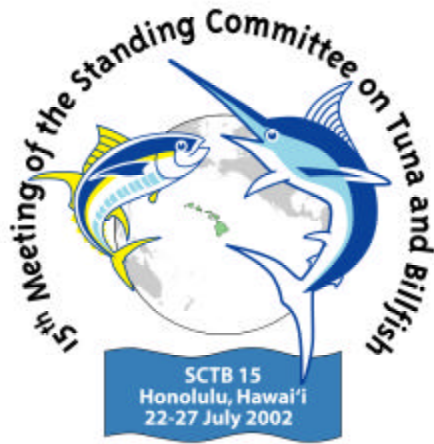
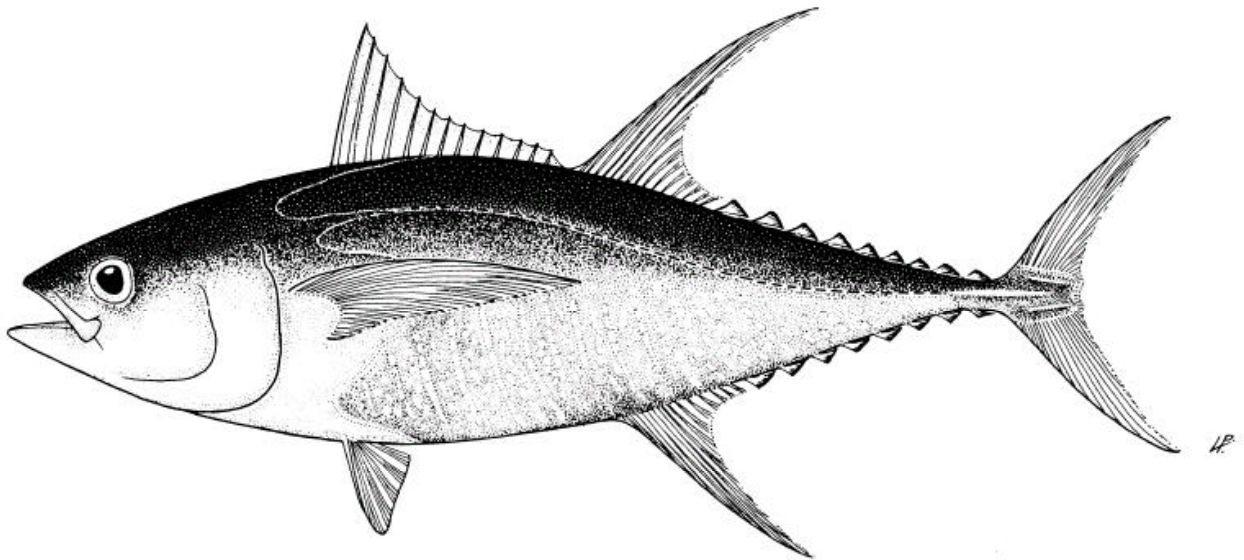


# GEN - 4



## Economic overview of the tuna fishery



**Forum Fisheries Agency**  
Honiara, Solomon Islands

FIFTEENTH STANDING COMMITTEE ON TUNA AND BILLFISH

22-27 July 2002  
Hawaii

WORKING PAPER #GEN-4

ECONOMIC OVERVIEW OF THE TUNA FISHERY

Forum Fisheries Agency  
Honiara, Solomon Islands  
July 2002

## Introduction

1. This report, presented each year to SCTB, provides an overview of tuna catches in the western and central Pacific during 2001 and price trends on various world tuna markets during 2001 and the first half of 2002. In addition long term price series and estimates of catch values for the purse seine fishery are also provided.

## The Purse Seine Fishery

### Catch and vessel numbers

2. The preliminary estimate of the 2001 purse seine catch is 1,076,939 metric tonnes (Mt). This represents a decrease of approximately 2 per cent compared to the estimated 2000 catch of 1,101,941Mt. The estimated breakdown by species of the 2001 catch is as follows: skipjack 836,418Mt (down 3 per cent from 1999), yellowfin 216,335Mt (up 5 per cent) and bigeye 24,186Mt (down 21 per cent).

### *Foreign Fleets*

3. Preliminary catch estimates for the US fleet indicate that in 2001 its catch declined by around 10 per cent with the number of active vessels<sup>1</sup> declining from 33 in 2000 to 30 in 2001 and average catch per vessel declining by 8 per cent. Catches for the Japanese and Taiwanese fleets in 2001 are estimated to be down slightly from 2000 levels, with the catch of the Japanese fleet falling 3 per cent and the Taiwanese fleet by 2 per cent. Catches for the Korean fleet rose by 5 per cent in 2001 with the number of active vessels in 2001 increasing to 31 from 30 in 2000 (Figure 1).

4. The estimated catch for both the Filipino and Spanish fleets indicate that their catches in 2001 were down significantly on 2000 levels. The catch of the Filipino fleet is estimated to have fallen by 57 per cent despite an increase in active vessel numbers from 9 in 2000 to 11 in 2001. The catch of the Spanish fleet declined by over 80 per cent in 2001 with the number of active vessels halving from 12 in 2000 to 6 in 2001.

### *Regional vessels<sup>2</sup>*

5. The preliminary catch estimate for 2001 for regional vessels is 166,400Mt. This represents an increase of approximately 6,800Mt or 4 per cent on the 2000 catch.

6. According to licensing data made available to the Secretariat for the 2001/02 registration period<sup>3</sup> the number of vessels flagged by FFA member countries totalled forty-four of which seventeen vessels were flagged in Papua New Guinea, five vessels in the Federated States of Micronesia, five in the Marshall Islands, two in the Solomon Islands, one in Kiribati, ten in Vanuatu and four in New Zealand.

7. The fleet flagged or based in Papua New Guinea accounted for over half the regional fleets' catch in 2001 with an estimated catch of 87,969Mt an increase of 20,240Mt (30 per cent) on its 2000 catch. This catch estimate includes four vessels that are flagged in Vanuatu but based in PNG. The Marshall Islands based fleet, which re-flagged from Vanuatu during 2000, and operated under a Marshall Island flag for a full calendar year for the first time in 2001 landed the

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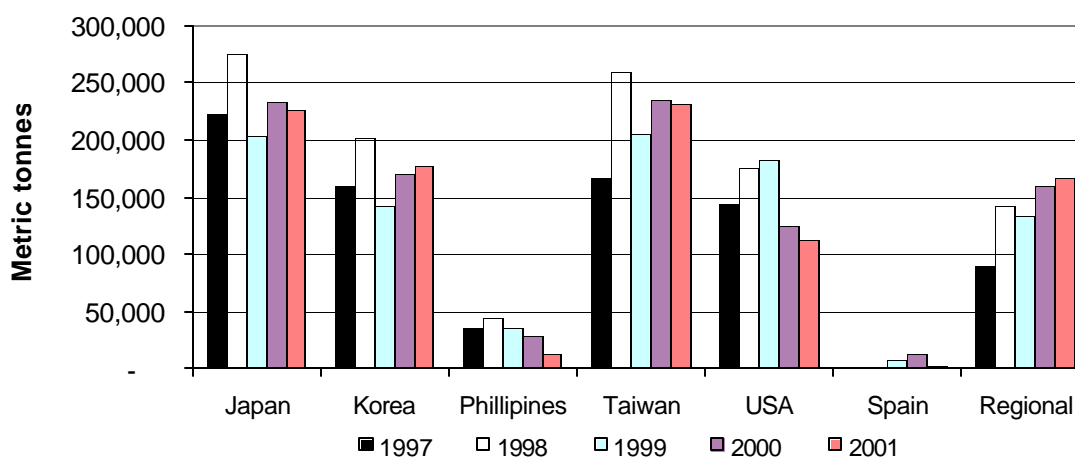
<sup>1</sup> The number of active vessels refers to the number of vessels that fished during the relevant year and will not necessarily be same as the number of vessels that hold licences to fish within the region.

<sup>2</sup> Regional vessels are defined as vessels that are flagged by or based in countries within the region including New Zealand and Australian vessels operating in the WCPO but excluding Australian vessels working inside in the AFZ.

<sup>3</sup> September 1 2001 to August 31 2002.

second highest catch taking 33,468Mt an increase of 28,943Mt on the 2000 catch. The catches of the other regional fleets all declined in 2001. The Federated States of Micronesia fleet's catch was down by 5,368Mt to 15,777Mt, the Solomon Island fleet's catch was down by 12,743Mt to 3,637Mt, the New Zealand fleet's catch declined by 4,668Mt to 8,967Mt and Kiribati fleet's catch was down by 354Mt to 4,619Mt. The catch of two of the vessels flagged in Vanuatu are included in the Taiwanese fleet's catch while the other four currently registered Vanuatu flagged vessels were inactive during 2001.

**Figure 1: Purse seine catch by flag 1997-2001**



## Market conditions

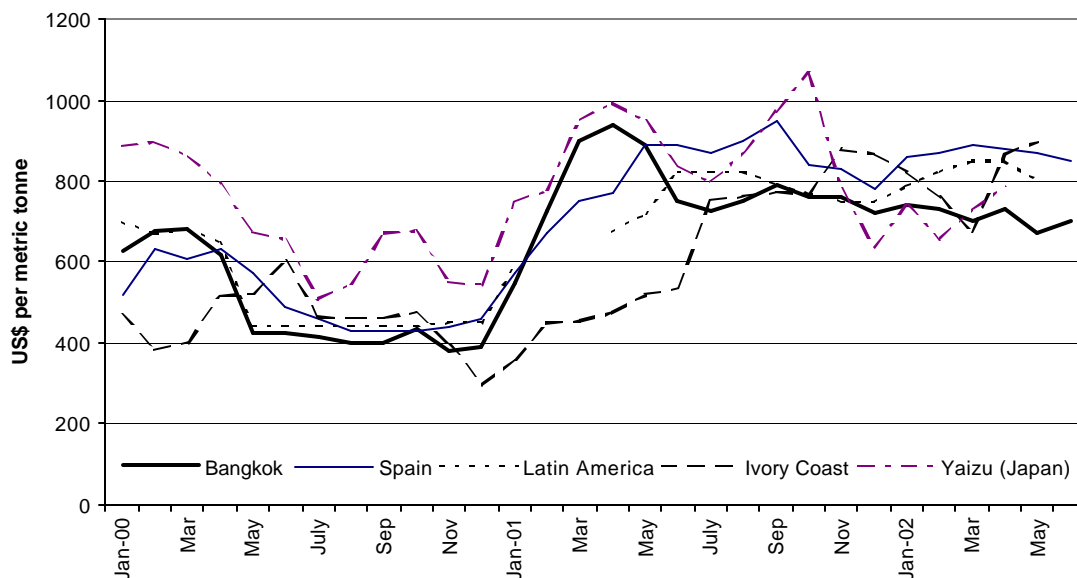
### *Skipjack*

8. In 2001 Bangkok skipjack prices recovered from the depressed levels seen throughout much of 1999 and 2000. Bangkok prices (c&f) for 4-7.5lb skipjack rose dramatically during the 1<sup>st</sup> quarter of 2001 with prices reaching around US\$950/Mt by late March more than double the US\$380-400/Mt price level seen in late 2000. Prices then declined from late April through to early June before stabilising for the remainder of the year, trading in a range of US\$700-800/Mt and at around US\$720/Mt in December. Prices rose by around US\$20/Mt in January 2002 and then trended downward through to May reaching US\$650-670/Mt before recovering to just over US\$700/Mt in late June (Figure 2). Latest reports indicate that both Bangkok skipjack prices have continued to increase through to mid-July with Bangkok prices rising to US\$720-750/Mt.

9. Prices for purse seine caught skipjack landed at Yaizu in 2001 averaged 105JPY/kg up by 42 per cent compared with 2000. In US\$ terms prices averaged US\$856/Mt during 2001 up by 25 per cent on 2000 levels. The reason for the lower increase in average US\$ price compared with the JPY price was the depreciation of JPY against the US\$. While average prices for 2001 increased in line with other world markets in the 2<sup>nd</sup> half of 2001 there was substantial fluctuations in prices in contrast to the steadier prices seen in Southeast Asian markets. Prices in JPY rose by over 30 per cent between July and October before declining by nearly 40 per cent between October and December.

10. As for South-east Asian, prices for skipjack in European, Latin American and African markets during 2001 recovered from the depressed levels seen during much of 1999 and 2000. Prices in Spain (4-7.5lbs, c&f) finished 2001 at around US\$780/Mt up by US\$320/Mt compared with December 2000. Prices in Ecuador (4-7.5lbs, c&f) finished 2001 at around US\$750/Mt up by

US\$300/Mt compared with December 2000 with prices in the Ivory Coast finishing 2001 at around US\$870/Mt up by US\$570/Mt compared with December 2000.



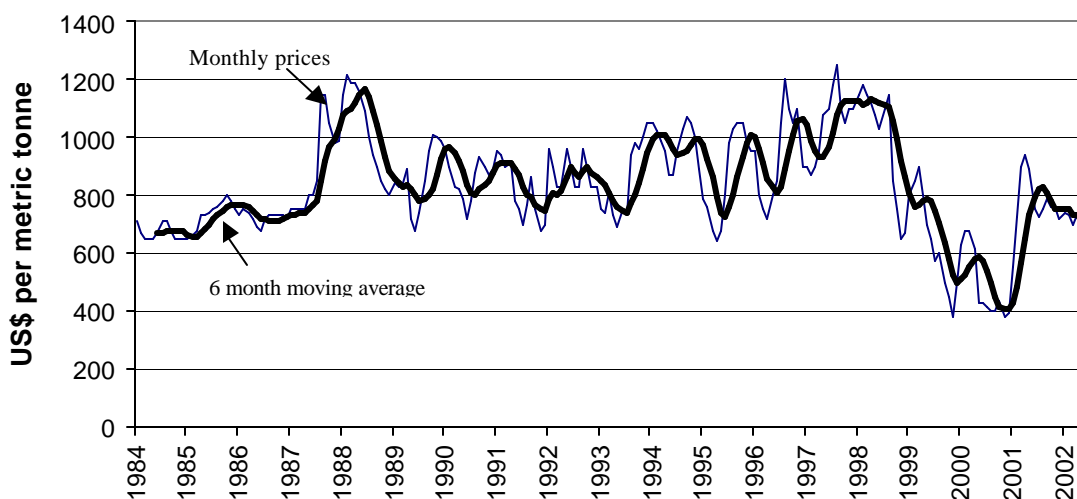
**Figure 2: Monthly skipjack prices January 2000 to June 2002, Bangkok<sup>a</sup>, Spain<sup>b</sup>, Latin America<sup>c</sup>, Ivory Coast<sup>d</sup> and Yaizu (Japan)<sup>e</sup>**

*Notes:* a. 4-7.5lbs, c&f. b. 1.8kg (4lbs) and up, c&f, origin Indian Ocean Spanish vessels. c. Latin American prices are based on Puerto Rico 4-7.5lbs prices for period January to November 2000 and on Ecuador 4-7.5lbs c&f prices from December 2000 onwards. d. 1.8kg (4lbs) and up ex-vessel. e. Purse Seine caught.

*Source:* Bangkok and Ecuador: Mid-point estimates of prices paid during the respective month as obtained from Infofish Trade Market News, [www.foodmarketexchange.com](http://www.foodmarketexchange.com) and FFA source. Spain: Globefish European Price Report. Ivory Coast: Infofish Trade Market News. Puerto Rico, Infofish Trade Market News. Yaizu: pers. com. M. Honda, Tuna Industry Adviser, FFA.

11. While Bangkok skipjack prices have recovered from the exceptional lows experienced in 1999 and 2000 they are still at the bottom of the range observed over the 10 years prior to 1999 as illustrated in Figure 3.

**Figure 3: Monthly skipjack prices January 1984 to June 2002, Bangkok (4-7.5lbs c&f)**



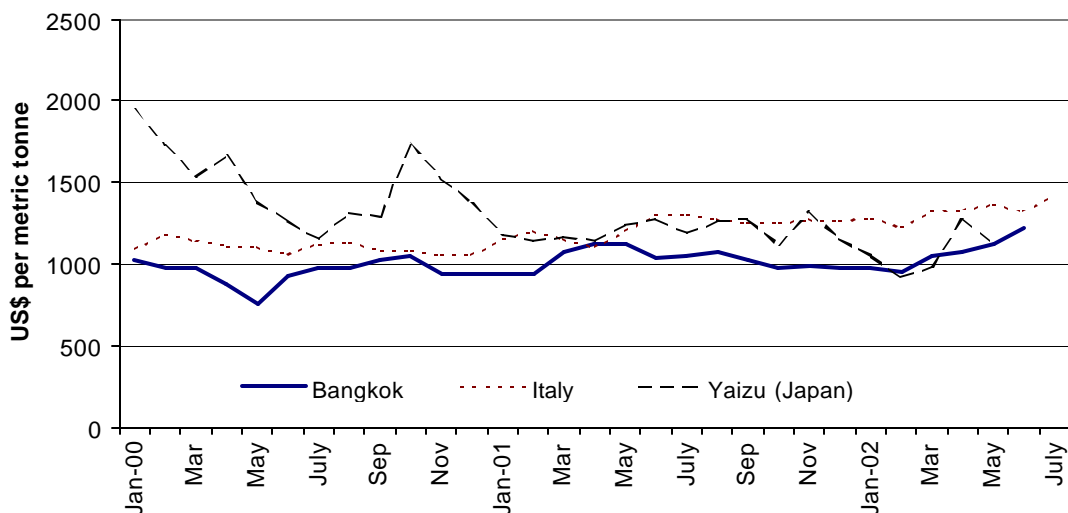
## Yellowfin

12. As with skipjack prices Bangkok yellowfin prices were higher in 2001 although the increase was of a lesser magnitude. Prices for yellowfin (20lbs and up, c&f) ranged from around US\$900/Mt to US\$1200/Mt during 2001 compared with a range of US\$750/Mt to US\$1100 in 2000. Prices increased rapidly early in 2001 and peaked during April/May when they were trading in a range of around US\$1100-1150/Mt. Prices then trended downward to October and then stabilised for the remainder of the year trading in a range of US\$950-1020/Mt. During 2002 prices have been steadily rising and in late June were at around the US\$1250/Mt level (Figure 4). At this level Bangkok yellowfin prices are trading at around the middle of the range seen since 1995 (Figure 5).

13. Average monthly prices for purse seine caught yellowfin landed at Yaizu were in a much smaller range during 2001 - from 133 to 161JPY/kg - compared with the range of 124 to 205JPY/kg seen in 2000. While prices were steadier in 2001 the average price for 2001 of 146JPY/kg was down by 12 per cent compared with 2000. As a result of the depreciation of the JPY against the \$US in US\$ terms the fall in average prices between 2000 and 2001 was around 20 per cent with prices averaging US\$1,210/Mt during 2001.

14. Yellowfin prices in Europe were generally higher in 2001 compared with 2000. Prices in Italy for product from French and Spanish vessels operating in the Atlantic and Indian Ocean (10kg and up) and in Spain for the same product from Spanish vessels rose above US\$1200/Mt in June and were steady for the rest of the year in a range of US\$1200-1300/Mt. During 2002 prices have been on a general upward trend with prices climbing above US\$1400/Mt in late June.

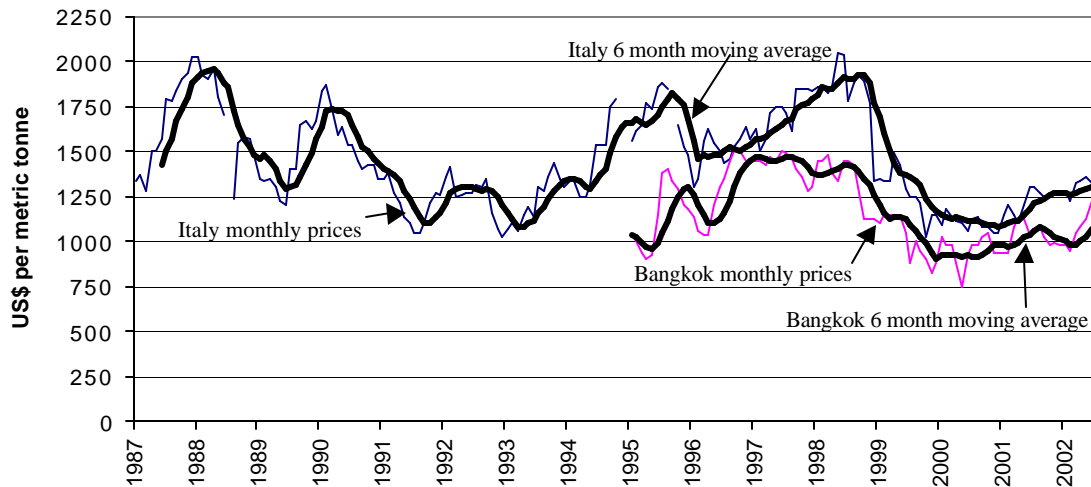
**Figure 4: Monthly yellowfin prices January 2000 to July 2002, Bangkok<sup>a</sup>, Italy<sup>b</sup> and Yaizu (Japan)<sup>c</sup>**



Notes: a. 20lbs and up, c&f. b. 10kg and up, c&f, origin Indian/Atlantic Ocean, French/Spanish vessels. c. Purse Seine caught.

Source: Bangkok: Mid-point estimates of prices paid during the respective month as obtained from Infofish Trade Market News, [www.foodmarketexchange.com](http://www.foodmarketexchange.com) and FFA source. Italy: Globefish European Price Report. Yaizu: pers. com. M. Honda, Tuna Industry Adviser, FFA.

**Figure 5: Monthly yellowfin prices January 1987 to June 2002, Italy<sup>a</sup> and Bangkok<sup>b</sup>**



Notes: a. 20lbs and up, c&f. b. 10kg and up, c&f, origin Indian/Atlantic Ocean, French/Spanish vessels.

Source: Bangkok: Mid-point estimates of prices paid during the respective month as obtained from Infofish Trade Market News, [www.foodmarketexchange.com](http://www.foodmarketexchange.com) and FFA source. Italy: Globefish European Price Report.

### Value of the catch

15. As a means of examining the effect of the changes to prices and catch levels in 2001 a rough estimate of the “delivered” and “ex-vessel” value of the purse seine fishery catch in 2000 and 2001 are obtained. In deriving these estimates certain assumptions were made due to data and other constraints that may or may not be valid and as such caution is urged in the use of these figures.<sup>4</sup>

16. The estimated “delivered” and “ex-vessel” value of the catch for 2001 is around US\$886 million and US\$752 million respectively. This represents an increase of around US\$218 million (33 per cent) and US\$222 million (42 per cent) for the “delivered” and “ex-vessel” values of the catch in 2000 respectively. Given that the total catch in 2001 was marginally lower it can be seen that the increase in value was primarily driven by the recovery in prices seen in 2001 following the exceptionally low prices observed in 2000. A small portion of the increase in value is associated with an increase in the proportion of the total catch of higher valued yellowfin and bigeye which rose from around 22 per cent to 24 per cent of the total catch.

## The Longline Fishery

### Catch

17. The preliminary estimate of the total catch in the longline fishery in 2001 is 239,222Mt. This represents an increase of 20,360Mt or 9 per cent on the 2000 catch. Catches for all of the three main species, albacore, bigeye and yellowfin, increased. Catches of bigeye and yellowfin

<sup>4</sup> The estimates were derived as follows. The “delivered” value of each years catch was estimated as the sum of the product of the annual catch of each species and the average annual Thai import price for each species (bigeye prices was assumed to attract the same price as for yellowfin). Thai import prices were used as they best reflect the actual price of all sales as opposed to prices provided in market reports which are based on benchmark prices, for example, for skipjack the benchmark price is for fish of size 4-7.5lbs. The “ex-vessel” value was estimated using an “ex-vessel” price for each species assumed to be equal to its average Thai import price less c&f costs assumed to be US\$125/Mt.

increased by 10 and 14 per cent to 71,686Mt and 83,326Mt respectively. Albacore catches increased by 5 per cent 82,573Mt.

#### *Foreign Fleets*

18. In 2001 the Korean fleet's catch, consisting predominately of yellowfin and bigeye, increased by 5,117Mt (12 per cent) while the Taiwanese fleet's catch, consisting predominately of albacore, increased by 9,156Mt (39 per cent). No preliminary estimates for the Chinese or Japanese fleets were available at the time of writing this report.

#### *Regional fleets*

19. The 2001 total estimated catch of longline vessels based in Pacific Island Countries and Territories was 38,801Mt an increase of 6,995Mt (22 per cent) compared with 2000. This increase was driven by an increase in catches of albacore, up 6,362Mt (39 per cent) to 22,662Mt and 'other' species, up 1,483Mt (29 per cent) to 6,669Mt. Catches of yellowfin fell marginally by 181Mt to 6,688Mt while bigeye catches fell by nearly 20 per cent to 2,782Mt.

20. Large increases in catch by vessels based in Papua New Guinea and American Samoa were also observed. The catch of the Papuan fleet increased by 2,745Mt (242 per cent) driven by a 1,146Mt increase in the yellowfin catch and a 1,599Mt increase in catches of 'other' species. The catch of the American Samoan based fleet increase by 2,869Mt (351 per cent) driven by a 2,629Mt increase in the albacore catch with the number of active vessel number increasing from 37 in 2000 to 61 in 2001. The catch for vessels based in Fiji (up 797 Mt), French Polynesia (up 915 Mt), New Caledonia (up 77 Mt), Samoa (up 286 Mt) and Tonga (up 588 Mt) also increased while catches of the Federated States of Micronesia (down 407Mt) and the Solomon Islands (down 875Mt) fell.

### **Market conditions**

#### *Yellowfin*

21. Market conditions in Japan remained subdued in 2001 with longline caught yellowfin prices landed at Yaizu declining by 20 per cent, fresh yellowfin import prices declining marginally by 2 per cent and average fresh yellowfin prices at selected Japanese ports increasing by 6 per cent.

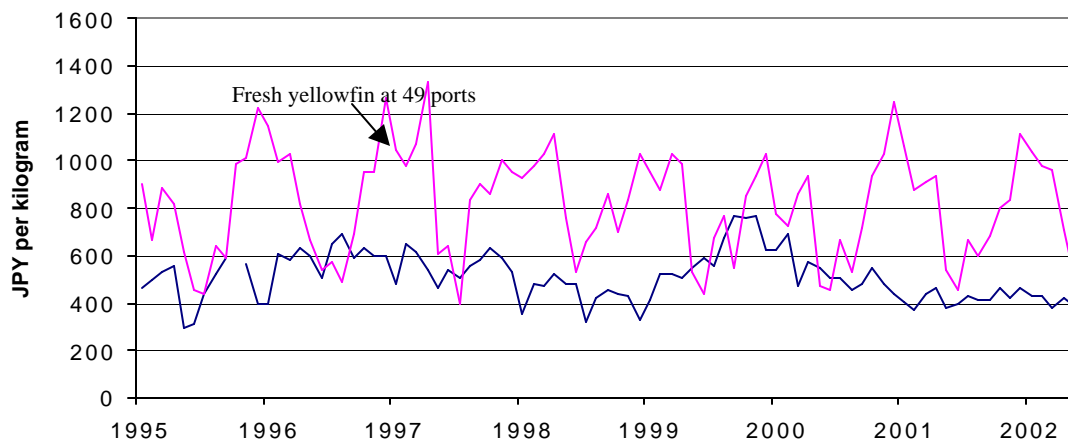
22. Longline caught yellowfin volumes at Yaizu declined by 6 per cent to 4,425Mt in 2001 following an 8 per cent rise in 2000. Prices declined by 20 per cent to 425JPY/kg following a 9 per cent decline in 2000. Prices in 2001 were at their lowest level since 1995.

23. As the selected Japanese ports series was expanded from 42 to 49 ports in January 2001 it is difficult to make comparisons in volumes between 2000 and 2001. Nonetheless, the data does indicate that there was a significant reduction in fresh yellowfin landings at Japanese ports in 2001 with the volume landed at 49 ports in 2001 (5,864Mt) 28 per cent lower than that landed at 42 ports in 2000. The average price of fresh yellowfin for the 49 ports in 2001 was 697JPY/kg up by 6 per cent when compared with the 2000 average for 42 ports.

24. Japanese imports of fresh yellowfin have been steadily increasing since 1997, following the sharp decline seen between 1995 and 1997. Japanese imports of fresh yellowfin were 36,282Mt in 2001 up by 3,615Mt or 11 per cent compared with 1997 and at their highest level since 1995. While fresh yellowfin import volumes have been steadily increasing since 1997 prices have been steadily declining. In 2001 average fresh yellowfin import prices fell to 699JPY/kg a decline of 2 per cent compared with 2000 and 19 per cent compared with 1997 and were at the lowest level seen since 1988. While prices for imported fresh yellowfin in JPY declined only marginally between 2000 and 2001 the declining value of the JPY against the US\$ has seen prices

in US\$ decline significantly. In 2001 the average US\$ price of imported fresh yellowfin was US\$5.75 down by 13 per cent when compared with 2000.

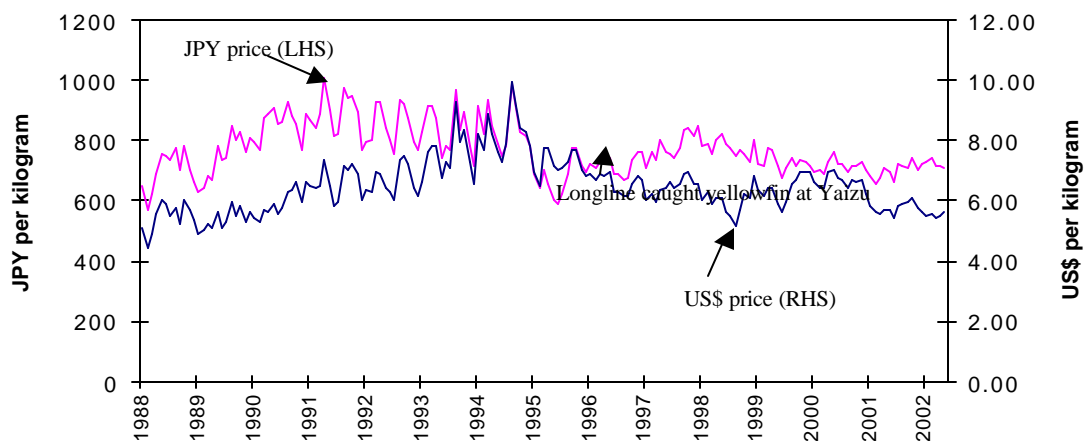
25. Average import prices from Oceania in 2001 declined marginally by 10JPY/kg to 819JPY/kg. Import volumes from Oceania, however, rose significantly, increasing by 16 per cent to 8,792Mt.



**Figure 6: Monthly longline caught yellowfin at Yaizu prices and monthly average fresh yellowfin prices at 49<sup>a</sup> selected Japanese ports, January 1995 to May 2002**

*Notes. a.* For the years 1995 to 2000 there data is based on 42 selected ports, from January 2001 the data is based on 49 selected ports.

**Figure 7: Monthly Japanese import prices for fresh yellowfin in JPY and US\$, January 1988 to May 2002**



*Bigeye*

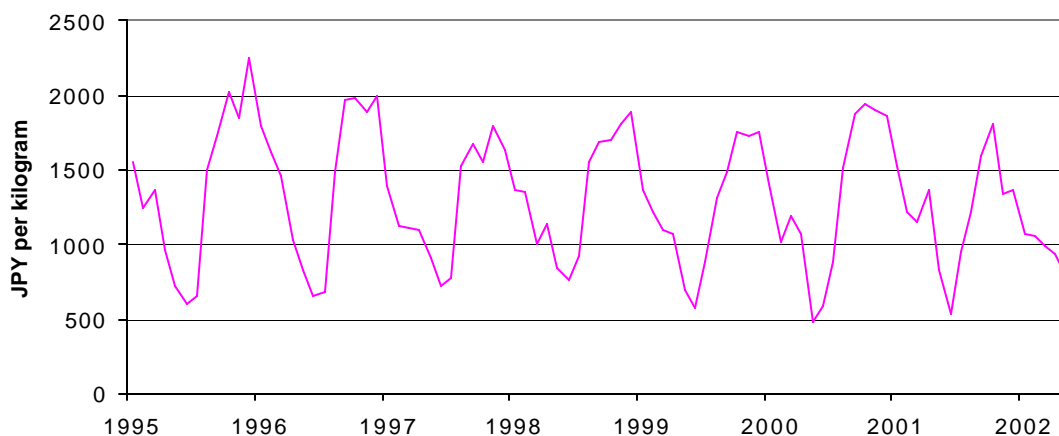
26. Market conditions in Japan for bigeye also remained subdued in 2001 with fresh bigeye import prices declining by 3 per cent and average fresh bigeye prices at selected Japanese ports declining by 12 per cent.

27. Imports of fresh bigeye declined marginally in 2001 to 21,605Mt, the lowest level seen over the period 1995 to 2001. While imports of fresh bigeye declined in 2001 by 1 per cent the decline was significantly lower than that seen between 1999 and 2000 when imports declined by 9 per cent. Average prices of imported fresh bigeye in 2001 were at the lowest level seen over the period since 1988. In 2001 the price of imported fresh bigeye average 772JPY/kg down by 3 per cent compared with 2000 and by 17 per cent compared with 1997. As for fresh yellowfin imports while prices for imported fresh bigeye in JPY declined only marginally between 2000 and 2001 the declining value of the JPY against the US\$ saw prices in US\$ decline significantly. In 2001 the average import prices in US\$ for fresh bigeye was US\$6.35 respectively, down by 14 per cent when compared with 2000.

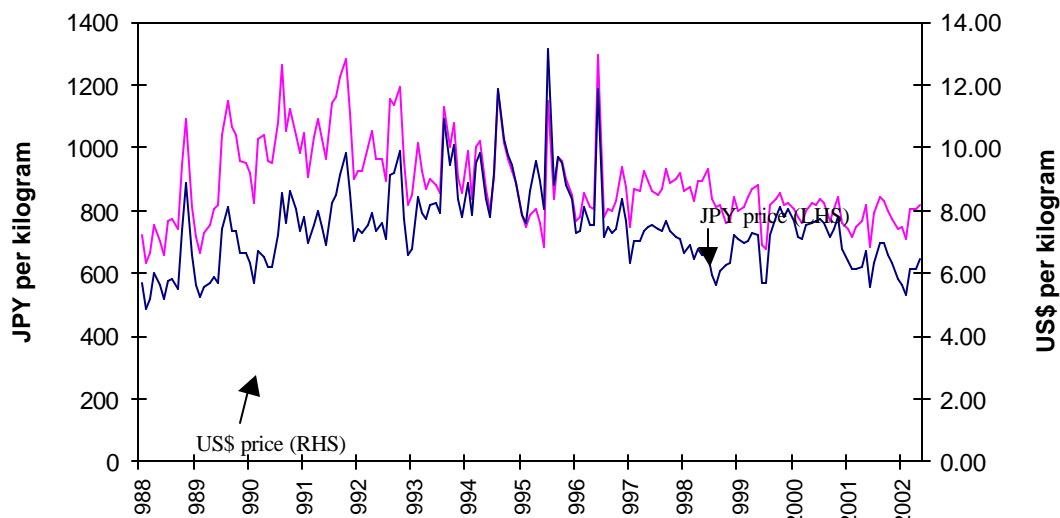
28. Average import prices from Oceania in 2001 increased marginally by 12JPY/kg to 1004JPY/kg. Import volumes from Oceania, however, rose significantly, increasing by 17 per cent to 8,359Mt.

29. As with fresh yellowfin, fresh bigeye volumes at selected Japanese ports data declined significantly despite the expansion of the number of selected ports from 42 to 49 indicating a significant reduction in fresh bigeye landings at Japanese ports in 2001. The volume of fresh bigeye landed at 49 ports in 2001 (5,728Mt) was 11 per cent lower than that landed at 42 ports in 2000. The average price of fresh yellowfin for the 49 ports in 2001 was 1333JPY/kg down by 12 per cent when compared with the 2000 average for 42 ports.

**Figure 8: Monthly average fresh bigeye prices at 49<sup>a</sup> selected Japanese ports, January 1995 to May 2002**



Notes. a. For the years 1995 to 2000 there data is based on 42 selected ports, from January 2001 the data is based on 49 selected ports.



## Albacore

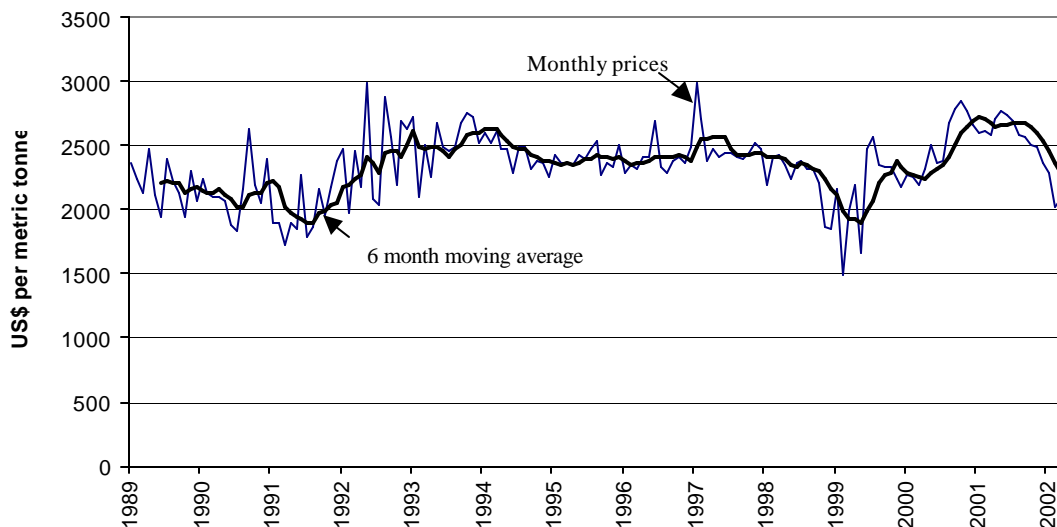
30. Conditions in the markets for frozen albacore were good for much of 2001 but deteriorated in the later part of the year. Average import prices for frozen albacore into the US and Thailand, and frozen albacore prices for selected ports in Japan all rose in 2001.

31. US frozen albacore imports volumes fell by 21 per cent in 2001 to 40,428Mt and were at the lowest levels seen in over a decade. While volumes were down prices rose by 5 per cent to US\$2,611/Mt (f.a.s.) to reach the highest level in a decade. While US import prices in 2001 were high they fell significantly towards the end of the year reaching US\$2,362/Mt in December. In 2002 prices continued to decline and were just below US\$2,000/Mt in April.

32. Thai frozen albacore imports rose by 21 per cent in 2001 to 33,438Mt with prices also rising by 13 per cent in Thai Baht (THB) terms to 112THB/kg and 8 per cent in US\$ terms to US\$2,496/Mt. As with US import prices, Thai import prices fell significantly towards the end of 2001 reaching 100THB/kg (US\$2,265)/Mt in December. In 2002 prices continued to decline and were 70THB/kg (US\$1,615/Mt) in April.

33. The average price of frozen albacore for the 49 ports in 2001 was 507JPY/kg up by 50 per cent when compared with the 2000 average for 42 ports. Volumes in 2001 totalled 28,839Mt. As for US and Thai imports prices at the selected Japanese ports deteriorated in the later part of 2001, finishing the year at 258JPY/kg and continuing to decline into 2002 to be 207JPY/kg in May.

**Figure 10: US frozen albacore import prices, January 1989 to April 2002<sup>a</sup>**



Source: Personal communication from the National Marine Fisheries Service, Fisheries Statistics and Economics Division, Silver Spring, MD ([www.st.nmfs.gov](http://www.st.nmfs.gov))

Notes: a. Prices are calculated from the customs value of the volume imported. Customs value is defined as the price actually paid or payable for merchandise when sold for exportation to the United States, excluding U.S. import duties, freight, insurance and other charges incurred in delivering the merchandise to the United States. This value approximates the free alongside ship value (f.a.s.)

## Pole and Line Fishery

### Catch

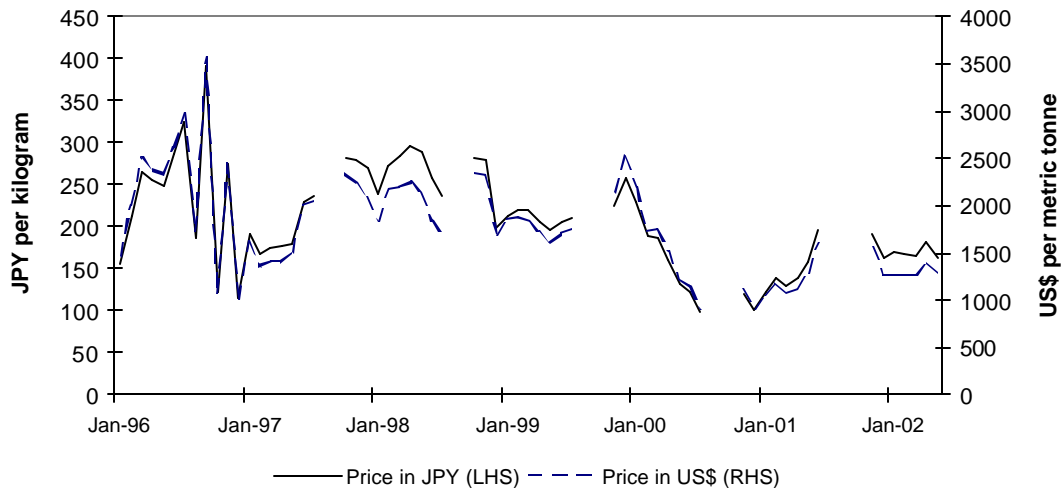
34. The preliminary estimate of the total catch in the pole and line fishery in 2001 is 321,363Mt. This represents an increase of 2,269Mt on the 1999 catch, an increase of less than 1 per cent. Catches of all species in 2001 were within 1 per cent of the level observed in 2000 with the skipjack catch up 2,318Mt to 284,687, albacore down 83Mt to 18,807Mt, yellowfin up by 34Mt to 16,929Mt and bigeye steady at 2,940Mt.

35. The pole-and-line catch in the Solomon Islands increased in 2001 by 75 per cent from 2,692Mt to 4,710Mt but was still at a much lower level than seen throughout the 1990s when catch levels ranged between just under 18,000Mt to just over 36,000Mt.

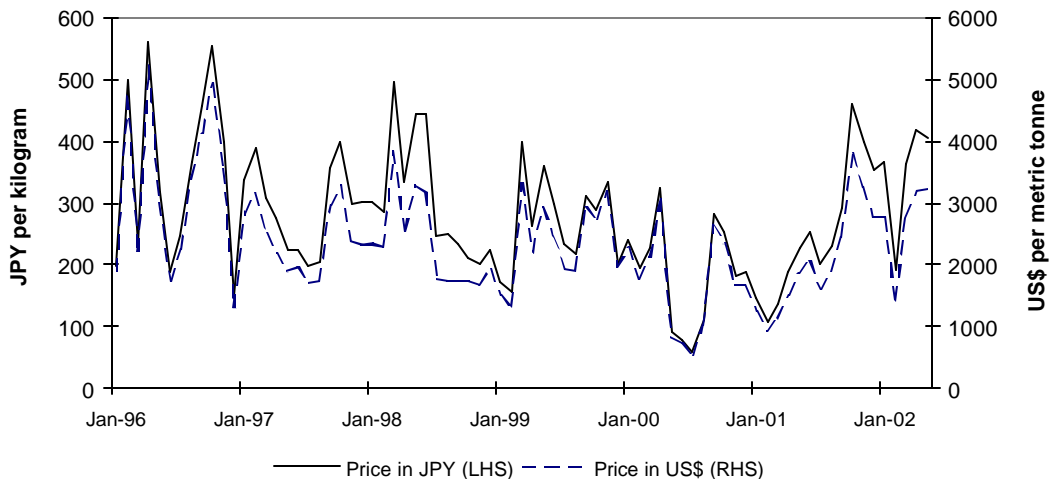
### Market conditions

36. Japanese pole and line caught skipjack prices were mixed in 2001. Average 2001 Yaizu Market prices for skipjack caught by pole and line in southern WCPO waters fell to 152Yen/kg from 162Yen/kg. On the other hand prices for pole and line skipjack caught in Japanese waters rose dramatically from 176Yen/kg in 2000 to 281Yen/kg in 2001 the highest average yearly price since 1996.

**Figure 11: Yaizu market skipjack price for Japanese “south” pole and line fleet.**



**Figure 12: Yaizu market skipjack price for Japanese “other” pole and line fleet.**



## Future economic issues

### Purse seine fishery/canning market

37. The major economic issues for the purse seine fishery going forward are likely to remain the ability of the World Tuna Purse Seiners Organization (WTPO) to influence supplies and prices for skipjack raw material for canning, demand for finished product in major markets particularly the US, and fuel prices.

38. With regard to the ability of the WTPO to influence supplies it is interesting to note that catches in the WCPO are estimated to have fallen only marginally during 2001 compared with 2000 despite the coming into existence and passing of various resolutions of the WTPO in 2001. This is not to say that in the absence of the WTPO skipjack catches may not been greater and prices lower. An assessment of the effectiveness of the WTPO with regard to its influence on supplies and prices is difficult to make at this stage.

39. While world oil prices declined in 2001 from their late 2000 highs they have been on an upward trend during 2002. Given that a significant component of operating costs for purse seine vessels is for fuel and oil the future direction of world oil prices will remain an important issue for the fishery.

### Longline fishery/sashimi market

40 The major economic issues for the longline fishery going forward are likely to remain the state of the Japanese economy, and for operators who major costs are incurred US dollars the Japanese Yen/US Dollar exchange rate.

41 As has been widely report in the financial press Japan entered its fourth recession in 10 years during 2001 and while economic conditions are reportedly improving it is debatable as to whether or not there will be sustained and substantial improvements in the Japanese economy in the near future.

42 In 2001 the Japanese Yen (JPY) depreciated substantially against the US Dollar (US\$) resulting in many case in significant falls in US\$ prices for product from the longline fishery despite reasonably stable JPY prices as outlined earlier in this paper. With the appreciation of the JPY against the US\$ experienced so far in 2002 if JPY prices remain stable or increase US\$ prices for longline product are likely to significantly improve for 2002.

**Figure 13: US\$:JPY monthly average interbank exchange rate, January 2000 to June 2003**

