US-GSP duty free access for canned and loined tuna products

New tariffs are likely to increase the cost of tuna tins for US processors

The US has reached agreement for permanent exemptions for Argentina, Australia and Brazil and also granted a permanent exemption on steel tariffs to South Korea as part of a revision of their bilateral free trade agreement.¹⁴ The European Union and China are turning to the World Trade Organization to seek compensation for the tariffs on grounds that the 'national security' justification for the tariffs is not sound.¹⁵

Second is the question of the broader effects of a pending trade war: how might current and future retaliatory efforts impact the tuna industry and the seafood sector in general? The EU has released a list of products on which it will increase tariffs, which includes fishing vessels, but not seafood products.¹⁶ As of early April, seafood products were not on China's list of retaliatory tariffs, but the seafood industry is keeping a close watch on the building conflict as seafood trade between the US and China is significant in both directions. China is a major export market for US seafood products, with purchases totally US \$1.3 billion in 2017. While tuna products are not in the top-ten list of products exported from the US to China, China is a major processor of seafood and many seafood products stop in China for processing and are re-exported enroute to their final destination. Further, the US domestic seafood lobby has often turned to trade policy in an effort to protect commercial interests. Tariffing or blocking Chinese seafood could be a tool in the emerging trade war that would play to Trump's interest in appealing to his 'America First' constituency. Members of the Administration have been vocal about improving the seafood trade ratio, noting that 90 per cent of US seafood is imported.¹⁷

Brexit and the politics of fisheries access in the EU

As Brexit continues to unfold, the multi-layered complications of the UK's withdrawal from the EU become ever more apparent, such as the potential impact on the Pacific Island fish exports, covered in a prior issue of *FFA Fisheries Trade & Industry News*.¹⁸ A major motivation to vote for Brexit among some British fishing communities was to (supposedly) 'take back control' of fisheries in the UK's large EEZ. For example, in 2016, EU boats landed more fish from the UK EEZ than UK ones – almost 60 per cent of the total catch there by weight.¹⁹ Two main debates are worth highlighting, not least for their parallels in Pacific Island tuna fisheries: EU access to fish in the UK EEZ, including where other EU members claim historic rights, and the future management of fish stocks shared between the UK and the EU.²⁰

Currently, fisheries access to EU Member states' European EEZs are managed under the Common Fisheries Policy (CFP) using a complex system of national shares of Total Allowable Catch. The CFP allocates competence for EU fisheries governance to DG MARE at the European Commission, resulting in considerable political horse-trading, with the fishing interests of some states benefitting more than others. Despite the absolute and relative economic decline of Britain's fishing industry, in terms of gross tonnage and catch, the UK fleet is the second largest in the EU behind Spain.²¹

In March, the Minister in charge of the UK Department Environment, Food, and Rural Affairs (DEFRA), Michael Gove, who was a leading campaigner for Brexit (alongside the current Foreign Secretary, Boris Johnson), released a statement calling for withdrawal from the CFP and the return of UK control of 'its' fisheries from March 2019. Of note is a call for 'the UK to become an independent coastal state, negotiating access annually with our neighbours'.²² This could provide considerable benefits to UK-based fishing interests. Assuming that fishing is split between EU27 and UK EEZs and that EU vessels are prevented from accessing UK waters, the net increase of catches by UK boats could be as high as 671,000 tonnes.²³

Industry is keeping an eye on the potential for a trade war to make ripples in the seafood sector

Debate rages over access to fisheries in the UK's post-Brexit EEZ

In parallel, the UK's finance minister, has dangled reciprocal fisheries access between the UK and the EU as a card in the UK's, rather weak, hand in future EU-UK trade agreements.²⁴ At the same time, the UK has a surplus in its fish and fish product trade with the EU, which absorbs around 70 per cent of UK exports,²⁵ thus any change in tariffs on these products under a trade agreement may seriously impact British fishers and processors. The UK industry will also suffer from the lack of free movement of EU workers, who are essential to many boat owners and processors. In short, contrary to simplistic notions of 'taking back control', the fraying of deep-set socio-economic integration may be a disaster for much of Britain's seafood industry.

For its part, the EU has substantial economic and political interests at stake, including an official negotiation position of seeking 'existing reciprocal access to fishing waters'.²⁶ Eight EU member states have significant fishing interests in British waters, catching more than 40 per cent in value of total landings from the UK EEZ, mainly pelagic species. Fleets from only four countries – Denmark, France, Ireland and the Netherlands – account for around 80 per cent of this value. Further, Belgium, Denmark, Germany, Ireland and the Netherlands catch between 20 and 40 per cent of the total value of national catch in the UK EEZ.²⁷ As such, it is most likely to be these countries, and especially Denmark and Ireland, that will play the largest political role in the fisheries-related aspects of Brexit negotiations, for example, in a possible trade-off between these countries' access to the UK EEZ and tariffs on UK fish products exported to the EU.

In the context of this political uncertainty, leading British supermarkets and seafood industry representatives have aired concerns about the sustainability of post-Brexit fisheries policy. They call on the UK government to 'deliver confidence that UK seafood remains legally and sustainably sourced, and fisheries must operate in accordance with the existing regulations until such time as it is replaced by new fisheries legislation'.²⁸

The Trans-Pacific Partnership redux?

The Trans-Pacific Partnership was a regional free trade agreement negotiated among 12 states accounting for around 40 per cent of global economic output. TPP was pitched as an ambitious 'twenty-first century FTA' that was set to harmonize standards, discipline fisheries subsidies,²⁹ as well as the more traditional domains such as the liberalization of tariffs. As well as perceived gains from trade, TPP was motivated by two dynamics. First, the ongoing inability of member states to reach multilateral agreement at the WTO. Second, and connected, TPP members shared a geopolitical interest of combining so as to counter the growing power of China in the Pacific, and globally. The Obama Administration had signed but not yet ratified TPP, and, using an executive order, Donald Trump unceremoniously withdrew the USA from the deal at the start of his presidency on 23 January 2017. This sent shockwaves among the US seafood exporters that had supported the deal, and support from those threatened by imports from Malaysia and Vietnam such as US shrimp producers.³⁰

The other 11 governments, most of whom who had spent eight years negotiating the agreement, agreed to a modified TPP in March. Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam signed the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). In terms of fisheries trade, Vietnam is likely to be the greatest beneficiary in terms of completely removing its current tariff on tuna exports to Japan, which currently stand at between 6.4 and 7.2 per cent. Vietnam's shrimp producers will also improve access to Japan, as will Southern bluefin tuna from Australia, and fishmeal from Chile and Peru.³¹

**UK supermarket
and seafood
industry
are nervous
about post-
Brexit fisheries
governance**

**The new
Comprehensive
and Progressive
Agreement for
Trans-Pacific
Partnership will
improve access
to Japan's
seafood market
for several
countries**

Somewhat erratically, on 12 April, Trump announced that he was exploring the possibility of re-opening TPP negotiations; only to Tweet the very same evening that, “I don’t like the deal for the United States”.³² The initial re-consideration appears to have been motivated by the US farm lobby and the by the original geopolitical aim of TPP, to counter China, especially given the growing trade war between these two giants (see the story on this above). What will happen next? Nobody seems to know – including Trump.

FISHERIES MANAGEMENT

PNA Leaders meet to discuss tuna priorities³³

In early March, PNA leaders, together with Tokelau, met in Majuro for the Second PNA Leaders’ Summit to discuss the future of the Western and Central Pacific tuna fishery; the first summit was held eight years ago in Palau in 2010. During this meeting, PNA officials highlighted key achievements since 2010, including substantially increased fishing access fee revenue from USD 60 million to USD 500 million/year under the purse seine Vessel Day Scheme (VDS), MSC certification (and recent re-certification) of PNA’s purse seine free-school fishery and the associated establishment of PNA’s Pacific co-brand, as well as recognition of the United Nations of World Tuna Day on 2 May.

PNA Leaders expressed support for PNA’s ongoing goal to increase their share of the value of the WCPO tuna fishery through vertical integration. PNA members are pursuing opportunities to increase tuna-related revenue, jobs and commerce by exercising greater control of their tuna resources and further development of domestic fishing fleets. They are also pursuing greater involvement further up the supply chain in trading and processing, as well as bunkering, by-catch utilisation and net repair. Support was also given for PNA’s newly established longline VDS, establishment of new office premises for PNA Office in Majuro and the purchase of iFIMs by PNG, an electronic platform for tracking non-fishing days under the VDS and submission of electronic-reporting forms.

While the text is not yet published, PNA Leaders outlined their priorities for PNA in the ‘Delap Commitment’ at the conclusion of the summit. In addition to agreeing with PNA’s goals, the Leaders have reportedly given priority to ensuring defined baselines under the *United Nations Convention on the Law of the Sea* are legally recognised and remain in perpetuity, regardless of the impacts of rising sea levels stemming from climate change. Leaders have also tasked Ministers to strengthen management of high seas fishing and use of fish aggregation devices (FADs), as well as regulating fuel bunkering of fishing vessels to take place within PNA waters, rather than in high seas. In terms of environmental management, Leaders agreed to reduce marine pollution and the fishery sector’s carbon footprint. Going forward, PNA Leaders’ summits will be held every three to five years, which indicates the high importance of WCPO’s tuna fishery to this group of Pacific Island nations.

**Meanwhile,
Trump yoyos
between
recommitting to
or continuing to
reject TPP**

**PNA plans
to increase
returns from
the tuna fishery
by greater
involvement
in vertical
integration in
the supply chain**

**PNA Leaders’
priorities for
its tuna fishery
are summarised
in the ‘Delap
Commitment’**

TUNA INDUSTRY

ISSF releases new five-year strategic plan

The International Seafood Sustainability Foundation (ISSF), a consortium of tuna industry leaders, fisheries scientists and NGOs established in 2009, has released its third strategic plan for 2018-2022, entitled "Advancing Sustainable Tuna Fisheries". The new plan is essentially an extension of ISSF's work undertaken under its previous five-year strategic plan for 2013-2017, but now includes a specific 'functional' objective related to one of ISSF's major objectives of global tuna fisheries meeting the MSC fisheries certification standard for sustainable fisheries without conditions. Under the new strategic plan, ISSF will specifically provide support to Fisheries Improvement Projects (FIPs) to help expedite MSC certification, including provision of science-based guidance, data and tools and advocacy support at the RFMO and national levels for FIPs; support and tools to MSC-certified fisheries to help close out conditions; and, making available ISSF verification tools to help fisheries demonstrate progress against MSC certification standards. In response to growing attention on labour and social issues in global tuna supply chains, ISSF will also now closely monitor the development of credible, third-party labour and social standards for tuna fishing activities and explore appropriate ways for ISSF and its participating companies to support these standards. The new strategic plan continues to focus on three key 'pillars' to achieve ISSF's mission and objectives, albeit retitled to -science, influence and verification. Under the 'science' pillar – ISSF will continue to advance the sustainability of tuna stocks and their ecosystems by focussing on tuna stock health, by-catch/FADs, MCS/IUU fishing and fishing capacity. ISSF also endeavours to continue to 'influence' key tuna industry stakeholders – RFMO and member nations, national governments, NGOs, markets, vessels and non-ISSF participating companies. Thirdly, ISSF will continue its 'verification' activities relating to compliance of participating companies with ISSF conservation and management measures and registration of vessels supplying ISSF members on its Proactive Vessel Register (PVR).³⁴

In a related article, *Atuna* heavily criticises ISSF's new strategic plan for repeating many goals already set in the previous 2013-2017 plan, stating "it is clear the foundation has not yet managed to reach its sustainability targets.....despite the fact it represents around 70 per cent of the global tuna buying power – which can initiate major changes, and has spent at least USD 12 million on tuna fishery related research". *Atuna* speculates that important and valuable targets already laid out in ISSF's 2013-2017 strategic plan relating to FADs and MSC could hence be delayed for a further five years and indicates a lack of urgency on the part of ISSF on measures addressing the state of global tuna stocks and by-catch species which have worsened in some ocean areas. While acknowledging ISSF's commitments are positive, *ATUNA* indicates a lack of real concrete measurable targets in the new strategic plan.³⁵

ISSF has confirmed there are no drastic changes to the core strategies and that the new plan reflects a continuation of previously set goals. ISSF also highlights its goals are ambitious objectives³⁶ – which cannot be argued. Achieving 100% observer coverage for all gear types and adoption of harvest control rules for all tuna stocks in all RFMOs are indeed, ambitious and long-term objectives that will require not only strong commitment from ISSF and its participating companies, but also RFMO member countries and national governments, amongst others. *Atuna* also fails to highlight that since its foundation in 2009, ISSF has introduced a large number of conservation and management measures which must be implemented by ISSF participating companies, and against which they are third-party audited annually, several of which are actually stronger than existing RFMO management measures.

ISSF's new 5-year strategic plan includes support for fishery improvement projects and addressing labour and social issues in the tuna fishing industry

Atuna has criticised ISSF's new strategic plan for repeating many goals from its previous plan and not reaching its sustainability targets



Tuna companies need to improve on management of 'ghost fishing gear'

In September 2015, the environmental NGO, World Animal Protection (formerly, the World Society for the Protection of Animals) established the Global Ghost Gear Initiative (GGGI) to tackle the global problem of ghost fishing gear, given abandoned, lost and discarded fishing gear (ALDFG) reportedly accounts for at least 640,000mt of a total of 8 million tonnes of plastic waste entering the ocean annually.³⁷

In March 2018, World Animal Protection released a report titled 'Ghosts beneath the waves', which publishes the results of a review of 15 of the world's leading seafood suppliers in relation to their handling of ghost gear in their operations and supply chains. In the review, companies were scored and tiered against three criteria – policy and commitments; management and systems; and, implementation and reporting. Of the 15 companies reviewed, none were ranked in the Tier 1 – Leader (i.e. setting best practice) or Tier 2 – Achiever (i.e. integral to business strategy) categories. 10 out of 15 companies were ranked in the lowest category of Tier 5 – Not Engaged (i.e. no evidence that ALDFG is on the business agenda). Six out of the 15 companies reviewed are major tuna companies – Thai Union, Tri Marine, Bumble Bee Foods, Dongwon (Starkist), Maruha Nichiro and Nissui. Despite being ranked as Tier 3 – Improver (i.e. established, but work to be done), Thai Union and Tri Marine ranked highest of all of the companies (together with Young's Seafoods in the UK). Bumble Bee Foods and Dongwon were ranked in Tier 4 – Engaged (i.e. ALDFG is on the agenda, but limited evidence of implementation). Maruha Nichiro and Nissui were ranked lowest in Tier 5 for not being engaged.³⁸

In the report, fish aggregation devices (FADs) are identified as some of the deadliest fishing gear most likely to turn into discarded 'ghost gear', with the significant increase in the use of drifting FADs in recent years highlighted.

While improvement is still required according to the report, Tri Marine and Thai Union have been the most proactive tuna companies to date. In 2017, Tri Marine became a GGGI participant, supporting the Best Practice Framework for the Management of Fishing Gear. Tri Marine is working towards its vessels using 100% biodegradable FADs and is implementing an ISSF commitment to use non-entangling FADs. The company is also participating in a GSSI satellite FAD tracking project.³⁹ Soon after release of the report in March, Thai Union also became a GGGI member and in a commitment established with Greenpeace, intends to reduce FAD-caught purchases by 50% by 2020, as well as having its supplying fishing vessels using non-tangling and biodegradable FADs.⁴⁰ Thai Union is also focussing on reducing the use of plastics in packaging of its branded products, with all packaging being reusable, recyclable or compostable by 2025.

Management of ghost fishing gear is another issue in the growing suite of environmental and social issues which tuna companies are being lobbied to proactively deal with by various NGOs.

Biotech Takes Aim on Replacing Tuna with Plant-based Products

Taking seafood substitution technology beyond surimi-based imitation crab, two food biotechnology firms in the US are introducing plant-based products that could be capable of substituting for tuna in food for humans and pets. In these endeavours, the companies are following the lead of soy-based hamburger substitute, soy and almond milk and other similar products that have been accepted in the mainstream marketplace and which can be said are no longer niche products.

Six major tuna companies received mediocre to low scores in a review on how they are dealing with 'ghost fishing gear'

Tri Marine and Thai Union have become members of the Global Ghost Gear Initiative and will increasingly use biodegradable and non-entangling FADs



One of the companies developing substitutes for tuna is Ocean Hugger Foods. It has trademarked its product as “ahimi” and has partnered with the food service company Aramark in the US. The two firms are already planning to test market their product for a limited time in select corporate cafes and college campus dining halls, according to a press release.⁴¹ The company’s founder, chef James Cornwall reportedly spent four years perfecting the manufacturing process through a proprietary “slow and low cooking” process to transform tomatoes, which contain high levels of naturally occurring glutamic acids, into a “vegan sushi” that’s reddish-pink in colour and “puts forward the taste and texture of raw Ahi tuna.” One report notes that it is produced in Mexico and distributed frozen in a chef-friendly 750 gram block similar to a tuna saku block.⁴² In late December 2017, the product found its way to Vancouver, Canada where it was featured at a vegan-friendly restaurant. The restaurant’s co-founder said he introduced the product at his restaurant because “When I first tried it, it blew my mind how realistic it was. If I didn’t tell you (it wasn’t tuna) and gave you a poke bowl, you would never know.”⁴³ This may say more about texture than taste, since the whole idea of poke in a bowl is to mix the tuna with various marinades and toppings.

Another US-based startup company, Good Catch Foods, reported raising US \$5.5 million to develop a plant-based alternative to tuna and plan to introduce their product at the high-end US supermarket chain, Whole Foods before the end of the year. Good Catch Foods has developed a product simulating shredded tuna. Its tuna substitute is one of three products developed from non-GMO plants by the company, the other two being simulations of crab cakes and fish patties.

The ingredients of the products are dissimilar but both companies are targeting the growing market for plant-based meat and dairy substitute foods. Ocean Hugger’s ahimi is made with tomatoes, filtered water, soy sauce, sesame oil, and sugar. According to Good Catch, their products are made with a blend of six non-GMO plant proteins that include chickpea, pea, soybean, lentil, fava and navy pea, with pea described as being the main source of protein. In order to give its simulated fish products more of a “briny taste”, Good Catch says it uses algae oil in the production process. The company also claims the use of algae oil results in the presence of healthy long-chain omega-3 fatty acid DHA.⁴⁴

The potential for these products reflects the rise in veganism in North America, Northern Europe, Australia, New Zealand and elsewhere, especially among so-called Millennials who are turning away from meat and dairy because of its serious ecological as well as ethical impacts.⁴⁵ In general, it can be said that in many instances consumers are becoming increasingly health-conscious and want to reduce the amount of meat and dairy that they eat by turning to plant-based alternatives. Fish-like products have so far been left out of the equation, but these two companies (and perhaps others) are intent on changing that situation. Good Catch Foods’ plant-based tuna substitutes are set to hit the US marketplace by the end of 2018 in the form of three flavors: ‘classic’ albacore tuna texture, ‘Mediterranean’ which includes rosemary, garlic, red bell pepper, Kalamata olives and lemon, and ‘olive oil and herbs’.⁴⁶

In addition to faux tuna as human food, the potential for such a substitute in the pet food business may not be far behind. There are already efforts by Wild Earth, Inc., a Berkeley, California start-up to tap into the US \$30 billion US pet food market with a product for dogs based on cultured koji, a Japanese fungi. The same millennials that drive the vegan market represent a large share of the owners of more than 184 million dogs and cats in the US alone. In fact, one study by a UCLA professor found that if US pets were to establish a sovereign nation, it would rank fifth in global meat consumption.⁴⁷

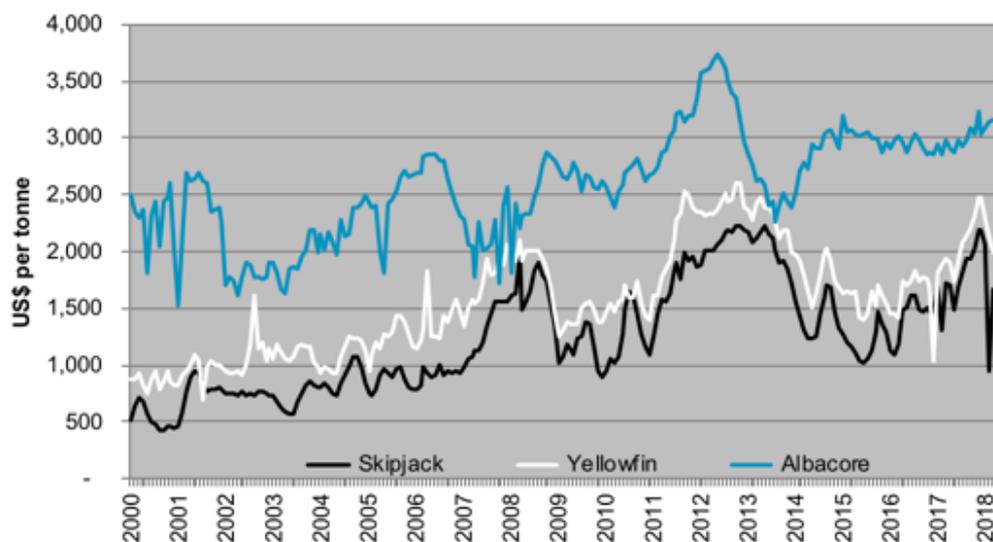
New ‘tuna’ alternatives are being developed in the US

Plant-based alternatives to meat and dairy are booming in Europe and the USA

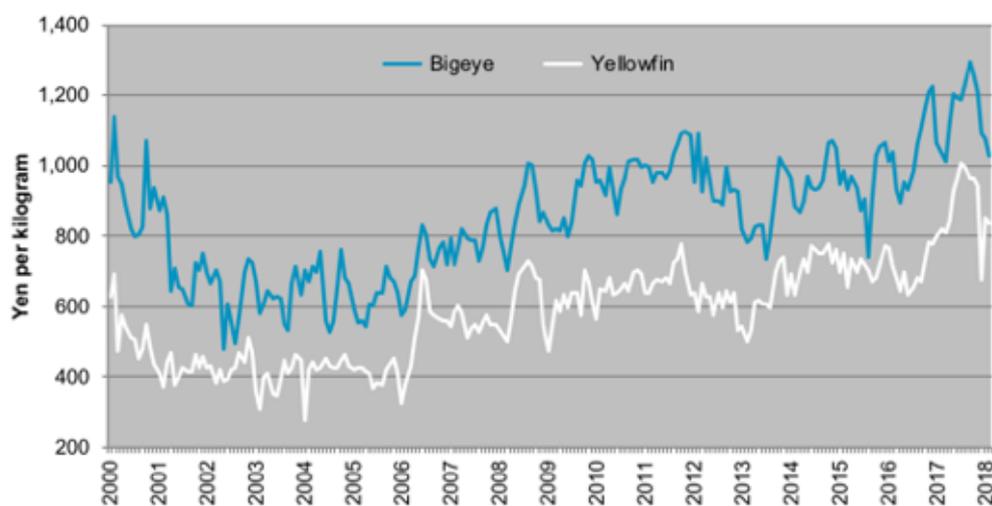
Faux tuna may not be just for humans

TUNA PRICE TRENDS⁴⁸

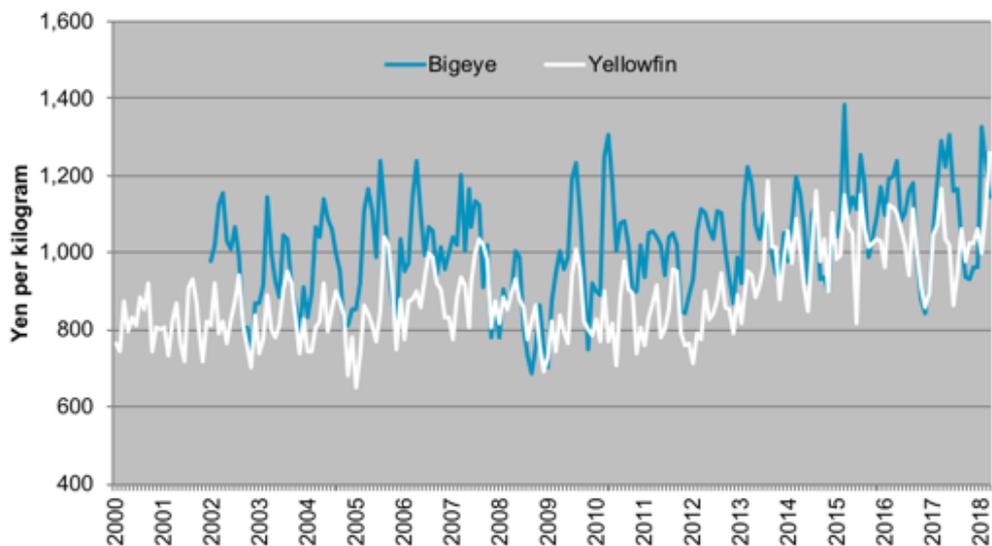
Bangkok canning-grade prices to April 2018⁴⁹



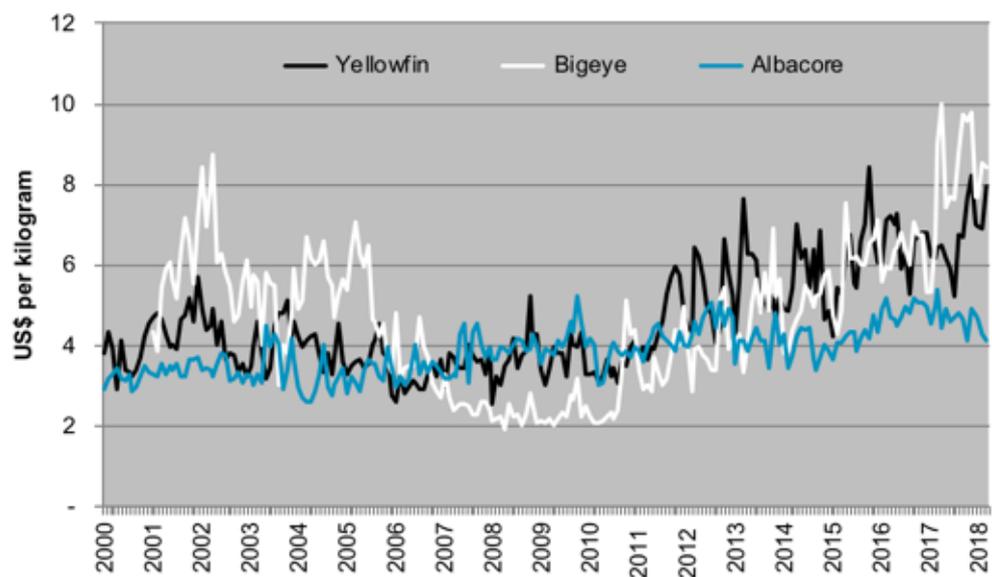
Japan frozen sashimi prices (ex-vessel, Japanese ports) to March 2018⁵⁰



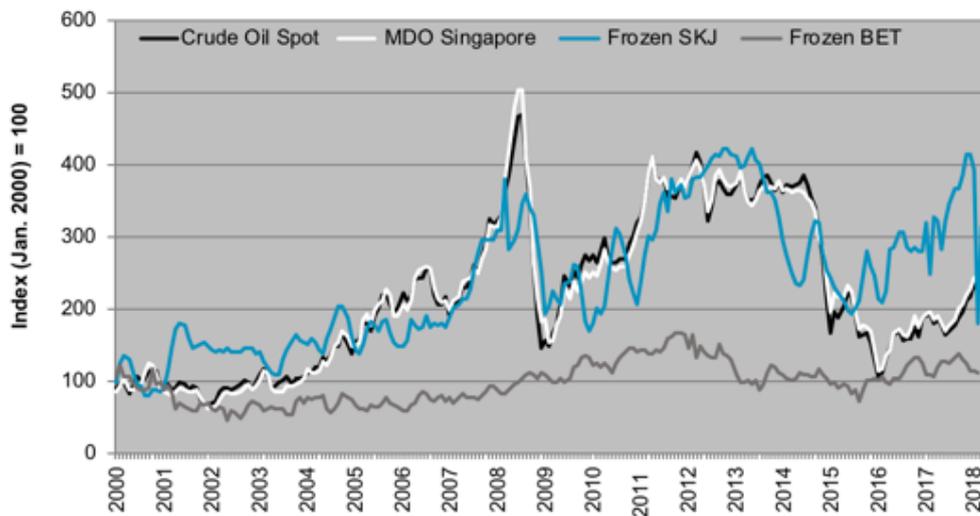
Japan fresh sashimi prices (origin Oceania) to February 2018⁵¹



US imported fresh sashimi prices to February 2017⁵²



Crude oil, canning-grade frozen skipjack (SKJ) and frozen bigeye (BET) price index to March 2017⁵³



¹ Prepared for the FFA Fisheries Development Division by Dr Liam Campling, School of Business and Management, Queen Mary University of London, Dr Elizabeth Havice, University of North Carolina at Chapel Hill and Mike McCoy, independent consultant, all Consultant Fisheries Trade and Market Intelligence Analysts, Fisheries Development Division, FFA. Desktop publishing by Antony Price. The authors would like to thank Mike Batty for his input on an earlier draft of this briefing. The contents of this briefing (including all analysis and opinions) are the responsibility of the authors and do not necessarily reflect the positions or thinking of the FFA Secretariat or its Members.

² *U.S. Generalized System of Preferences Guidebook*. Office of the United States Trade Representative, Executive Office of the President. Washington, D.C. March 2017. Available at: <https://ustr.gov/sites/default/files/gsp/GSP%20Guidebook%20March%202017.pdf>

³ Instruction for GSP refund processing are available here: <https://www.cbp.gov/trade/priority-issues/trade-agreements/special-trade-legislation/generalized-system-preferences>

⁴ 'Graduate imminent for Solomon Islands', *The Commonwealth*, 21 March 2018. Available at: <http://www.commonwealth.org>

⁵ Personal Communication, Industry representative, 1 May 2018.

⁶ 'Four countries on track to graduate from UN list of least developed countries', *UN News*, 15 March 2018. Available at: <http://www.news.un.org>

⁷ David Lawder 2018. 'Trump delays metal tariffs on Canada, EU, Mexico, exempts some others', *Reuters*, 30 April. Available at: <http://www.reuters.com>

⁸ See e.g., James McBride 2018. 'The risks of US steel and aluminum tariffs', *Council on Foreign Relations*, 8 March. Available at: <http://www.cfr.org>

⁹ 'Trump tariffs: Impact on beer, cars is "trivial", Wilbur Ross says', *FoxBusiness*, 4 March 2018. Available at: <http://www.foxbusiness.com>

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