4 CANNED TUNA PROCESSORS

4.1 General Overview

This chapter presents an overview of the current status of the major global canned tuna processors and in doing so, highlights some the key issues shaping the future of the global canning industry, as well as potential implications for Pacific Island countries and their tuna industries.

The contemporary global canned tuna processing industry developed in the mid 1950s, in conjunction with the development of industrial-scale tropical tuna fisheries. A large increase in the demand for canned tuna in the late 1970s-early 1980s fuelled significant growth of purse seine fishing fleets, as well as canned tuna production facilities required to process the rapidly expanding supply of raw canning materials. Originally, canned tuna production was dominated by the US mainland, EU and Japan, who collectively accounted for more than two thirds of total global production until the mid-1980s. With the development of tuna canning industries in the Philippines and Thailand in the early 1980s, and later, canning industries in other lower-cost sites of production in South East Asia, Central/Latin America and the Indian Ocean, the dominance of the former three major producers diminished. Today, global canned tuna production exceeds 1.7 million metric tonnes annually.

Like the canned tuna fishing industry, the canned tuna processing industry is both complex and dynamic. Global processing operations are currently influenced by factors such as increasing cost of raw materials and other production inputs, tuna resource sustainability issues, overcapacity, complex tariff regimes, increasingly stricter standards (i.e. labour, quality, food safety and environment) and changing consumer preferences, to name a few.

Recent estimates indicate that globally, there are at least 144 tuna processing facilities currently in operation producing canned tuna products and/or frozen cooked loins. In 2008, global maximum processing capacity was around 14,220 mt/day of raw material and estimated annual production was 3.05 million mt (Table 4.1).

### Table 4.1 Global Processing Capacity (Whole Round) - Canned Tuna and Loins, 2008

<table>
<thead>
<tr>
<th>Ocean region</th>
<th>No. Of Processors</th>
<th>Maximum Capacity (Mt/day)</th>
<th>Annual Production (mt)</th>
<th>% Total global Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western &amp; Central Pacific</td>
<td>55</td>
<td>6,565</td>
<td>1,453,700</td>
<td>48%</td>
</tr>
<tr>
<td>Eastern Pacific</td>
<td>36</td>
<td>3,285</td>
<td>788,400</td>
<td>25%</td>
</tr>
<tr>
<td>Indian</td>
<td>5a</td>
<td>1,400</td>
<td>272,000</td>
<td>9%</td>
</tr>
<tr>
<td>Atlantic</td>
<td>48</td>
<td>2,970</td>
<td>537,000</td>
<td>18%</td>
</tr>
<tr>
<td>Total</td>
<td>144</td>
<td>14,220</td>
<td>3,051,100</td>
<td>100%</td>
</tr>
</tbody>
</table>

a Estimate excludes a number of small Iranian processors.

Source: McGowan & McClain 2010

319 Canned tuna production originally dates back as far as the 1860s in Europe and the early 1900s in the US. Miyake et. al. 2010: 85-87.
Processing facilities in the Western and Central Pacific Ocean region (including Asia-based tuna processors) account for almost half of the world’s annual canned tuna production (1.45 million mt). Eastern Pacific-based processors account for 25% of global production (788,400 mt), which means that almost three-quarters of global canned tuna is produced by processors based in the Pacific Ocean.

Total global capital investment in canned tuna processing facilities is estimated to be around $1.3 billion, which accounts for less than 10% of total capital investment in the global tuna industry. Investment in processing facilities in the developing world has been central to the production strategy of some of the major European and US players, which has been largely driven by trade preferences.\(^{321}\) In 2009, it was estimated that new capital investment in processing facilities over the three years prior was around $0.5 billion, around 40% of which went into onshore investments in the WCPO region ($186 million).\(^{322}\)

The ranking of major canned tuna producing countries (in production volume terms) has changed markedly over the past 20-30 years. As mentioned, the US, EU (Spain, Italy) and Japan used to be the dominant producers. However, in the 1980s, Thailand became the world’s canned tuna processing powerhouse. Currently, Thailand processes almost one-quarter of the world’s canned tuna (736,000 mt/year). The second largest processing site is Ecuador which accounts for almost 12% of global annual production (362,400 mt) (Table 4.2). While the US was historically the world’s largest processing site, due to plant closures on the mainland, Puerto Rico and more recently, American Samoa, it has dropped to sixth place (132,000 mt).

**Table 4.2** Top Ten Canned Tuna Processing Countries, 2008

<table>
<thead>
<tr>
<th>Rank</th>
<th>Production site</th>
<th>Annual production (mt)</th>
<th>% Global annual production</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Thailand</td>
<td>736,000</td>
<td>24.1</td>
</tr>
<tr>
<td>2</td>
<td>Ecuador</td>
<td>362,400</td>
<td>11.9</td>
</tr>
<tr>
<td>3</td>
<td>Philippines</td>
<td>225,000</td>
<td>7.4</td>
</tr>
<tr>
<td>4</td>
<td>Spain</td>
<td>220,000</td>
<td>7.2</td>
</tr>
<tr>
<td>5</td>
<td>Mexico</td>
<td>186,000</td>
<td>6.1</td>
</tr>
<tr>
<td>6</td>
<td>American Samoa (US)</td>
<td>132,000</td>
<td>4.3</td>
</tr>
<tr>
<td>7</td>
<td>Korea</td>
<td>110,000</td>
<td>3.6</td>
</tr>
<tr>
<td>8</td>
<td>Italy</td>
<td>108,000</td>
<td>3.5</td>
</tr>
<tr>
<td>9</td>
<td>Mauritius</td>
<td>90,000</td>
<td>2.9</td>
</tr>
<tr>
<td>10</td>
<td>Columbia</td>
<td>85,200</td>
<td>2.8</td>
</tr>
</tbody>
</table>

\(^{a}\) Whole round fish equivalent


\(^{321}\) US investment has been in processing facilities in Central/Latin America and American Samoa; EU investment has largely been in former colonies (i.e. French investment in West Africa, Indian Ocean) and Latin America (i.e. Spain).

\(^{322}\) Total new investment (2006-2009) in canned tuna processing facilities (including loining plants) by region was: WCPO – US$186 m, Atlantic – US$ 101 m, Eastern Pacific – US$ 90 m, Indian Ocean - $81 m. New WCPO capital investment was channelled into plants in the Pacific Islands (Marshall Islands, PNG), Thailand, China, Indonesia, Philippines, Korea and Vietnam. Hamby 2009.
A major contributing factor in the rise in dominance of developing world players in the past 20-30 years has been these countries’ abilities to achieve economies of scale (i.e. a number of firms establishing facilities in close proximity to form a processing cluster, synergies forged with other canned food production industries, tandem development of supporting industries (can making, oil, labelling/packaging, logistics etc.). In addition, some of these sites have also been located close to major fishing grounds, had access to productive and lower-cost labour sources, and in some cases, had preferential access through tariff exemptions to the major canned tuna markets (EU, US).

Table 4.3 presents comparative labour costs in selected canned tuna processing sites. Labour is a major cost component in the production of canned tuna (around 20%) and substantially influences the profitability of processing operations (and, in the case, of developed country processing sites such as Spain and US, has been a major factor in the contraction of their domestic processing industries). However, access to low-cost labour has generally not been the sole driving force behind a particular processing site’s competitiveness. Rather, as mentioned above (and discussed further in this chapter in each section detailing individual processing sites), a combination of factors has influenced both the development of processing industries and their ongoing competitiveness. For example, while China and Vietnam’s labour cost per metric tonne of processed tuna is significantly lower than that of Thailand and Ecuador, Thailand and Ecuador remain the global tuna processing powerhouses for now, due to a range of other influencing factors (e.g. economies of scale; in the case of Ecuador, preferential access to the EU and US markets). In the case of Pacific Island country (PIC) processing sites, while the daily labour cost per worker is significantly cheaper than Thailand and Ecuador, labour productivity is considerably less (i.e. in the case of PNG, labour is at least 2.5 times less productive than Ecuador and other South East Asian processing sites). Hence, overall labour costs are more expensive (i.e. $100/mt for PNG vs. around $80/mt for Thailand).

Table 4.3 Comparative Labour Costs for Canned Tuna Processing, 2010

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost/day – cleaners</td>
<td>9.29</td>
<td>10.38</td>
<td>8.09</td>
<td>5.00</td>
<td>3.27</td>
<td>5.90</td>
</tr>
<tr>
<td>Cost/day – non-cleaners</td>
<td>8.71</td>
<td>11.57</td>
<td>8.09</td>
<td>4.80</td>
<td>4.51</td>
<td>6.80</td>
</tr>
<tr>
<td>Ratio - non-cleaners: cleaners</td>
<td>127%</td>
<td>100%</td>
<td>87%</td>
<td>87%</td>
<td>140%</td>
<td>140%</td>
</tr>
<tr>
<td>Labour cost/mt</td>
<td>81.51</td>
<td>87.80</td>
<td>54.49</td>
<td>36.64</td>
<td>100.87</td>
<td>102.80</td>
</tr>
<tr>
<td>Cleaning productivity (kg/8 hour shift)</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>95</td>
<td>150</td>
</tr>
</tbody>
</table>

* $ US, unless otherwise specified

Source: Data collected from various processing sites by global tuna industry representative, 2011.
The level of corporate concentration in the global canned tuna processing sector has deepened significantly, often through mergers and acquisitions, with a limited number of large multinational companies now dominating the industry. These companies typically sell multiple shelf-stable tuna products, as well as other non-tuna products (e.g. other shelf-stable food products, frozen seafood), own a number of brands and supply a range of markets. Some are vertically integrated with fishing operations and some also have non-tuna related investments in other sectors. Ownership patterns are also changing, with some of the former large food conglomerate companies (e.g. Heinz, Unilever) selling their processing interests to financial holding companies (e.g. Lion Capital LLP, Connor Bros.). Financial holding companies are likely interested in seafood-related investments because they are profitable ventures which deliver an income stream, the brands are valuable, interest in the natural resources sector is currently high and, in the scheme of things, the value of investments represent a small proportion of total investment portfolios, which limits risk.

Canned tuna processors’ raw material sourcing strategies have also changed over time to become more globalised. The larger companies have adopted production strategies that enable them to source fish supplies from several, if not all four oceans, to ensure consistency of supply when sourcing limitations arise in a particular region through low catches, political/regulatory constraints, or other problems. An increasing volume of raw material is also sourced through the major trading tuna companies, rather than through direct purchases from fishing vessels (see Chapter 3). High-cost processing locations (i.e. US, EU) are increasingly switching to using frozen cooked loins for canned tuna production that are sourced from lower-costs sites of production (or outsourcing production altogether) where labour costs are considerably less.

Several key issues currently impacting on canned tuna processors globally include:

- **Overcapacity**: the global canned tuna processing industry is suffering from overcapacity, with plants operating at around 80-85% of their combined potential processing ability; new processing investments will only exacerbate this situation.

- **Raw material sources and pricing**: To date, most existing tuna processing facilities, while no doubt under pressure, have been able to respond to cyclical short-term price hikes (i.e. in 2007, skipjack prices reached $2,000/mt due to very high oil prices). However, with raw material supplies inevitably tightening (due to factors such as high seas area closures, stricter in-zone control of resource access), raw material prices are highly likely to increase over time and stimulate structural change within the industry. Some marginal processors are likely to close, while remaining players will likely need to adapt their raw material sourcing strategies and overall production models. Currently, processors are adopting a range of strategies to respond to rising raw material costs (e.g. increasing cold storage capacity to stockpile fish in times when prices are more reasonable, increasing production of value-added products which are high value and require less raw materials).

- **Increasing operating costs**: In addition to raw material price increases, canned tuna processors are also faced with increases in the cost of other key production inputs such as energy, empty cans, and labour, which also places considerable pressure on profitability. In response, many processors are in ‘cost control’ mode, looking for ways to streamline the production process and minimise costs. A pertinent example, as mentioned previously, is the increasing use of frozen cooked-loins for the canning process in high-cost labour locations.

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323 Author’s estimate of current processing capacity, based on McGowan and McClain 2010.
Sustainability issues: With biological limits being approached for bigeye and yellowfin and concerns even about the long-term sustainability of skipjack and albacore, tuna stock sustainability is of concern to canned tuna processors and all key players in the canned tuna supply chain. These limits have major implications for long-term access to adequate raw material supplies. More recently, there has been rising consumer demand for sustainably caught tuna. In European markets (particularly the UK), there is increasing demand for pole and line-caught skipjack and non-FAD purse seine caught skipjack, with a number of major retailers making public commitments to adopt more sustainable sourcing practices. In meeting consumer and retailer demand for sustainably caught tuna, processors are under increasing pressure to source raw materials that are certified sustainable and/or are caught through pole and line or non-FAD purse seine fishing, which, in the short term is going to prove difficult, as a large proportion of raw materials are currently caught by purse seiners fishing on FADs.

Changing tariff preferences: The rise in free trade agreements and potential multilateral trade liberalization that may eventuate with the successful conclusion of the WTO Doha negotiations have further implications. A number of developing country sites of production who rely heavily on trade preferences to maintain competitiveness will increasingly struggle to remain competitive.

See Appendix 2 for an overview of key canned tuna processing terminology. Appendix 3 presents an estimate of WCPO cannery receipts in 2009.

4.2 Thailand

4.2.1 Current processing sector status

Thailand has firmly established itself as the world’s leading producer of canned tuna. Consequently, it is also the largest market and global price leader for canning grade frozen tuna.

Development of Thailand’s tuna canning industry commenced in the early 1980s and has grown exponentially over the past thirty years, with annual total production of canned tuna and cooked loins now exceeding 700,000 mt. In comparison, Spain and the USA, the next largest canned tuna processors, produce around 200,000 mt annually.

A number of factors were instrumental in fuelling the development of Thailand’s canned tuna processing industry, including:

- a large, export orientated economy;
- an already well-established food processing industry (e.g. shrimp, chicken, canned fruit and vegetables), with supporting industries (i.e. can production, packaging, labelling, cold storage etc.) that could extend to tuna processing and help achieve economies of scale;
- a strategic location to source raw materials from both the Pacific and Indian oceans, ensuring continuity of supply;
- excellent shipping logistics;

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324 McGowan and McClain 2010.
325 Globefish 2010a: 74-75.
- trade financing available for raw material purchases and processing activities;
- a low cost and highly productive labour force;
- strategic commercial ‘co-packing’ relationships developed with firms in the US and EU, enabling market access and penetration in these key markets;
- the Thai government’s ‘pro-business’ policy focussing strongly on the provision of supporting infrastructure and incentives for the development of export-orientated industries; and
- diversified production bases of most firms who process other seafood products along with tuna, which allows cross-subsidisation between different production lines; and

In late 2010, there were 30 canned tuna processors operating in Thailand; the majority of which are located near Bangkok. The total combined annual processing capacity of Thailand’s canning facilities is around 3,000 mt/day of frozen whole round tuna. However, the facilities are currently operating at around 85% capacity (2,500 mt/day).327

The industry is dominated by two large-scale processors, Thai Union (1,000 mt/day) and Sea Value (850 mt/day). In 2006, Thai Union lost its position as Thailand’s (and the world’s) largest canned tuna producer to Sea Value (a holding company formed from a merger between two of Thai Union’s major competitors, ISA Value and Unicord).328 However, Thai Union has recently re-emerged as the market leader and is likely to remain the dominant player well into the future. Thai Union has adopted an aggressive growth strategy in recent years, focussing on expansion through the development of new markets and new products, as well as investment in overseas processing ventures (see Section 4.2.5). Sea Value, on the other hand, has adopted a ‘status quo’ strategy of maintaining current production levels and minimising costs.329 There is no particular company in strong third place; rather, there are several medium-scale sized firms processing similar volumes under 300 mt/day (i.e. Kingfisher Holdings, Chotiwat Manufacturing Co., Tropical Canning, Pataya Food Industries). The remaining processing firms are mostly small companies. The majority of Thailand’s processing operations are locally-owned, largely as a result of incentive schemes offered by the Thai Government which were purposefully designed to foster the development of locally-owned or joint venture businesses. Table 4.4 presents overviews of three of Thailand’s prominent tuna processing companies – Thai Union, Sea Value and Kingfisher Holdings.

In the absence of a sizeable domestic purse seine fishing fleet, around 85% of raw canning material for processing is imported by Thai tuna processors.330 In 2009, 811,621 mt of whole round frozen tuna was imported, valued at around US$ 1 billion.331 The majority of raw material is sourced from the WCPO (around 90%). Small volumes are also sourced from fleets operating in the Indian Ocean (i.e. EU, Maldives), particularly in times when fish prices from WCPO are higher, but more recently the availability of supply from this region has declined due to piracy threats.

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327 Aramwatananont 2010.
328 Campling et al. 2007: 346.
329 Interviews, Thai industry representatives 2010.
331 Aramwatananont 2010.
<table>
<thead>
<tr>
<th>Company</th>
<th>Corporate Structure</th>
<th>Processing Capacity (mt/day) /No. Of Workers</th>
<th>Corporate Strategy</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thai Union</td>
<td>Company established 1988. Publicly listed on Thai stock exchange in 1994. Conglomerate consisting of multiple subsidiaries. Tuna business handled by Thai Union Frozen Products PCL.</td>
<td>1,000 mt/day (240,000 mt/year) 12,000 workers</td>
<td>World's largest tuna producer (position further strengthened with recent MW Brands takeover). Striving to gain dominant position in global seafood business – plans for strong growth over next 5 years (US$ 4 billion in sales by 2015). Investment in tuna processing plants in US, China, Vietnam, Indonesia, PNG, France, Portugal, Seychelles, Ghana. 3 year freeze on new investments after MW Brands purchase.</td>
<td>Private label + own label brands – Chicken of the Sea (US), Select (Asia). 2 factories in Thailand; own fishing fleet – 4 TH-flagged purse seine vessels, operating in Indian Ocean. In 2009, 40% market share for canned tuna/cooked loins in Thailand (2009); 43% total TUF sales canned tuna/loins. Products – tuna cans/pouch/sealed containers/loins, other canned seafood products, canned pet food, frozen shrimp, salmon etc. Markets – US (50%), EU (11-13%), Japan (10%), Others. Recently purchased MW Brands (France) – acquired 5 PS vessels, 4 canneries, 4 EU brands (Petit Navire, Mareblu, John West, Hyacinthe Parmentier &amp; Mare-blu).</td>
</tr>
<tr>
<td>Sea Value</td>
<td>Company established 2004. Privately owned holding company with Thai shareholders. Partnership between for two major processors: Unicord Public Co. Ltd. + I.S.A. Value Co. Ltd.</td>
<td>800 - 850 mt/day 12,000 workers</td>
<td>World's second largest producer. Maintain status quo in terms of processing capacity; focus on cost savings. Rationale for 2004 merger – build economies of scale/ reduce transaction costs to strengthen position relative to Thai Union. No overseas investment in tuna processing plants.</td>
<td>100% private label, produced to customer specification. 4 factories (2 x I.S.A; 2 x Unicord); Markets in 30 countries, under 350 brand names. Products – canned tuna, standard &amp; value-added pouch, canned pet food, frozen cooked loins, other frozen tuna products, glass jars (not currently though). Also cans sardines/mackerel (130-150 mt/day)</td>
</tr>
</tbody>
</table>
## Company Overviews of Three Major Thai Tuna Processors cont.

<table>
<thead>
<tr>
<th>Company</th>
<th>Corporate Structure</th>
<th>Processing Capacity (mt/day) / No. Of Workers</th>
<th>Corporate strategy</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kingfisher Holdings Ltd.</td>
<td>Subsidiary of Maruha Nichiro (Japan) – Maruha investment in 1989.</td>
<td>200 mt/day (40,000 mt/year) 2,700 workers</td>
<td>Highly diversified seafood processor, focusing on high quality.</td>
<td>Former SAFCOL plant – first tuna canning firm in Thailand established in 1972 (Australia, Hong-Kong &amp; Thai capital).</td>
</tr>
<tr>
<td></td>
<td>Holding company for 5 subsidiaries.</td>
<td></td>
<td>Maintain status quo in terms of processing capacity; expand in-house cold storage capacity.</td>
<td>Only produce finished products; no loins. 90% private label; 10% own brand</td>
</tr>
<tr>
<td></td>
<td>Tuna business handled by Southeast Asian Packaging &amp; Canning (SEAPAC)</td>
<td></td>
<td>No overseas investment in tuna processing plants.</td>
<td>Main canned tuna markets – EU &amp; US (100% private label); premium canned pet food line for Japan. Own brand for domestic market, NZ.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 plants for tuna processing (SEAPAC) (100mt/day each), can making (K-Can), fish meal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Canning business (tuna, other fish + chicken) accounts for 50% turnover; frozen seafood 50%.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Products – canned tuna, premium frozen seafood products, pouch (tuna &amp; chicken), pet food, fish meal/ protein</td>
<td></td>
</tr>
</tbody>
</table>

Source: Multiple interviews, Thai industry representatives 2010; Campling et. al. 2007; Thai Union 2010, Sea Value 2010, Kingfisher 2010
The major fleets supplying raw material to Thai processors are Taiwan, US, Korea and Vanuatu (Figure 4.1).

**Figure 4.1  Thailand Skipjack Imports by Vessel Flag, 2009**

- S. Korea, 16%
- Vanuatu, 11%
- China, 5%
- Indonesia, 4%
- FSM, 4%
- Japan, 3%
- Others, 18%
- Taiwan, 20%
- USA, 19%

Source: Aramwatananont 2010.

Currently, the Thai purse seine fishing fleet consists of only four industrial-scale vessels owned by Thai Union that operate in IOTC waters. Despite previous indications that Thai processors were considering investing in fishing vessels to reduce the reliance on imported raw materials and increase supplies of RoO compliant catch, representatives from several prominent Thai tuna processing companies indicated that they have no intention of investing in fishing operations. According to one industry representative, “Fishing and processing are two entirely different businesses – the only thing they have in common is tuna!” Thailand has a small artisanal purse seine fleet of 50-60 vessels, operating mostly around Songkla in the southern region. These vessels mostly target coastal neritic species (bonito, tonggol) which are processed for sale in the local market. Thailand currently has a national fleet development plan with IOTC, which includes plans to develop a purse seine fleet comprised of 60 vessels (500 GRT) over the next five years. In June 2010, the Department of Fisheries was trying to obtain finance from the Thai Government to offer loans to the private sector to assist with vessel construction or modification.

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332 In 2006, Chanintr Chalisarapong, Chairman of the Thai Tuna Packers Group, in a presentation delivered at the INFOFISH Tuna 2006 conference, indicated “We want to build-up, step-by-step, our tuna fleet. We have many Thai packers who have money to invest in vessels with current distant water fleets”. Chalisarapong 2006.

333 Coastal or neritic tunas (often called bonitos) are important for food security but are regarded as a secondary market species and typically have darker meat, so are not often canned for premium markets.

334 The development plans also include 50 longliners (100-150 GRT). Investigations have been made into converting existing trawlers into small/medium-scale PS & LL, using modification technology developed by India. Interview, Thai Department of Fisheries representative, June 2010.
Given limitations in sourcing locally-caught canning grade tuna, major tuna trading companies (FCF, Tri Marine and Itochu) dominate raw material supply to Thai processors (see Chapter 3). In the case of Thai Union, at least 80% of raw material is sourced through trading companies, while Sea Value purchases 100%. Given the magnitude of volumes purchased Thai processors, Bangkok is the global price leader for canning grade raw material. While individual contracts are negotiated between each processor and trading company, transactions conducted by Thai Union (and to a lesser extent, Sea Value) set the benchmark global market price which underpins prices in other markets (i.e. Ecuador, American Samoa).

Thai canners experience difficulties attracting Thai workers, so are forced to rely heavily on migrant labour from Burma (50-60%). The transaction costs involved in sourcing migrant labour (i.e. transport to Thailand, agency fees, local Government registration, and provision of housing/food) translates into high labour costs. While labour costs in Thailand may be higher than some other competing processing sites (e.g. ~US $10/day compared with US $5/day in Vietnam) (see Table 4.3), very high labour productivity still enables Thailand to be competitive.

Thailand’s tuna processors are members of the Thai Tuna Packers Association, which largely serves as an intermediary between individual companies and the Thai Government for regulatory matters. Recent priorities for the industry association have been negotiations with the EU concerning implementation of the new EU- IUU fishing regulation and free trade agreement (FTA) negotiations with the EU, US and Japan.

### 4.2.2 Global processing operations

With the exception of Thai Union, Thailand’s tuna canning companies have not made significant investments in other countries.

In 2000, Thai Union acquired full ownership of Tri-Union Seafood, LLC, the owner of one of the top three US canned-tuna brands, Chicken of the Sea. While Tri-Union Seafood, LLC remains a US-registered company, Thai Union Frozen Products (registered in Thailand) is the parent company. Chicken of the Sea formerly operated a canning facility in American Samoa, but in 2009, relocated operations to Georgia, US to take advantage of opportunities to reduce production costs and increase competitiveness in the US market (see Section 4.3).

In July 2010, Thai Union Frozen Products purchased the European canned seafood giant, MW Brands from Triantac Capital Partners for €680 million. The sale included four tuna processing facilities based in France, Portugal, Seychelles and Ghana, as well as five purse seine fishing vessels (Ghana-flagged) and four European canned tuna brands (John West, Petit Navire, Mareblu and Hyacinthe Parmentier) (see Section 4.2.5).

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335 Multiple interviews, Thai industry representatives, 2006 & 2010.
336 Prior to 2000, Tri-Union Seafood LLC was a partnership between Thai Union International, Tri Marine International and Edmund A. Gann (owner of tuna fishing vessels operating in the US fleet).
337 FFA Fisheries Trade News, July & August 2010 (3: 7&8).
In the Asia-Pacific region, Thai Union also has some level of investment in processing facilities in Indonesia, Vietnam and China,\textsuperscript{338} as well as plans to establish a processing joint venture in PNG (see Section 4.2.5).

4.2.3 Processing links to WCPO

As mentioned, Thai processing facilities rely heavily on raw material supplies from the WCPO (around 90%). In 2009, of Thailand’s total tuna imports (761,000 mt), 704,000 mt (92.5%) was sourced from vessels fishing in the WCPO and only 56,000 mt from Indian Ocean catches.\textsuperscript{339} As the majority of Indian Ocean-caught canning grade tuna is supplied to processing facilities based in that region (i.e. Seychelles, Mauritius, Kenya, Madagascar), with supplies only occasionally diverted to Bangkok when the price is higher or in times when catches exceed demand from Indian Ocean processors, the extremely strong reliance on fish supplies from WCPO is unlikely to change.

At present, there is no Thai-capital investment in existing processing facilities in the WCPO region.

4.2.4 Major markets

The most significant markets for canned tuna exports from Thai tuna processors are the US, EU, Middle East, Australia and Canada (Table 4.5).

Table 4.5  Thailand Canned Tuna Exports (‘000 mt), 2005-2009

<table>
<thead>
<tr>
<th>Market</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>% Total Exported 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>111.5</td>
<td>103.1</td>
<td>87.7</td>
<td>94.9</td>
<td>121.4</td>
<td>23%</td>
</tr>
<tr>
<td>EU</td>
<td>82.3</td>
<td>95</td>
<td>80.3</td>
<td>79.9</td>
<td>78.3</td>
<td>15%</td>
</tr>
<tr>
<td>Middle East</td>
<td>8.6</td>
<td>10.3</td>
<td>10.3</td>
<td>61.9</td>
<td>66.1</td>
<td>12%</td>
</tr>
<tr>
<td>Australia</td>
<td>33</td>
<td>32.6</td>
<td>33.3</td>
<td>39.7</td>
<td>32.4</td>
<td>6%</td>
</tr>
<tr>
<td>Canada</td>
<td>28.8</td>
<td>29.7</td>
<td>26.4</td>
<td>28.1</td>
<td>30.8</td>
<td>6%</td>
</tr>
<tr>
<td>Japan</td>
<td>28.6</td>
<td>26.3</td>
<td>25.7</td>
<td>28.3</td>
<td>24.3</td>
<td>5%</td>
</tr>
<tr>
<td>South Africa</td>
<td>6.2</td>
<td>9.3</td>
<td>9.8</td>
<td>8.4</td>
<td>9.8</td>
<td>2%</td>
</tr>
<tr>
<td>Others</td>
<td>154.5</td>
<td>195.1</td>
<td>194.1</td>
<td>164.9</td>
<td>171.4</td>
<td>32%</td>
</tr>
<tr>
<td>Total</td>
<td>453.5</td>
<td>501.4</td>
<td>467.6</td>
<td>506.1</td>
<td>534.5</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: FAO Globefish 2010: 3, Aramwatananont 2010

\textsuperscript{338} China – Century Shanghai; tuna-related business is currently limited to branding for the Chinese domestic market (approx. 80 containers/year). Indonesia – Juifa Int. Foods; processing 100% albacore (50 mt/day). Vietnam – Yueh Chyang (subsidiary of Thai Union Group’s Songkhla Canning); processing 100% skipjack (80 mt/day capacity, currently processing 60 mt/day). Interview, Thai Union representatives, June 2010.

\textsuperscript{339} Pers. comm., Phil Roberts 2010, based on Thai Customs Data.
In 2009, the US market accounted for 23% (121,418 mt) of total Thai canned tuna exports, while the EU market accounted for 15% (78,267 mt). Within the EU, the UK and Germany have been important market destinations. Export volumes to the Middle East were only marginally lower than the EU market at 13% (66,097 mt), with significant growth experienced in past several years.

The Thai domestic market for canned tuna is minimal.

One of Thailand’s main market access strategies for exports (including canned tuna) has been to negotiate FTAs with principal markets.

Thailand has existing FTAs in place with Australia (2003), New Zealand (2005) and Japan (2007). Under the Thailand-Australia Free Trade Agreement (TAFTA), Thailand enjoys duty free access for unlimited volumes of canned tuna exported to the Australian market. Under the Japan-Thailand Economic Partnership Agreement (JTEPA), the import duty has been progressively reduced from 9.6% over five years and will reach 0% in 2011. However, improved access to the Japanese market is constrained by strict Rules of Origin (RoO), specifying that only fish caught by Thai and Japanese-flagged vessels, as well as other IOTC member vessels qualifies for the tariff preference. Given the small size of the Thai fishing fleet, potential gains to Thailand from the JTEPA are currently fairly limited.

The Thai canning industry has been disadvantaged in terms of US and EU market access relative to other competing sites of production (i.e. ACP and ANDEAN countries). For example, Ecuador, through the US-Andean Trade Preference Act (ATPA) enjoys duty free access for pouched tuna, while Thailand pays 12.5% import duty. Similarly, Ecuador benefits from a 24% duty exemption for canned tuna to the EU market, while Thailand’s GSP concession is only 3.5%, so exports are subject to 20.5% duty.

From 2003-2007, Thailand, as well as the Philippines and Indonesia (and other Asian countries), benefited from an EU single tariff quota system offered on a ‘first-come, first-served’ basis, whereby 25,000 mt of canned tuna and 4,000 mt of cooked loins could be exported to the EU at 12% import duty.

In 2008, FTA negotiations commenced between ASEAN members and the EU, but have since stalled. Instead, the EU is pursuing bilateral agreements with several individual ASEAN members. The EU has indicated a desire to commence discussions with Thailand, but according to industry sources, this has not been a Thai Government priority to date due to more pressing internal political problems.

FTA negotiations between the US and Thailand have also stalled, due to US concerns that the current Thai military regime was not democratically elected.

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ASEAN members include Indonesia, Laos, Malaysia, Vietnam, Thailand, Singapore, Philippines, Burma, Brunei and Cambodia.
4.2.5 Recent developments and future prospects

The most significant development in Thailand’s canned tuna processing industry over the past 12 months has been the takeover of MW Brands by Thai Union. Given Thai Union was already one of the world’s largest suppliers of private label canned tuna and also owns the major US-brand ‘Chicken of the Sea’, this purchase will assist Thai Union to strengthen its foothold in the EU market and as a result, increase its corporate concentration to become one of the most significant vertically-integrated canned tuna companies in the world.\(^{341}\) Purchasing MW Brands gives Thai Union leading market positions in France, UK, Ireland, the Netherlands and Italy. The acquisition of an additional five fishing vessels operating in the Atlantic Ocean also gives Thai Union more strategic access to raw materials from all major tuna fishing grounds (i.e. Atlantic, Indian and Western and Central Pacific Oceans), as well as processing bases in a number of significant canned tuna production sites (i.e. South East Asia, US, Africa and Europe).\(^{342}\)

Thai Union also has plans in place to establish a joint processing facility in Lae, PNG, in partnership with two Philippines investors, Frabelle Fishing Corporation and Century Canning (Majestic Seafood Corporation) (see Section 4.13). According to Thai Union representatives, the primary motivations for investing in PNG are to obtain greater access to raw materials and to take advantage of PNG’s preferential market access to the EU.\(^{343}\)

The introduction of the EU-IUU Fishing Regulation also impacted on the Thai canning industry in 2010. Mixed reports were received from industry sources – some raised concerns about how administratively cumbersome and slow the process is, while others indicated it has been ‘less of a headache than expected’, others. In anticipation of issues with sourcing fish supplies with EU-compliant catch documentation, Thai canners stockpiled raw materials at the end of 2009 for processing in the first few months following implementation of the regulation on 1 January 2010.\(^{344}\) In June 2010, an industry source reported that around 30% of Thailand’s imported tuna had EU-compliant catch certificates.\(^{345}\) Given exports to the EU accounts for only a portion of Thai canners’ total production (i.e. less than 20%), industry sources indicated that while it would be ideal if all imports had EU catch documentation, market outlets still exist for canned tuna utilising fish supplies that do not have EU-compliant catch certificates (see Section 11.3).

Industry sources indicated that Thailand’s ongoing political issues, which most recently came to a head in May 2010 with anti-government protests staged by the ‘Red Shirts’, are unlikely to have a significant impact on the tuna canning industry. According to one source, “Thailand has had 23 military coups and protests like the ‘Red Shirts’ five times before – this time around was no better or worse. The political issues are deeply internal and unless there are human rights abuses or foreigners become targets in protests, there is little risk of trade sanctions or other issues that might interrupt operations.”\(^{346}\)

\(^{341}\) Prior to purchase of MW Brands, TUF’s total sales to the EU market was reportedly around 11-13%. The acquisition is expected to increase the EU contribution to total sales to more than one-third. Atuna 2010i; FFA Fisheries Trade News, July & August 2010 (3: 7&8); Bangkok Post 2010.

\(^{342}\) Atuna 2010j.

\(^{343}\) Interview, Thai Union representatives, June 2010. Thai Union 2010.

\(^{344}\) The EU-IUU Fishing Regulation stipulations that fish caught from 1 January, 2010 onwards that enters the EU market, must be accompanied by the appropriate catch documentation.

\(^{345}\) Interview, Thai industry representative, June 2010.

\(^{346}\) Multiple interviews, Thai industry representatives, June 2010.
Recent developments in the American Samoa canning industry have had a positive spin-off for Thai canners. With the relocation of the Chicken of the Sea plant to the US mainland, Thai Union’s Bangkok-based plants have been processing albacore loins for the Georgia plant. Given the down-sizing of operations at StarKist, additional orders for light meat loins and cans have also been placed with Thai processors. In the event that American Samoa-based processors focus on albacore production (StarKist and in the near future, Samoa Tuna Processors, the former COS facility recently purchased by Tri Marine), it is likely that orders for light meat loins/cans will continue be diverted to Thai processors. Thai canners indicated that if the ASPIRE Bill for American Samoa passes, that some production will likely shift back to American Samoa (see Section 4.4.5).

Thailand’s canned tuna processing industry is considered to be relatively stable and industry representatives indicated that any developments over the next twelve months are unlikely to alter the industry significantly, although processors will feel the pressure of an inevitable rise in fish prices. Existing canning operations, even the smallest, were able to weather very high fish prices during 2007 (when the skipjack price reached $2,000/mt) and the 2008 global economic crisis. Thailand will continue to be the global canned tuna processing powerhouse, largely due to the economies of scale the industry enjoys in processing, shipping, cold storage, packaging etc. Given there is already latent processing capacity in Thailand (currently operating at ~85% capacity), it is unlikely that there will be any new entrants to the industry.

Industry representatives highlighted a number of issues that will continue to pose challenges for the Thai canning industry over the next 1-2 years (some of which also apply to canned tuna processors elsewhere), including:

- **Raw material sources and price** – Raw material supplies from the WCPO are likely to tighten given the introduction of high seas areas closures, as well as PNA countries’ intention to increase control over catch levels. Reduced supplies will inevitably translate into higher raw material prices (and potentially higher finished product prices). Given raw material costs account for such a high proportion of total production costs (~70%), this will place increasing pressure on Thai processors (and processors elsewhere sourcing fish supplies from the WCPO). To try and combat this issue, some Thai processors are looking to increase their cold storage capacity to stockpile inventories of lower priced raw materials for use during times when fish prices are too high.

- **Labour costs** – Thai processors will experience ongoing issues attracting Thai nationals to work in processing plants and will continue to rely heavily on more expensive migrant labour from Burma and Cambodia.

- **Increasing operating costs** – Operating costs will continue to increase. Rising energy costs have translated into higher costs of electricity, freight, raw materials, packaging materials, seasonings/condiments etc. Of particular concern is a recent 20% increase in the cost of empty cans due to rising steel prices.

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347 American Samoa Protection of Industry, Resources and Employment Bill.
348 Thai Union plans to increase its cold storage capacity by 20,000 (10,000 mt of which will be dedicated solely to storing tuna). Kingfisher Holdings also intends to increase its cold storage by 10,000 mt. Interviews, Thai industry representatives, June 2010.
- **Foreign exchange rates** – As the majority of financial transactions relating to tuna imports/exports are conducted in foreign currencies (i.e. US dollars, Euros), Thai processors are susceptible to exchange rate losses, particularly at present, while the Thai Bhat is very strong.

- **Trade barriers** – Tariff barriers to trade, particularly for the US and EU markets will continue to be a constraint for Thai processors in the short-medium term, unless FTAs can be successfully negotiated. Non-tariff barriers to trade also present ongoing issues particularly for the EU market (i.e. meeting strict quality standards (SPS)), compliance with the administratively burdensome EU-IUU Fishing Regulation.

- **Rising competition** - If the proposed processing plants in PNG (and to a lesser extent, Solomon Islands) are established and operate effectively, there will likely be some competitive impacts experienced by the Thailand canned processing sector (and Philippines). However, the potential impacts on Thai canners are likely to be felt more in the medium term (5-10 years), by which time, PNG duty preferences to the EU market may have started to erode.

- **US anti-dumping investigations** – American Samoan Congressman Faleomavaega has requested the US Department of Commerce open an anti-dumping investigation on canned tuna imported from Thailand, suggesting Thai exporters are selling tuna in the US below cost or fair market value.\(3^49\)

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**Key Points: Thailand**

- Thailand is the world’s leading producer of canned tuna and the global price market leader for canning-grade whole round frozen tuna. Over the past thirty years, Thailand’s tuna canning industry has grown exponentially, with annual total production of canned tuna and cooked loins now exceeding 700,000 mt.

- In late 2010, there were 30 canned tuna processors operating in Thailand, with a total combined annual processing capacity of 3,000 mt/day. Facilities are currently operating at around 85% capacity (2,500 mt/day).

- The industry is dominated by two large-scale processors, Thai Union (1,000 mt/day) and Sea Value (850 mt/day). Several medium-scale operations process around 300 mt/day (or less), with the remaining processing firms being mostly small companies.

- Around 85% of raw canning material for processing is imported by Thai tuna processors. The majority of raw material is sourced from the WCPO (~90%) through trading companies.

- Thai canners experience difficulties attracting Thai workers and rely heavily on migrant labour from Burma (50-60%).

- The most significant markets for canned tuna exports from Thai tuna processors are the US, EU Middle East, Australia and Canada.

- Major recent industry developments include the takeover of major EU processor and brand owner, MW Brands by Thai Union and Thai Union’s investment in a joint processing facility in Lae PNG.

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\(3^49\) Seafood Source 2010. Interviews, Thai industry representatives, June 2010.
4.3 United States - Mainland

4.3.1 Current processing sector status

In 2010, there were three major branded tuna processing firms operational in the US: Bumble Bee Foods, Chicken of the Sea International and StarKist Seafood Co (see Table 4.6 for company overviews and Section 5.3.1 for these firms’ role in the US tuna market).

Notably, each of the three firms are part of much larger, diversified firms that sell a range of products, own a range of brands, supply a range of markets and are sometimes vertically integrated into fishing. For example, Lion Capital LLP, owner of Bumble Bee, is a private equity firm focused on the consumer sector. Bumble Bee itself produces and markets shelf-stable tuna, salmon, sardines, clams and other seafood products sold under a range of brand names.350 Thai Union, owner of Chicken of the Sea, also owns MW Brands whose product range includes tuna and a comprehensive range of shelf-stable seafood products for the EU market (see Section 5.2). Dongwon, owner of StarKist, is a large Korean firm with activities in marine products, fishing and farming, among many other investments. The main point here is that the US processing sector is folded into large diversified firms, indicating that shelf-stable tuna is not seen as a stand-alone investment. Being part of a larger portfolio of investments can be advantageous (i.e. an asset for attracting investors or raising capital), but can also be detrimental (i.e. if the brand is not a high priority in the larger portfolio).351

Historically, the US was the first and the largest contemporary tuna canning industry in the world. As low cost competition emerged, first from Japan and later from Thailand and other Southeast Asian countries, the US switched production to the US territories of American Samoa (see Section 4.4) and Puerto Rico or to Southeast Asia. The moves were aimed at combating the affects of high wages and strict environmental regulations on the US mainland. As a result, since 1979, twelve canneries based in the US and its overseas operations have closed. In 2009, one plant, owned and operated by Chicken of the Sea International opened in the mainland, the first onshore investment in US tuna processing since the 1970s (see below).352

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350 Lion Capital 2010.
351 For example, reportedly, Del Monte (the previous owner of StarKist) did not see StarKist as a high priority and left the brand to stagnate. Interviews, Multiple US industry representatives 2010.
### Table 4.6 Company Overview of the ‘Big Three’ US Brands (2010)

<table>
<thead>
<tr>
<th>Brand/ sales (year)</th>
<th>Ownership</th>
<th>Corporate strategy</th>
<th>Tuna product focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken of the Sea/ Thai Union International/ US $2,803.3 million (2009)</td>
<td>Wholly owned subsidiary of Thai Union Frozen Products PLC since 2000. COSI remains a US registered company.</td>
<td>COSI provides Thai Union with assured sales volume in the US and enables Thai Union to market its own product innovations in the US directly. Focus on quality, innovation + product diversification.</td>
<td>US leader in food services/catering market sector. 15% of catering market, but private label product makes up 60% of market, and a large share of this is packed by Thai Union.</td>
</tr>
<tr>
<td>StarKist Seafood Co. US$560 million (2008)</td>
<td>Purchased from Del Monte Foods (USA) by Dongwon (Korea) in 2009, an integrated processing, logistics and fishing firm.</td>
<td>Large market share, but stagnant in recent years. With change of ownership, firm has announced expansion of product lines and markets.</td>
<td>US market leader in light meat. US market leader in pouch tuna which reflects a high proportion of the firm’s profit, though pouch market stable, not growing. Portfolio roughly 2/3 light meat, 1/3 whitemeat.</td>
</tr>
</tbody>
</table>

Sources: Adapted from Campling, Havice and Ram-Bidesi 2007: 292; pers. comm. multiple industry officials 2010; Mergent Online and Hoovers industry databases 2010.

From 1979-2000, the US (including its overseas territories) was the largest producer of canned tuna in the world. In 2001, Thailand overtook the US as the largest producer and in 2002, Spain pushed the US to third place (Figure 4.2).355

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353 This figure is sales for the entire Thai Union International, Inc. which includes Chicken of the Sea International (Tri-Union Seafoods, LLC, Empress International Ltd. and Chicken of the Sea Frozen Foods (Tri-Union Frozen Foods, LLC.).

354 Sales figure reported here was before Dongwon took over the brand. Since the brand takeover, Dongwon has reportedly been devoting time and attention to expanding the market and sales. Pers. Communication, Industry representative, July 2010; Pittsburgh Tribune Review 2010.

355 Campling et. al. 2007: 283.
In 2010, there were two tuna canneries in the mainland US. The Bumble Bee plant in Santa Fe Springs, California produces 1,000 cans per minute, but employs only 220 workers. Upon closing its plant in American Samoa in 2009, Chicken of the Sea invested approximately US$ 20 million to revamp a plant in Lyons, Georgia. The plant, which became operational in mid-2009 focuses on high productivity with a labour force of approximately 200 workers, a far leaner workforce than the 2,000 plus workers employed in American Samoa. Both of these plants, and Bumble Bee’s plant in Puerto Rico, use only tuna loins in the production process and do not process any whole round fish.

Two factors make this production strategy possible: highly productive, capital intensive production and the effective protection of US tariffs applied to foreign canned product entering the US market. Tuna loins enter the US at the very low tariff rate of US $11/mt (i.e. approximately 0.7% of skipjack selling at US$ 1,500/mt; the savings are even greater as raw material prices increase). In comparison, canned tuna imports are charged between 6% and 35% to enter the US market.

Only StarKist's American Samoa plant was still processing whole round fish, as of late 2010. This is largely influenced by a requirement that fish contained within cans processed in American Samoa must be ‘substantially transformed’ to quality for duty free market access to the US; using loins does not meet this requirement. A StarKist representative suggested that loin production may increase in 2011 to save on labour costs, but only to a level that would not exceed the 30% requirement for ‘substantial transformation’ to quality for the duty preference, which is measured by overall production, not individual shipments (see Section 4.4.1).

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Cannady 2009.
In late 2010, there was no available data on how Chicken of the Sea’s plant closure in American Samoa and new plant in Georgia would further affect the US status in processing, however, industry representatives suggest that US processing may decline by more than 60,000 mt per year.\textsuperscript{358}

Table 4.7 provides an overview of production capacity and supply of US-based tuna processing facilities; notable trends are the reliance on processing loins, rather than whole fish, in US processing locations – a production decision that outsources the labour intensive skinning and boning to production sites with lower wage labour, and the diversified supply sources that most plants have implemented.

Table 4.7 Production Capacity and Supply of US-Based Tuna Processing Facilities, 2010

<table>
<thead>
<tr>
<th>Company/ cannery</th>
<th>Whole round tuna (mt/annum)</th>
<th>Frozen loins (mt/annum)</th>
<th>Sources of supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bumble Bee</td>
<td>None</td>
<td>20,000</td>
<td>Trinidad, Ecuador, Ecuador, Fiji (PAFCO), Mauritius, PNG (SSTC), Thailand</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>None</td>
<td>40,000</td>
<td></td>
</tr>
<tr>
<td>Santa Fe Springs, CA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicken of the Sea</td>
<td>None</td>
<td>24,000</td>
<td>Thailand (Thai Union) for light meat, small purchases from Ecuador, Columbia for albacore.</td>
</tr>
<tr>
<td>Georgia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>StarKist</td>
<td>2010: 84,000 2011 (expected): ~60,000</td>
<td>2010: 11,000</td>
<td>Albacore (whole round): Taiwanese, Korean and regional LL in North and South Pacific, Indian and Atlantic Oceans. Surface in Pacific and Atlantic Oceans (jig boat fleet) Light meat: US and other PS fleets in WCPO (whole round); PNG and Thailand (loins).</td>
</tr>
<tr>
<td>American Samoa a</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Sources: Adapted from Campling et. al. 2007: 286; interviews, multiple US industry officials, July 2010.
The introduction of Chicken of the Sea’s plant in the mainland and Bumble Bee’s long-term strategy towards using loins in Puerto Rico and Santa Fe Springs, California makes the US a major market for tuna loins for further processing into cans (see Section 5.3). Table 4.8 provides details on the main suppliers of loins to the US market. Overall demand has fluctuated, with high demand years requiring 15% more loin than low years. In 2009, Thailand, Fiji (PAFCO) and Trinidad and Tobago (Bumble Bee managed plant) provided over 65% of the loins for processing into cans in plants in the US. The table does not include the increased demand for loins that Chicken of the Sea’s new plant in Georgia will require or that StarKist will require if it shifts to processing a higher ratio of loins in its American Samoa plant. Industry officials recognise that demand for loins is increasing, noting that ‘there isn’t enough loin for everyone’. Firms are reportedly seeking to diversify their supply sources. Demand for loins is expected to continue as long as tariffs disadvantage imports of canned tuna products and create incentives for imported loins in the mainland United States.

Table 4.8 US Imports of Cooked Tuna Loins by Supplier ('000 mt), 1998-2009

<table>
<thead>
<tr>
<th>Export country</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand</td>
<td>7.7</td>
<td>4.1</td>
<td>6.3</td>
<td>9.6</td>
<td>8.2</td>
<td>8.7</td>
<td>12.5</td>
<td>7.8</td>
<td>14.9</td>
<td>10.1</td>
</tr>
<tr>
<td>Fiji</td>
<td>3.1</td>
<td>11.5</td>
<td>10.9</td>
<td>11.9</td>
<td>14.9</td>
<td>14.5</td>
<td>12.4</td>
<td>11.0</td>
<td>10.7</td>
<td>12.7</td>
</tr>
<tr>
<td>Trinidad &amp; Tobago</td>
<td>-</td>
<td>-</td>
<td>2.3</td>
<td>11.1</td>
<td>13.2</td>
<td>13.4</td>
<td>12.3</td>
<td>10.5</td>
<td>9.7</td>
<td>9.4</td>
</tr>
<tr>
<td>Ecuador</td>
<td>31.9</td>
<td>16.2</td>
<td>12.9</td>
<td>10.9</td>
<td>6.9</td>
<td>6.5</td>
<td>4.0</td>
<td>1.2</td>
<td>0.9</td>
<td>0.1</td>
</tr>
<tr>
<td>Others</td>
<td>4.6</td>
<td>0.6</td>
<td>3.0</td>
<td>0.3</td>
<td>0.8</td>
<td>3.6</td>
<td>9.9</td>
<td>13.3</td>
<td>9.0</td>
<td>16.4</td>
</tr>
<tr>
<td>Total</td>
<td>47.3</td>
<td>32.4</td>
<td>35.4</td>
<td>43.8</td>
<td>44.0</td>
<td>46.7</td>
<td>51.1</td>
<td>43.8</td>
<td>45.2</td>
<td>48.7</td>
</tr>
</tbody>
</table>

Source: Globefish 2010a: 35.

4.3.2 Global processing operations

Each of the ‘big three’ US tuna companies has investments and/or managerial control over processing plants in third countries that enable them to secure supply and competitive production in the very-low margin tuna processing business. The geographic location of sourcing, processing and export decisions are based on resource availability, labour costs, market access and the investing firms’ product focus. In addition to the formal investment or management roles in Table 4.9, the US ‘big three’ also have supply arrangements in place that further diversify their supply sources. For example, StarKist and Bumble Bee both purchase loins from the SSTC plant in PNG (though this is limited in quantity since the plant has low capacity) and StarKist has co-packing arrangements with firms in Thailand. A notable point is that US processing firms have diversified supply strategies that involve supply contracts, management contracts and financial investments in processing facilities around the world.

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359 Interview, US processing industry representative, 2010.
Table 4.9 ‘Big Three’ US Tuna Companies: Investment in Third Countries 2010

<table>
<thead>
<tr>
<th>Company</th>
<th>Investment site/ product</th>
<th>Processing capacity (round, mt/year)</th>
<th>Supply source</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bumble Bee</td>
<td>Fiji (PAFCO)/ loins for Santa Fe Springs plant</td>
<td>33,000</td>
<td>Albacore: Taiwanese, PRC and Fiji LL</td>
<td>Bumble Bee management. Fiji Government ownership.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Light meat: PS fleets in WCPO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trinidad and Tobago/ loins for Puerto Rico plant</td>
<td>29,000</td>
<td>Albacore: Taiwanese and regional LL in the north and central Atlantic</td>
<td>Bumble Bee management (no ownership).</td>
</tr>
<tr>
<td></td>
<td>Thailand (Sea Value)/ cans for US market</td>
<td>195,000</td>
<td>Light meat: Taiwanese PS fleet in WCPO and Spanish PS fleet in Indian Ocean</td>
<td>Supply contract in place. Bumble Bee formerly held a 10% financial interest.</td>
</tr>
<tr>
<td></td>
<td>Mauritius/ loins for Santa Fe Springs and Puerto Rico market</td>
<td>50-60,000</td>
<td>Albacore: Taiwanese LL in Indian Ocean</td>
<td>Supply contract in place with Bumble Bee (no ownership/ management, just QA staff). 50% Mauritian/ 20-25% Spanish/ rest unknown</td>
</tr>
<tr>
<td>COSI</td>
<td>Thailand (Thai Union)/cans and pouches for US market</td>
<td>300,000</td>
<td>Supply of all species from all fleets and oceans</td>
<td>COSI owned by Thai Union</td>
</tr>
<tr>
<td>StarKist</td>
<td>Ecuador (2 plants, Guayaquil and Manta)/ pouches for US market</td>
<td>72,000</td>
<td>Ecuadorian PS fleet. US purse seine via carriers from American Samoa. Other WCPO PS catch via trading companies.</td>
<td>StarKist management and co-ownership of plant facilities.</td>
</tr>
</tbody>
</table>


Note: Notably, fish caught by the newly expanded US purse seine fleet do not qualify for duty free access to the US market granted for tuna in pouches through the Andean Trade Preferences Act because the new vessels were not built in the US and do not have a ‘Fisheries Endorsement’ from the US Coast Guard. Pers. comm., US Industry representative, July 2010.
A closer look at Bumble Bee’s sourcing and production strategy, which focuses on white meat (albacore) product, provides a clear example of how firms have globalised their production processes. Bumble Bee sources albacore loins from Fiji (PAFCO - Bumble Bee managed plant) and Mauritius (Bumble Bee managed plant) and light meat loins from PNG and Thailand for its Santa Fe Springs plant on the west coast of the United States. It sources albacore loins from Mauritius (Bumble Bee managed plant) and Trinidad and Tobago (Bumble Bee managed plant) and light meat loins from Ecuador for its Puerto Rico Cannery on the eastern seaboard of the United States (see Figure 4.3). This kind of global sourcing strategy is common among large brands in all principal markets because it enables consistency of supply when catches are low and/or there are political or regulatory constraints in one region. Bumble Bee’s east coast–west coast split not only offers processing destinations with market access in positions closest to supply sources, it also saves on domestic transportation costs and the two plants distribute product to the markets closest to them in the US.

**Figure 4.3  Bumble Bee’s Global Sourcing and Production Strategy**

Source: Campling et. al. 2007: 287.
4.3.3 Processing links to WCPO

Bumble Bee is the most important direct partner of the three US firms in any of the Pacific Island countries, though the links to WCPO supply are strong for all firms given the high proportion of global tuna supply coming from this ocean. Bumble Bee has been in direct supply arrangements with the Fiji PAFCO plant since 1997, and in recent years has managed plant operations. In 2010, Bumble Bee indicated plans to expand cold storage facilities at PAFCO to increase its reserve of albacore. More indirectly, the WCPO supplies processing plants with which the US processing sector has both direct relations (e.g., ownership, partial ownership and/or management responsibility) and indirect relations (e.g., co-packing arrangements). Such plants are in Thailand (see Section 4.2), and increasingly, in Latin America (see Sections 4.6 and 4.16). The ‘big three’ firms indicate that their processing investments are relatively stable and that in general, they are not looking to make new investments in processing in the WCPO. This decision at least partially reflects a general industry-wide feeling that the processing sector is at maximum capacity (given supply and market dynamics), if not overcapacity. However, a notable exception is that Thai Union, owner of the Chicken of the Sea brand, is an investor in the Majestic Seafood Corporation processing facility in Lae, PNG, for which construction began in 2010 (see Sections 4.2 and 4.13). Also, Dongwon, owner of StarKist, has plans to establish a processing operation in the Solomon Islands.

4.3.4 Major markets

The vast majority of product produced by the US ‘big three’ is destined for the North American market, primarily the US, though Centre Partner’s (the owner of Bumble Bee and the larger Connors Brothers set of brands) has significant presence in Canada as well. The ‘big three’ brand labels command upwards of 80% of the US market, though private labels are gaining increased market share. The details of the US market are highlighted in more detail in Section 5.3, but a few important trends are highlighted here.

Within the ‘big three’ the market is differentiated in major market segments:

- Light meat (skipjack): StarKist is the leader in terms of sales in the light meat segment, Chicken of the Sea is second.
- While meat (albacore): White meat is a higher value item than light meat. Given Bumble Bee is the leader in this market segment, the company has an advantage over the other two brands in terms of total sales value.
- Catering market: Chicken of the Sea is reportedly the market leader in the food services/catering market. In addition to branded catering, its parent company packs a great deal of the 60% of catering tins that are private label.
- Pouches: StarKist is the market leader for tuna in pouches. This high value product reportedly accounts for only 20% of StarKist’s production, but 50% of its profits.

363 Interview, US industry representative, July 2010.
364 Interview, multiple US processing industry representatives, 2010.
365 FFA Fisheries Trade News, July-August 2010 (3:7&8).
366 Campling et. al. 2007: 284; Melbourne 2010.
367 Campling et. al. 2007: 292.
In the past several years, the ‘big three’ have each been working to expand their market share. Reportedly, the companies have switched their foci from expanding market share into improving profitability, in which market share is only one potential mechanism for improving profitability across the entire production and consumption system.\textsuperscript{368} This has been important as tuna consumption from 2000-2010 in the US market has been stagnant, or even declining, from a peak of 3.9 lbs per capita in 1989 to 2.9 lbs per capita in 2008.\textsuperscript{369} In 2009, consumption rebounded to 3.3 lbs per capita.\textsuperscript{370} To cope, the major brand name firms are launching a category-wide advertising campaign and many are expanding their product lines and markets.

### 4.3.5 Recent developments and future prospects

Several key trends continue to demonstrate the highly dynamic nature of the US canned tuna processing sector:

- US processing firms are components of larger, global firms, some of which have investments in a wide array of products and brands that include, but are not limited to, tuna processing, branding and fishing investments. The US firms use strategic T with parent companies, and investments in third countries, to secure consistent, competitive supply and market access. US brand name firms are owned by larger, highly diversified companies, suggests that shelf-stable tuna alone has not been the primary business strategy in the sector.

- There is a strong trend away from labour-intensive processing and towards importing loins for canning in US plants. This trend is expected to continue as long as foreign canned imports pay tariffs upon entry to the US market.

- In 2010, each of the ‘big three’ US processors launched major advertising campaigns and the firms were also collaborating on a category wide advertising campaign. All efforts are to bolster a stagnant US market for canned tuna and to improve the profitability of low-margin shelf-stable tuna products (see Section 5.3).

- StarKist also announced its intention to expand its markets beyond the US and beyond tuna products. In 2011, StarKist will roll out 10 new frozen products and will look to expand in the South American market initially, drawing on its processing investments in Ecuador and building relationships with companies with operations and distribution capabilities.\textsuperscript{371} This announcement is further evidence of the import of diversified products and markets in the competitive shelf-stable seafood industry.

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**Key Points: US - Mainland**

- The US was the first and the largest contemporary tuna canning industry in the world. As low cost competition emerged from Southeast Asian countries, the US switched production to the US territories of American Samoa and Puerto Rico to combat high wages and strict environmental regulations on the US mainland.

\textsuperscript{368} Interview, US industry representative, July 2010.
\textsuperscript{369} Connelly 2008: 25; Campling et. al. 2007: 296.
\textsuperscript{370} Melbourne 2010: 7.
\textsuperscript{371} Pittsburgh Tribune 2010.
Key Points: US – Mainland cont.

- Since 1979, twelve canneries based in the US have closed. In 2010, there were two tuna canneries operating in mainland US – Bumble Bee (Santa Fe Springs) and Chicken of the Sea (Georgia). Both plants only process cooked tuna loins in highly productive, capital intensive production systems. In 2010, total combined maximum processing capacity of the two US mainland facilities was 60,000 mt of frozen loins.

- The US has three major branded tuna processing firms - Bumble Bee Foods, Chicken of the Sea International and StarKist Seafood Co; each of which has investments and/or managerial control over processing plants in third countries.

- The WCPO is a critical source of supply for the three major US brand firms.

- The vast majority of product produced by the US ‘big three’ is destined for the North American market, primarily the US. The ‘big three’ brand labels command upwards of 80% of the US market.

4.4 United States - American Samoa

4.4.1 Current processing sector status

Tuna processing has been the primary private sector industry in American Samoa since the 1950s. Chicken of the Sea International and StarKist invested in processing plants in Pago Pago to take advantage of the US territory’s unique economic and political relationship with the mainland United States (which grants duty free access to the mainland US market), its proximity to the rich tuna fishery in the WCPO and its cheap labour force relative to the mainland US. From the 1960s until 2009, both plants operated consistently as high volume producers of canned tuna for the US market (Table 4.10). The plants processed primarily whole round fish – which was delivered directly to their docks by purse seine vessels – into cans for the US market, as well as loins and some pouches, but in much smaller proportions. With production capacities of well over 100,000 mt per annum each, the plants were two of the biggest operators globally. In 2006, tuna exports from American Samoa totalled 20.7 million cases, valued at US$431.5 million. The tuna canneries employed some 4,757 people – 27.3% of total employment in American Samoa.372

Beginning in the 2000s, the Pago Pago plants began to lose their competitive edge in the global tuna economy. While wage costs were comparatively lower than the mainland US (~US$3.21/hour as compared to ~US$6.50/hour), at the time they were far higher than competitors in Asia and Latin America (~US$0.66/hour and ~US$0.80/hour, respectively)373 who proved able to compete with American Samoan product, even while paying US duties ranging between 6% and 35% (depending on the product and its origin). Potential global preference erosion from the World Trade Organisation and regional preference erosion from bilateral trade negotiations between the US and Thailand and the US and Ecuador also remained a looming threat to tuna processing in American Samoa.

372 US Department of Labour 2008: 4. Note that the majority of cannery employees are nationals from Independent Samoa (formerly Western Samoa).
373 Campling & Havice 2007: 222; Interviews, Ecuador industry officials, August 2010.
Following increasing competition from wage and tariff variables, as well as management and global production changes in both firms, 2007 dealt the American Samoan industry a crippling blow when minimum wage legislation passed in the US required American Samoa to incrementally increase wages by more than double, from US$3.21/hour to US$7.25/hour. With mounting operational costs and options for processing firms to make more cost-effective investments elsewhere, in September 2009, Chicken of the Sea International closed its plant, relocating to the state of Georgia in the mainland United States and switched its production strategy to processing only loins (See Section 4.3).

StarKist is still operational, though it is making significant changes in its production decisions to remain as competitive as possible with rising labour costs. First, it is operating on a far leaner production force, laying off upwards of 800 workers in early 2010. In order to continue to keep production high with a leaner labour force, the plant is processing fewer whole frozen tuna (which requires labour to skin and loin), in favour of processing imported frozen loins from Thai plants, Pan Pacific Foods in the Marshall Islands and SSTC in Papua New Guinea. The switch towards importing loins presents sourcing challenges as global loin demands increase.

StarKist Samoa Inc. Photograph: Elizabeth Havice
### Table 4.10 American Samoa Tuna Processing Operations, 1954-2010

<table>
<thead>
<tr>
<th>StarKist Samoa (1963-Present)</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Product</strong> (Us market)</td>
<td><strong>Annual raw Material processing capacity (mt/annum)</strong></td>
<td><strong>Employment</strong></td>
</tr>
<tr>
<td>Tuna in cans, pet food, pouches</td>
<td>1985: 80,000 2006: 125,000 whole round tuna; 10,000 frozen loins 2010: 84,000 whole round tuna; 11,000 frozen loins 2011 projection: 60% round/40% loin.</td>
<td>2006: ~2,500 2010: ~1,700</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chicken of the Sea International (1954-2009)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product</strong> (Us market)</td>
<td><strong>Annual raw Material processing capacity (ml/annum)</strong></td>
<td><strong>Employment</strong></td>
</tr>
<tr>
<td>Canned, pet food, limited pouches</td>
<td>1985: 75,000 2006: 90,000 whole round tuna /20,000 frozen loins 2010: 0 (plant closure)</td>
<td>2006: ~2500 2010: 0</td>
</tr>
</tbody>
</table>


However, it is unlikely that American Samoa would ever become a loin-only processing site for two reasons. Firstly, one of American Samoa’s major strengths has historically been in albacore processing, a high value product which is generally directly offloaded or shipped in containers from the longline fleet in the industry either in whole round or headed and gutted form, both of which require processing. In 2010, StarKist was processing 70,000 mt of skipjack and 32,000 mt of albacore. Second, rules of origin, listed under Headnote 3(a) of the US Tariff schedule requires that 30% of product value must be created in American Samoa to enter the US duty free. American Samoan plants use round fish processing to ensure that they stay within this limit, which is measured by overall production, not individual shipments.

#### 4.4.2 Global processing operations

The plants in American Samoa are one of many global investments by their trans-national parent companies. As a result, the plants’ operational futures are part of a relative equation in which parent companies weigh the costs of labour, operations, market access and raw material sourcing strategies, among other factors, against competing production sites.

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376 StarKist announced plans to eliminate 600-800 jobs in 2010. In late 2010, StarKist had completed its first round of layoffs in which 300 hundred workers lost their jobs. FFA Fisheries Trade News July-August 2010 (3: 7&8).

377 Note that COSI processed a high volume of loins before its closure. Loins were likely imported directly from COSI’s parent company, Thai Union.


379 Interview, US industry representative 2010.
The closure of the Chicken of the Sea plant demonstrates how the global nature of competition in the sector influences the geographic location of production. When the Chicken of the Sea plant in American Samoa closed, to avoid completely losing the duty-free access to the US market that the American Samoa plant offered, Chicken of the Sea opened a new plant in the mainland US. The new plant only processes imported loins, transforming them into cans and distributing them to the US market. While loins are not duty-free, they are imported at the low tariff of US$11.00/mt; importing them from low-cost, high labour productivity sites, such as Thailand (home of Chicken of the Sea’s parent company, Thai Union), means that the firm saves on labour costs and avoids the high tariffs that tuna canned in Thailand would have to pay to enter the US market. The new Chicken of the Sea plant in Georgia is highly mechanised, requiring only limited labour for its operation.

4.4.3 Processing links to WCPO

One of American Samoa’s major advantages has historically been its proximity to WCPO resources. Transporting fish to American Samoa costs less than freighting it to Thailand, a savings reflecting the price that the American Samoan plants pay for fish. In addition, as mentioned above, one of American Samoa’s major strengths has historically been in albacore, a high value product which is generally directly offloaded or shipped in containers to the American Samoa plants. In 2010, approximately 30% of StarKist’s production portfolio was in albacore. As these fish tend to be larger than light meat species, recovery rates tend to be higher which enhances labour productivity and thus reduces (but does not eliminate) American Samoa’s relative disadvantage of higher wages. Furthermore, albacore is a more expensive product than light meat in the US market, making the duty free access more of an advantage against duty-paying competitors.

In the past, the Taiwanese longline fleet and the two canneries cooperated together as the ‘Pacific Operating Committee’ to stabilise the price of albacore over three month time periods. Since Chicken of the Sea closed, the Pacific Operating Committee has stopped functioning, though StarKist remains an important buyer for the regionally based longline albacore fleet. Reportedly, Chicken of the Sea’s closure has created a surge in the availability of albacore, some of which has been absorbed by Bumble Bee via PAFCO in Levuka, Fiji. Indeed, Bumble Bee is building expanded cold storage facilities at PAFCO in order to purchase albacore when availability is high and price is low.

4.4.4 Major markets

As noted above, all product processed in American Samoa is destined for the US market because product enters the US market duty free. With both plants operational, American Samoa produced over 20 million cases of canned tuna each year. With only StarKist operational, it is expected that that figure will be roughly cut in half.

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380 Again, these loins are likely to come from COSI’s parent company, Thai Union.
381 In the past, a ‘rule of thumb’ price differential applied between the American Samoan and Bangkok markets for skipjack has been around US $150/mt. However, a knowledgeable industry representative indicated that presently, the price differential is lower and likely between US $50-100/mt. Interviews, multiple industry representatives 2010.
382 Interview, StarKist representative 2010.
American Samoa’s tuna processing industry was in a serious state of flux in 2009-10. In addition to the closure of the Chicken of the Sea plant, StarKist was undergoing staged layoffs that would eventually cut the labour force in the plant by half. In order to make the plant efficient with the lower labour force, StarKist is shifting from processing whole round and headed and gutted fish, to processing imported loins into cans. StarKist has investigated establishing a loining facility in neighbouring Samoa that would supply the canning plant in American Samoa. Such investigations have been continuously proposed in the region, though no action has ever been taken, in part because establishing such a facility would require dramatic supporting infrastructure improvements. Industry representative express doubt that such a project will move forward.

The former-Chicken of the Sea facility will recommence processing operations. In October 2010, Tri Marine International (see Section 3.2) purchased the Chicken of the Sea plant in American Samoa with plans to recommence tuna processing operations (under the name of Samoa Tuna Processors Inc.). Tri Marine officials have made clear that the company will not replicate Chicken of the Sea’s business model and instead focus on the production of very high quality tuna (both canned and fresh-chilled/frozen) for the US market. Any processing activities will require significant investment since Chicken of the Sea transferred the majority of the processing equipment to its plant in Georgia. The remaining assets include the plant buildings, cold storage facility and shipping dock. Industry representatives suggest that in the long-term, both plants could become primarily albacore canneries because as mentioned above, albacore has higher recovery rates making American Samoa’s labour advantage less pronounced, and that it is a more expensive product in the US market makes the duty free access all the more valuable. The plants would likely continue to produce limited volumes of light meat in oil (because oil has a higher tariff rate for competitors than tuna in water) and for government contracts (that require product that is canned in the US).

In the meantime, the government of American Samoa is attempting to protect its canning industry. US Congressman Eni Faleomavaega has developed and proposed the Protection of Industry, Resources and Employment (ASPIRE) bill, which if passed by the US Congress, would subsidise tuna producers in Pago Pago. At the time of writing, there was no indication that the bill would be passed by Congress. In a second effort, the US Congressman also made initial inroads into an anti-dumping investigation on canned tuna imported from Thailand, though there was no indication of movement on the investigation.
**Key Points: US – American Samoa**

- In the 1950s, Chicken of the Sea International and StarKist invested in processing plants in American Samoa (Pago Pago). With production capacities of well over 100,000 mt per annum each, the plants were two of the biggest operators globally. One of American Samoa’s major strengths has historically been in the processing of high value albacore (white meat). Canned tuna processed in American Samoa is destined for the US market, as it enters the US market duty free.

- Beginning in the 2000s, the Pago Pago plants began to lose their competitive edge as wage costs were far higher than competitors in Asia and Latin America. In 2007, minimum wage legislation was passed in the US, requiring American Samoa to incrementally increase wages by more than double. This was a major blow to the two canneries and a major contributing factor to Chicken of the Sea closing its plant in 2009 and relocating to the US mainland (Georgia).

- StarKist remains operational, but is making significant changes to its production system to remain as competitive as possible, including reducing its labour force and processing increasing volumes of loins. In 2010, StarKist processed 70,000 mt of skipjack and 32,000 mt of albacore.

- The former-Chicken of the Sea facility was purchased by Tri Marine in October 2010 and will recommence operations (under the name of Samoa Tuna Processors Inc.), albeit processing smaller volumes under a completely different business model.

- The government of American Samoa is attempting to protect its canning industry through the proposed Protection of Industry, Resources and Employment (ASPIRE) bill, which if passed by the US Congress, would subsidise tuna processors in Pago Pago.

### 4.5 European Union

#### 4.5.1 Current processing sector status

The production of canned tuna and related ‘ambient’ (or ‘shelf-stable’) tuna products within the EU is dependent upon tariff protection against relatively low cost imports. The most important producing country is Spain, which accounted for around 60% of canned tuna production in the EU throughout the ten year period 1998-2007 (see Figure 4.4). Spain’s production peaked in 2002 at over 250,000 mt; it has since declined, but production in 2007 at 216,400 mt was still 13,000 mt higher than in 1998. This indicates the continued effectiveness of tariff protection and the various cost reduction strategies of EU-based processing firms.

Relatively high labour costs in the EU mean that cannery managers require large sized whole round fish (e.g. yellowfin over 10 kg) to enhance labour productivity through high recovery rates (the average recovery rate for a large yellowfin is 48.5%, but it can reportedly go up to 51%, whereas for skipjack it ranges from 37-40%). In other words, unlike factories in relatively low cost sites of production, EU industry pays greater attention to the balance of labour time/cost and fish yield. In Thailand, for example, more effort is placed on gaining additional yield by ‘throwing labour’ at the process.391

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In addition, Spanish firms are increasingly committed to the trend started in France and Italy in the 1990s of importing pre-cooked tuna loins, which are inserted directly into production in order to save on labour costs. Cleaning and butchering the fish into loins is the most labour-intensive process of canned tuna production. For detail on the EU market for tuna loins see Section 5.2.

Canned tuna production in Italy (19% of EU production in 2007), France (10%) and Portugal (4%) has been in decline since the mid-2000s and is likely to continue to fall in the face of low-cost imports from the developing world and also, importantly, from Spain (see Section 5.2). This does not mean that Spanish canneries will all become canning only plants and import all raw material as loins. In fact, for some Spanish canneries an optimum production strategy is to process big yellowfin from raw material and skipjack from loins. This is because of the balance between labour time and fish yield noted above.

Given the dominance of Spain in canned tuna production within the EU, Spanish firms are the focus of this section (with the main non-Spanish firms covered in Section 4.5.3). All of the top five Spanish firms have at least two domestic processing facilities in Spain (see Table 4.11). In general terms, the basic business model for each is to have one plant specialised in the production of canned tuna, and the other in various other seafood products; although some firms have shifted production of the latter overseas in recent years (i.e. Jealsa and Garavilla).

Figure 4.4 EU Production of Canned Tuna by Country and Volume, 1998-2007

Source: Globefish 2010a.
As noted in Section 2.9, several European firms are vertically integrated into fishing, processing and marketing. Except for the Frinsa Group, all of top five Spanish firms own their own fishing capacity, albeit to widely varying degrees: for example, Salica’s parent company Albacora owns 16 purse seiners, while Jealsa owns only one.³⁹³

Frinsa is again an exception within Spain’s top five firms because it produces solely for supermarket own-brands (‘private label’). Private label production is also a core component of Jealsa’s business model. Jealsa’s Rianxeira brand of canned tuna had only 0.6% of the Spanish market share in volume in 2009, but because it maintains an exclusive contract to supply Mercadona – Spain’s largest supermarket chain – with its private label canned tuna, product packed by Jealsa is estimated to supply around 40% in volume of the total Spanish canned tuna retail market. Jealsa’s annual raw material needs are an estimated 105,000 mt of whole round tuna (or equivalent in loins) and 100,000 mt of shellfish.³⁹⁴

Calvo is the most important producer of canned tuna within the EU and is estimated to be among the five leading canned fish firms in the world, of which around 75% of sales are tuna, 20% sardines (in Brazil) and 5% other products. Unlike Frinsa and Jealsa, Calvo does not produce private label for the Spanish market.

Garavilla does produce for private label, but it is not a strategic part of its business. Its two factories in Spain require around 31,000 mt of whole round tuna (or equivalent in loins) per annum. On top of this, its facility in Ecuador supplies around 3,000 mt of loins to its factories in Spain.

³⁹³ In turn, Jealsa owns 20% of the Albacora Group.
Garavilla’s *Isabel* brand is in third place in Spain, with 4.3% of the value and volume market in 2009. Garavilla recently received a capital injection from MCH Private Equity in return for ‘a significant stake’ in the company. The new capital will be used to continue with Garavilla’s extensive investment in product innovation under its *Isabel* brand, deepen its international market expansion, and fund possible acquisitions.\(^{395}\)

Albacora is vertically integrated into Salica – Spain’s number five branded-processor. It produces canned tuna to be sold in Spain under the *Conservas Campos*, *Bachi* and *Salica* brands. A separate subsidiary (not included in Table 4.11) called Salica Congelados produces and markets premium ‘value-added’ products such as tuna steaks and various tuna-based ‘ready-made’ meals.\(^{396}\) Salica’s raw material needs are supplied by the Albacora fleet.

The Galician region in Spain is home to a wide range of seafood canning firms (66 of a national total of 147 companies),\(^{397}\) including the major canned tuna producers detailed above. As a result the region benefits from a cluster of can manufacturing firms, including:

- CarnaudMetalbox;
- Impress, which bought a small Spanish firm (‘Megasa’) last year; and,
- Mivisa, Spain’s leading manufacturer of tinplate cans for the food industry and the third in Europe.

This provides Spain’s canned tuna producers with ready access to cans. In addition, as Spain is a large producer of olive oil, this packing medium is readily available domestically.

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\(^{395}\) Murias 2010a.

\(^{396}\) Salica Industria Alimentaria, SA (founded in 1991), manufacturers canned goods, with an annual processing capacity of 45,000 mt. Salica Alimentos Congelados, SA (founded in 1999), produces a range of alternative, ‘value added’ tuna products (see Albacora and Salica websites).

\(^{397}\) Rodriguez 2010: 24.
<table>
<thead>
<tr>
<th>Firm</th>
<th>Ownership</th>
<th>Net sales(^a) (In million €)</th>
<th>Purse seiners</th>
<th>Processing locations and key product(^b)</th>
<th>Canned tuna Production</th>
</tr>
</thead>
</table>
| Calvo Group        | 78% Calvo Pumpido family         | 353                           | 6             | Spain (Carballo plant: 80% tuna; 20% misc. others)  
Spain (Esteiro plant: c.20% tuna products; 80% mussels, salads, bean-based products)  
El Salvador (80% loins for Spain; 20% tuna for US and Latin America)  
Brazil (75% canned sardines; 25% tuna)                                                                 | 149,000 mt (2009)      |
| Jealsa Rianxeira Group | 100% Alonso family                 | 325                           | 2 (now 1)    | Spain (Jealsa plant: 100% tuna – 60-65% YFT)  
Spain (Éscuris plant: 80% tuna; 20% mussels, etc)  
Spain (Tunaliment plant: pet food using tuna and others)  
Guatemala (100% tuna loins for Spain)  
Brazil (sardines and tuna); Italy (not known);  
Greece (sardines); Morocco (canned sardines, some mackerel); Chile (shellfish); UK (cockles);  
Norway (not known)                                                                 | 125,000 mt (2008)      |
| Frinsa del Noroeste | 85% Carregal Varela family        | 208                           | None known   | Four factories                                                                                           | 137,000 mt (2009)      |
| Garavilla Group    | Garavilla family and MCH Private Equity | 215                           | 4             | Spain (El Grove plant: tuna)  
Spain (Mundaka plant: tuna and various seafood)  
Ecuador (tuna and loins)  
Morocco (various seafood)                                                                 | Not known              |
| Salica\(^c\)       | 83% Albafrigo (logistics firm); 27% Albacora | 63                            | 16            | Spain (tuna)  
Spain (added value tuna, various seafood)  
Ecuador (20% tuna; 80% loins)                                                                 | ~105,000 mt capacity   |

\(^a\) Includes non-tuna business; Calvo’s ‘2006’ sales are for 2007.

\(^b\) ‘Tuna’ = canned tuna and other ambient tuna products; ‘loins’: pre-cooked vacuum packed frozen tuna loins.

\(^c\) The wider Albacora Group, including fleet operations (see Table 2.6), are not included here.

Sources: Alimarket 2010; company websites; FIS; various RFMO registries and vessel databases; Moral 2008; multiple interviews, industry representatives, 2010.
4.5.2 Global processing operations

Investment in processing facilities in the developing world is central to the production strategy of most EU-based firms (see Sections 4.6 (Ecuador) and 4.17 (sub-Saharan Africa). The location of EU-owned tuna processing facilities is intimately connected to EU trade preference schemes. In fact, the trade preference made available to the ACP under the Lomé/Cotonou Agreements (and now EPAs) was a historical consequence of French investment – including by Saupiquet – in colonial West Africa in the 1950s onwards. Similarly, the tuna preference under the EU's GSP+ regime was designed to benefit Spanish investment in canned tuna and tuna loin processing facilities in the Andean countries.

Table 4.11 provides an overview of the main four non-Spanish companies involved in canned tuna production for the EU market (see Section 5.2). Only one of these firms is owned by ‘European’ capital, Bolton Group; Princes is owned by the Japanese giant Mitsubishi, MW Brands by Thai Union (and beforehand by private equity), and Thunnus Overseas Group by an Ivorian-Lebanese individual and private equity firms.

All of the firms in Table 4.12 rely on sources of raw material supply from around the world, albeit subject to EU rules of origin and sanitary measures. But at the same time Bolton (via the Saupiquet fleet) and MW Brands (via the TTV fleet in Ghana) both also exhibit some degree of vertical integration into fishing, which is an important similarity to the ‘model’ of some of the Spanish firms discussed above.
However, for Bolton and Princes, vertical integration into canned tuna production is not a key component of their (highly diversified) businesses. Instead these firms’ emphasis is on the marketing of a wide range of consumer brands based on a highly diversified supply base sourcing from across the planet. In other words, unlike Thai Union for example, each could probably function as profitable canned tuna businesses without ownership of means of production. Similarly, if economic conditions changed and branded canned tuna became consistently unprofitable, both would probably sell-off their canned tuna businesses and concentrate on more profitable consumer brands.

Conversely, MW Brands and Thunnus Overseas Group (TOG) both own substantial processing capacity and rely on these facilities for a large proportion of their total supply. Prior to its takeover by Thai Union in mid 2010, MW Brands had some similarity to Bolton and Princes to the extent that its business focus was to enhance market share of its major brands in EU markets. All three firms share an emphasis on production for their own brands (see Section 5.2), although MW Brands and Princes also supply private label product. TOG has a far less limited involvement in canned tuna brands as a proportion of its overall business, and it does not appear to own any tuna purse seiners. As a result TOG is best typified as a specialised canned tuna processing firm. With new capital injections from private equity firms in 2009, TOG is currently focusing on integrating its processing operations and procurement activities across its two Ivory Coast factories in Senegal and its factory in Madagascar. It also hopes to expand into new markets in Europe (such as Italy and Spain) and the Middle East and North Africa region, including through a reported plan to double production at its three factories, which are currently operating at half of their combined capacity.

4.5.3 Processing links to WCPO

Tariff preferences and the relatively high-value of some EU markets currently determine the competitive survival of canned tuna and tuna loin processing in Papua New Guinea and the Solomon Islands. European canned tuna firms have never directly invested in processing capacity in the Pacific island countries and they seem unlikely to do so in the current context.

As the majority owners are two Italian nationals, Tri Marine is the closest to a ‘European’ firm directly involved in processing in PICs. In September 2010, Tri Marine became the majority shareholder (51%) of Soltai Fishing and Processing Ltd. (Soltai) in the Solomon Islands. Before this, Soltai was dependent on Tri Marine management and contracts in its supply of, primarily, pre-cooked frozen tuna loins, especially to the Bolton Group-owned tuna cannery in Italy.

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398 ECP 2009; Maury 2009
399 Multiple interviews, EU industry representatives, 2006, 2009 and 2010.
<table>
<thead>
<tr>
<th>Firm</th>
<th>Ownership</th>
<th>Purse seiners</th>
<th>Processing locations and capacity</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MW Brands (MWB)</td>
<td>Thai Union (since 2010)</td>
<td>5</td>
<td>France (330,000 cans of various seafood per day); Portugal (350,000 cans of sardines &amp; mackerel per day); Ghana (800,000 cans of tuna and 20 mt loins per day); Seychelles (1.5mn cans of tuna per day)</td>
<td>With tuna canneries on the Eastern Atlantic and Western Indian oceans, MWB was able to shift emphasis of production according to fluctuations in raw material availability and prices. Owns the number one canned tuna brands in the UK and France (<em>John West</em> and <em>Petit Naivre</em>) and the number 3 or 4 in Italy (<em>Mareblu</em>). In fiscal year 2009/10, 78% of sales were under its brands; of total turnover, 43% was in the UK and 43% in France; and total profit was €36.6mn. Since purchase by Thai Union for €680mn (including €295.9mn in debts), MWB operations have access to processing capacity in Thailand, as well as management expertise specialised in cutting costs (e.g. yield improvement). Ownership of MWB will provide Thai Union with far greater market power in global raw material markets.</td>
</tr>
<tr>
<td>Bolton Group</td>
<td>Private investor (100% owner)</td>
<td>4</td>
<td>Quimper (France, canned tuna, and misc. seafood); Cermenate-Milan (Italy, canned tuna)</td>
<td>A privately held company, it owns the number two canned tuna brand in France, number one in Germany and number three in Belgium (<em>Saupiquet</em>), and the number one in Italy (<em>Rio Mare</em>). Processing facility in Italy has close commercial relationship with Tri Marine. <em>Saupiquet</em> turnover: €210mn in financial year 2008/09</td>
</tr>
<tr>
<td>Princes</td>
<td>Mitsubishi (since 1989)</td>
<td>None</td>
<td>Princes Tuna Mauritius (PTM) (canned tuna)</td>
<td><em>Princes</em> is the number two canned tuna brand in the UK and the Netherlands. Its <em>Vier Diamanten</em> brand is number one in Austria. Part of Mitsubishi’s ‘Living Essentials Group’ and within that the ‘Food (Products) Division’. This division processes and procures a wide range of branded canned protein, vegetables and tomatoes; soft drinks; edible oils; pasta and cooking sauces. It has a market share of 16.3% in the UK for the food and drink market in which it operates.</td>
</tr>
<tr>
<td>Firm</td>
<td>Ownership</td>
<td>Purse seiners</td>
<td>Processing locations and capacity</td>
<td>Notes</td>
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<td>-------------------------------</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Thunnus Overseas Group (TOG)</td>
<td>Thunnus Overseas Group (TOG)</td>
<td>None</td>
<td>Côte d’Ivoire (formerly owned by Pêche et Froid since 1978)</td>
<td>Leads the French canned tuna market with 25% share and is a key player in Germany and Belgium. It is an aggregation of six operating companies and holdings, and processes between 50,000 and 62,000 tons of canned tuna. Combined revenues of US $166 million in 2008 ($178 million in 2007). Pêche et Froid sold its purse seine fleet in 2000-2 having established it in 1973. Produces private label product for major French-owned supermarket chains (including Auchan, Carrefour and Leclerc), for food service/catering (40% share of the French market in 2005), and under its own brand <em>Pompon Rouge</em>. Minority ownership by private equity firms: Emerging Capital Partners under its Africa Fund III (€21.4mn in January 2009) and Kingdom Zephyr under its Pan African Investment Partners II Fund (€14.3mn in March 2009).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Côte d’Ivoire (formerly SCODI)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Madagascar (formerly owned by Pêche et Froid, a former subsidiary of the Moroccan ONA Group)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>France (logistics warehouse based in Dunkirk)</td>
<td></td>
</tr>
</tbody>
</table>

Note: ‘loins’ = pre-cooked vacuum packed frozen tuna loins;
4.5.4 Major markets

The vast proportion of canned tuna processed in Spain, Italy, France and Portugal are sold within the European Union. The principal outlets are their respective domestic markets, but, aside from Portugal, they are also all major players in exporting canned tuna to other EU countries (see Table 5.2). In other words, in the context of the single EU market, canned tuna production in Europe is predominantly for ‘domestic’ consumption.

Latin America and Eastern Europe (especially Poland) are the main targets for market expansion by EU processors. For example, the top Spanish firms discussed above export to a range of markets:

- Calvo’s two plants in Spain mainly produce for the domestic market (c.50%), but they also export to Italy (25%) where Calvo controls the Nostromo brand (number 3 in Italy), Portugal (5%), ‘other’ EU (5%), and for international sales of Calvo brand (15%). It bought the leading Brazilian branded-processor Gomes da Costa in 2004, which produces canned tuna and sardines. The Brazilian market for canned tuna is relatively new with large growth potential. Canned sardines are currently more popular. Calvo also recently announced that it was to enter the Colombian market.

- Garavilla sales: 50% are international – 35% in South America, and 15% in Europe and North Africa (around half of this 15% goes to France). The recent investment by MCH Private Equity in Garavilla is partly intended to expand markets in South America and Eastern Europe.

- Jealsa exports to Portugal under its Rianxeria brand, which has around 8% market share there. Jealsa accesses the Italian market through a 50:50 joint venture with Star – a highly diversified Italian food company (which is in turn owned by PASA Group, a Spanish holding company). This joint venture markets canned tuna under the Mare Aperto brand, which has an estimated 5-7% market share. Jealsa also packs for customers in France (including the cooperative retailer called System U) at annual sales of around €12 million, for Princes at around €4 million in annual sales, and for private labels in the UK, Germany, Austria, Belgium and Holland.

The majority of MW Brands sales are in the EU, although John West branded product is also sold in the Middle East and North Africa, North America and South America. Princes is very active in the Polish market, which it sees as one of the largest growth potentials within the EU.

4.5.5 Recent developments and future prospects

The sale of MW Brands to Thai Union is the most important development in the EU canned tuna industry in recent years. It has deepened relative levels of corporate concentration and centralization of control in the global canned tuna industry. It also means that Thai Union has a seat at the EU lobby group, Eurothon, which had previously focussed much of its attention on the competitive threat from processors based in Southeast Asia. Thai Union’s membership of Eurothon is likely to fragment the political coherence of the EU tuna lobby over key strategic issues such as the tuna trade regime. It is likely that the Spanish industry will not be immune from corporate concentration.

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400 For more on this region, see Sections 4.6 (on Ecuador) and 4.15 (on other Latin American countries).
401 Interviews, industry representatives, 2010; Gomes da Costa 2010.
402 Murias 2010b.
403 Multiple interviews, industry representatives, 2010; Rianxeria 2010; Escuris 2010; Star 2010.
The canning industry in Spain peaked in the late 1990s with c.25,000 employees; by 2010 the workforce had halved and are reported to be an average age of around 50 years old. Given the very high share of private label as a percentage of canned tuna sales in Spain at 65% in 2009 (see Section 5.2), the commercial survival of Spain’s branded-processors depends on consumer uptake of ‘value added’ product innovation, international markets, and, in the long-term, mergers and acquisitions.

Some of the major Spanish players are also starting to move away from a focus on achieving enhanced market share to operational profitability, and as such are focusing increasingly on value-added products to minimise the impact of rising raw material price.

**Key Points: EU**

- The most important canned tuna processor in the EU is Spain, which accounted for around 60% of annual EU canned tuna production from 1998-2007. In 2007, Spanish production was 216,400 mt.
- There are five major Spanish processing firms (Calvo, Jealsa, Frinsa, Garavilla and Salica); four of which own their own fishing capacity. A further four major non-Spanish companies are also involved in canned tuna production (Bolton, Princes, MW Brands and Thunnus Overseas Group); only one of which is owned by ‘European’ capital (Bolton).
- Given relatively high labour costs in the EU, considerable attention is paid to labour time/cost and fish yield. Canneries source large-sized whole round fish (i.e. yellowfin over 10 kg) to enhance labour productivity through high recovery rates (average 48.5%).
- Investment in processing facilities in the developing world (i.e. Sub-Saharan Africa and Ecuador) is central to the production strategy of most EU-based firms and is closely connected to EU trade preference schemes.
- The vast proportion of canned tuna processed in Spain, Italy, France and Portugal are sold within the European Union.
- The survival of EU-based canned tuna processing firms will continue to depend on tariff protection against relatively low cost imports and cost-reduction strategies. Some of the major Spanish players are moving away from a focus on market share growth to increasing operational profitability, and as such are focusing increasingly on value-added products to minimise the impact of rising raw material price.

### 4.6 Ecuador

#### 4.6.1 Current processing sector status

Responsible for over half of tuna processing across the eastern Pacific, Ecuador is the major player in canned tuna processing in the Americas. There are approximately 18 processing plants located in Guayaquil, Posorja and Manta with a daily processing capacity ranging from only 20mt/day up to 300mt/day. Ecuador’s total daily maximum raw material processing capacity of 1,865 mt/day (~450,000 mt annually) (Table 4.13). In 2008, Ecuador processed around 362,400 mt of raw material, making it the world’s second largest producer behind Thailand (see Table...
In 2007, the total volume of finished canned product was 151,800 mt (Figure 4.5). Ecuador is the number one supplier (by volume) of tuna loins into the European Union; loins go primarily to Spain and Italy for further processing into cans for the EU market (Figure 4.6).

Table 4.13  Ecuador Tuna Production Summary (Whole Round), 2009

<table>
<thead>
<tr>
<th>Cold Storage</th>
<th>Daily Production</th>
<th>Monthly cap production</th>
<th>Annual Production</th>
<th>% Of EPO Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>85,500 mt</td>
<td>1,865 mt</td>
<td>37,300 mt</td>
<td>447,600 mt</td>
<td>52%</td>
</tr>
</tbody>
</table>

Source: Confidential industry data base 2010.
Figure 4.5  Ecuador Canned Tuna Production ('000 mt, Net Finished Weight), 1982-2007

Figure 4.6  Ecuador Loin Exports to the US and EU ('000 mt, Net Finished Weight), 2000-2009

Source: Globefish 2010a: 74-75.

Source: Globefish 2010a: 30,35.
While stable in the 1980s and early 1990s, canned production jumped from 45,600 mt in 1999 to a peak of 202,500 mt in 2004. After 2004, production has remained stagnant or declined. In 2010, plants in Ecuador were suffering from supply constraints on account of poor catches in the EPO; indeed, estimates were that 2010 catch volumes would be up to 40% lower than in 2009.

Plants undertook several strategies to respond to supply shortages.

- Several of the plants operated below their maximum production capacities and extended their planned maintenance closures.
- Second, plants built cold storage facilities, or rented cold storage periodically throughout the year. Cold storage enables the plants to buy surplus when prices are low and before anticipated shortages, though it adds extra costs.
- Finally, plants imported fish. Between January and early August, 2010, over 80,000 mt of tuna were imported into Eastern Pacific production sites. Of this, around 72,000 mt were delivered to Ecuador. Over 89% of raw material imports to the Eastern Pacific region originated in the WCPO. According to one industry representative, “Even if the [ETP] fleet has a banner year, the fleet can’t supply the industry. It’s 100,000 mt short per year. Primarily, the gap is going to be filled by the WCPO.”

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407 Globefish 2010a: 74-75.
408 El Diario 2010.
409 Interviews, multiple processing industry representatives 2010.
410 Confidential industry database 2010.
411 Interview, industry representative 2010.
While WCPO fish can increase the volume, it can not necessarily meet the production needs for all of the plants in Ecuador. Most plants export product to the US and/or European markets, taking advantage of duty free access offered through preferential trade agreements. However, duty free access is limited to products that meet rules of origin, and much of the product from the WCPO is not originating for either market (see Section 4.6.3). Therefore, while raw material imports from the Western and Central Pacific, Indian and Atlantic Oceans can increase production volume, imports must be sourced carefully to avoid over-supply of product that does not qualify for EU or US markets and can not be absorbed by alternative markets in Latin America.

Industry representatives in Ecuador highlighted two factors as critically important to their success in a globally competitive market. First, several of the plants in Ecuador, including Salica, NIRSA, Marbelize and Isabel are vertically integrated into industrial purse seining. In fact, some, such as Salica, began as fishing operations and later expanded into tuna processing. All firms with their own fleets highlighted vertical integration as one of the keys to their success, particularly as supply constraints tightened in 2010. In addition to securing supply, vertically integrated fishing-processing firms assured that their supply would qualify for duty free access to the EU and the US by meeting rules of origin. Second, industry representatives highlight the importance of their efficient, productive and stable labour force. Despite being a relatively costly location (~US $10.38/day, compared with US $3.27 in Papua New Guinea) (see Table 4.3), industry representatives cite the experienced and educated workforce as one of Ecuador’s advantages in the global industry. Plant managers see a work force that is calm, collaborative and communicates well with management as a major benefit. Despite this, management often cites upward pressure on wages as an increasingly important financial strain.

Plant managers in Ecuador highlight the competence of their workforce. Photograph: Elizabeth Havice.

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412 Interviews, multiple processing industry representatives 2010.
4.6.2 Global processing operations

The majority of the processing firms in Ecuador are financed with Ecuadorian capital, though there are several processing links to international capital. For example, Salica (Albacora Group) is owned by Spanish capital: its own fleet provides consistent supply, which is processed in Ecuador and exported to an established market in Europe. The links with foreign capital assure a stable market outlet, a critical step for any entrant into the industry. Though EU links have been an important market starting point, firms with foreign capital and market ties indicate that Ecuadorian plants were built with a long-term vision of expanding into the Latin American market.

US-based StarKist (owned by Korean firm Dongwon, see Sections 2.4 and 4.8) has two plants in Ecuador. The firm has partial ownership in each. The primary objective of the StarKist plants in Ecuador is to supply StarKist and private labels for the US market. The main product is pouch tuna because Ecuador has duty free access to the US market for pouch (but not canned) products, when there are originating fish. Indeed, StarKist is the market leader in pouch products in the US market, the most profitable segment of its business model (see Section 5.2). StarKist plants’ production balance goes to South American markets under private labels, and the firm announced that it will be expanding StarKist products into Latin America.413

In addition to investment by international processing and branding firms, Tri Marine International, one of the ‘big three’ trading companies (see Chapter 3), has also invested as a partial owner of Seafman. Seafman, a processing plant, is not vertically integrated into fishing, so the Tri Marine relationship secures supply (perhaps even a greater benefit than having a fleet during times when catches are low).414

4.6.3 Processing links to WCPO

Ecuador and WCPO processing links are increasing. As noted above (Section 4.6.3), raw material caught in the WCPO and transhipped to Ecuador is a well established and increasingly important source of supply for Ecuador’s processing industry. In addition to transhipping supply, ten Ecuadorian flagged vessels and four Spanish flagged vessels with processing links to the EPO fish in the WCPO.415 Following more than three years of lobbying, Ecuador became a cooperating non-member (CNM) of the WCPFC in 2009, so that it could expand its fishing effort to the WCPO.416 Ecuadorian vessels fishing in the WCPO retain their ETP licenses, giving them the option to fish closer to their processing outlets when catches are sufficient to do so.

4.6.4 Major markets

Ecuadorian processing plants produce primarily for three major markets: the European Union, the United States and the Latin American market (Table 4.14). The vast majority of firms have diversified market and product strategies; several indicate that diversification is a key strategy to maximise profits and minimize risks in the context of changing market access and variable market demands. Selling to each of the markets offers benefits and challenges.

413 Pittsburgh Tribune Review 2010.
414 Interview, processing industry representative, 2010.
415 FFA Regional Vessel Register 2010.
416 Multiple processing industry representatives, 2010; WCPFC membership list available at: http://www.wcpfc.int.
Some processing firms indicate that they avoid the EU market on account of the rigorous paper work and compliance regimes for duty free market access. Processors also assail the US market because of the costly tariffs on all products other than tuna in pouches, and the uncertainty of the future of duty free access for tuna in pouches granted through the Andean Trade Preference Act (ATPA).\textsuperscript{418} They also closely watch production volumes and ensure sufficient raw material quantities that qualify for the rules of origin. That the ATPA is generally negotiated annually which makes it difficult for firms to plan for the long-term. There has been little movement in the direction of a more comprehensive free trade agreement between Ecuador and the US, though industry representatives express hope that the US might see Ecuador as an ally in regional politics rife with anti-American sentiment.

\textsuperscript{417} Cámara Ecuatoriana de Industriales y Procesadores Atuneros - Ecuadorian Chamber of Tuna Industries (one of two Ecuadorian processors’ industry associations).

\textsuperscript{418} The ATPA was formally renamed the Andean Trade Promotion and Drug Eradication Act in 2002.
Though the EU and US markets are the bread and butter of the industry, nearly all of the firms have some element of their production aimed at the Latin American market, either under their own brand names or private labels. In 2008, Ecuadorians consumed 3 million cases of tuna solid pack, valued at US$96 million, and tuna has penetrated 90% of all Ecuadorian homes. Nearly all firms interviewed indicated interest in expanding their supply to the Latin American market, in part to reduce their dependence on sourcing originating fish. Firms identify Latin America as an important market segment that has significant unrealised potential.

4.6.5 Recent developments and future prospects

The most significant recent developments in the Ecuadorian processing sector in 2010 were related to the extremely low catches in the Eastern Pacific. The low catches highlighted several important trends in the sector as a whole:

- Recent low catches reveal the importance and the challenges that plants face securing fish that meet rules of origin for their target markets. Plants that are vertically integrated into fishing have an advantage in securing originating fish. This advantage is heightened for those Ecuadorian flagged vessels that have recently gained access to fishing grounds in the WCPO. Firms with links to trading companies also have an advantage in dealing with supply shortages.

- Low catches were intensified by the two month fishing closure put in place by the Inter-American Tropical Tuna Commission (IATTC). All vessels are required to cease fishing for one of two two-month fishing periods. Notably, and significant for Pacific island countries

Nunez 2008.
seeking to create competition for fishing licenses, in 2010, the fishing closures did not have the predicted upward price impacts on fish costs. While fish prices remained above average, they did not climb to their usual closure-period peak. Industry officials cite several explanations.

- First, plants are unwilling to buy raw material at high prices if they know that they will not be able to sell the product at a profit. To mitigate high prices, plants have turned to purchasing when prices are low and utilising cold storage.
- Second, market outlets had reportedly reduced their purchases during the time of the closure. Anticipating higher prices during the fishing closures, they purchased in bulk in advance. When forced to purchase product during the closure, importers and retailers purchased on one or two month contracts, instead of six month or one-year contracts that they usually demand to lock-in low prices.
- Third, regional competition influenced the price impact of the Eastern Pacific closures. Reportedly, processors in Bangkok have been working together to push the price of WCPO raw material up in the period before the Eastern Pacific closure, driving raw material prices up world-wide. The Ecuadorian processors have no choice but to pay the high prices to stock-up before the closure. When the closures are on, and raw material in the EPO is tight, Bangkok lets the price for WCPO fish drop. According to one industry representative, “When we enter the ban we just bleed while they buy cheaper fish”.

Industry associations for Ecuador’s processing and fishing sector focus on strategies for improving the competitiveness of Ecuadorian processing both through domestic (e.g., improved infrastructure, marketing, labour relations) and international (e.g., trade negotiations, fisheries management) processes. Industry identifies competition from Thailand as one of the key challenges in the sector.

The Ecuadorian fleet has begun a pre-assessment for Marine Stewardship Council certification, indicating that it wants to be positioned to meet the growing market demand for sustainably certified seafood.

**Key Points: Ecuador**

- Ecuador is the most significant canned tuna processing player in the Americas, with a total daily maximum raw material processing capacity of 1,865 mt/day (~450,000 mt annually). In 2010, there were approximately 18 processing plants located in Guayaquil, Posorja and Manta. In 2008, Ecuador processed around 362,400 mt of raw material, making it the world's second largest producer behind Thailand.
- In 2010, plants in Ecuador were suffering from supply constraints (both overall and of RoO-compliant fish) due to poor catches in the EPO (an estimated 40% lower than 2009 catches). Plants undertook several strategies to respond to supply shortages – operating at below capacity and extending planned maintenance closures, expanding cold storage capacity to stockpile raw material, and importing larger volumes of fish (mostly from WCPO).
- Two critical factors are cited for Ecuador's success in canned tuna processing - an efficient, productive and stable labour force, and in the case of several plants, vertically integrated business models including purse seine fishing operations.
- Ecuadorian processing plants produce primarily for the EU and US markets; it is the top volume supplier of tuna loins into the European Union (mostly to Spanish and Italian canned tuna processors).
Key Points: Ecuador cont.

- There is also some production for the growing Latin American market. Ecuadorian processors are interested in expanding supply for the regional market, in part to reduce their dependence on sourcing RoO compliant fish for the EU and US markets.

4.7 Philippines

4.7.1 Current processing sector status

Philippines is the second largest canned tuna producer in the WCPO following Thailand. The processing facilities were initially developed in Manila, Zamboanga and General Santos during the late 1970s and 1980s as fisheries for tuna (and sardine) expanded with the successful adoption of purse seine fishing techniques. Canned tuna exports were already 2 million cases by 1982 (~40,000 mt whole fish equivalent) and production continued to increase through the 1980s and 1990s, supplied entirely by domestic tuna fisheries. To meet increasing demand, and partly in response to catches levelling out or declining in Philippines home waters, larger vessels gradually moved offshore to fish in PNG, eastern Indonesia and high seas waters. The few tuna canneries initially located in Manila gradually closed down in favour of plants in General Santos and Zamboanga, which were closer to the source of domestic supply. By the early 2000s, there were seven tuna canneries in General Santos and two in Zamboanga. From this point, to meet shortfalls in supply from local sources, an increasing amount of raw material was sourced from foreign fleets, usually shipped to Philippine ports via carriers/reefers. The volume of raw material processed peaked at over 250,000 mt in 2006/7 but has declined slightly in recent years to around 220,000 mt due to supply problems (declining domestic catches and reduced access to Indonesian waters). Despite this, at least one cannery had plans to upgrade in early 2010 and plans were recently announced for a cannery in Surigao, north Mindanao.

Seven canneries are currently in operation – six in General Santos and one in Zamboanga, whilst two others have closed down in the past decade. In 2009, total production capacity was 850 mt/day and annual production was 220,000 mt. Table 4.15 summarises details of Philippines major canning operations.

420 This section focuses on domestic Philippines canneries, while Philippines-owned canneries overseas are covered elsewhere.
421 Lewis 2004.
423 Philbest cannery plans to expand cannery production to 200-250 t/day. Interview, RD representative, January 2010; Business Mirror 2009.
424 Atuna 2010e.
425 General Tuna Corporation, Philbest Canning Corp., Alliance Tuna International, Seatrade Development Canning Corp., Celebes Canning Corp. and Ocean Canning Corp.
426 Permex Producer and Exporter Corp.
427 Miramar, formerly Mar Fishing (Zamboanga) and Nautica (General Santos).
According to available cannery receipts data for 2008 (80% coverage), approximately equal proportions of tuna for the General Santos canneries were sourced from:

- Philippine domestic vessels (purse seine and ring net) fishing in the Philippines EEZ and adjacent waters (i.e. Indonesia and adjacent high seas);
- Philippine vessels fishing in the WCPO (mostly PNG, but also small amounts in high seas and several other PICs); landed from carriers, with some direct unloading; and
- foreign vessels' catches in the WCPO, mostly Taiwanese, Korean and Japanese; unloaded from carriers, with occasional direct unloading.

In 2009, there was increasing reliance on foreign vessel catch, with an increase from around one third of total cannery receipts in 2008 to 42% of total supply.

Several of the canners are part of vertically integrated operations, sourcing at least some of their raw material requirements from their own company fleets in Philippines or overseas (e.g. Philbest and Celebes in the RD group), whereas others rely largely on contracted suppliers (e.g. General Tuna, Alliance, Sea Trade). All canners obtain fish on an ad hoc basis from both local and overseas Philippines fleets. The foreign imports are assumed to be supplied by the major trading companies, although many of the Philippines companies with smaller vessels do operate their own carriers and bilateral access vessels may return directly from PNG waters to unload.
There are two industry associations representing the interests of Philippine tuna canners – the Tuna Canners Association General Santos (TAGS) and the Tuna Canners Association of the Philippines (TCAP) based in Manila. The latter is the more active of the two, in terms of lobbying on behalf of the processing sector with respect to trade and tariff concessions and coordinating submissions to Government.

4.7.2 Global processing operations

To the authors’ knowledge, there are currently no Philippines’ owned canned tuna processing operations outside the WCPO region. In late 2009, plans were announced to establish a joint venture fish production and processing plant in Brunei Darussalam with BIMPEAGA support which may involve tuna.431

4.7.3 Processing links to WCPO

As mentioned, there are signs of increasing dependence of Philippines domestic canners on supply from the WCPO beyond the Philippines. This seems likely to increase, especially with the closure of high seas pockets in the WCPO in 2010 and the reported steady reduction in local supply.432

430 BIMPEAGA = Brunei Darussalam-Indonesia-Malaysia-Philippines East Asian Growth Area.
432 A possible reduction of up to 100,000 tonnes is expected. Multiple interviews, industry sources, 2010.
Processing links to the WCPO by Philippines parent company canners are also proliferating. RD Corporation, which established the initial tuna cannery in PNG in 1997, is committed to the establishment of a cannery in Bitung (North Sulawesi, Indonesia) in 2011, and is also a partner in an existing cannery consortium in Bitung. In addition, RD Corporation will be a partner in the joint venture cannery (with Tri Marine and FairWell Fishing Co.) proposed for the Pacific Marine Industrial Zone (PMIZ) in Madang, PNG. Alliance Tuna International\textsuperscript{433} has re-opened a cannery in Bitung, maintains a marketing office in Bangkok and has begun to diversify into other seafood processing involving New Zealand and possibly Vietnam.\textsuperscript{434}

In September 2008, following the earlier ban on raw tuna exports from Indonesia and the failure to renew access agreements, a consortium of eight Philippine (mostly fishing and canning companies) and two Indonesian investors took over the Sinar Purefoods cannery in Bitung formerly owned by Purefoods Corp (Philippines). Damalerio Fishing Co. had earlier taken over the idle Estadha Pesca cannery in Bitung and re-opened as PT Samudera Sentosa, but has not been fully operational on a continuous basis recently.

In addition, Philippine companies traditionally involved in fishing only are becoming increasingly involved in processing in the WCPO. Frabelle Fishing Corporation (FFC), based in Manila, constructed a loining/canning plant in Lae, PNG in 2006 as its first move into processing. Frabelle will be a partner in the proposed Majestic cannery in Lae (with Century Canning and Thai Union) and has announced plans to construct a loining/canning plant in Solomon Islands (Tenaru, Solomon Islands).\textsuperscript{435} Celebes Tuna Fishing Corp. hopes to enter into a fishing joint-venture with the Western Province in Solomon Islands which may ultimately involve onshore processing\textsuperscript{436} and several companies fishing in PNG under bilateral access agreements have indicated they will be constructing a cannery on the Majestic compound in Lae.\textsuperscript{437}

Elsewhere, Century International (China) Co. Ltd. is a joint venture between the Century Pacific Group of Companies (parent company of General Tuna) and Thai Union Manufacturing Company Ltd. and imports, markets and distributes international food products in China, including Philippines canned tuna. \textsuperscript{438}

### 4.7.4 Major markets

The majority of Philippines cannery production is exported, mostly to the EU and US markets.

Over 9.1 million cases (76,910 mt) were exported in 2008, with the majority of pack being tuna in brine (63%, compared to 37% in oil).\textsuperscript{439} In 2009, the volume exported increased to 10.4 million cases (83,604 mt), valued at US$ 253 million. Exports to EU markets accounted for 57% of the total export value, followed by 10% to the US.\textsuperscript{440}

\textsuperscript{433} The current corporate ownership structure of Alliance Tuna International is unknown. In 2005, Thai-owned interests held the majority shareholding. \textsuperscript{Atuna 2005.}

\textsuperscript{434} Prime Foods NZ (salmon) and Heip Thanh (Vietnam). Morello 2010a.

\textsuperscript{435} Atuna 2010k.

\textsuperscript{436} Two vessels are already on PNA vessel register. Atuna 2009; Atuna 2010h.

\textsuperscript{437} TPU is reportedly one of the investors and possibly others (i.e. RBL, Luminar). Interview, industry representative, May 2010.

\textsuperscript{438} Atuna 2008.

\textsuperscript{439} This is likely due, in part, to a much higher tariff being charged on exports of canned tuna in oil to the US market (35%) compared with canned tuna in brine (8-12.5%).

\textsuperscript{440} Atuna 2010l.
Philippines canned tuna continues to make strong inroads into the EU market, with imports reaching 54,000 mt in 2009, with Germany (20,000 mt) and the UK (16,400 mt) the major importers of Philippine product. Ten per cent of the EU canned tuna market in 2009 was supplied by the Philippines and this share has increased slightly in recent years. This is a major achievement, since the five-year EU Single Tariff Quota scheme, which allowed Philippines, Thailand and Indonesia to export 25,000 mt (in total) of canned tuna to the EU at a 12% tariff, ended in June 2008 with reversion to the previous MFN tariff rate of 20.5%.

On the other hand, US imports of Philippines canned tuna reached 22,300 mt by September 2009 and have been declining in recent years.

There is also a large domestic market for canned tuna, accounting for 10-12% of total production. This is supplied primarily by two canners (General Tuna, Permex), as well as several other smaller-scale processors (see Table 4.15 above). One Manila-based processor (Foodsphere) has also achieved good domestic canned tuna market penetration recently.

4.7.5 Recent developments and future prospects

Collectively, the Philippines fleet remains one of largest producers of tuna in the WCPO, but this catch is increasingly taken outside the Philippines. Production in domestic Philippine canneries therefore seems unlikely to expand from the present levels, at least based on local supply of raw material, although, as noted, at least one cannery recently announced plans to increase capacity and plans for a new tuna cannery in Surigao were recently announced. Several others have been struggling to maintain production levels for several years and it is clear that any strategy for major expansion in production capacity by Philippine processors will more likely involve the construction of new plants elsewhere in the WCPO (i.e. in locations close to reliable raw material supplies such as Indonesia, PNG and Solomon Islands).

The Philippines domestic canning sector will continue to be a major player in the global canned tuna market and will continue to seek new markets. Following suspension of multilateral talks between the EU and ASEAN on a regional free trade agreement (FTA), the Philippines is now seeking a bilateral PCA (Partnership Cooperation Agreement) with the EU to strengthen its place in the EU market and to lay the foundation for a future FTA. It continues to actively seek new markets and trade concession in key markets.

Thus far, Philippine interests have been the main investors in the expansion of processing operations in PICs, which has boosted PIC onshore investment and processing investment. To date, investment has been limited to PNG, but plans are in place for Philippines investments in the Solomon Islands. Given that only a small proportion of the PNG fleet catch is currently being landed and processed locally (see Section 2.10), the growing Philippine presence is expected to support further processing expansion, provided suitable arrangements for the supply of this fish to planned processing plants can be made.

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441 Globefish 2010a.
442 Globefish 2010a.
443 Morello 2010b.
444 Globefish 2010a.
446 Atuna 2010m.
447 Multiple interviews, General Santos processing industry representatives, January 2010.
448 Atuna 2010h.
449 Morello 2010b.
It will also be important for Philippine processors in PNG to take full advantage of global sourcing rules of origin provisions provided to PNG under the EU-IEPA, which to date, have not been utilised to their full potential. In addition, some the key issues currently constraining processing operations will need to be addressed (e.g. labour reliability and productivity, freight and other operational costs), if PNG-based operations are to be competitive against other lower cost sites of production.

**Key Points: Philippines**

- Philippines' canned tuna processing industry developed during the late 1970s and 1980s and has become the second largest canned tuna producer in the WCPO, following Thailand.
- Seven canneries are currently in operation (six of which are based in General Santos). In 2009, annual production was ~220,000 mt (daily processing capacity 850 mt/day); a reduction from a peak in 2006/07 of 250,000 mt.
- Several of the canners are part of vertically integrated operations, sourcing at least some of their raw material requirements from their own company fleets in Philippines or overseas (PNG, and formerly, Indonesia).
- The majority of Philippines cannery production is exported, mostly to the EU and US market (10.4 million cases (83,604 mt) in 2009), with around 10% of canned tuna consumed locally.
- Production in domestic Philippine canneries seems unlikely to expand due to raw material supply problems (i.e. declining domestic catches and reduced access to Indonesian waters). Any strategy for major expansion in production capacity will more likely involve the construction of new processing plants elsewhere in the WCPO (i.e. PNG, Solomon Islands, Indonesia).

### 4.8 Korea

#### 4.8.1 Current processing sector status

The establishment of the Korean tuna canning industry is only a relatively recent development, beginning in the early 1980s. The industry developed with skilful marketing to supply the domestic market, in conjunction with rising living standards and household incomes.

There are five major canneries, all in the southern provinces close to the major unloading ports of Busan, Masan, Tong Yeong and Mokpo (Table 4.16). Two of the three main Korean purse seine fishing companies (see Section 2.4) also operate canneries – Dongwon Food & Beverage and Sajo. A fourth smaller fishing company (Hansung) possibly cans some tuna on a part time basis. The two Ottogi SF canneries obtain fish primarily from Silla, the only one of the three large fishing companies which is not directly involved in tuna canning.

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^450 NFRDI data, May 2010; Industry meeting, KOFA, 18 May 2010.
Estimates of the volume of raw material processed into canned tuna by Korean processing facilities in 2008 vary from 110,00-136,000 mt. This large volume of domestic production has steadily increased since the Korean tuna canning industry’s beginnings in the 1980s, when Dongwon established the first processing facility.

Table 4.16 Overview of Korean Canned Tuna Processors, 2010

<table>
<thead>
<tr>
<th>Cannery</th>
<th>Location</th>
<th>Capacity (Mt/day)</th>
<th>Est. Annual production (mt)</th>
<th>Source of fish</th>
<th>Number of Carrier Unloadings (2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dongwon F&amp;B</td>
<td>Changwon</td>
<td>170</td>
<td>45,000</td>
<td>Dongwon</td>
<td>101</td>
</tr>
<tr>
<td>Sansim a</td>
<td>Mokpo</td>
<td>120</td>
<td>~30,000</td>
<td>Dongwon</td>
<td>69</td>
</tr>
<tr>
<td>Sajo Co. Ltd.</td>
<td>Goseong</td>
<td>60</td>
<td>15,000</td>
<td>Sajo</td>
<td>42</td>
</tr>
<tr>
<td>Ottogi SF Corp.</td>
<td>Goseong</td>
<td>80</td>
<td>20,000</td>
<td>Silla</td>
<td>39</td>
</tr>
<tr>
<td>Ottogi SF Corp.</td>
<td>Geoje City</td>
<td>60</td>
<td>15,000</td>
<td>Silla</td>
<td></td>
</tr>
<tr>
<td>Hansung Ent.a</td>
<td>Masan</td>
<td>n/a</td>
<td>n/a</td>
<td>Hansung</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>500</strong></td>
<td><strong>125,000</strong></td>
<td></td>
<td><strong>255</strong></td>
</tr>
</tbody>
</table>

* Full details were not available for these operations.
Source: Multiple interviews, industry representatives, 2010.

4.8.2 Global processing operations

All five major tuna canning companies also process other seafood and non-seafood products. However, with the exception of Dongwon’s investments, processing operations are limited for the most part to Korean-based facilities.

With the acquisition of StarKist from Del Monte Foods in 2008, Dongwon acquired a processing facility in American Samoa and part ownership of two plants in Ecuador (see Sections 4.4 and 4.6). Dongwon is also currently negotiating to develop a cannery in the Solomon Islands.

Korean interests seem poised to take a greater role in the international processing of tuna. They are also well positioned to continue as a significant supplier of raw material for both domestic tuna processing operations, as well as overseas (i.e. Thailand).

4.8.3 Processing links to WCPO

All fish currently processed in Korean canneries is sourced from catches in the WCPO by Korean vessels. The Korean purse seine fleet is a major supplier of frozen whole round tuna to Thailand, as well as Japan, Philippines, Indonesia and Vietnam.

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Given it is one of the highest performing fleets, Korean vessels should also be well placed to supply processing facilities established in PIC member states.

### 4.8.4 Major markets

Korean canned tuna production is entirely for domestic consumption, with the exception of a small amount of white meat tuna sourced from Korean longliners and packed for export (<2% of production). Oil packs, mostly using skipjack dominate production (i.e. standard packs and a range of specialty packs, chunk and flake), with some fancy yellowfin packs in olive oil. Own/ original brands are almost universal, with Dongwon F & B reportedly holding 70% of the local canned tuna market. There is a small amount of pouch production by Dongwon.

The Korean market for canning raw material is protected by a 10% tariff charged on fish sourced from non-Korean vessels.

### 4.8.5 Recent developments and future prospects

The acquisition of StarKist from Del Monte Foods in 2008 has been a significant recent development in the Korean and global tuna industry. The impacts, domestically and globally, of this acquisition are yet to be revealed, as Dongwon has reportedly been operating under ‘business as usual’ arrangements (i.e. allowing the StarKist subsidiary to maintain control over day-to-day operations), until very recently when a decision was made to reduce production levels and staffing (by 800 workers) in the Pago Pago plant and retain primarily albacore canning capability. The implications that this takeover will have for domestic cannery production and product supply by the Korean purse seine fleet are not clear, but may be minimal.

As mentioned, negotiations are reportedly underway with Dongwon to establish a tuna canning facility in Guadalcanal, Solomon Islands, that is expected to employ approximately 3,000 local workers.

There is optimism about future domestic demand in Korea for canned tuna, with its promotion as a healthy lifestyle food choice. However, growth will be quite limited relative to that experienced in the past two decades. It would seem that any expansion of Korean owned and operated processing capacity on a large scale will be linked to the establishment of overseas operations such as that foreshadowed for Solomon Islands, with export rather than domestic markets to be found for the product.

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452 Exports to the USA; volume unknown. Interview, Sajo CS representatives, May 2010.
453 Interview, Dongwon representatives, May 2010.
455 Lee 2010.
Key Points: Korea

- The establishment of the Korean tuna canning industry is only a relatively recent development, beginning in the early 1980s.
- There are currently five major Korean canneries in operation, with a combined daily processing capacity of 500 mt. In 2009, total annual production was around 125,000 mt. Production is entirely for domestic consumption.
- All fish currently processed in Korean canneries is sourced from catches in the WCPO by the Korean purse seine fleet. Two of the canning companies are vertically integrated operations with their own fishing vessels (i.e. Dongwon and Sajo).
- The most significant recent industry development has been Dongwon’s acquisition of StarKist from Del Monte Foods in 2008.
- Future growth in the Korean processing sector will likely be quite limited. Any expansion of Korean processing capacity will likely be linked to the establishment of overseas operations, such as that planned by Dongwon for the Solomon Islands, with export rather than domestic markets to be found for the product.

4.9 Japan

4.9.1 Current processing sector status

The Japanese canned tuna processing industry was originally export-orientated, supplying the US market primarily. Due to an inability to effectively compete on international markets with other lower cost sites of production, Japan’s canned tuna processors then changed their focus to produce exclusively for the domestic market.

Since the mid-1980s, canned tuna production in Japan has declined markedly, as a result of diminishing consumer demand, coupled with an increase in the volume of cheaper imports of finished product, mostly from Thailand. At the industry’s peak, in the early 1980s, annual production reached 144,000 mt (net finished weight). By 2007, domestic canned tuna production had contracted by almost 70% to less than 50,000 mt (Figure 4.7).

In 2008, fourteen (14) canned tuna processors were operating in Japan, with a combined raw material processing capacity of 400 mt/day (annual production of 77,500 mt). Japanese industry representatives confirmed during consultations in 2010 that the annual domestic processing volume has remained around 80,000 mt. An additional 65,000 mt is imported annually, the majority of which is sourced from Thailand, and smaller volumes from Philippines and Indonesia. Total annual Japanese canned tuna consumption is around 145,000 mt (in whole round terms).

456 Consultation with Japanese canned tuna industry representatives in 2010 indicated that in the past several years there have been few notable industry/market developments in this sector. Hence, this section is largely based on Campling et. al. 2007: 235-278 (Chapter 16 – Japan: Production System and Market Structure), with updates where appropriate based on industry consultation conducted in Japan, June 2010.
457 McGowan 2008.
458 Shima & Kawamoto 2010.
Japanese canners mainly source raw materials (whole frozen round and cooked loins) through the major tuna trading companies. Japan’s purse seine fleet currently only supplies around 20,000 mt for canning, which is around 10% of the total fleets’ annual catch.

Hagoromo Foods Corporation, Japan’s pioneer canned tuna processing company established in 1931, dominates domestic canned tuna production. Hagoromo owns the most popular national tuna brand ‘Sea Chicken’ and claims 60-70% market share\(^{459}\) for canned tuna, producing over 20 canned and 4 pouch tuna products.\(^{460}\) Private-label finished product is also sourced from Thai Union. In addition, Hagoromo produces over 1,000 different types of food products. Hagoromo has seven Japan-based seafood processing facilities, the largest of which is based in Yaizu and processes mainly canned tuna (80 mt/day). It also has two overseas tuna processing operations in Indonesia and Thailand (see Section 4.9.2).

### 4.9.2 Global processing operations

Two Japanese companies have investments in overseas tuna processing facilities. Hagoromo Foods Corporation established a joint venture partnership in Indonesia in 1991 (P.T. Aneka Tuna Indonesia) with Itochu and another foreign private investor (see Sections 3.4 and 4.11). Hagoromo oversees production (100-150 mt/day), while Itochu handles sales and management. In addition, Hagoromo has an office in Bangkok (established in 1988) and financial interests in a Thailand-based canning facility. Only 1-2% of production from the Bangkok facility is exported to Japan (i.e. 2-3kg catering pouches), with the rest produced for the US and EU markets.\(^{461}\)

Japanese marine products giant, Maruha Nichiro owns Kingfisher Holdings Ltd., a canned tuna processing operation in Thailand (200 mt/day). Production is 100% private label for export to the US/EU, with a premium pet food line for the Japanese market (see Section 4.2).

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\(^{459}\) In 2010, Japan’s major canned tuna companies and respective market shares were: Hagoromo (70%), Inaba (8%), SSK (7%), Shimizu (3%), Hotei (2%) and Maruha Nichiro (1%). Interview, Japanese canned tuna industry representatives, June 1010.

\(^{460}\) Campling et. al. 2007: 267.

\(^{461}\) Interview, Hagoromo representatives, 2006.
4.9.3 Processing links to WCPO

There are currently no existing or proposed Japanese canned tuna processing investments in the WCPO region.

Itochu was the former majority shareholder of PAFCO cannery in Levuka, Fiji, but withdrew in 1986 due to profitability constraints. Maruha was a joint venture partner with the Solomon Islands Government in Soltai Fishing & Processing Ltd. until 2000, but due to accumulated debts and the ethnic tension, gifted its shareholding to the Western Province Government.

Given Japan’s past negative experiences in tuna processing operations in the WCPO, it is unlikely that Japanese investors will be interested in the future in re-establishing processing links in the region.

4.9.4 Major markets

Japanese canned tuna production is entirely for domestic consumption and is a high-quality market. This is evidenced by Hagoromo’s production focus on attaining high quality levels, with estimated recovery rates on whole round fish of only 30-35% for their chunk products.462

As mentioned, consumer demand for canned tuna in Japan has progressively declined over the past 30 years and is currently stagnant. Several factors have contributed to this trend – changing consumer preferences for alternative protein sources (i.e. beef), low population growth rates and an ageing population structure.

Currently, competing canned tuna imports into Japan are subject to 9.6% duty. However, Thai imports will enter duty free by 2011, following the establishment of a free-trade agreement between Japan and Thailand in 2007 (Japan-Thailand Economic Partnership Agreement).

4.9.5 Recent developments and future prospects

It is likely that Japan’s domestic canned tuna production will increasingly shift to offshore locations (either through Japanese investment in offshore facilities or increased sourcing of finished product from overseas supplies), as result of several issues which have seriously impacted on the competitiveness of Japan’s canned tuna processing operations:463

- **Labour issues** – Japanese labour costs are significantly higher than other processing sites (e.g. Japan labour is estimated to be twenty-times more expensive than Thai labour); it is becoming increasingly difficult to attract workers and the existing labour force is aging (i.e. the average age of Japanese fish cleaners is 50-60 years); Japan follows OECD labour standards which are very high.

462 Campling et. al. 2007: 267.
463 Campling et. al. 2007: 266.
- **Environmental standards** – the Japanese Government strictly enforces environmental regulations which are costly to comply with.

- **Stagnant consumer demand** – consumer demand for canned tuna is likely to remain stagnant or continue to decline in the future.

In ongoing cost-saving efforts, Japan canned tuna processors are likely to follow suit with other high-cost tuna processing locations (i.e. EU) by focusing more attention on the development of value-added products which require less raw materials to produce, as well as increasing the use of imported frozen cooked loins.

Provided RoO compliant raw materials are available, the FTA between Thailand and Japan will result in increased market share for imported canned tuna from Thailand. The Japanese purse seine fleet may also be prompted to tranship catches to Bangkok for processing, rather than selling directly to the Japanese domestic market, if price premiums become available for RoO complaint catches.

Japanese canned tuna products (Maruha Nichiro). Photograph: Amanda Hamilton

**Key Points: Japan**

- The Japanese canned tuna processing industry was originally export-orientated, supplying the US market primarily. Due to rising competition from lower cost sites of production, Japan’s canned tuna processors changed their focus to produce exclusively for the domestic market.

- Since the mid-1980s, canned tuna production in Japan has declined markedly due to diminishing consumer demand, and increased competition from cheaper imports of finished production (mostly from Thailand).

- In 2008, fourteen canned tuna processors were operating in Japan, with a combined raw material processing capacity of 400 mt/day (annual production of ~80,000 mt).

- Japanese canners mainly source raw materials (whole round and loins) through the major tuna trading companies. Catch sourced from Japan’s purse seine fleet currently only accounts for around one-quarter of production (20,000 mt annually).
**Key Points: Japan cont.**

- Japanese canned tuna production is entirely for domestic consumption and is a high-quality market. Hagoromo Foods Corporation, Japan's pioneer canned tuna processing company (est. 1931), dominates domestic canned tuna production and its 'Sea Chicken' brand claims 60-70% market share.
- Japan's domestic canned tuna production is likely to increasingly shift to offshore locations (either through Japanese investment in offshore facilities or increased sourcing of finished product from overseas supplies), due to several issues impacting on the competitiveness of Japan's processing operations – labour cost and availability, strict environmental standards, stagnant consumer demand, and increased competition from Thai imports.

### 4.10 China

The processing of cannery grade tuna in China represents a very small fraction of the country’s large and active export-driven fish re-processing sector.\(^{464}\) The sector overall has enjoyed advantages in shipping and cost-efficient labour, but these are changing (discussed below).

Re-processing is also encouraged by the government policy providing import duty exemptions for re-processing, with the exemption determined by the ownership of the imported material. If foreign-owned, there is an exemption as long as the finished products are re-exported. If the imported fish is owned by a Chinese party, a 26% duty is assessed that may be rebated or exempted if the material remains under bond. It is estimated that in 2007, 70-85% of the tuna processed in China was foreign owned.\(^ {465}\) In order to ensure there is no ‘leakage’ of duty-free imported fish onto the local market, the government is said to monitor processing yield by performing physical inspections and documentation monitoring.

On an industry-wide basis fish re-processing activities in China are said to involve more than 9,000 fish processing facilities. Most of the re-processing involves whitefish, with pollock and cod comprising 71-83% of imported raw material input during the years 2004-2007.

Tuna re-processing facilities are believed to be predominantly integrated with other food processing operations. Companies already engaged in the processing of marine products may expand or replace production with tuna. Some companies engaged in the processing of agricultural products for export (e.g. frozen vegetables such as broccoli) may also have separate facilities for tuna processing at the same location. Processing is primarily undertaken by the private sector; the large state-owned enterprises (SOEs) engaged in tuna fishing do not appear to be directly engaged in the re-processing of tuna in China.

Separate export figures for domestic-produced and re-processed fish are not available, but an idea of the scale of export activities can be obtained by comparing China’s fishery exports in 1989, when China was ranked eighteenth in the world with those of 2006 when it became the world’s top exporter of fishery products. In 1989, exports were about 300,000 mt; by 2006 the figure reached nearly 3,000,000 mt. By comparison, using official statistics, China’s exports of canned tuna in 2007 were estimated to have been less than 7,000 mt.\(^ {466}\)

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\(^{464}\) Re-processing involves the importation of fish at reduced or no duty with the intention of exporting the finished or semi-finished product.

\(^{465}\) Clarke 2009: iv.

\(^{466}\) Clarke 2009: 9.
Obtaining a clear picture of the sector, particularly sources and volumes by species of imports of raw material, is made difficult by the nature of China's commodity tracking system. One author familiar with the subject aptly summed up the situation in 2009:

Estimates of actual amounts and breakdown of imports by species are difficult however, owing to several problems with the nature of China's Customs commodity codes, including the potential for mis-declaration of species, a large volume of unspecified frozen fish imports, and a lack of publicly available data. It is believed that imports of cannery-grade tuna may well be greater than what might be reflected in the available data. While the data are incomplete, it does not appear that there has been any systematic under-reporting or wilful circumvention of Customs regulations.467

The situation may be changing with respect to tuna. In mid-2010, a government official in the Bureau of Fisheries indicated that China is now monitoring exports more closely than in the past, partly as a result of introduction of the EU IUU Fishing Regulation which came into effect on 1 January, 2010.

4.10.1 Current processing sector status

All, or almost all, of the cannery-grade frozen light meat tuna imported into China is assumed to be for the purpose of reprocessing. In 2007, the volume of imported frozen tuna was reported to be 22,769 mt. For comparative purposes it is useful to note that this raw material weight was only about 0.77% of China's previous year's total fishery product exports, and the percentage of exported processed tuna would be even less.468 Determining whether current re-processing activity represents an increase or decrease from that level is difficult to estimate, given the contradictory and potentially incomplete nature of official Chinese trade statistics and other factors.

The current number of facilities engaged in tuna re-processing is also difficult to determine. Information from participants in the tuna industry from countries other than China indicates that several processors have entered and apparently exited the industry within the last few years. The situation is further obscured by the commercial claims of some fish processors to be handling tuna, when in fact they may be in the business of processing other marine products, soliciting future business, or acting on behalf of other processors.

In 2008, US canning industry experts estimated there were five processing facilities in China, with annual raw material requirements estimated at the time to be around 50,000 mt.469 Subsequent estimates in early 2010 placed the number of active facilities at just two, with a total annual raw material requirement of 20,000 mt.470

In June 2010, industry participants in China claimed that two processing facilities in the Ningbo area of Zhejiang province are currently utilizing from 30,000-35,000 mt of imported raw material per annum, with much of the output in pre-cooked loins. Considering the Zhejiang figures as representative of loining and the level of US and EU imports of canned tuna from China (see Section 4.9.4), it is estimated that current annual raw material usage probably falls somewhere near, but not above the claimed 2008 level of 50,000 mt.

467 Clarke 2009: vi
468 S. Clarke, pers. comm., June 2010.
469 McGowan 2008.
470 McGowan and McClain 2010.
In general there appears to be a trend towards increased production of loins, with canning activity more or less remaining constant. In June 2010, one processor in China previously involved in canning indicated that loining was becoming more profitable than canning. The company was installing additional equipment that is expected to increase raw material input from 100 mt per day to 200 mt per day by the end of 2010.

4.10.2 Global processing operations

Pan Pacific Foods (RMI) Inc in Majuro, Marshall Islands is a loining facility owned by Shanghai Kaichuang Deep Sea Fisheries Co. Ltd, an investment of Shanghai Fisheries General Corporation (Group) (SFGCG). SFGCG is one of the largest state-owned fishery enterprises in China, with over 30 investment and holding companies worldwide. In 2008, the company took over a defunct loining plant in Majuro that had remained idle for over four years in a deal that included fishing access licenses for four purse seiners. The plant opened in 2009 after refurbishment and expansion of the facility and in June 2010, was said by its president to be currently processing about 40 mt/day.

The extent to which other investment originating in China is present in overseas tuna processing operations is not known, but direct financial investment is thought to be limited at present to the Marshall Islands operation. Companies engaged in re-processing of species other than tuna are said to be contemplating moves to overseas locations due to increasingly high production costs in China. It is not known if this situation includes companies engaged in tuna re-processing.

4.10.3 Processing links to WCPO

Several traders and fishing companies are known to process tuna in China obtained from the WCPO. Sources at Tri-Marine and FCF both say they have informal arrangements that result in tuna being processed (loined) in China. Maruha Nichiro of Japan is involved in a plant near Shanghai that processes primarily shrimp, but also handles some tuna loining. Sources for re-processing in China include some of the product from Chinese purse seine operations in the WCPO, particularly those companies associated with re-processing enterprises in China. Overall, however, it is believed that fish from multiple WCPO sources, not just Chinese vessels, satisfies the raw material demands of light meat re-processors in China.

471 Unverified information from one source in China indicated that the funding for the project came from a Chinese development bank loan, with all or a portion of the interest paid by the Chinese government.

472 One example is Zhejiang Ocean Fisheries Group that operates two purse seiners in the WCPO and sends at least a portion of its catch to a processing facility in Ningbo in which it has a financial interest.
4.10.4 Major markets

A perception held by some industry participants outside of China is that China has had problems selling into the US market because US consumers are wary of Chinese-made food products. Nevertheless, the US has been the largest market for canned tuna from China for the last several years. The US imported about 6,000 mt in 2009, a 13% increase over 2008, but almost identical to the 6,000 mt reported in 2007.\(^{473}\) EU imports of tuna loins in 2009 were about 4,400 mt. FAO reported that China’s exports of cooked loins to European processors increased 300% between 2007 and 2009.\(^{474}\)

4.10.5 Recent developments and future prospects

There have been several PNG press reports regarding the intentions of a Chinese SOE, Zhejiang Hailisheng Group Co. Ltd, to construct a cannery in Lae, PNG. The project gained the approval of the Board of the National Fisheries Authority in mid-2010.\(^{475}\) No further details or time-frame for construction have been made public; however an earlier report linked the project to both a Taiwanese partner and the issuance of additional purse seine licenses in PNG.\(^{476}\)

The major problems confronting tuna re-processing in China are similar to those facing the country’s fish re-processing sector in general - increasing labour costs in a labour-intensive industry, as well as rising land, water and energy costs as China’s economy develops, particularly in coastal cities. While lower than Thailand (i.e. US $8.09/day, compared with US$ 9.29/day for Thailand) (see Table 4.3), labour costs in China are reportedly rising by about 15% per year, since a 2008 labour contract law that made workers more aware of their rights.\(^{477}\)

Reportedly, most of the workers in the re-processing industry are from inland cities. The government requires companies to provide housing and meals to these workers, further increasing labour costs. Other industries can move to inland cities where labour and land are cheaper, but fish processing facilities must remain in areas near the coast for cost and logistics reasons.\(^{478}\)

For the above reasons, it is unlikely that China will become a major loining or canning centre in the same way as it has become a significant player in other manufacturing industries in recent years. To date, no one geographic centre for tuna processing has emerged in China. This limits the opportunities for gaining economies of scale, an important factor in counteracting rising costs.

This does not mean that tuna re-processing will disappear, however. As China’s fleet increases its productivity in the WCPO, there will be increased opportunities to process at least a portion of the catch in China, when the economics and linkages between processors and producers dictate. There is also the relativity factor - although China’s costs are rising, the country may remain a desirable site for re-processing if circumstances in other low-cost countries, particularly those in South East Asia, are unfavourable for further development.

\(^{473}\) NMFS 2010.
\(^{474}\) Globefish 2009.
\(^{475}\) Tiamu 2010.
\(^{476}\) The National 2009.
\(^{477}\) Kurtenbach 2010.
\(^{478}\) Seamon 2010.
**Key Points: China**

- Canned tuna processing in China represents a very small fraction of the country's large and active export-driven fish re-processing sector. Processing is primarily undertaken by the private sector; the large state-owned enterprises engaged in tuna fishing do not appear to be directly engaged in the processing sector.

- Obtaining a clear picture of the sector (in terms of the number of facilities and raw material sources and processing volumes) is difficult due to China's commodity tracking system. In 2010, two tuna processing facilities were likely in operation, processing between 30,000–50,000 mt of raw material.

- The US has been the largest market for canned tuna from China for the last several years (6,000 mt in 2009). There appears to be a general trend towards increased production and exports of loins, with exports to EU processors reportedly increasing by 300% from 2007-2009 (4,400 mt in 2009).

- The major problems confronting China's tuna processing sector are similar to those facing the country's fish processing sector in general - increasing labour costs in a labour-intensive industry, as well as rising land, water and energy costs as China's economy develops, particularly in coastal cities.

- Given these constraints, coupled with a very limited domestic market for canned tuna, it is unlikely that China will become a major tuna loining or canning centre, in the same way as it has become a significant player in other manufacturing industries in recent years. No one geographic centre has emerged for tuna processing, which limits the opportunities for gaining economies of scale, an important factor in counteracting rising costs.

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**4.11 Indonesia**

**4.11.1 Current processing sector status**

The Indonesian tuna processing sector is showing clear signs of resurgence after a period of decline from the late 1990s and early 2000s. Prior to this time, there were over 20 canneries in operation, canning tuna to varying degrees. The canneries were situated in east Java (where sardines are often the primary processing material), Bitung (up to five canneries at one time), Bali, Sorong and Biak.

Ten years on, there are at least thirteen canneries in operation that process primarily tuna, with an estimated annual throughput of around 100,000 mt (see Table 4.17). Local raw material is sourced from a variety of vessels (purse seine, pole and line and artisanal) which generally unload direct to the canneries or nearby ports (e.g. Bitung, Sorong). In the case of plants in east Java, raw material often needs to be transported from other parts of the country or internationally. Two of the east Java operations are believed to rely extensively on imports from the WCPO and Indian Ocean respectively. Several canneries in Biak and Bitung are currently not operational, whilst others operating in Bali in the past are unlikely to ever resume operation.

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479 Simorangkir 2002.
480 PT Aneka Tuna (WCPO imports, mostly light meat) and Pt Juifa (Indian Ocean albacore imports).
481 PT Mantrust/Van Camp in Biak; the former Estadha Pesca cannery in Bitung, now owned by Damalerio FC.
### Table 4.17 Overview of Indonesia’s Tuna Canning Operations, 2010

<table>
<thead>
<tr>
<th>Cannery</th>
<th>Location</th>
<th>Structure/ Affiliation</th>
<th>Source of supply</th>
<th>Annual production (mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAJOR (6)</strong></td>
<td></td>
<td></td>
<td></td>
<td>(~ 76,000 mt)</td>
</tr>
<tr>
<td>Sinar Purefoods</td>
<td>Bitung</td>
<td>Consortium (mostly Philippines/some Indonesia)</td>
<td>Local vessels (PS)</td>
<td>20,000 (stable)</td>
</tr>
<tr>
<td>International Alliance Foods</td>
<td>Bitung</td>
<td>Philippine parent, 30% local</td>
<td>Local vessels (PS)</td>
<td>5,000 (expanding)</td>
</tr>
<tr>
<td>Deho</td>
<td>Bitung</td>
<td>Citra Raja Ampat (CRA), Indonesia</td>
<td>Local vessels (PS, P&amp;L, artisanal)</td>
<td>5,000 (stable)</td>
</tr>
<tr>
<td>Delta Pasific Indotuna</td>
<td>Girian, near Bitung</td>
<td>Private, Indonesia</td>
<td>Local vessels (PS)</td>
<td>8,000 (maybe expanding)</td>
</tr>
<tr>
<td>Citra Raja Ampat</td>
<td>Sorong</td>
<td>CRA, Surabaya (possibly Philippines equity in CRA)</td>
<td>Local vessels (PS, P&amp;L)</td>
<td>8,000 (stable)</td>
</tr>
<tr>
<td>P.T. Aneka Tuna Indonesia</td>
<td>Pasuruan, East Java</td>
<td>Hagoromo/Itochu joint venture (Japan)</td>
<td>Some local, Some imported</td>
<td>30,000 (stable)</td>
</tr>
<tr>
<td><strong>MINOR (7)</strong></td>
<td></td>
<td></td>
<td></td>
<td>(~ 20,000 mt)</td>
</tr>
<tr>
<td>Samudera Sustosa</td>
<td>Bitung</td>
<td>DFC, Philippines</td>
<td>Local vessels</td>
<td>Not operating</td>
</tr>
<tr>
<td>Juifa Int. Foods</td>
<td>Cilacap, Java</td>
<td>Thai Union (76%)</td>
<td>Imported (albacore)</td>
<td>6,000 (+/-)</td>
</tr>
<tr>
<td>Avila Primur Intra Makmur</td>
<td>Muncar, East Java</td>
<td>Private, Indonesia</td>
<td>Local vessels</td>
<td>6,000 (+/-)</td>
</tr>
<tr>
<td>Maya Muncar</td>
<td>Muncar, East Java</td>
<td>Private, Indonesia</td>
<td>Local vessels</td>
<td>6,000) (+/-)</td>
</tr>
<tr>
<td>Blambangan Raya</td>
<td>Muncar</td>
<td>Private Indonesia</td>
<td>Local</td>
<td>1,000</td>
</tr>
<tr>
<td>Perfect International</td>
<td>Muncar</td>
<td>Private Indonesia</td>
<td>Local</td>
<td>2,000</td>
</tr>
<tr>
<td>Gema Ista Raya</td>
<td>Muncar</td>
<td>Private Indonesia</td>
<td>Local</td>
<td>2,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>(13)</td>
<td></td>
<td></td>
<td>(~ 96,000 mt)</td>
</tr>
</tbody>
</table>

Sources: Site visits conducted by author (A. Lewis) to Bitung and Sorong 2009, 2010; site visits to East Java canneries by RCCF (Jakarta) staff 2009; pers. comm., multiple industry sources, 2009-2010.

There appears to be little loin production undertaken by Indonesia processing facilities, but there has been significant katusobushi production in the past, usually in dedicated plants separate from the canneries and often associated with private landing points (see Chapter 10).
There is an active Indonesia Tuna Fish Cannery Association which acts on behalf of locally-based processors.\textsuperscript{482}

4.11.2 Global processing operations

No Indonesian private companies are known to be involved in tuna processing elsewhere, but international parent companies of Indonesian operations (e.g. Hagoromo, Thai Union, Allied Tuna International and RD) all have operations, present or planned, in various parts of the WCPO.

4.11.3 Processing links to WCPO

The supply of raw material to Indonesian cannners is almost all local. Under previous foreign fisheries access agreements, much tuna caught in Indonesian waters by foreign vessels was landed and exported or simply returned to a foreign home port, usually General Santos (Philippines), until unprocessed exports were prohibited in 2008.\textsuperscript{483} Hence, there should be more raw material available for Indonesian processors, particularly as there has also been some re-flagging of Philippine vessels to supply those canneries with full or partial Philippines ownership. In the past, there has also been some direct supply to one Bitung cannery (PT Sinar Purefoods) from the WCPO (mostly PNG) by Philippines consortium members, but this no longer occurs. As mentioned, with foreign ownership of many plants, there are direct links to other processing plants in Philippines, Thailand and Japan.

4.11.4 Major markets

Canned tuna production is almost entirely for export, but few reliable export figures are available. One source lists an estimated canned tuna pack in 2007 of 80,000 mt\textsuperscript{484} and canned tuna exports were recorded as 52,400 mt (80,000 mt raw material) in 2007 by another.\textsuperscript{485} Production has increased in the two years since that time, bringing production closer to the estimated 96,000 mt.\textsuperscript{486}

Local demand for canned tuna is minimal, with cheaper sardines in oil being the preferred canned fish by Indonesian consumers. There is an annual pack of 120,000 mt of canned sardines, much of it by the minor tuna canners based in east Java.\textsuperscript{487}

Canned Indonesian tuna is exported to a range of markets including the EU (11,000 mt in 2009, with Germany comprising the major share)\textsuperscript{488}, USA (13,500 mt in 2008),\textsuperscript{489} Japan, the Middle East (halal packs)\textsuperscript{490} and many others. The Indonesian canned tuna pack is mostly light meat, but one cannery produces almost entirely white meat for export to the US.\textsuperscript{491}

\textsuperscript{482} World Fishing and Aquaculture 2007.
\textsuperscript{483} Sarmiento 2008.
\textsuperscript{484} 4.69 million cases exported material (equivalent to around 80,000 mt of raw material, if one million cases = 18,000 mt raw material). World Fishing and Aquaculture 2007.
\textsuperscript{485} Globefish 2010a: 63.
\textsuperscript{486} Author’s own estimate.
\textsuperscript{487} World Fishing and Aquaculture 2007.
\textsuperscript{488} German imports were 8,200 mt in 2009 and rising; UK imports 700 mt, declining from historical highs of 7,000 mt. Globefish 2010a: 40,46.
\textsuperscript{489} Includes white meat. Imports of canned white meat tuna from Indonesia were 3,000 mt in 2009. Globefish 2010a: 50.
\textsuperscript{490} Atuna 2010c.
\textsuperscript{491} PT Juifa International Foods (TUF subsidiary); an estimated 6,000 mt of albacore is processed annually.
US imports of canned albacore in brine from Indonesia in 2009 were listed as 5,134 mt, light meat in brine as 7,984 mt, with a small amount of pouch albacore (302 mt).\textsuperscript{492}

Several of the canneries have experienced detentions of product in Europe in the past, but this situation seems to have improved. Indonesia has completed a PCA (Partnership Cooperation Agreement) with the EU and is well placed to conclude an FTA in the future.

4.11.5 Recent developments and future prospects

The major recent development has been the revitalization of canneries in Bitung, with two plants commencing or expanding operations under primarily Philippines ownership in recent years\textsuperscript{493} and a third cannery under Indonesian ownership commencing operations at the end of 2009.\textsuperscript{494} A third Philippines cannery is scheduled to open in 2011\textsuperscript{495} and another Philippines-owned cannery currently inactive may resume operations in the future. This is reflected in a recent industry estimate of USD $21 million of investment in Indonesian canneries/loining plants in recent years.\textsuperscript{496} This has been driven to some extent by the withdrawal of access by Philippines vessels to Indonesian waters (and restrictions on unprocessed tuna exports) since 2008, with some smaller Philippine vessels re-flagging to supply the Bitung canneries.

It is unclear whether Indonesian canning capacity will continue to grow beyond the current period of resurgence. Indonesian canners enjoy the advantages of proximity to extensive sources of raw material,\textsuperscript{497} abundant cheap and productive labour and (mostly) adequate infrastructure, whereas the main disadvantages include the inefficient and costly product distribution within Indonesia, distance from the main markets and relatively high international freight costs compared to major competitors (e.g. Thailand).

Indonesian canneries appear to supply a large number of markets. Indonesian processors enjoy few, if any, trade concessions and presumably compete on the basis of lower production costs and access to low cost raw material, with Thailand the obvious and most adjacent competitor. It seems unlikely that the Indonesian tuna processing industry would have any direct impact on the PIC processing sector and the Philippine-owned canners in Indonesia are likely to avoid direct competition with their own PIC-based product. However, conclusion of an Indonesian FTA with the EU would dilute the current preferential market access that PNG and Solomon Islands enjoy in the EU market.

\textsuperscript{492} NMFS 2010.
\textsuperscript{493} PT Sinar Purefoods was taken over in 2008, with current processing capacity of 80-100 mt/day; Alliance International commenced operations in the former Karabha Sakti plant in April 2009.
\textsuperscript{494} PT Delta Pasific commenced operations in Dec 2009, with processing capacity of ~ 40t/day, including some loins.
\textsuperscript{495} RD has cleared the site and has commenced wharf and office construction, with opening of the cannery scheduled for 2011. Pers.comm., RD representatives, Jan 2010; Bitung site inspection by A. Lewis, 2010.
\textsuperscript{496} Hamby 2009.
\textsuperscript{497} As noted in Section 2.9, Indonesia is a major exporter of fresh/frozen tuna and could possibly redirect some export light meat material to canners, given attractive prices against the prevailing market and freight considerations.
Key Points: Indonesia

- The Indonesian tuna processing sector is showing clear signs of resurgence, after a period of decline in the late 1990s and early 2000s. Prior to this, over 20 tuna canneries were in operation.
- In 2010, there were at least thirteen canneries in operation with an estimated annual throughput of around 100,000 mt. The supply of raw material to Indonesian canners is almost fully sourced from local vessels.
- Canned tuna production is predominantly for export, with minimal local demand. Canned product is exported to a wide range of markets including the EU, US, Japan and the Middle East.
- The revitalisation of canneries in Bitung is a major development for the Indonesian canned tuna processing industry, with three plants commencing or expanding operations in 2008-2009. A fourth plant is scheduled to open in 2011 and an inactive plant may also resume operations in the future. Investment in three of these facilities is from Philippines investors. It is unclear whether Indonesian canning capacity will continue to grow beyond the current period of resurgence.

4.12 Vietnam

4.12.1 Current processing sector status

Tuna canning and processing capacity in Vietnam has developed since the early 2000s, in parallel with processing of product for export markets from the very large aquaculture industry, mostly shrimp and catfish (tra, basa). The tuna processing sector is almost evenly split in processing volume terms between canning/loining and processing of higher value fresh chilled and frozen tuna products.

According to industry data there are three main privately owned tuna canners - Food Tech (ownership unknown), Highland Dragon (reportedly US-owned) and Yueh Chyang (a subsidiary of Songkhla Canning, part of the Thai Union group). All three are based in the Mekong Delta area in the main port, close to Ho Chi Minh City, with its full range of supporting infrastructure. Two of these canneries are owned by overseas interests. There are also other mostly smaller processors more widely distributed, who can process small volumes of light meat tuna occasionally, as well as other seafood products. The original state-owned processor in northern Vietnam, at Halong Bay, near Hanoi (Halong Can FoCo) is now only a minor producer of canned tuna, mostly for domestic consumption.

There are reports that tuna trading company FCF arranges for the processing of small volumes of loins at facilities in Vietnam for subsequent re-export (see Section 3.3.2).

Statistical data for both production and trade in Vietnam are limited, and, in the case of tuna, are restricted to export data (volume and value) maintained by the Vietnam Association of Seafood Exporters and Producers (VASEP). In 2009, VASEP reported the volume of tuna exports (uncategorised) as 55,814 mt, valued at US $181 million.

498 Lewis 2004: 16.
499 VASEP data provided to author, 2010.
500 For example, Toan Thang, Kifocan, Seaaspimex, Ursa Major.
Tuna exports increased dramatically in 2010, continuing the steep upward trend observed in recent years.\footnote{501}

Four canners accounted for over half the volume of 2009 total tuna exports (30,600 mt) and 43% of the value. Four of the top five tuna exporters by value were canners, as were all of the top four exporters by volume.\footnote{502} Vietnam’s annual tuna canning throughput is estimated at 50,000 mt whole fish equivalent (for 2009), slightly higher than an industry estimate of 45,000 mt in 2008,\footnote{503} and is regarded as a medium-level producer. The pack is believed to be mostly light meat tuna (skipjack, yellowfin), with some white meat (albacore). It may involve some locally-sourced neritic tunas (frigate, bullet, eastern little and longtail tunas). Most of the production is based on imported raw material (see Section 4.12.3).

The remainder of tuna exports, just under half the volume, consists of higher value fresh and frozen tuna, mostly yellowfin, in various processed forms (i.e. fillets, saku blocks, steaks etc.) or whole frozen round. An unknown volume of fresh chilled bigeye and yellowfin is also exported from the international airports of Ho Chi Minh and possibly, Da Nang.\footnote{504} The total value of these non-canned exports was an estimated US$ 100 million in 2009, with an unknown proportion of this comprising re-exports (i.e. tuna that has been imported, value-add processed into saku blocks for example, and then re-exported) (for more on fresh and frozen value added products and markets, see Chapter 8).

4.12.2 Global processing operations

Tuna processing operations in Vietnam are generally domestically-owned, though one of the tuna canners (Songkla Canning) is a subsidiary of the Thai Union. Another cannery is owned by US private capital.

4.12.3 Processing links to WCPO

Much of the tuna canned in the Vietnam plants is purchased from the three trading companies (FCF, Itochu and Tri Marine) and imported as frozen round (and possibly some as loins) from Indonesia, Philippines, Korea, New Zealand and other WCPO sources. Although figures are not available, these imports may constitute more than 70% of the production base, or more than 35,000 mt.\footnote{505} The balance is probably sourced domestically, from small purse seine and gillnet production throughout the country, but mostly from the three Central Provinces.

4.12.4 Major markets

In 2007, Vietnam exported 28,000 mt of canned tuna and 14,000 mt of fresh/frozen in total.\footnote{506} Both export categories have probably increased considerably since that time, with 2009 canned tuna exports an estimated 30,000 mt.
The US remains the main market for both canned and fresh/frozen tuna, and together with the EU, accounted for close to 70% of the total export value of tuna products in 2009.507

US canned imports from Vietnam in 2009 included 11,300 mt of light meat tuna in water, 1,752 mt of canned albacore in brine, 1,301 mt of frozen tuna fillets and smaller amounts of pouch albacore.508 Vietnam is the third largest supplier of canned light meat tuna in water to the US market, after Thailand and Philippines.

EU Trade data show that 7,620 mt of canned tuna were imported from Vietnam in 2009 (value €15.4 million), along with 2,260 mt of frozen tuna fillets and 3,036 mt of whole frozen tuna.509

In total, Vietnam exported tuna in various forms to 94 countries in 2009, with other significant export destinations being Japan, Israel, Canada, Libya and Australia.510

Vietnam does not currently benefit from any tariff preferences to the US market, but has indicated its interest in participating in negotiations to join the Trans-Pacific Strategic Economic Partnership (TPP), with the possibility of an FTA in the future.511 Similarly, Vietnam has been involved in FTA negotiations between the EU and ASEAN countries.512

There is a small local market for canned tuna in Vietnam, but it is not known if there are any prospects for expansion of this market as the economy develops.513

4.12.5 Recent developments and future prospects

The heavy reliance on imported raw material is the most significant constraint for Vietnamese canneries. The availability of a cheap productive labour force is a likely strength (i.e. $US 5.00/day vs. $US 9.29/day in Thailand) (Table 4.3). However, overall production costs are higher relative to Thailand, as Vietnamese firms pay a premium for raw material, cans are imported (from Thailand) and freight costs are higher. Vietnam also lacks the economies of scale that the Thai canning industry enjoys and suffers from a more restrictive bureaucratic environment. Hence, there is some industry pessimism about the future of tuna canning in Vietnam based on the relatively slow growth so far and the constraints outlined.514 Nonetheless, there have been recent investments in canneries/loining plants in Vietnam515 and any improved access to US and EU markets, should FTAs be successfully negotiated, will greatly assist competitiveness. Vietnam’s growing exports of manufactured and processed goods have the potential to offer freight advantages for raw material imports, as shipping firms and exporters seek ways avoid dead-heading (i.e. arriving at a destination without cargo).

The continuing development of Vietnamese canning capacity has minor implications for PICs. Vietnam is likely to remain a medium level tuna producer and processor, supplying a range of markets with relatively small volumes, except in the case of the US. Product may be competing with PIC processors in the EU market, to some extent and Vietnam may have an edge in value-added processed frozen product (see Chapter 8).

508 NMFS 2010.
510 VASEP data provided to author 2010.
512 Lewis 2004.
513 Interviews, Thai industry representatives, June 2010.
**Key Points: Vietnam**

- Tuna canning and processing capacity in Vietnam has developed since the early 2000s, in parallel with processing of product for export markets from its very large aquaculture industry.

- There are three main privately owned tuna canners based in the Mekong Delta area; two of which are owned by overseas interests (Thailand, US). Other small seafood processors may also occasionally process small volumes of light meat. In 2009, Vietnam’s estimated production was 50,000 mt.

- The US and EU markets collectively accounted for close to 70% of the total value of exports in 2009. There is also a small local market for canned tuna.

- Vietnam’s major strength is its cheap and highly productive labour force. However, there is some pessimism about Vietnam becoming a significant canned tuna processing site in future, given several constraints, including the heavy reliance on imported raw material, comparatively higher freight costs, a restrictive bureaucratic environment and lack of economies of scale.

4.13 Papua New Guinea

4.13.1 Current processing sector status

Almost thirty years after industrial-scale tuna fishing commenced in PNG waters and following numerous proposals that failed to come to fruition, PNG’s first canned tuna processing facility, RD Tuna Canners, was established in Madang in 1997 by a Philippines investor, RD Group. Since this time, a further two plants have been established – South Seas Tuna Corporation (SSTC) and Frabelle (PNG) (Table 4.18). PNG’s canned tuna production capacity grew steadily from 1998-2006, with an initial focus on canning activities, which has since extended to include loining. However, production has been relatively static since 2007-2008 (see Section 2.8). In late 2010, all three plants were regularly operating below full capacity. An estimated 65,000 mt of raw material is now processed annually, with total production capacity estimated at 410 mt/day (80,000 mt per year).
Table 4.18  Overview of Existing Canned Tuna Processing Operations in PNG, 2010

<table>
<thead>
<tr>
<th>Company/ Year Established</th>
<th>Location</th>
<th>Fish source/ Fishing Licences</th>
<th>Capacity/annual production/markets</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>RD Tuna Canners (Philippines) 1997</td>
<td>Siar, Madang (wharf/cold storage at Vidar, Sek Harbour)</td>
<td>RD Fishing Ventures; 16 chartered vessels, all Philippines flag</td>
<td>150t/day; canning with some loining/ 30,000 mt/year 70% loins and cans to EU/ 30% canned to domestic market (mostly red meat)</td>
<td>Capacity could be expanded (200t/day), but no current plans to do so</td>
</tr>
<tr>
<td>Frabelle (PNG) (Philippines) 2006</td>
<td>Lae, Morobe</td>
<td>Frabelle PNG-flag vessels (7); three chartered vessels, ten foreign access vessels, all Philippine flag</td>
<td>80t/day; loining/canning; 20,000 mt/year 80% loins and cans to EU/ 20% of canned product to domestic market</td>
<td>Building new wharf; will make space available to other processors unloading raw material</td>
</tr>
<tr>
<td>South Seas Tuna Corporation (Taiwan) 2003</td>
<td>Wewak, East Sepik</td>
<td>SSTC chartered vessels, brokered by FCF; 14 vessels (8 Vanuatu, 4 Taiwan, 2 China flag)</td>
<td>100t/day; loining/ 15,000 mt/year (est.) 100% loins for US market (Bumble Bee).</td>
<td>Operating below capacity (60t/day); no plans to expand.</td>
</tr>
</tbody>
</table>

Source: PNG industry sources, authors’ own experience

All three plants source fish locally from either PNG flagged or PNG-chartered vessels. RD is supplied by its own fleet of 14-16 chartered vessels, while Frabelle sources mostly from its PNG-flag vessels and augments supply with landings from its chartered vessels, when necessary. SSTC raw material is sourced from its associated fleet of 14 large vessels, which operate mostly outside PNG waters, as well as some unloadings from Philippine access vessels that have been allowed concessionary access to archipelagic waters since 2008.519 The four Taiwanese and two Chinese vessels within the SSTC vessel roster are replacements for Vanuatu-flagged, Taiwan-owned vessels which switched to US flag during 2008/09.

4.13.2 Global operations

The PNG processing plants operate on a stand-alone basis, with fish locally sourced, and product exported directly to overseas markets. All have links to parent companies elsewhere; RD and Frabelle to Philippine fishing/processing companies and SSTC with close links to FCF (Taiwan), one of the three main tuna trading companies in the WCPO. Both Frabelle and RD have interests in Indonesian processing facilities, and Frabelle has indicated plans to begin a processing operation in Solomon Islands which will complement the existing Lae operation.520

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520 The Solomon Islands plant will supply Frabelle’s Lae plant (PNG) with loins. Atuna 2010k.
4.13.3 Major markets

PNG enjoys preferential market access to the EU under duty exemptions offered to ACP states under the Cotonou Agreement. At the end of 2007, PNG signed an Interim Economic Partnership Agreement (IEPA) with the EU to maintain its duty free tariff preference while a comprehensive EPA is being negotiated with all PACP states. The IEPA includes a critically important (and unprecedented) ‘global sourcing’ rules of origin derogation which enables PNG (and Fiji) tuna processors to source raw materials from any vessel regardless of flag or location of catch, provided it is processed in a PNG-based facility. PNG has been eligible to utilise global sourcing provisions since May 2008.

Duty free access, coupled with the recent RoO relaxation under global sourcing provisions, enables PNG to compete against lower cost sites of production (i.e. Thailand, Philippines, Ecuador) for exports to the EU. However, complying with the EU’s strict sanitary and phytosanitary (SPS) standards have proven problematic in the past, with both the RD and SSTC plants being temporarily de-listed in 2008.

PNG’s canned tuna exports to the EU reached 14,600 mt in 2009, almost double the volume exported in 2008.\(^{521}\) Germany (6,800 mt in 2009), the UK and the Netherlands are the main EU market destinations for PNG canned tuna exports. The majority of loin exports to the EU (mostly to Spain) are supplied by SSTC. In 2009, loin exports reached almost 1,800 mt, the highest level to date. Similar volumes (around 1,800 mt) of frozen whole round tuna have also been exported to the EU in some years. Overall, PNG remains a small player in the EU canned tuna/cooked loins market, only suppling around 2-3% of the market in value terms.\(^{522}\)

Apart from 2008, when RD was blocked for the EU for SPS non-compliance and exported to the US, canned tuna exports to the US have been minimal. Loin exports have been slowly increasing since the opening of SSTC’s loining plant in 2004, reaching 5,100 mt in 2009.\(^{523}\) PNG is becoming an increasingly significant supplier of loins to the US market (10% by value), but is still well behind Fiji, Thailand and Mauritius.

The domestic canned tuna market is significant, accounting for 20-30% of production by local canners. Minor volumes are also exported to other PICs under Melanesian Spearhead Group (MSG) arrangements.

4.13.4 Recent developments and future prospects

Driven to a large extent by the licensing incentives provided by second generation access arrangements (see Section 2.8), close proximity to raw materials from PNG’s productive EEZ and EU preferential market access (including global sourcing RoO), there has been significant interest from foreign investors to establish additional canned tuna processing facilities in PNG. In late 21010, there were proposals at various stages of development for the construction of four additional canneries in PNG; three in Lae and one in the nascent Pacific Marine Industrial Zone (PMIZ) in Vidar, Madang. An existing mackerel cannery (IFC) in Lae has also indicated its intention to branch into canned tuna production. (Table 4.19).

\(^{522}\) Pers. comm., B. Caillart 2010.
Table 4.19 New/Proposed Canned Tuna/Loin Processing Investments in PNG, 2010.

<table>
<thead>
<tr>
<th>Company</th>
<th>Location/ status</th>
<th>Ownership /fish source</th>
<th>Proposed annual production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Majestic Seafood Corporation**</td>
<td>Lae, Morobe/ Ground-breaking ceremony - June 2010</td>
<td>Thai Union, Frabelle, Century Canning joint venture/ Some fish from existing sources; 10 licences sought when 75% construction is completed</td>
<td>120 mt/day initially, then to 350 mt/day (80,000 mt/year), if viable.</td>
</tr>
<tr>
<td>Niugini Tuna**</td>
<td>PMIZ, Vidar, Madang/ In planning phase</td>
<td>Tri Marine, Fairwell, RDTC joint venture/ 10-12 licences sought¹</td>
<td>100 mt/day initially, then to 250 mt/day (50,000 mt/day), if viable.</td>
</tr>
<tr>
<td>Zhousan Zhenyang</td>
<td>Lae, Morobe/ No project agreement, construction date to be determined</td>
<td>Zhousan Zhenyang (Chinese firm)/ 10 licences approved, likely to be chartered/locally based foreign vessels</td>
<td>250-350 mt/day; (~50,000 mt/year)</td>
</tr>
<tr>
<td>International Fisheries Corporation</td>
<td>Lae, Morobe/ Currently processing mackerel, may have commenced tuna processing in late 2010.</td>
<td>Malaysian company/ Initial supply assured (Frabelle vessels?), 12 charter licences on request</td>
<td>40 mt/day initially, then to 120 mt/day (8,000 mt/year).</td>
</tr>
<tr>
<td>Philippines Investment (name yet to be announced)</td>
<td>Lae, Morobe (within Majestic Seafoods compound)</td>
<td>Philippines joint venture (three PH fishing companies with foreign access in PNG)¹/ Supply from own vessels fishing in PNG under foreign access arrangements</td>
<td>Not known (50 mt/day initially)?</td>
</tr>
</tbody>
</table>

** Confirmed investments.

¹ One new vessel associated with the joint venture was due to start fishing in October 2010.

² Trans Pacific Journey, Luminar, and possibly RBL Fishing.

Sources: Pers. comm., PNG industry sources 2010, various media releases.

Should all of these developments proceed, an additional 200,000 mt of raw material would be required, which is three times greater than the current volume processed (and 40% of the tonnage caught in the PNG EEZ). Most proposals come with requirements or requests for additional licences to guarantee this supply. It should be noted that less than 30% of the current catch by the PNG-based fleet is landed in PNG for processing by the existing three plants (see Section 2.8).

Despite advantages conferred by duty preferences and global sourcing RoO under the EU-IEPA, as well as ready access to rich raw material supplies, PNG processors continue to face many challenges –
high labour costs,\textsuperscript{524} high labour absenteeism, low labour productivity, high operating costs (utilities, fuel),\textsuperscript{525} high cost of imported canning materials (i.e. metal plate, packing and labelling material), high freight costs to major markets (EU, US) and infrastructure constraints (e.g. reliable power and fresh water supplies).

Considerable optimism surrounding the future expansion of tuna processing in PNG needs to be tempered with some realism, given issues such as resource sustainability and trade preference erosion. If major challenges can be overcome, PNG could potentially become the second largest processor in the WCPO after Thailand, overtaking Philippines.

**Key Points: PNG**

- PNG’s first canned tuna processing facility was established in 1997 by a Philippines investor (RD Tuna Canners). Since this time, a two more plants have been established (SSTC and Frabelle).
- An estimated 65,000 mt of raw material is currently processed annually. Total production capacity is estimated at 410 mt/day (80,000 mt per year), although all three plants are operating at below capacity. All three plants source fish locally from either PNG flagged or PNG-chartered vessels.
- Duty free access to the EU market, coupled with the recent RoO relaxation under global sourcing provisions, enables PNG to compete against lower cost sites of production for exports to the EU. The domestic canned tuna market is significant, accounting for 20-30\% of production by local canners.
- There has been significant interest from foreign investors to establish additional canned tuna processing facilities in PNG, with proposals in various stages of development for an additional four plants in 2010. New investment is driven largely by licencing incentives from second generation access arrangements.
- Despite advantages conferred by duty preferences, relaxed RoO and rich tuna resources, PNG processors continue to face many challenges including low labour productivity, a high-cost operating environment and infrastructure constraints.

### 4.14 Solomon Islands

#### 4.14.1 Current status\textsuperscript{526}

A small Japanese joint-venture cannery was established at Tulagi, Central Province, in the mid 1970s, but in 1990 was relocated to a new site at Noro, Western Province (formerly Solomon Taiyo, now Soltai Fishing and Processing Ltd.). Occasional breaks in operation have been experienced due to changes in ownership, operational difficulties caused by civil unrest and financial problems. In late 2010, Soltai was the sole tuna processing plant in the Solomon Islands. The plant operated at less than full capacity during 2009 and mostly focused on loining.

\textsuperscript{524} While the daily cost per cleaner in PNG is lower than Thailand (US $ 3.27/day vs. US $ 9.29/day, PNG labour productivity is more than 2.5 times less than Thailand (i.e. 95 kg/person/shift vs. 250kg/person/shift). Hence, the total labour cost per metric tonne of processed tuna in PNG is considerably higher ($100.87/mt for PNG vs. $81.51/mt for Thailand). Table 4.3 - Data collected from various processing sites by global tuna industry representative, 2011.

\textsuperscript{525} Overall processing costs in PNG per mt of round fish about 50\% higher than Thailand, with labour costs slightly lower, but electricity and fuel costs treble those of Thailand: Hamby 2010.

\textsuperscript{526} See Barclay and Cartwright, 2008, for a history of the Solomon Islands fishery (Chapter 8: 201-236).
With the final demise of Soltai’s pole and line fleet in late 2008, all raw material was supplied by National Fisheries Development’s purse seine vessels, which caught nearly 18,000 mt during 2009. This was well in excess of production achieved by the plant (estimated < 8,000 mt), with the balance of catch exported (see Section 2.12.1).

The Noro arabushi plant, which also drew on the pole and line fish supply, has not re-opened since being damaged during an earthquake and tsunami in April 2007.

After a four month closure due to financial constraints, the Noro plant re-commenced operations in July 2010, with a working capital injection from Tri Marine International and the Solomon Islands National Provident Fund. In September 2010, Tri Marine became Soltai’s majority investor (51%). In late 2010, Soltai’s processing capacity was around 60 mt/day, with plans to increase to 80 mt/day in 2011, in conjunction with the introduction of a fourth processing line and acquisition of a new plate freezer. Production is planned to eventually reach 150 mt/day.

4.14.2 Markets

The Solomon Islands enjoy EU duty-free status under the GSP ‘Everything But Arms’ Agreement, given its least-developed country (LDC) status. However, under EBA, the Solomon Islands is subject to much stricter RoO conditions than is granted to PNG under the IEPA.

Processed loins are produced for the EU market (Italy), with 2,200 mt exported in 2009.\textsuperscript{527} The reduced canned tuna production now supplies mostly local markets, where the product has lost considerable ground to lower-cost imports (primarily from Thailand). PNG canned tuna exports from RDTC also made in-roads into the Solomon Islands market during Soltai’s four-month closure in 2010. Soltai previously exported a small volume of canned tuna (mostly red meat) to PICs under MSG arrangements.

4.14.3 Recent developments and future prospects

Production from Soltai is set to increase, with plans to introduce a second shift during 2011 and eventually increase production to 150 mt/day. Unless Solomon Islands signs the IEPA, sourcing RoO compliant raw materials could become a constraint, given the current level of supply from the NFD fleet (~18,000 mt/year) will not be adequate to fully meet the plants’ needs if production increases to 150 mt/day.

Given the rapidly growing demand for pole and line caught tuna in EU markets and rising sustainability concerns of consumers with purse seine caught canned tuna, NFD has recommenced pole and line fishing with one remaining Soltai vessel recently purchased from Soltai, and potentially Soltai’s two newer vessels (gifted to the Solomon Islands Government in 2005 by the Japanese Government), following clarification of usage and ownership arrangements.

Apart from the resumption of operations at Noro and anticipated increases in production, other tuna processing developments are pending in the Solomon Islands with proposals for two canning/loining operations in Solomon Islands. One is from Frabelle Fishing Corporation, to complement its existing operation in Lae (PNG), on a site at either Tenaru (Guadalcanal) or in the Western Province.

\textsuperscript{527} Eurostat 2010.
The loining/canning operation would initially process 50 mt/day, doubling to 100 mt/day at full production.\textsuperscript{528} There is an expectation that the Solomon Islands Government would need to be provide up to ten additional fishing licences.\textsuperscript{529}

The second proposal comes from Dongwon, the largest Korean tuna fishing and canning company. Few details are available, but the project would establish a canning plant at Tenaru/Domar, near Honiara, Guadalcanal and involve projected capacity of up to 200 mt/day. Dongwon has indicated that it will require wharf facilities to be provided by the Solomon Islands Government for the project to proceed.\textsuperscript{530}

Issues posed by the Solomon Islands’ export of live dolphins for aquarium display may need to be resolved before Guadalcanal-based projects can proceed.

In addition, a recent joint venture proposed between the Western Province Government and Celebes Tuna FC (Philippines) would see two Philippines purse seine vessels fishing initially in archipelagic waters, with other possibilities, including processing, to be explored as the project proceeds.\textsuperscript{531} The company involved already operates a cannery in Bitung, Indonesia.\textsuperscript{532}

The Solomon Islands are not currently party to the IEPA. RoO and other considerations therefore need to be satisfied for access to EU markets. The Solomon Islands EEZ does enjoy the advantage of a solid resource base; foreign access purse seine vessels caught over 80,000 mt in 2009,\textsuperscript{533} with the Korean purse seine fleet taking a significant proportion of this.\textsuperscript{534}

In sum, the Solomon Islands are seeing a surge of interest in investments in the tuna industry. Given this level of interest, the Solomons tuna processing sector seems destined to grow, although it will be faced with similar challenges to those of its larger neighbour (PNG), and perhaps without some of the economy of scale advantages enjoyed by PNG and global sourcing benefits from an IEPA.

\textbf{Key Points: Solomon Islands}

- Soltai Fishing and Processing Ltd. (formerly Solomon Taiyo) is currently the Solomon Islands’ sole tuna processing plant. In late 2010, Soltai’s processing capacity was around 60 mt/day, with plans to increase to 80 mt/day in 2011, and eventually reach 150 mt/day. The plant operated at less than full capacity during 2009 and mostly focused on loining for the EU market (Italy) (2,200 mt in 2009). In September 2010, Tri Marine became Soltai’s majority investor (51%).

- Two proposals for new processing developments are in place. Philippines-owned Frabelle Fishing Corporation is proposing to establish a facility (50-100 mt/day) in either Guadalcanal or Western Province. Dongwon (Korea) has also proposed to establish a facility in Guadalcanal (200 mt/day), contingent on Solomon Islands

\textsuperscript{528} Atuna 2010\textsuperscript{k}; interview, Frabelle representative, July 2010.
\textsuperscript{529} Interview, Frabelle representative, July 2010.
\textsuperscript{530} Pers. comm., confidential industry source, 2010.
\textsuperscript{531} The project was recently rejected by Solomon Islands Government, but the project is likely to be resubmitted in a revised form.
\textsuperscript{532} PT Samudera Sentosa, currently not operational.
\textsuperscript{533} MFSR 2010.
\textsuperscript{534} 52,000t in 2008, 28,000t in 2009 (refer footnote 12).
4.15 Others – Western and Central Pacific

4.15.1 Fiji

There is one major canned tuna processing operation in Fiji, the Pacific Fishing Company (PAFCO) in Levuka, Ovalau Island, initially established as a longline cold storage base in 1964, then converted into a cannery in 1976. After variable success as a canner, it has operated since 1999 primarily as a loining plant, supplying albacore loins for the US market under contract to Bumble Bee. After surviving a major fire in 2008, Pafco is now the largest supplier of loins to the US market by value, with 12,700 mt exported in 2009. Product is supplied by Taiwanese, Chinese, Korean and Fiji-based longliners, with delivery/transhipment coordinated by FCF, largely through Suva. Daily processing volume is around 120 mt, but could be increased to 180 mt/day if sufficient cold storage was available (see Section 3.3.4). PAFCO is owned by Fiji Government (98%) and local shareholders (2%), but is managed by Bumble Bee.

PAFCO still cans small amounts of various light and white meat tuna packs, plus occasionally sardines and mackerel, for the local market.

There have also been several small canneries in Suva in the past, importing tuna (and mackerel) to supply local and PIC markets with mainly light meat tuna. Only one of these is still in operation (Voko), mostly canning imported mackerel for the local market.

4.15.2 Marshall Islands

In 1999, a loining plant was established in Majuro by a shipping company (PM&O) to supply the StarKist cannery in American Samoa. In 2005, the plant closed due to managerial and financial constraints. Following several years of inactivity, the loining plant was purchased by Pan Pacific Foods, a subsidiary of Shanghai Deep Sea Fishing Company (China) under an MOU signed in January 2006. The renovated and expanded plant opened initially in April 2008, but suffered technical problems, and re-opened in June 2009 with a production output of 25 mt/day (one shift). The plant processed around 1,500 mt in 2009 and 4,000 mt. With a potential capacity of 80-100 mt/day (two shifts), the plant was reportedly still operating at less than half this capacity in late 2010 and there have reportedly been labour problems with the plant (reliability and absenteeism).

Raw material is currently supplied by three of the company’s own vessels. In late 2010, a fourth vessel was under construction and scheduled for launching in early 2011. All four vessels will be licenced under Marshallese flag.

In addition to any labour issues, a challenge to the successful operation of such a large industrial enterprise in an atoll environment is the seasonally limited supply of fresh water in Majuro. Supply of raw material should not be a problem, with associated vessel capacity well in excess of present and projected plant raw material needs.

535 Globefish data; equivalent to 30,000 mt of raw material.
536 Pers.comm., PAFCO representative, September 2010.
537 Hamilton et. al., 2010; pers. comm., industry representative, 2011.
538 MIMRA 2010.
Loins are exported to the three major US tuna brand-owners (Bumble Bee, StarKist and Chicken of the Sea), with marketing handled by Tri Marine.

RMI remains committed to developing its domestic fishery, maximizing onshore processing and encouraging transshipment in Majuro (with provision of essential fleet services), despite having a comparatively less productive EEZ than some other PNA members.

**Key Points: Others - WCPO**

- There is one major canned tuna processing operation in Levuka, Fiji (PAFCO) which commenced operations in 1976. It has operated since 1999 as a loining plant under contract to Bumble Bee. Daily processing capacity is 120 mt/day, but could potentially be increased to 180 mt/day if sufficient cold storage becomes available.
- A loining plant was built in Majuro, Marshall Islands in 1999. After withdrawal by the former owner and a period of inactivity for several years, the plant was purchased by a Chinese investor (Pan Pacific Foods, a subsidiary of Shanghai Deep Sea Fishing Company) in 2006. The plant commenced trial processing in 2008, but suffered technical difficulties and closed until mid-2009. Potential processing capacity is 80-100 mt/day, but to date, the plant has been operating at less than half this capacity.

### 4.16 Others – Eastern Pacific Ocean

Latin America has emerged as an important tuna processing region, as well as a growing market for canned tuna. Table 4.20 provides an overview of maximum production capacities in Latin American countries. In 2009 and 2010, limited raw material supplies, stemming from poor catches in the EPO, meant that few, if any, of the processing plants were operating at full capacity. In 2009, maximum processing capacity in the region was over 850,000 mt, with the majority of production taking place in Ecuador (see Section 4.6) and Mexico.

**Table 4.20** Major Eastern Pacific Ocean Canned Tuna Processors, 2010

<table>
<thead>
<tr>
<th>Country</th>
<th>Cold storage (mt)</th>
<th>Production capacity (mt/day)</th>
<th>Annual production (mt)</th>
<th>% Total production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecuador</td>
<td>85,500</td>
<td>1,865</td>
<td>447,600</td>
<td>52%</td>
</tr>
<tr>
<td>Mexico</td>
<td>52,100</td>
<td>730</td>
<td>175,200</td>
<td>20%</td>
</tr>
<tr>
<td>Colombia</td>
<td>14,700</td>
<td>415</td>
<td>99,600</td>
<td>12%</td>
</tr>
<tr>
<td>Venezuela</td>
<td>17,200</td>
<td>240</td>
<td>57,600</td>
<td>7%</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>5,800</td>
<td>75</td>
<td>18,000</td>
<td>2%</td>
</tr>
<tr>
<td>El Salvador</td>
<td>6,000</td>
<td>170</td>
<td>40,800</td>
<td>5%</td>
</tr>
<tr>
<td>Guatemala</td>
<td>3,200</td>
<td>80</td>
<td>19,200</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>184,500</strong></td>
<td><strong>3,575</strong></td>
<td><strong>858,000</strong></td>
<td></td>
</tr>
</tbody>
</table>


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Interviews, multiple processing representatives and international fisheries specialists, 2010.
Investments in tuna processing plants are both national and international – primarily from Spain – throughout Latin America. In general, industry representatives suggest that across Latin American, maximum processing capacity has been reached, or even exceeded, given that processing capacity has outstripped supply in recent years. As a result, Latin American processing firms are increasingly importing raw material from the WCPO, as well as the Indian Ocean (see Section 4.6).

Latin American processors supply several markets. Loins and cans enter the EU market duty free under GSP+ from Ecuador, Colombia, Costa Rica, El Salvador and Guatemala. Some firms exporting to the EU express concern that restrictive rules of origin, coupled with low catches, limit supply that qualifies for the EU market. Ecuador exports tuna in pouches to the US market duty free through the Andean Trade Preferences Act.

In addition to EU and US markets, there are several large, and growing markets for canned tuna in Latin America. In 2009, Argentina, Uruguay, Chile, Ecuador, Panama and Colombia had per capita tuna consumption between 0.5kg and 0.75kg/capita. In Ecuador, per capita consumption was 2.8kg. Mexico has a vertically integrated fishing and processing industry that focuses on yellowfin and largely supplies the Mexican market. Several firms have expressed interest in expanding the Latin American market, and will do so by developing new flavours, sizes and packs, emphasising the health benefits of tuna and pushing for growth in all of the market segments.

Key Points: Others - EPO

- In addition to Ecuador, there are a number of other canned tuna processing sites in Latin America (EPO) – Mexico, Columbia, Venezuela, Costa Rica, El Salvador and Guatemala. Total production capacity of these plants (excluding Ecuador) is 1,710 mt/day (annual production ~410,000 mt in 2010). Mexico is the second most significant EPO-based processor (~175,000 mt in 2010). Latin American processors enjoy duty free access to the EU (loins) and US (pouches) markets.

4.17 Others – Sub-Saharan Africa

Section 4.5.2 noted the role of investment by Europe’s top-four non-Spanish canned tuna firms in sub-Saharan Africa. Table 4.21 provides more detailed overviews of several of these operations, as well as introducing a number of more minor firms. All canneries in each of these locations of production in Africa rely upon the EU market for volume and value sales and, in turn, are commercially dependent on EU trade preferences, predominantly under Interim Economic Partnership Agreements.
<table>
<thead>
<tr>
<th>Country</th>
<th>Company overview</th>
<th>Production and employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>Kenya-Wanaichi Marine Products Ltd. Processing agreement to supply Tri Marine</td>
<td>Annual raw material production capacity 25,000 mt, mainly yellowfin loins. Direct employment: 300 (2009)</td>
</tr>
<tr>
<td>Mauritius</td>
<td>Princes Tuna (Mauritius) Ltd (PTM). 58/59% share bought by Princes Ltd (UK) in 1999, which is a subsidiary of Mitsubishi Corporation/ 35% Ireland Blyth Ltd. (IBL, Mauritius)/ 6-7% State Investment Corporation (Mauritius).</td>
<td>Annual raw material production capacity 60,000 mt for canned skipjack. Direct employment: 1,950</td>
</tr>
<tr>
<td></td>
<td>Thon des Mascareignes (est. 2005). Owned 75% IBL/ 25% Pesqueras Echebastar (Spain).</td>
<td>Annual raw material production capacity 60,000 mt for canned Albacore, skipjack and yellowfin loins (90%) cans and pouch. Direct employment: 750</td>
</tr>
<tr>
<td>Senegal</td>
<td>Société nouvelle des conserveries du Sénégal (SNDCS)</td>
<td>Actual annual raw material production capacity 20,000 mt; 4,200mt finished product in 2001 Direct employment: 1,340</td>
</tr>
<tr>
<td></td>
<td>Pêcheries frigorifiques du Sénégal (PFS)</td>
<td>Actual annual raw material production 15,000 mt; 4,500 mt finished product in 2001 Direct employment: 1,100.</td>
</tr>
<tr>
<td>Seychelles</td>
<td>Indian Ocean Tuna Ltd (IOT) (est. 1995) owned 60% Thai Union/40% government of Seychelles. Previously owned by Heinz European Seafood (1995-2006) and investors represented by Lehman Brothers (2006-2010) and managed by MW Brands.</td>
<td>Actual annual raw material production capacity 100,000 mt for canned skipjack/ yellowfin. Direct employment: 2,300 (2009)</td>
</tr>
</tbody>
</table>

Sources: Campling 2008; CIMB 2010; Maury 2009; Liewes 2010.

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549 Tuna packed in aluminium foil pouches.
The greatest source of tension facing canned tuna production in sub-Saharan Africa is Thai Union’s future strategy in relation to the former MW Brands factories in Ghana and the Seychelles. While Thai Union is likely to continue running these facilities in the short to medium term, primarily because of their strategic locations and duty free access to EU markets, in the longer run industry sources believe that production will shift to Thailand.\textsuperscript{550}

Despite Thunnus Overseas Group’s (TOG) emphasis on rationalising production at its two factories in Côte d’Ivoire, this country’s canned tuna exports to France (TOG’s main market) declined by 30\% between 2008 and 2009; for the first time in ten years Côte d’Ivoire is no longer the premier supplier country to France (having been replaced by Spain).\textsuperscript{551} Civil unrest has significantly hampered Côte d’Ivoire production and was a major contributing factor to Bolton Group selling their processing facility in 2005. In addition, more generally, Bolton Group – in cooperation with Tri-Marine International – has shifted its procurement strategy away from Africa to Latin America and Southeast Asia.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{cold_storage_port_louis_mauritius_photograph_liam_campling}
\caption{Cold storage in Port Louis, Mauritius. Photograph: Liam Campling}
\end{figure}

\begin{itemize}
\item Canning facilities in Sub-Saharan Africa are generally linked to investment from European tuna firms and are commercially dependent on EU trade preferences. Major processing sites include Mauritius (120,000 mt/year), Côte d’Ivoire (110,000 mt/year) and the Seychelles (100,000 mt/year).
\end{itemize}

\textsuperscript{550} Interviews, pers.comms., industry representatives, 2010.
\textsuperscript{551} Atuna 2010q.
4.18 Implications for PICs

4.18.1 General Points

Presently, global processing capacity is more than adequate to meet current demand levels for canned tuna. In fact, given there is already latent processing capacity, coupled with plans in place to construct additional processing facilities, should consumer demand for canned tuna continue to grow, the processing industry would be well-placed to meet this.

However, world population is forecasted to hit 9 billion by 2050, with FAO estimating that the world will need 70% more food by this time to match population growth. As global tuna catch may be near or already at its peak, raw material availability will be the major constraining factor in meeting the future inevitable growth in consumer demand for canned tuna.

The burgeoning demand from retailers, particularly in Northern European markets, for sustainably caught canned tuna (i.e. from pole and line and increasingly, non-FAD purse seine fisheries) presents an increasing challenge for canned tuna processors in sourcing raw materials to meet this demand. The availability of pole and line-caught tuna will continue to be an issue of concern, given pole and line fisheries represent only a small proportion of total global supply of raw materials for canning. In addition, the majority of purse seine fleets currently fish, at least in part, on FADs.

At the end of 2010, proposals were in place for an additional seven processing facilities to be established in Pacific Island countries (five in PNG, two in Solomon Islands). The establishment of these plants is not driven by market forces, but rather PICs linking fisheries access to onshore investments as a means of deriving greater economic benefits from the tuna fishery. Hence, the establishment of these plants (plus new capital investments in processing facilities in other regions) will add to existing global overcapacity in processing. As raw material supplies tighten, and as a result, prices continue to increase, considerable pressure will be placed on some existing players, particularly the more marginal processors, and may result in some plant closures.

PICs face considerable challenges in competing with tuna processing industries in South East Asia, particularly Thailand. Over time, PNG may have some chance, if it is able to build the necessary economies of scale and increase labour productivity, while for Solomon Islands it will be more difficult. For other PICs with already established processing operations (i.e. Fiji and Marshall Islands) or any others who may establish tuna processing facilities in the future, it will be almost impossible for them to be globally competitive.

4.18.2 Production Site Specific Implications

Thailand: Given Thailand’s huge processing capacity and related economies of scale, global competitiveness, industry know-how and market share, it will continue to dominate the global canned tuna processing industry. Thai canners import, process and export tuna to the same markets targeted by WCPO-based processors (i.e. EU, US markets). To be competitive, PIC processors require duty exemptions and cost savings in raw material purchases (i.e. second generation fisheries access, being located in close proximity to fishing grounds). If PNG plants are able to operate efficiently, there will be some competitive impacts felt by Thai canners, with a potential contraction in Thailand’s processing sector.
However, it is unlikely that Thailand would lose its dominance as the world’s leading canned tuna producer.

**US-Mainland:** The WCPO will continue to be a critical source of supply for the three major US brand firms, which will interface with PICs on supply directly, via the US fleet, and parent companies purchasing product from other fleets operating in the region. The trend towards importing processed loins to be canned in the mainland US (as well as in Europe) provides potential for PICs to increase their role as suppliers of loins, though any processing firms will have to comply with import regulations, quality standards and be able to ensure consistency of supply.

US processors are seeking to reinvigorate the market with new advertising campaigns and new products. While the firms would like to see market growth (which would require additional supply, including from the WCPO), they are emphasising profitability, which means that in addition to introducing new and value added products, they will be looking for cost savings across the supply chain.

**US-American Samoa:** For the time being, American Samoa continues to be an important outlet for albacore longline fishing operations in the WCPO. Though albacore demand at American Samoa reduced substantially with the closure of COSI, it stands to be reinvigorated with Tri Marine’s recent purchase of COSI’s former plant and plans to recommence processing operating. Further, as StarKist progressively shifts to processing more loins and Tri Marine reveals its production strategy, there is potential, though no guarantee, for American Samoa to increase in importance as a market for loins, particularly given the inevitable increase in labour costs; a market that Pacific Island countries could target. The one certainty in American Samoa is that production practices will continue to be highly dynamic as Pago Pago firms adjust to changing market dynamics.

**EU:** The sale of MW Brands to Thai Union is a major industry development. It has significantly deepened levels of corporate concentration in the global canned tuna industry in terms of the control of major brands, the ownership of processing facilities, and market power over the procurement of raw material. Some of the major Spanish players are also starting to move away from a focus on achieving enhanced market share to operational profitability, and as such are focusing increasingly on value-added products to minimise the impact of rising raw material price. EU (as well as US) firms pursuing this strategy are making a case for the industry as a whole to focus on the ecological reality of a global limit to the supply of tuna. This would have more positive implications for resource sustainability and for resource owners such as PICs, as globally regulated limits to supply would enhance strategic control over fisheries access. In terms of raw material supply, PICs play a minor role in EU processors supply, with the exception of loins supplied by Soltau.

**Ecuador:** The most important interaction between Ecuador and the WCPO region is in terms of fish supply. The WCPO is emerging as an important, consistent, and in times of low catches in the EPO, a growing outlet for fish caught in WCPO waters. As a result, fleets from the EPO are expressing interest in fishing in WCPO waters to supply EPO processing facilities. This trend represents growing demand for access to WCPO resources.

**Philippines:** Philippines processing investments are closely intertwined with PIC onshore processing and are likely to become more so, with planned developments in PNG and Solomon Islands, as well as Indonesia (and possibly, FSM). Philippines domestic canners will increasingly depend on supply from the WCPO beyond domestic waters (from Philippines vessels and other
fleets operating in PNA waters), given recent high seas pockets closures and a reported reduction in local supply.

**China:** China’s lack of future competitiveness in the processing of tuna means that most processing of tuna sourced in the WCPO will likely remain in Thailand in the short to medium term, unless a range of challenges can be overcome. The lack of direct SOE involvement in domestic tuna processing in China limits their expertise and ability (but perhaps not interest) to expand into large-scale processing in the Pacific islands.

**Japan:** The decline in the Japanese canned tuna processing industry is likely to continue, with an increasing reliance on cheaper imports of finished product. There is the possibility that Japanese companies will look to shift processing operations to alternative cost-effective sites of production overseas. However, given the lack of competitiveness of PIC tuna processing facilities, coupled with the past negative experiences of Japanese investors in processing operations in Fiji and the Solomon Islands, the level of interest of investing in the WCPO region is likely to be very limited. Increasing demand for imported frozen cooked loins is likely to be met by Thailand, Philippines and Indonesian processors, rather than PIC-based processors.

**Korea:** Korea’s processing operations are stable and self-contained. Given supply is currently entirely for the domestic market, Korean processors are insulated somewhat from global influences. Korean interests are likely to take a greater role in the international processing of tuna for export markets, evidenced by Dongwon’s takeover of StarKist in 2008, with any significant expansion in processing capacity likely to be linked to the establishment of overseas operations, including in PICs. One processing investment is already planned in the Solomon Islands. The Korean purse seine fishing fleet will continue to be a significant supplier of raw material for tuna processing operations, both domestic and others within the WCPO region.

**Indonesia:** There is resurgence in Indonesia’s canned tuna processing industry, with considerable investment over the past few years. It seems unlikely though that this will have much direct impact on PIC’s processing sector, given almost all raw materials are sourced domestically and Indonesia enjoys very few trade concessions. Philippines canning companies are increasing their presence in both Indonesia and PICs, however, Philippines owned canners in Indonesia are likely to avoid direct competition with product processed by their own PIC-based facilities. The conclusion of a FTA between Indonesia and the EU, will lessen the value of trade preferences currently enjoyed by PNG in the EU market.

**Vietnam:** The continuing development of Vietnamese canning capacity has minor implications for PICs, except that Vietnam processors rely heavily on imported raw materials (likely more than 70%) from WCPO waters. Vietnam is likely to remain a medium level tuna processor, supplying a range of markets with relatively small volumes. Vietnamese product may compete with PIC processors in the EU market, particularly if an FTA is concluded in the future.

**PICs:** PICs need to strike a careful balance between achieving domestic development aspirations through using fisheries access to leverage onshore investment in processing facilities, with tuna resource sustainability, as the two are inextricably linked. Presently, each proposed new plant includes requests for additional fishing licences, which, if not managed adequately, will introduce additional fishing effort into the WCPO purse seine fishery and place considerable pressure on already fragile tuna resources (particularly bigeye and yellowfin).
New investments, particularly those planned for PNG and Solomon Islands, will need to work hard and swiftly to try to build the necessary economies of scale and overcome a range of other constraints, to be able to compete and survive in a post-tariff preference operating environment, given the inevitability of the erosion of trade preferences that are currently utilised in supplying the EU market, over the next 5-10 years. If PNG’s planned investments come to fruition, its processing capacity could potentially reach 1,000 mt/day; however, this will still be less than half the processing capacity of Thailand (currently, 3,000 mt/day) and transferring processing capacity and building economies of scale will take some time (at least 5-10 years).
5 PRINCIPAL CANNED TUNA MARKETS

5.1 General Overview

The contemporary global canned tuna market developed in the 1950s, when canned salmon prices increased markedly due to production constraints and consumers looked for a cheaper canned seafood alternative. Since this time, canned tuna has risen to become an extremely popular relatively low-cost source of protein and is now traded as a global ‘commodity’ product (i.e. high-volume, low value, low margins).

In 1979, total global imports of canned tuna were 111,000 tonnes (net weight) and valued at US $300 million. By 2007, the global import volume had increased more than ten-fold in both volume and value terms to 1.13 million tonnes (net weight), valued at US $3.86 billion.552

In 2008, total global tuna consumption (including both domestically produced and imported canned tuna) was estimated to be around 256 million cases (3.2 million mt whole round equivalent), valued at US $7.5 billion.553 The largest canned tuna markets are currently Europe and the US (Table 5.1).

Table 5.1 Total Global Tuna Consumption by Region, 2008

<table>
<thead>
<tr>
<th>Rank</th>
<th>Region/country</th>
<th>Volume consumed - no. Cases (million)</th>
<th>Volume consumed Whole round (mt)a</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Western Europe</td>
<td>76</td>
<td>950,000</td>
</tr>
<tr>
<td>2</td>
<td>US</td>
<td>48</td>
<td>600,000</td>
</tr>
<tr>
<td>3</td>
<td>Asia</td>
<td>38</td>
<td>475,000</td>
</tr>
<tr>
<td>4</td>
<td>Latin America</td>
<td>35</td>
<td>437,500</td>
</tr>
<tr>
<td>5</td>
<td>Middle East</td>
<td>16</td>
<td>200,000</td>
</tr>
<tr>
<td>6</td>
<td>Australia/New Zealand</td>
<td>8</td>
<td>100,000</td>
</tr>
<tr>
<td>7</td>
<td>Africa</td>
<td>7</td>
<td>87,500</td>
</tr>
<tr>
<td>8</td>
<td>Eastern Europe</td>
<td>4</td>
<td>50,000</td>
</tr>
<tr>
<td>9</td>
<td>Others</td>
<td>19</td>
<td>237,500</td>
</tr>
</tbody>
</table>

* Based on a conversion factor of 1 tonne of whole round tuna per 80 cases.
Note: Total number of cases consumed by region/country does not sum exactly to the total quoted (256 million cases).

The major traditional canned tuna markets are maturing, with consumption levels stabilising (for the US and EU) or even declining slightly (Japan). Future growth in canned tuna market demand will likely stem from Latin America, the Middle East, and other emerging markets such as Eastern Europe (e.g. Russia) and South Africa. China is unlikely to become a significant market for canned tuna consumption, given a strong consumer preference for fresh, rather than shelf-stable seafood products. Canned tuna is also a little known product amongst Chinese consumers.

The US and Middle Eastern markets, as well as Germany and UK in the EU, are typically low-value, low quality markets. Conversely, Spain, Italy and France in the EU, along with Japan...
and Australia are higher value markets, demanding high quality canned tuna products.

Overall, canned tuna prices have remained fairly stable since the early 1990s, which means, in real terms when taking into account inflation, the value of canned tuna has declined over time.

According to industry sources, in the UK and Australian markets, the retail price of tuna is very stable. Retailers rely on promotion/marketing to influence sales volumes. For example, if the price of canned tuna is low and retailers want to shift large volumes of product, then they will market heavily. However, in times when the price of canned tuna is very high (dictated largely by raw material costs) and/or supplies are low, retailers will decrease the level of promotion to reduce consumer demand. Conversely, in the US market, retail prices change a lot, but when the cost exceeds 70-80 cents/can (or higher than 2 cans for US $1), then US market demand starts to compress.

Two cans for $1.00 promotion. Photograph: Elizabeth Havice

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555 Miyake et. al. 2010: 102.
556 Multiple interviews, canned tuna industry representatives, 2010.
Market demand for canned tuna is typically driven by a range of factors including the availability of cheaper alternative protein sources (e.g. canned chicken), food safety concerns (e.g. mercury levels), environmental/sustainability concerns (e.g. dolphin safe, tuna stock sustainability), health concerns (e.g. low fat, high protein diets), trade barriers (i.e. tariff regimes), exchange rates and domestic/global economic conditions.\textsuperscript{556}

Supermarkets dominate retail canned tuna sales globally, with an increasing volume of canned tuna products being produced by processors under direct contract to retailers and sold under supermarkets’ own labels (i.e. private label).

A significant institutional market also exists for shelf-stable tuna in the major developed markets (i.e. US, EU). Large catering-sized cans (1kg and 2kg) and, in recent years, (particularly in the US) catering pouches (3kg) are popular for use in the food service industry by hotels/restaurants, hospitals, schools, food aid programs, prisons, government/military etc.

Raw material prices heavily influence profit margins for all players in the canned tuna supply chain. When prices are high, processors and canned tuna buyers (including retailers) are adversely affected, whereas fishing companies and tuna trading companies benefit. According to several processing industry sources, when the raw material price (skipjack) exceeds US $1,200/mt, then buyer demand starts to drop-off; when fish price reaches $1,400/mt or more, buyer demand declines significantly and reaches a near standstill when prices approach $1,700/mt. In addition, when prices fluctuate by small magnitudes (i.e. $50-$100/tonne), canned tuna processors and buyers can adjust relatively well. However, large price fluctuations experienced at times in the last 2-3 years are very difficult to manage (e.g. price jumps of $1,000-$1,800/t).\textsuperscript{557}

In recent years, to counteract rising raw material prices and help to boost profitability, there has been considerable effort channelled into value-added product development and more innovative packaging by canned tuna processors (e.g. use of hydrolysed protein, addition of flavourings/sauces/vegetable materials, packaging developments – pouches, easy peel lids, no drain cans).

The following chapter presents an overview of the three traditional major canned tuna markets – US, EU and Japan, as well as one of the major emerging markets, the Middle East to demonstrate some of the key characteristics and recent developments in the global canned tuna market.

5.2 European Union

5.2.1 Current Market Status and Trends

i) EU market for canned tuna

In 2002, the majority source of supply for the EU volume market for canned tuna shifted from domestic production in favour of imports from non-EU countries (Figure 5.1). The decline in the share of domestic production of total EU supply stabilized in 2004 at around 45%, but as Figure 5.1 indicates, this was of a considerably larger absolute market volume.

\textsuperscript{556} Miyake et. al 2010: 105.
\textsuperscript{557} Multiple interviews, canned tuna industry representatives, 2010
Behind this broad trend is significant losses in market volume for canned tuna production based in France and Italy, but not for the major Spanish processors which have successfully expanded their export markets in Italy and France (see Section 4.3.1 and Table 5.2 below).

Figure 5.1 Domestic Production vs. Imports in Total Supply of Canned Tuna to EU, 1996-2008

Table 5.2 details share of the EU market for imported canned tuna over the ten year period 2000-2009. Suppliers in Table 5.2 include the Top-Ten non-EU producing countries and the main three producing countries involved in intra-EU trade (Spain, France and Italy). The major trends depicted by this data are as follows:

- Not included in Figure 5.1 but reported in Table 5.2 is the 12% decline in EU import market volume between 2008 and 2009, contrary to predictions that it would continue to grow.

- Spain’s exports continue to lead the EU import market, indicating that the current EU tariff regime on canned tuna successfully protects this country’s processing industry.

- Of the Top 13 suppliers to the EU market, with the exception of the three Southeast Asian countries (Thailand, the Philippines and Indonesia) which only benefit from the EU’s standard Generalised System of Preferences (GSP) (subject to 20.5% import duty), all other non-EU supplier countries have duty free access to the EU market, whether under the GSP+ or Interim EPAs. Note that each of these preference regimes is subject to compliance with rules of origin and sanitary measures.

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558 In descending order of market share in 2009: Ecuador, Thailand, Philippines, Seychelles, Mauritius, Côte d’Ivoire, Ghana, Colombia, Indonesia and Madagascar.

559 See, for example, Josupeit 2009b: 21-22.
The decline in imports from Ecuador in 2009, after its meteoric rise since 2000, is explained by factories cutting production due to reduced supply of rules of origin compliant fish at the ‘right’ price. The origin of this issue is low catches/supply (i.e. processors based in Ecuador are producing below maximum capacity because of low supply and its associated upward impact on price).

Thailand has almost doubled its share of supply to the EU import market between 2000 and 2009 and the Philippines increased its share by around 23% over the same period. Indonesia's share of the EU import market has, in contrast, declined by 16%.

The Seychelles has only one cannery which was controlled by EU-based MW Brands and is orientated to primarily supply the EU market (see Section 4.5). Production in the Seychelles declined with the drop in catch in the Western Indian Ocean in 2007, which was induced by stock sustainability issues in the yellowfin fishery, as well as impacts of Somali piracy. MW Brands countered these supply constraints, in part, by shifting production to its other cannery in Ghana, which increased its exports to the EU between 2006 and 2009.

Mauritius has steadily increased its share of the EU market through production increases by Princes Tuna Mauritius and Thon des Mascareignes. These processing facilities paid higher raw material prices than MW Brands in the Seychelles and were thus able to increase production rather than follow Seychelles decline.

Between 2005 and 2007, Thunnus Overseas Group (TOG) consolidated its operations across two factories in Côte d’Ivoire and the single factory in Madagascar to increase production and reduce costs. However, these two production locations each saw their share of the EU market decline by around 50% between 2000 and 2009. Political crises in the 2000s in both countries may have contributed to production declines.

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566 For information and analysis on canned tuna production in Thailand, the Philippines and Indonesia, see Sections 4.2, 4.7 and 4.11 respectively.
Table 5.2  EU Import Market for Canned Tuna by Supplier Country (% unless otherwise specified), 2000-2009

<table>
<thead>
<tr>
<th>Supplier Country</th>
<th>Tariff regime(^a)</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>N/A</td>
<td>14.8</td>
<td>16.4</td>
<td>12.7</td>
<td>10.3</td>
<td>11.0</td>
<td>6.6</td>
<td>12.0</td>
<td>12.1</td>
<td>12.6</td>
<td>14.1</td>
</tr>
<tr>
<td>Ecuador</td>
<td>GSP+</td>
<td>5.3</td>
<td>5.9</td>
<td>5.4</td>
<td>7.0</td>
<td>8.8</td>
<td>12.1</td>
<td>10.8</td>
<td>12.9</td>
<td>15.7</td>
<td>12.2</td>
</tr>
<tr>
<td>Thailand</td>
<td>GSP</td>
<td>6.4</td>
<td>7.8</td>
<td>6.5</td>
<td>9.1</td>
<td>7.3</td>
<td>10.3</td>
<td>14.5</td>
<td>11.6</td>
<td>10.8</td>
<td>12.0</td>
</tr>
<tr>
<td>Philippines</td>
<td>GSP</td>
<td>7.9</td>
<td>6.7</td>
<td>8.2</td>
<td>8.0</td>
<td>6.6</td>
<td>7.6</td>
<td>7.9</td>
<td>8.8</td>
<td>9.1</td>
<td>10.3</td>
</tr>
<tr>
<td>Seychelles</td>
<td>IEPA</td>
<td>11.0</td>
<td>11.2</td>
<td>11.4</td>
<td>10.6</td>
<td>11.2</td>
<td>10.3</td>
<td>8.1</td>
<td>7.2</td>
<td>8.1</td>
<td></td>
</tr>
<tr>
<td>Mauritius</td>
<td>IEPA</td>
<td>4.2</td>
<td>6.5</td>
<td>4.4</td>
<td>5.9</td>
<td>7.0</td>
<td>5.6</td>
<td>6.5</td>
<td>6.9</td>
<td>6.3</td>
<td>6.8</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>IEPA</td>
<td>11.9</td>
<td>10.1</td>
<td>12.3</td>
<td>8.7</td>
<td>10.3</td>
<td>6.1</td>
<td>5.4</td>
<td>6.3</td>
<td>6.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Ghana</td>
<td>IEPA</td>
<td>6.4</td>
<td>6.9</td>
<td>6.3</td>
<td>5.9</td>
<td>5.6</td>
<td>5.7</td>
<td>4.4</td>
<td>4.5</td>
<td>4.9</td>
<td>5.1</td>
</tr>
<tr>
<td>Colombia</td>
<td>GSP+</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>2.2</td>
<td>1.5</td>
<td>2.0</td>
<td>3.0</td>
<td>2.4</td>
</tr>
<tr>
<td>France</td>
<td>N/A</td>
<td>3.3</td>
<td>3.4</td>
<td>3.1</td>
<td>4.4</td>
<td>3.7</td>
<td>3.5</td>
<td>2.4</td>
<td>2.5</td>
<td>2.5</td>
<td>2.3</td>
</tr>
<tr>
<td>Italy</td>
<td>N/A</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>2.8</td>
<td>2.8</td>
<td>2.5</td>
<td>2.2</td>
<td>2.1</td>
</tr>
<tr>
<td>Indonesia</td>
<td>GSP</td>
<td>2.5</td>
<td>2.1</td>
<td>0.0</td>
<td>1.8</td>
<td>1.5</td>
<td>2.3</td>
<td>1.4</td>
<td>1.9</td>
<td>1.6</td>
<td>2.1</td>
</tr>
<tr>
<td>Madagascar</td>
<td>IEPA</td>
<td>2.7</td>
<td>2.7</td>
<td>2.7</td>
<td>4.7</td>
<td>4.5</td>
<td>3.9</td>
<td>3.0</td>
<td>2.2</td>
<td>1.2</td>
<td>1.4</td>
</tr>
<tr>
<td>Total share of top-13 suppliers</td>
<td></td>
<td>76.4</td>
<td>79.7</td>
<td>73.0</td>
<td>76.5</td>
<td>77.5</td>
<td>80.1</td>
<td>82.9</td>
<td>82.3</td>
<td>83.5</td>
<td>84.9</td>
</tr>
<tr>
<td>Total volume (1,000mt)(^b)</td>
<td></td>
<td>405.9</td>
<td>408.2</td>
<td>388.9</td>
<td>483.9</td>
<td>478.5</td>
<td>507.7</td>
<td>586.9</td>
<td>587.9</td>
<td>596.9</td>
<td>523.7</td>
</tr>
<tr>
<td>Total value (€ million)(^c)</td>
<td></td>
<td>994.3</td>
<td>1095.4</td>
<td>952.9</td>
<td>1,214.3</td>
<td>1,156.5</td>
<td>1,353.7</td>
<td>1,551.1</td>
<td>1,566.2</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

\(^a\) Generalised System of Preferences (GSP) = 20.5% tariff; Generalised System of Preferences Plus (GSP+) and Interim Economic Partnership Agreements (IEPAs) = 0%. All are subject to rules of origin and sanitary and phyto-sanitary measures (for overviews see Campling 2008b; Naumann 2010; Doherty 2010).

\(^b\) Excludes known re-exports among EU countries (i.e. Germany, Netherlands). Data for France and Italy may include re-exports.

\(^c\) Value and volume totals include all ‘other’ countries.

Source: Globefish 2010a.
ii) **EU market for pre-cooked frozen tuna loins**

In contrast to the EU market for imported canned tuna, loin imports continued to grow in 2009 (see Figure 5.2). In the ten-year period 2000-2009, the value of the EU imported loin market rose by 58%, while in volume terms it grew by 46%. The proportionally higher growth in value over volume reflects the very low prices of raw material in 1999 and through the early 2000s.

**Figure 5.2 EU Import of Pre-Cooked Tuna Loins in Value and Volume, 2000-2009**

![EU Import of Pre-Cooked Tuna Loins in Value and Volume, 2000-2009](image)

Source: Adapted from Globefish 2010a.

EU loin imports were based on a slightly more fragmented supply base in 2009 compared to 2000. In 2000, the top-five (see Figure 5.3) provided 79% of supply, whereas in 2009, the top-five provided 74%. Nonetheless, Ecuador’s relative share remained identical despite a 54% increase in absolute supply. EU trade preferences are critical to the logic of loining and the role of the loin market will continue as long as domestic EU canneries are protected. It is interesting to note from Figure 5.3 the growth in loin supply from Thailand. This can be explained by an EU tariff quota on loins where a set quantity (15,000 mt) can be imported at only 6% duty rather than the standard 24%. 
Another central actor in the US market is retail brokers who continue to play an important role in the industry, providing warehousing and inventory management for retailers, conducting category analysis on tuna sales and managing import processes.

**Figure 5.3 EU Import of Tuna Loins by Major Supplying Countries, 2000, 2009**

2000 = 64,800mt

- Ecuador 36%
- Thailand 3%
- Kenya 7%
- Colombia 28%
- Cote d’Ivoire 5%
- Others* 21%

2009 = 120,800mt

- Ecuador 36%
- Thailand 14%
- El Salvador 11%
- Mauritius 10%
- Ghana 3%
- Kenya 7%
- Colombia 28%
- Solomon Is. 2%
- PNG 1%
- Others* 21%

Source: Adapted from Globefish 2010
iii) **EU supermarkets and private label canned tuna**

Relative degrees of ‘supermarket power’ play a central role in value chains for canned tuna. One EU processing industry representative stated that:

> Supermarkets are the cancer of this business. If taking on a price squeeze for milk or coffee etc., there’s less of a problem for sustainability. But they’re often using tuna as a traffic mover, losing money, and fighting on price.

Another pointed out that: ‘Retailers are pushing each other on price points, but there’s no other protein that you can get for €1/kg’.

Table 5.3 details levels of corporate concentration of the top five grocery retail chains in the EU’s main markets for canned tuna. Contrary to popular understanding, there is no automatic relationship between levels of supermarket concentration and ‘private label’ (supermarket own-brand) share of sales of canned tuna.

The Netherlands is the most concentrated of Europe’s grocery markets – the top two firms alone have around 60% share of the grocery market. Despite this, it is a brand-dominated market for canned tuna, with three brands sharing 84.5% of value sales. In the UK, Tesco is the dominant player in total grocery sales (with around 31% value market share), while three other firms compete for second position. The two main canned tuna brands in the UK hold around 60% of the canned tuna value market.

Grocery retail in France is also highly concentrated and is led by Carrefour with 25% of the value market; the next four largest firms are in fairly close competition for the position of second runner. Data on Germany are not available, but it is known that private label sales dominate the canned tuna market. Supermarket procurement policy in each of these four countries is typified by the strategy of buying branded products from the category leader, one ‘follower’ company (normally competing for category leader position), and one niche brand; the rest of the product will be private label.

Concentration in Italy and Spain is significantly lower, but in each market two firms are in dominant positions: Coop Italia and Carrefour in Italy and Mercadona and Carrefour in Spain. The combination of Carrefour’s premier position in France and second position in Italy and Spain provides it with immense buying power. However, very different market specifications for canned tuna in France and Italy/Spain limits production line economies of scale for suppliers of Carrefour’s private label product. For example, the French market is for canned skipjack, while in Italy and Spain demand is for 80gm cans of yellowfin in oil. Despite that Spain’s supermarket sector is relatively fragmented, private label accounts for around 60% of canned tuna sales. This large market allows the Spanish canned tuna processor Frinsa to produce solely private label product. Similarly, Jealsa’s exclusive contract to supply Spain’s number one supermarket – Mercadona – with its private label product provides important volume sales.

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Table 5.3 Supermarket Concentration in Major EU Markets for Canned Tuna

<table>
<thead>
<tr>
<th>Country</th>
<th>Top 5 supermarket chains/ (% share of total grocery sales)a</th>
<th>Top 5 supermarkets share of total grocery market*</th>
<th>Main national brands of canned tuna/(% share sales)</th>
<th>Private label as % canned tuna sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netherlands</td>
<td>Albert Heijn (29.5); Superunie (29.5); Schuitema (C1000) (14.5); Aldi (9); Super de Boer (7.5)</td>
<td>90%</td>
<td>John West (43.5); Princes (18.7); Deep Blue (22.3) (2009/10)</td>
<td>15.5% (2009/10)</td>
</tr>
<tr>
<td>UK</td>
<td>Tesco (31); Asda (16.5); Sainsbury (16); Morrisons (12); Co-op (5)b</td>
<td>80.5%b</td>
<td>John West (35.5); Princes (24.8) (2009/10)</td>
<td>38% (2009/10)</td>
</tr>
<tr>
<td>France</td>
<td>Carrefour (25.3); Leclerc (16.1); EMC Distribution (13.2); Auchan (12.6); ITM Enterprises (Intermarché) (12.6)</td>
<td>79.8%</td>
<td>Petit Naivre (23); Saupiquet (18); Chancerelle (5) (2008)c</td>
<td>38% (2008)c</td>
</tr>
<tr>
<td>Germany</td>
<td>Edeka (18.6); Rewe (14.7); Metro (14); Schwarz (Kaufländ &amp; Lidl) (11.2); Aldi (10.5)</td>
<td>69%</td>
<td>Dominated by private label. Saupiquet is the leading brands.</td>
<td>No data</td>
</tr>
<tr>
<td>Spain</td>
<td>Mercadona (15.6); Carrefour (13.9); Alcampo (5.8); Dia (5.5); Eroski (4.1)</td>
<td>44.9%</td>
<td>Calvo (10.1); Albo (9.5); Garavilla (4.3) (2009)</td>
<td>65% (2009)</td>
</tr>
<tr>
<td>Italy</td>
<td>Coop Italia (18); Carrefour (10); Esselunga (8); Pam (3); Auchan (1)</td>
<td>40%</td>
<td>Dominated by Rio Mare (36); Nostromo, Mareblu and Star struggle for second place 2008#</td>
<td>18.2% (2008)d</td>
</tr>
<tr>
<td>Belgium</td>
<td>No data</td>
<td>No data</td>
<td>Imperial (21); Saupiquet (8.5) (2009/10)</td>
<td>54.6% (2008/09)</td>
</tr>
<tr>
<td>Average level of concentration</td>
<td></td>
<td></td>
<td></td>
<td>67.3%</td>
</tr>
</tbody>
</table>

* 2006 or nearest available year; b 2007 data for share of UK retail market for canned foods, which broadly mirror their positions in the overall market (Key Note 2009: 31); c data for canned fish segment, also note that Petit Naivre is the market leader for raw pack tuna, but Saupiquet is the leader for other packs (standard canned tuna, salads, etc); d volume share
5.2.2 Recent Developments and Future Prospects

Per capita consumption of canned tuna is stabilizing in the principal EU15 markets and the EU is now broadly considered to be a mature market for canned tuna. Table 5.4 provides per capita consumption for the only four markets of EU27 that consume over 100,000 tons of canned product in a year. Eastern Europe, especially Poland, has the most probable growth potential, albeit from a very low baseline: The average per capita consumption of the most recent twelve acceding countries to the EU (i.e. the EU27 compared to the EU15) was only 0.22kg in 2008, but it is growing.

Aside from emerging markets in Eastern Europe, another area of growth is in product innovation. While the volume market for the ‘commodity’ canned tuna will continue to be far larger than the market for so-called ‘value added’ products, the latter does offer potential in terms of enhanced profitability. However, only some EU firms are focused on this aspect of the ambient tuna market. In the UK, for example, John West had over 85% market share of the market for value added ambient tuna products in 2008 and 2009, while Princes – with only 6-7% share of this niche market – focused on more standardised tuna products.

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562 There are four markets consuming between 10,000 and 100,000mt: Germany, Portugal, Belgium and Polan. Commere 2009.
563 Commere 2009.
564 IRI Grocery Outlets.
Table 5.4  EU Canned Tuna Consumption (kg per capita)

<table>
<thead>
<tr>
<th>Eu member</th>
<th>2008</th>
<th>2000-2002 Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>3.1a</td>
<td>2.22</td>
</tr>
<tr>
<td>Italy</td>
<td>2.33</td>
<td>2.11</td>
</tr>
<tr>
<td>UK</td>
<td>2.15</td>
<td>1.99</td>
</tr>
<tr>
<td>France</td>
<td>1.93</td>
<td>1.92</td>
</tr>
<tr>
<td>EU27</td>
<td>1.38</td>
<td>--</td>
</tr>
<tr>
<td>EU15</td>
<td>No data</td>
<td>1.53</td>
</tr>
</tbody>
</table>

* 2007 data.
Sources: Commere 2009; Valsecchi 2006.

5.3 United States

5.3.1 Current Market Status and Trends

The US is home to one of the largest, and longest running tuna markets. Indeed, the US market was the main spark for the development of an export-oriented tuna-canning sector in Japan and Thailand (among others). The US market for imported canned tuna has expanded rapidly since the 1970s due to increased consumption and declining domestic production. From 1979-1982, the US imported an average of 27,700 mt of canned tuna. The figure steadily increased, peaking in 2003 before stabilising around 2009 at 138,000 mt of canned tuna in brine, and 31,100 mt of tuna in pouches (see Table 5.5). Thailand is the clear leader in terms of volume of exports of canned and pouch product destined for the US market.\(^{565}\) The US is also a major market for import of tuna loins, where loins are supplied primarily from Thailand, Trinidad and Tobago and Fiji (see Section 4.3).

In 2010, tuna represented 74% of the total dollar value of the US shelf-stable seafood category and was valued at US $1.75 billion.\(^{566}\) From 2006 through 2010,\(^{567}\) tuna dollar sales increased from US$ 1.4 billion to US $1.7 billion. However, tuna volume remained relatively flat over the same time period, hovering between 31.9 and 33.7 million cases annually. The discrepancy between dollar and volume sales reflects the increasing price of canned tuna - which in turn reflects increasing raw material, fuel and material input costs.\(^{568}\) Between 2001 and 2007, average canned retail prices in grocery outlets increased 21% to US $1.15 per can.\(^{569}\)

\(^{565}\) Globefish 2010a: 50.
\(^{566}\) Melbourne 2010: 5.
\(^{567}\) 2010 data are estimates based on sales through mid-June 2010.
\(^{568}\) Melbourne 2010: 5.
\(^{569}\) Connelly 2008: 34. Note that this data relates to grocery outlets; warehouse clubs and WallMart prices are likely lower.
Table 5.5  US Canned Tuna in Brine Imports by Supplier (’000 mt), 2002-2009

<table>
<thead>
<tr>
<th>Country</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canned White Meat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>14.2</td>
<td>12.5</td>
<td>13.7</td>
<td>8.0</td>
<td>8.0</td>
<td>9.1</td>
<td>10.0</td>
<td>10.1</td>
</tr>
<tr>
<td>Indonesia</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.5</td>
<td>6.5</td>
<td>6.2</td>
<td>5.1</td>
</tr>
<tr>
<td>Other</td>
<td>16.4</td>
<td>16.9</td>
<td>15.3</td>
<td>11.0</td>
<td>4.6</td>
<td>4.6</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Total</td>
<td>30.6</td>
<td>29.4</td>
<td>29.0</td>
<td>19.0</td>
<td>17.1</td>
<td>20.2</td>
<td>19.1</td>
<td>18.2</td>
</tr>
<tr>
<td>Canned Light Meat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>55.0</td>
<td>71.3</td>
<td>61.8</td>
<td>69.3</td>
<td>66.1</td>
<td>66.8</td>
<td>54.3</td>
<td>68.2</td>
</tr>
<tr>
<td>Philippines</td>
<td>34.1</td>
<td>38.2</td>
<td>42.9</td>
<td>43.3</td>
<td>34.7</td>
<td>25.7</td>
<td>25.1</td>
<td>24.8</td>
</tr>
<tr>
<td>Indonesia</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>11.6</td>
<td>7.6</td>
<td>7.3</td>
<td>8.0</td>
</tr>
<tr>
<td>China</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5.1</td>
<td>5.4</td>
<td>4.9</td>
<td>5.7</td>
</tr>
<tr>
<td>Others</td>
<td>37.9</td>
<td>37.8</td>
<td>42.9</td>
<td>37.4</td>
<td>14.8</td>
<td>14.8</td>
<td>18.5</td>
<td>13.4</td>
</tr>
<tr>
<td>Total</td>
<td>127.0</td>
<td>147.3</td>
<td>147.6</td>
<td>150.0</td>
<td>132.2</td>
<td>110.3</td>
<td>110.1</td>
<td>120.1</td>
</tr>
<tr>
<td>Pouched Tuna</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>3.9</td>
<td>6.1</td>
<td>19.2</td>
<td>19.7</td>
<td>18.6</td>
<td>16.5</td>
<td>19.3</td>
<td>16.5</td>
</tr>
<tr>
<td>Ecuador</td>
<td>12.5</td>
<td>21.3</td>
<td>10.9</td>
<td>13.6</td>
<td>15.6</td>
<td>10.8</td>
<td>13.5</td>
<td>11.0</td>
</tr>
<tr>
<td>Others</td>
<td>2.2</td>
<td>3.3</td>
<td>2.2</td>
<td>2.7</td>
<td>3.8</td>
<td>3.8</td>
<td>5.9</td>
<td>3.6</td>
</tr>
<tr>
<td>Total</td>
<td>18.6</td>
<td>40.7</td>
<td>32.3</td>
<td>36.0</td>
<td>38.0</td>
<td>31.1</td>
<td>38.7</td>
<td>31.1</td>
</tr>
<tr>
<td>Total Imports</td>
<td>176.2</td>
<td>217.4</td>
<td>208.9</td>
<td>205.9</td>
<td>187.3</td>
<td>161.7</td>
<td>167.9</td>
<td>169.4</td>
</tr>
</tbody>
</table>

Source: Globefish 2010a: 50.

Canned tuna remains a key retail category in the broader US market, one that is characterised by high volume and low margins. It is second in the Top 10 consumed seafood products; 37% of all seafood consumed in the country is shelf-stable tuna. Tuna has 73.7% household penetration in the US (a decline from 77% in 2001), and canned tuna has the third highest sales velocity (speed of sale) of all products sold in retail markets (behind only granulated sugar and regular coffee). This, combined with the fact that the average shopping dollars per trip are more than twice as high for a checkout that does include tuna, compared with one that does not, makes canned and pouched tuna a destination category and tuna shoppers 'preferred' customers for retailers. As a result, tuna is heavily promoted to drive volume. In 2007, 46% of all tuna was sold on promotion.

Suppliers, not retailers, are increasingly absorbing the cost of discount offers (discussed below), though retailers do at times absorb costs, placing tuna in the category of ‘loss leader’ - a product sold at a loss in order to draw in shoppers who will spend more on other products. Supermarkets play big brands off of each other and increase their overall sales and use private labels (supermarket own) to capture more profit margin.

Despite heavy promotions, per capita consumption of tuna has declined from a peak of 3.9 lbs per capita in 1989 to 2.9 lbs per capita in 2008. In 2009, consumption rebounded to 3.3 lbs per capita.

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570 Connelly 2008: 30.
572 Excluding Walmart sales, Connelly 2008: 37.
573 Interview, US processing industry representative 2010.
575 Melbourne 2010: 7
Declining consumption levels may, in part, relate to US consumers deeming canned tuna to be increasingly less value for money over the years - as a result of desperate competition between the three major brands for market share, the size of a standard can has decreased (from 7oz to 5 oz). Also, the volume of raw material contained within cans has declined. In a standard 5 oz can, the volume of tuna is now less than 3 oz, with the remaining volume comprised of water, hydrolized protein, flavourings etc.\textsuperscript{576}

Several market outlets compete for tuna purchases, and in recent years, traditional retail markets have lost sale shares to superstores such as WalMart and Warehouse Clubs. Retail markets remain dominant in terms of volume. In 2009, 61\% of tuna was bought in retail markets and 36\% in superstores. These data reflect a trend shift: from 2001 to 2005 shelf stable tuna sales were down 4.6\% in traditional grocery stores while super-center tuna sales were up 68.6\% and Warehouse Clubs were up 15.6\%.\textsuperscript{577}

The increasing market share by the market power of the largest retailers reflects the market power that a consolidating retail market generates. Big retailers fight for market share by drawing customers in with lower prices, squeezing suppliers and forcing them to sell at low prices. Price pressure from super market buyers, combined with competition from Southeast Asia explains a reported 68\% decline in real prices in light meat retail prices between 1980 and 2004.\textsuperscript{578}

Suppliers must drop their margins and look for cost savings throughout their production cycles. Of significance to Pacific island countries, this translates into lower profit margins for suppliers lower down the chain, such as firms canning for brands and private labels, loining plants, and eventually, to fishers.

Price pressure is further exacerbated by consumer willingness to buy private labels which supermarkets can sell at lower prices because they do not have to pay the same level of marketing or supply chain management costs. In 2009, private label accounted for 20\% of tuna dollar sales, compared with 14.5\% in 2005. Private label accounted for 24\% of tuna volume in 2009, up from 20\% for the year ending July 2006 (Figure 5.4).\textsuperscript{579}

Despite gains made by private labels, the ‘big three’ brands still commanded upwards of 80\% of the value in US retail markets. The canned market is largely differentiated into the light meat and white meat (albacore) segments. By volume, sales are 66\% light meat, and though albacore is only 34\% of the market by volume, it is 52\% of the market value. StarKist is the market leader in light meat, selling 39\% of the volume, and Bumble Bee leads in albacore, selling 42\% of its volume (see Section 4.3).\textsuperscript{580} In general, private labels run their product at a lower price than national brands and follow the product innovation made by the national brands. Both trends are on account of supermarkets not having R&D or marketing resources for specific products. Therefore, they measure national brands successes and emulate them in private label products. In addition to tuna in cans, there is a small, but profitable market segment devoted to tuna in pouches - most commonly a premium product. StarKist is the market leader, but this segment is not growing, despite hopes by all of the major brands.

\textsuperscript{576} Pers. comm., industry representative 2010.  
\textsuperscript{577} Lischewski 2006: 10.  
\textsuperscript{578} Lischewski 2006: 11.  
\textsuperscript{579} Melbourne 2010: 12; Lischewski 2006: 6; AC Nielsen data cited by Del Monte Foods Company 2005: 5.  
\textsuperscript{580} Connelly 2008: 23.
Another central actor in the US market is retail brokers who continue to play an important role in the industry, providing warehousing and inventory management for retailers, conducting category analysis on tuna sales and managing import processes.

**Figure 5.4** Brand and Private Label Share in Value and Volume of US Canned Tuna Retail, 2009

Tuna Sales - Value

- StarKist 33%
- Private Label/Other 20%
- Bumble Bee 28%
- Chicken of the Sea 19%

Tuna Sales - Volume

- StarKist 30%
- Private Label/Other 24%
- Bumble Bee 25%
- Chicken of the Sea 21%

Source: Melbourne 2010: 12.

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Campling et al. 2007.
5.3.2 Recent Developments and Future Prospects

US market volume has remained stagnant in the most recent years. Given these conditions, branded tuna labels have begun to focus on capturing profit, rather than volume. Their major market strategies are informed in anticipation of market demographic shifts that indicate that consumers will be looking increasingly towards shelf-stable ‘meals to go’ and value-added tuna products.582

In the meantime, in an effort to increase tuna consumption in the US, the major tuna brands have teamed with each other and the Thai Food Processors Association for a category-wide advertising campaign designed to reinvigorate the image of shelf-stable tuna. The first year of a 3-year US$20 million/year national campaign is fully funded and approved. The campaign objective is to increase the purchase frequency among target segments and increase the number of households using tuna. To increase tuna consumption, the campaign will focus on solidifying consumer’s belief that tuna is both healthy and versatile. The goal is to elevate tuna’s commodity status by connecting the specific health benefits of fish with canned tuna and feature dishes that are modern, light and healthy.583 A second goal is to launch an integrated health communications campaign to counteract campaigns highlighting potential health impacts of mercury in tuna.

In terms of recent product development, both Bumble Bee and Starkist have released low-sodium product lines, cutting sodium by as much at 44%. The products have come on the heels of medical reports urging the US federal government to limit salt in foods.584

5.4 Other Markets - Japan

5.4.1 Current Market Status and Trends

For over two decades (mid-1980s to mid-2000s), canned tuna consumption in Japan remained stable at around 100,000 mt/year (finished weight).585 In recent years, however, Japanese consumption of canned tuna (as well as other shelf-stable seafood products) has started to decline. Several reasons are cited for this trend – low population growth, an ageing population, as well as changing consumer preferences for alternative protein sources.

In 1995, total Japanese canned tuna consumption (in whole round equivalent) was 180,000 mt. By 2007, consumption had declined by almost 20% to 145,000 mt (around 1.6% per annum). In synchronisation with this trend, the share of domestically produced canned tuna has also declined due to high production costs, with increasing volumes of imports (mostly from Thailand and the Philippines) to compensate for this (Table 5.6). In 2006, the value of canned tuna sales in Japan was estimated at US$ 358 million.586
Table 5.6 Japanese Canned Tuna Consumption (mt), 1995 & 2007

<table>
<thead>
<tr>
<th>Product Source</th>
<th>1995</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic production</td>
<td>121,000</td>
<td>80,000</td>
</tr>
<tr>
<td>Imported product</td>
<td>59,000</td>
<td>65,000</td>
</tr>
<tr>
<td>Total consumption</td>
<td>180,000</td>
<td>145,000</td>
</tr>
</tbody>
</table>

Sources: Shima & Kawamoto 2010; Shima & Kawamoto 2008.

In 2007, approximately 65% of total canned tuna sales was yellowfin, 27% skipjack, 6% albacore and 2% bigeye. Industry sources report that the proportion of canned skipjack tuna sales relative to canned yellowfin sales have increased, as consumers have been seeking cheaper product, given the recession market. Another influencing factor could be related to increasing difficulties faced by Japanese canners sourcing yellowfin, given the EU market for yellowfin is reportedly a higher value market.

Canned tuna was introduced in the Japanese market in the 1930s, when Japan’s pioneer canned tuna company, Hagoromo, launched its ‘Sea Chicken’ product (tuna with vegetable broth). Since this time, Hagoromo has become the market leader accounting for 60-70% market share, with Japanese consumers confusing the term/brand ‘Sea Chicken’ as a generic tuna classification. This has made it difficult for Japan’s other competing canned tuna suppliers to increase their market share, since their products don’t carry a ‘Sea Chicken’ brand reference. Unique to the Japanese canned tuna market, ‘supermarket own’ branded canned tuna (i.e. private label tuna) processed by Hagoromo is double-labelled, which includes the name of the supermarket, along with the Hagoromo or ‘Sea Chicken’ logo. Supermarkets may opt to double-label given there is significant consumer confidence in this brand. A similar practice is also undertaken for some ready to eat products made using Hagoromo’s ‘Sea Chicken’ as a major ingredient.

Cans in 80 grams, 125 grams and 150 grams sizes are the most popular with Japanese consumers, given the small average family size. Catering pouch packs (3kg) are also popular with the food service industry for the preparation of ready to eat products using processed tuna (e.g. sushi rolls, rice balls, sandwiches etc.).

To date, pouched tuna for retail sales has been relatively unsuccessful in the Japanese market. In the mid 2000s, Hagoromo launched a retail pouch product, but the product was withdrawn from the market, given unsatisfactory sales volumes. One theory behind this relates to Japanese consumers being conservative, resulting in an ongoing preference for traditional canned products, rather than tuna marketed in more innovative packaging styles.

The average retail price of canned tuna from 2004-2008 was ¥152-161 per 100 grams. According to industry sources, the retail price of canned tuna has declined due to supermarkets offering tuna at a lower price, in response to reduced consumer spending on food items, given the Japanese recession. However, in comparison to the US market, the Japanese canned tuna market remains a high value, high quality market.

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587 Shima & Kawamoto 2010.
589 Interviews, Japan canned tuna industry representatives, June 2010.
590 Campling et. al. 2007: 269.
591 Interview, Japan canned tuna industry representative, June 2010; Campling et. al. 2007: 249.
Japanese canned tuna processors indicated that given the recent increase in the cost of empty cans, they have been forced to increase the price of canned food products by 5-7%. It is assumed that some of this price increase would be transferred by retailers onto canned tuna consumers.  

5.4.2 Recent Developments and Future Prospects

Over the past year or so, there have been no major developments in the Japanese canned tuna market. At best, Japanese canned tuna consumption will remain stagnant, but is more likely to continue to decline over time.

Domestic production of canned tuna will also continue to decrease, given increasing competition faced from cheaper imports, particularly from Thailand. However, despite Japanese consumers seeking cheaper food alternatives, purchasing decisions are driven by both price and quality. Also, there is a strong preference for domestically processed products bearing a ‘made in Japan’ label, as well as the previously mentioned consumer affinity for Hagoromo’s ‘Sea Chicken’ brand. These factors may help to preserve some level of domestic production in the future.

It is likely that the volume of imports of canned and pouched catering packs will continue to increase, as consumers are less able to see the country of origin of the product being consumed. Thailand’s tuna processors are likely to benefit the most from this trend.

It is likely that more value-added tuna products will become available on the Japanese market, as domestic processors follow suit of EU and US processors, in an attempt to increase profitability. However, given Japanese consumers are rather conservative and traditional, the uptake of value-added products is likely to be much slower than in the EU and US markets and will require clever marketing, which is very costly.

Despite the setbacks experienced to date in launching retail pouches, Japanese canned tuna suppliers indicated that they will continue efforts to develop the pouch market for the retail sector for several reasons – the cost of empty cans is rising significantly, freight costs for pouches are cheaper, and pouches are more consumer friendly than cans. Pouches are apparently becoming very popular in the pet food market, which has bolstered hopes that Japanese consumers’ awareness of the convenience of this packaging style will translate into greater acceptance of pouched tuna products for human consumption.

Developments in the Japanese canned tuna market will have little bearing on the PIC tuna industry. Only 10% of the catch of Japanese purse seine vessels operating in WCPO is utilised by domestic canned tuna processors. Also, PIC-based processors do not have a history of supplying canned tuna products to the Japanese market. Despite the increase in imported canned tuna products into the Japanese market, this demand will be mostly met by Thailand, given Thai imports are now duty free. PIC imports would be subject to a 9.6% import duty, until such time as WTO negotiations for non-agricultural products (NAMA negotiations) at the WTO conclude (if they conclude) (see Section 11.5).
5.5 Other Markets - Middle East

There is no single, agreed upon definition of which countries constitute the Middle East. Within its broadest geographic range, the Middle East can be said to include tuna canneries in Turkey, Israel, and Iran where production is believed to be primarily for domestic consumption. For the purposes of this discussion of canned tuna markets, the Middle East is defined as primarily the Arab countries of Kuwait, United Arab Emirates (UAE), Egypt and Saudi Arabia. With no domestic tuna canning industries these countries rely wholly on imports, mainly from Thailand but also from other Southeast Asian countries.

Egypt is the most important canned tuna market amongst these Middle East countries, particularly for Thai packers. Indonesian and Philippine packers have also made inroads into the market, and Vietnam has reportedly also begun exporting to the region as well.

Libya is also sometimes included in discussions of the Middle Eastern canned tuna market because of its proximity to Egypt, Arabic culture and market importance beyond that of other North African countries. Libyan imports from Thailand in 2009 were reported by Globefish to be on the order of 34,000 mt. With a population of just over 6 million, Libya has the highest per capita consumption in the wider region.

Some significant characteristics of the canned tuna market in the Arab Middle East are:

- primarily driven by price, rather than quality;
- relatively easy to access with no tariffs or trade barriers;
- traditionally a fragmented market with no dominant large brands; and
- controlled by wholesalers who import directly from canneries.

According to one company official in Bangkok, the Middle East is an attractive market for packers because it does not require compliance with traceability or SPS measures.

5.5.1 Current Market Status and Trends

The total estimated imports of canned tuna into Kuwait, UAE, Egypt and Saudi Arabia was about 62,500 mt in 2009, with the latter two countries making up almost 91% of the total. The overall trend is upward, with Egypt leading the way after a dip in 2007 attributed to a drop in consumption brought about by the global economic crisis (Figure 5.5). The continued downward trend in exports to Saudi Arabia may be a result of fewer expatriate workers in that country. A similar effect was felt in the much smaller UAE and Kuwaiti markets.

After the United States, Egypt was the second most important destination for Thai canned tuna in 2009, with a volume of almost 40,000 mt. Together with Saudi Arabia (17,000 tons) these two countries accounted for almost 12% of Thailand's export canned tuna market in 2009.
Figure 5.5  Thailand Canned Tuna Export Volumes to Egypt and Saudi Arabia, 2004-2009

Source: Globefish 2010a.

5.5.2 Recent Developments and Future Prospects

There have been attempts in the last couple of years to better identify brands through attempts at advertising and promotions. This has brought about a consolidation of the market by a few large wholesalers. As a result, the brands that have invested more heavily in these activities are beginning to gain market share in the highly fragmented market.

In a recent interview, an official of Thai Union identified the Middle East as a target area for expansion.

5.6 Other Markets - China

5.6.1 Current Market Status & Trends

It is a generally-held perception among the Chinese tuna industry that there is not a large market for canned tuna in China. Both cultural and economic reasons are cited as to why canned tuna is not a major contender for the consumer’s attention in the new Chinese economy. Culturally, it is an unknown product and where it is known, it is not associated with either expensive tastes or mass consumerism. The latter point is reinforced by a high cost per unit of protein relative to other products. Industry sources believe that the main consumers of canned tuna in China at present are foreigners, including foreign students who are used to eating it in their own country.

In spite of these attitudes, there are continuing and persistent efforts being made by both Thai and European canners to enter and expand the market for canned tuna in China.
These are efforts aimed at the long-term, with the goal of tapping into changing tastes of a growing segment of the population (i.e., the middle class in China) as it expands and accepts more foreign foods. Marketing is thus emphasizing the imported nature of the product. In comparison, domestic marketing and the development of brands by Chinese processors is believed to be either non-existent or very limited.

Early attempts to develop a market in China for canned tuna were made by Century Canning of the Philippines, who began exporting to China in 1994 with just one container load according to one source in the industry. In 2005, Thai Union Frozen Products (TUF) invested $US4 million (155 million baht) for a 50 percent stake in Century Union (Shanghai) Foods Co. TUF now owns the Century brand in China, with a market in 20 cities in China of around 80 containers per year. These efforts are described as loss-making, with one of the reasons being the costs of dealing in multiple markets at low volumes.

5.6.2 Recent Developments and Future Prospects

In July 2010, the Spanish Calvo group, the largest processor in Spain, had reportedly agreed with a German distribution company to introduce its products, including canned tuna, in the Chinese market. The effort was described as “expanding…within the medium to long term”, which is in keeping with overall attitudes towards the market for canned tuna in China.

The major impediment to increased consumption of canned tuna in China appears to be consumer acceptance. Unlike tuna sashimi, which is perceived as a prestigious food well-suited to situations where a degree of ostentation is desired, canned tuna is recognized as a utilitarian item (in instances where it is recognized at all). Price may also play a role, however it is believed secondary. Hence, the China-ASEAN Free Trade Agreement (CAFTA) that came into effect in January, 2010 for the original six member countries of ASEAN (including the canned tuna producing nations of Philippines and Indonesia) will probably play a minor role in the short to medium term. CAFTA may become a factor if consumption increases dramatically in the future.

5.7 Implications for PICs

Currently, PIC canned tuna processors target the EU and US markets; these major traditional markets are maturing and canned tuna consumption levels are plateauing. Future growth in canned tuna market demand will likely stem from the Middle East and Latin America, and other emerging markets such as Eastern Europe (e.g., Russia) and South Africa. At present, while WCPO tuna catches may end up in finished product destined for these markets (particularly those markets served by Thailand and other South-East Asian canned tuna processors), PIC processors are not presently well geared to export to these markets in terms of market access arrangements, logistics etc.

596 Bangkok Post, April 13, 2005.
597 Acquisition of the brand is in keeping with the TUF corporate strategy of transitioning from a purely contract seafood processor to include brand ownership. Interview, Thai canning industry representatives, 2010.
598 La Voz de Galicia 2010.
Consumer demand for sustainably sourced seafood products, including tuna, will continue to increase, particularly in European markets. Given public commitments starting to be made by some of the major EU retailers (notably Princes, Marks & Spencer, Tesco, Sainsbury and ASDA in the UK) to only sell canned tuna with raw materials sourced from pole and line and FAD-free purse seine fisheries, increasing pressure will be exerted by retailers on canned suppliers and subsequently, fishing fleets and coastal states to meet this demand.

Global market demand for value-added products will continue to be relatively small in comparison to demand for traditional canned tuna products (i.e. canned tuna chunks, flakes/solid in brine/oil). However, for those PIC processing facilities with export canning lines, development of value-added products does offer opportunities for increasing profitability.

The market power of large retailers will continue to increase in the future, resulting in pressure on all players further down the canned tuna supply chain. Processors, including PIC processors, will be increasingly squeezed to reduce their margins and adopt cost cutting measures in their production plants. In order for fishing vessel operators to deflect this pressure, hard limits will need to be placed on the volume of fish caught.

A widespread view amongst key industry players is that canned tuna is ‘too cheap’. However, unless supply volumes tighten, prices will remain low. PICs, as the owners of the world’s largest canning-grade tuna resources, are in a strong position to drive up the price of canned tuna, by putting in place effective limits on fishing activity and controlling supply.