

**OCTOBER 2005**  
**Gulf of Alaska Rationalization**  
**Overview of Alternatives and Preliminary Analysis**

At its April 2003 meeting, the Council adopted a motion preliminarily defining alternatives for the rationalization of the Gulf of Alaska groundfish fisheries. The Council motion defining the alternatives contains several options for consideration that could be used to define the alternatives. Since the April 2003 meeting, the Council has undertaken the process of refining the alternatives for analysis by selecting options for inclusion in the alternatives. This process of specifically defining alternatives by selecting options is necessary to enable staff to prepare adequate regulatory analyses of the alternatives. Adequate regulatory analyses must fully analyze all alternatives, comparing and contrasting their impacts. To accomplish that end, the analysis must make clear the implications of each option available to the Council within an alternative, including the interaction of the choice of each option with every other option that the Council might also choose for other provisions. To aid staff, the Council is undertaking the process of simplifying the alternatives by identifying specific options for inclusion in each alternative, eliminating other options from further consideration.

At this meeting, staff has provided two sets of analyses intended to assist the Council in the process of further refining the alternatives. This document is the first of the two. It includes a general description of the various alternatives under consideration and a preliminary analysis of the general structures of the alternatives. The analysis is intended to provide the Council with a preliminary perspective on the overall effects of each alternative. The analyses should provide a more complete context in which to make decisions concerning options that more fully define the alternatives. This paper also includes a brief discussion of provisions affecting entry opportunities under the alternatives, requested by the Council to assist it in developing the alternatives.

The second paper that staff will provide to complement this paper is a mostly quantitative analysis of options that the Council is considering including in the various alternatives that should assist the Council in selecting specific options. The second paper will be included in a later mailing to the Council.

In selecting options to refine the alternatives to advance for analysis, the Council should also assess the range of alternatives that are created. Each alternative should meet the Council's purpose and need statement, should be feasible, and should be distinguishable from each other alternative. The Council should therefore consider using its selection of options to distinguish the alternatives from each other, but only to the extent that maintains the integrity of each alternative under the problem statement. Since the alternatives as defined to date are distinct, the Council may select the same option for each of the alternatives, if that option best satisfies the objectives of the purpose and need statement.

This paper begins with the problem statement, intended to refresh the Council concerning its purpose for developing the Gulf rationalization program. The paper follows with a brief description of the alternatives, based on the summary tables developed by the Council. The paper goes on to briefly analyze the impacts of each of the alternatives with respect to several factors, including efficiency in fishing, efficiency in processing, overall production efficiency, entry to fishing, and entry to processing, small fishing entities, and small processing entities. The analysis also makes reference to undecided options that could affect the impacts and provides a brief qualitative assessment of those options. The paper concludes with a brief discussion of provisions that affect entry opportunities under the alternatives, which the Council requested at an earlier meeting.

## Problem Statement

To guide the identification of a rationalization program for the Gulf of Alaska groundfish fisheries, the Council has developed the following purpose and need statement:

The Council is proposing a new management regime that rationalizes groundfish fisheries in the Gulf of Alaska west of 140 degrees longitude and rockfish bycatch east of 140 degrees longitude. A rationalization program includes policies and management measures that may increase the economic efficiency of GOA groundfish fisheries by providing economic incentives to reduce excessive capital investment. These management measures would apply to those species, or groups of species identified by the Council as benefitting from additional economic incentives that may be provided by rationalization. This rationalization program would not modify the hook-and-line sablefish fishery currently prosecuted under the IFQ Program, except for management of associated groundfish bycatch.

The purpose of the proposed action is to create a management program that improves conservation, reduces bycatch, and provides greater economic stability for harvesters, processors, and communities. A rationalization program could allow harvesters and processors to manage their operations in a more economically efficient manner. Rationalization of GOA fisheries should eliminate the derby-style race for fish by allocating privileges and providing economic incentives to consolidate operations and improve operational efficiencies of remaining operators. Because rationalization programs can have significant impacts on fishing dependent communities, this program should address community impacts and seek to provide economic stability or create economic opportunity in fishery dependent communities.

Rationalizing GOA fisheries may improve stock conservation by creating incentives to eliminate wasteful fishing practices, improve management practices, and provide mechanisms to control and reduce bycatch and gear conflicts. Rationalization programs may also reduce the incentive to fish during unsafe conditions.

Management of GOA groundfish has grown increasingly complicated due to impositions of measures to protect Steller sea lions, increased participation by fishermen displaced from other fisheries such as Alaska salmon fisheries and the requirements to reduce bycatch and address Essential Fish Habitat requirements under the Magnuson-Stevens Act (MSA). These changes in the fisheries are frustrating management of the resource, raising attendant conservation concerns. These events are also having significant, and at times, severe adverse social and economic impacts on harvesters, processors, crew, and communities dependent on GOA fisheries. Some of the attendant problems include:

1. reduced economic viability of the harvesters, processors, and GOA communities
2. high bycatch,
3. decreased safety,
4. reduced product value and utilization,
5. jeopardy to community stability and their historic reliance on groundfish fishing and processing,
6. limited ability of the fishery harvesters and processors to respond to changes in the ecosystem
7. limited ability to adapt to MSA requirements to minimize bycatch and protect habitat,
8. limited ability to adapt to changes to other applicable law (i.e., Endangered Species Act).

All of these factors have made achieving the goals of the National Standards in the MSA difficult and encourage reevaluation of the status quo management of the GOA groundfish fisheries. The management tools in the current GOA groundfish FMP do not provide managers with the ability to improve the economic efficiency of the fishery and effectively solve the excess harvesting capacity and resource allocation problems in the GOA groundfish fisheries. The Council has determined that some form of rationalization program is warranted.

## The Alternatives

To meet these purposes and needs, the Council motion has outlined sets of alternatives for three different sectors; catcher processors, trawl catcher vessels, and fixed gear catcher vessels. The alternatives applicable to each of these sectors are generally identified in separate tables, which follow together with a brief description of each alternative. The elements and options contained in the Council motion fully specify the various alternatives.

## Catcher processor alternatives

The three catcher processor alternatives are outlined in Table 1.

Table 1. Modified Gulf of Alaska groundfish rationalization alternatives – catcher processors

<u>Alternative 1</u> Status quo	<u>Alternative 2</u> Co-op/IFQ	<u>Alternative 3</u> Co-op/limited access
No Action	Harvester IFQ-cooperative	Sector Allocations
	Shares allocated to individuals by gear type	Harvest histories allocated to individuals in cooperatives and annual harvest allocations to cooperatives
	All Catcher Processors	Sectors: CP Trawl, CP Longline, CP Pot
	Cooperative	Cooperative
	CP Provisions	CP Provisions
	No Processor Provisions	No Processor Provisions
	those that do not join cooperatives fish IFQs with option for PSC reduction	those that do not join co-ops fish open access with option for PSC reduction

**Alternative 1** is the **status quo**, under which the LLP would be maintained. **Alternative 2** would create a **cooperative/IFQ** program under which share holders would be permitted to form cooperatives. Although limits on transfers of shares between gear types could be applied, cooperatives could be formed among holders of shares for different gear. Share holders that choose not to join cooperatives would receive their allocations as individual quota with a possible reduction in their PSC allocations. Under **Alternative 3** is a **co-op/limited access** program, under which sector allocations would be made to three different catcher processor sectors; the trawl sector, the longline sector, and the pot sector. The program would be history based, with holders of qualified history eligible to join a cooperative within that sector. A cooperative would receive an annual harvest allocations based on the history of its members. Holders of qualified histories that chose not to join a cooperative would be permitted to fish in a limited access fishery that will receive an allocation based on the qualified histories of sector members that chose not to join a cooperative. The PSC allocation to the limited access fishery could be reduced.

## Trawl catcher vessel alternatives

Table 2 outlines the Council’s five alternatives for the trawl catcher vessel sector.

Table 2. Modified Gulf of Alaska groundfish rationalization alternatives – trawl catcher vessels

<b>Alternative 1</b> Status quo	<b>Alternative 2A</b> Co-op/IFQ with processor limited entry	<b>Alternative 2B</b> Co-op/IFQ with processor linkages	<b>Alternative 2C</b> Co-op/IFQ with harvest shares to processors	<b>Alternative 3</b> Co-op/limited access with processor linkages
No Action	Harvester IFQ cooperative with license limitation for processors	Harvester IFQ cooperative with license limitation for processors and processor linkage	Harvester IFQ cooperative with processor allocation	Sector allocations with processor linkage
	Shares allocated to individuals	Shares allocated to individuals	Shares allocated to individuals	Harvest histories allocated to individuals in cooperatives and annual harvest allocations to cooperatives
	Trawl CV	Trawl CV	Trawl CV	Trawl CV
	Cooperative	Cooperative	Cooperative	Cooperative
	license limitation for processors with X% delivery obligation	license limitation for processors with specific processor linkages with X% delivery obligation and share reduction penalty to move between cooperatives	allocation of 10, 20, or 30% of harvest shares to qualified processors	specific processor linkages
	those that do not join co-ops fish IFQs subject to closed class delivery requirement with option for PSC reduction	those that do not join co-ops fish IFQs subject to processor linkage delivery requirement with option for PSC reduction	those that do not join co-ops fish IFQs	those that do not join co-ops fish open access with option for PSC reductions

**Alternative 1** is the **status quo**, which would continue the LLP. **Alternative 2A** would create a **co-op/IFQ with processor limited entry** program that requires a portion of each harvester’s allocation to be delivered to a processor holding a limited entry license. Processor licensing would be based on historic processing. Share holders would be permitted to form cooperatives to manage their members’ allocations. Share holders that choose not to join a cooperative would continue to receive their allocations as individual quota with a possible reduction in their PSC allocations. **Alternative 2B** would create a **co-op/IFQ with processor linkages** program. Under this alternative, processors would receive limited entry licenses. The program would take an additional step by creating a system of harvester/processor linkages, under which a share holder would be required to deliver a specific percentage of landings to the linked processor. Linkages would be based on the share holder’s landings history. A share holder could change the processor to which its shares are linked, but would be subject to a share reduction penalty when making that change. Share holders would be permitted to form cooperatives to manage their allocations. Share holders that chose not to join a cooperative would receive individual allocations (which would be subject to the processor linkage), but may be subject to a reduction in their PSC allocations. **Alternative 2C** would also create a **co-op/IFQ with allocations of harvest shares to processors**. Under this alternative, a portion of the harvest share pool (between 10 and 30 percent) would be allocated to processors based on their processing history. Share holders would be permitted to form cooperatives, with non-cooperative members receiving individual allocations. **Alternative 3** is a **co-op/limited access program with processor linkages**. The alternative creates history-based cooperative program, under which cooperatives would receive annual harvest share allocations based on the qualified histories of their

members. Cooperatives would be required to be associated with a processor, but the details of that relationship would be determined by negotiations among the cooperative members and the processor. Initially, each holder of qualified history would be eligible to join a cooperative associated with the processor to which it delivered the most pounds during a specific time period. Holders of qualified history that choose not to join a cooperative would be permitted to fish in a limited access fishery that would receive an annual allocation based on the histories of non-members of cooperatives. The allocation of PSC to the limited access fishery could be reduced.

### ***Fixed gear catcher vessel alternatives***

Table 3 outlines the Council’s alternatives for the fixed gear catcher vessel sector. The Council has specified 6 alternatives that would apply to all or a portion of the fixed gear sector. In general, these alternatives follow a structure similar to applicable to the trawl catcher vessel sector, with the exception of an alternative that would create an IFQ program for “low producing” fixed gear vessels.

Table 3. Modified Gulf of Alaska groundfish rationalization alternatives – fixed gear catcher vessels

<u>Alternative 1</u> Status quo	<u>Alternative 2 Low</u> Co-op/IFQ	<u>Alternative 2A High</u> Co-op/IFQ with processor limited entry	<u>Alternative 2B High</u> Co-op/IFQ with processor linkages	<u>Alternative 2C</u> Co-op/IFQ with harvest shares to processors	<u>Alternative 3</u> Co-op/limited access with processor linkages
No Action	Harvester IFQ	Harvester IFQ cooperative with license limitation for processors	Harvester IFQ cooperative with license limitation for processors and processor linkage	Harvester IFQ cooperative with processor allocation	Sector allocations with processor linkage
	Shares allocated to individuals	Shares allocated to individuals	Shares allocated to individuals	Shares allocated to individuals	Harvest histories allocated to individuals in cooperatives and annual harvest allocations to cooperatives
	low producing fixed gear CV	high producing fixed gear CV	high producing fixed gear CV	fixed gear CV	Longline CV, Pot CV
	Cooperative	Cooperative	Cooperative	Cooperative	Cooperative
	no processor delivery obligation	license limitation for processors with X% delivery obligation	license limitation for processors with specific processor linkages with X% delivery obligation and share reduction penalty to move between cooperatives	allocation of 10, 20, or 30% of harvest shares to qualified processors	specific processor linkages
	those that do not join co-ops fish IFQs	those that do not join co-ops fish IFQs subject to closed class delivery requirement with option for PSC reduction	those that do not join co-ops fish IFQs subject to processor linkage delivery requirement with option for PSC reduction	those that do not join co-ops fish IFQs	those that do not join co-ops fish open access with option for PSC reduction

**Alternative 1** is the **status quo**, which would continue the LLP. **Alternative 2 Low** would create an **co-op/IFQ** program that would apply to only the “low producing” fixed gear sector, participants that receive allocations either below the average or below the 75<sup>th</sup> percentile of fixed gear allocations. Participants would be permitted to form cooperatives to coordinate harvest activities. **Alternative 2A High** would a **co-op/IFQ with processor limited entry** program similar to Alternative 2A for the trawl catcher vessel sector. This alternative would allocate harvest shares that could be fished as IFQs or in a cooperative with a processor limited license program that requires a portion of each harvester’s allocation to be delivered to a licensed processor. Processor licensing would be based on historic processing. Share holders would be permitted to form cooperatives to manage their members’ allocations. Share holders that choose not to join cooperatives would continue to receive their allocations as individual quota with a possible reduction in their PSC allocations. **Alternative 2B High** would create a **co-op/IFQ with processor linkages** program similar to Alternative 2B for trawl catch vessels. This alternative would also create a harvester share program with a system of processor limited licenses. Harvester/processor linkages would be established, under which a share holder would be required to deliver a specific percentage of landings to the linked processor. Linkages would be based on the share holder’s landings history. A share holder could change the processor to which its shares are linked, but would be subject to a share reduction penalty when making that change. Share holders would be permitted to form cooperatives to manage their allocations. Share holders that chose not to join a cooperative would receive individual allocations (which would be subject to the processor linkage), but may be subject to a reduction in their PSC allocations. **Alternative 2C** would create a **co-op/IFQ with allocations of harvest shares to processors** program similar to Alternative 2C for trawl catcher vessels. This program would also create a harvester IFQ program with a portion of the harvest share pool (between 10 and 30 percent) allocated to eligible processors based on their processing history. Share holders would be permitted to form cooperatives, with non-cooperative members receiving individual allocations. **Alternative 3** would create a **co-op/limited access program with processor linkages** program similar to Alternative 3 for trawl catcher vessels. This alternative is a history-based cooperative program, under which cooperatives would receive annual harvest share allocations based on the qualified histories of their members. Cooperatives would be required to be associated with a processor, but the details of that relationship would be determined by negotiations among the cooperative members and the processor.<sup>1</sup> Initially, each holder of qualified history would be eligible to join a cooperative associated with the processor to which it delivered the most pounds during a specific time period. Holders of qualified history that choose not to join a cooperative would be permitted to fish in a limited access fishery that would receive an annual allocation based on the histories of non-members of cooperatives. The allocation of PSC to the limited access fishery could be reduced.

## Preliminary analysis of the alternatives

Following is a preliminary analysis of each of the alternatives. The analysis of each alternative begins with a brief summary of the defining characteristics of the alternative. Following that brief summary are more in depth analyses of the alternative with respect to different factors (e.g., efficiency, entry). To simplify the analysis, the effects of common fixed gear catcher vessel and trawl catcher vessel alternatives are combined. Prior to the detailed analysis, the issues of authority to adopt the alternatives and some antitrust considerations are addressed.

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<sup>1</sup> This alternative contains an option that would remove the cooperative/processor association requirement from “low producing” fixed gear vessels.

## **Scope of Magnuson Stevens Act authority**

The Magnuson Stevens Act authorizes the regulation of fishing and authorizes the allocation of fishing privileges. Several of the catcher vessel alternatives included for analysis may go beyond the authority of the Council and Secretary of Commerce under the Magnuson Stevens Act because they regulate onshore processing. The only catcher vessel alternatives that are clearly authorized under the Act are the cooperative/IFQ alternative (Alternative 2 Low – for low producing fixed gear vessels) and cooperative/IFQ with harvest share allocations to processors (Alternative 2C). Each of the other alternatives contained in Section 2 of the Council motion (Alternatives 2A and 2B) involves limitations on landing and processing of catch. These alternatives would require Congressional authorization to be implemented. While Alternative 3 does not directly limit the catcher vessel landings or processing, the requirement that a harvester join a cooperative in association with a specific processor to join the rationalized fishery could be argued to be akin to an allocation of processing privileges. This alternative may require Congressional approval to be implemented.

## **Antitrust Considerations**

Under all of the alternatives, harvesters would be permitted to join a cooperative that would coordinate the harvest of the allocations of its members. The general activity of these cooperatives is the harvest of fish, so for clarity these cooperatives are often referred to and should be thought of as “harvest cooperatives”. The creation of a harvest cooperative necessarily raises the question of whether the cooperative would or should qualify for the antitrust exemption of the Fishermen’s Collective Marketing Act. Under the terms of all of the alternatives, processor affiliated vessels (i.e., vessels owned or controlled by a processor) are qualified for harvest cooperative membership. Allowing or requiring harvest cooperative membership by these entities likely disqualifies that cooperative from the antitrust exemption of the FCMA, limiting the activities that the cooperative can engage in. As a result, a harvest cooperative clearly cannot engage in negotiations of the price or terms of delivery of catch to a processor. Both sections of the motion (section 2 and section 3) currently provide that processor affiliates cannot participate in price negotiations. The motions, however, could be clarified further concerning the limited role intended of these cooperatives. In a prior action (the rockfish pilot program), the Council similarly clarified the nature of cooperatives by including the following two provisions:

*The cooperatives formed under this program are harvest associations that are intended only to conduct and coordinate harvest activities of their members and are not FCMA cooperatives. Processor affiliated vessels will be permitted to join harvest cooperatives.*

*Co-op membership agreements will specify that processor affiliated harvesters cannot participate in price setting negotiations except as permitted by general antitrust law.*

These provisions could be included in 2.4.3.1 and 3.4.1 to clarify the nature of the cooperatives that would be created under the different alternatives.

## **Catcher Processor Cooperative/IFQ**

### **Catcher Processor Alternative 2**

Under this alternative, each eligible catcher processor would be allocated harvest shares that could be brought to a cooperative and fished under the cooperative agreement or that could be fished as IFQs. While the alternative appears to provide no member of the sector with leverage over others, since each person would have the choice of either joining a cooperative or fishing an individual allocation, program options that govern cooperative formation and options that reduce the allocation to non-members of cooperatives could provide some participants with bargaining leverage over others. Rules that limit or

penalize trading of secondary species and PSC shares could limit the ability of a person to harvest their allocations of other species (2.2.4.v. and 2.2.5.3).

### **Catcher Processor Efficiency**

This section of the analysis examines effects of the alternatives on catcher processor efficiency. Since catcher processors process their catch, any estimate of catcher processor efficiency is generally an estimate of overall production efficiency of the sector. In the simplest terms, production efficiency as considered here is the difference between production revenues and production costs. Production efficiency is a measure of the effectiveness of a producer in using inputs to produce one or more outputs, focusing on the relationship between the cost, quantity, and quality of outputs produced and the cost, quantity, and quality of the various inputs (e.g., fuel, vessels, and labor) used for that production.

Under the catcher processor cooperative/IFQ alternative, all participants in the catcher processor sector should realize improvements in efficiency, since persons who choose not to enter cooperatives would be permitted to fish individual allocations. The degree of efficiency improvement may vary across participants, as the different levels of processing occur across fisheries, gears, and vessels. Much of this variation is likely to arise from fishery and gear characteristics. Some difference, however, could arise from operational differences, including the regulatory requirements and relatively high costs for retrofitting processing plants to produce more processed products. Efficiency differences across vessels should be eliminated over time as activity in the fishery gravitates to the most efficient vessels.

Several provisions governing transfers could affect efficiency and the distribution of negotiating leverage under this alternative. If adopted, the reduction of halibut PSC allocations to individuals that choose not to join cooperatives (2.2.5.3.1) could create substantial incentives for cooperative membership. Given the relatively relaxed rule for cooperative formation (i.e., 4 distinct entities under 2.4.2.2) most participants should be capable of negotiating a cooperative arrangement without making substantial concessions in negotiations. Establishing non-separability of halibut PSC QS and primary species QS would also reduce efficiency by disallowing permanent transfers to establish usage consistency in the distribution of primary allocations and halibut PSC needed to support primary species harvests (2.2.5.4). Options for reduction of halibut PSC on transfer are also likely to reduce efficiency by reducing total harvests if halibut is constraining (2.2.5.3.1).

### **Entry to the Fishery**

Entry to the catcher processor sector is likely to be limited under all of the alternatives. The severable harvest shares allocated under the cooperative/IFQ alternative should create a more fluid market for entry than the existing LLP management, under which entry requires the purchase of a license. The ability to effectively enter the sector, however, will be limited in any case because of the relative small share of the Gulf fisheries controlled by the sector and the large capital cost necessary to enter a vessel in the fisheries. The provisions for transfers of catcher processor shares to catcher vessels together with the limitation on transfers to catcher processors from the inshore sector will reduce entry opportunities in the catcher processor sector over time (2.2.3.3.2).<sup>2</sup> Overall, the potential for a person to gradually purchase a shares and transition into all aspects of participation (i.e., holding shares and vessel ownership) will likely be very limited.

### **Small Entities**

In general, small entities are likely to receive smaller allocations under the history-based system of allocations under this alternative. The fairness of allocations is a matter of policy preference.

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<sup>2</sup> The overall effect of this provision on entry depends on whether the catcher vessel sector can be entered more readily than the catcher processor sector. The provision, however, clearly will reduce entry opportunities to the catcher processor sector.



## ***Catcher Processor Sector Allocation with Cooperatives/Limited Entry***

### ***Catcher Processor Alternative 3***

Under this alternative, each eligible catcher processor would be permitted to either enter a cooperative that would fish an exclusive allocation based on its members' histories or fish in a competitive, limited access fishery that would receive an allocation based on the history of all catcher processors that choose not to join a cooperative. As under the previous catcher processor alternative, the ability of persons to assert leverage over others will largely depend on the rules governing cooperative formation and the management of and allocations to the limited access fishery. If the allocation to the limited access fishery is reduced, cooperative members may be able to assert substantial leverage over non-members that would be disadvantaged in the limited access fishery. Similarly, if the limited access is managed very conservatively (i.e., with full harvest of any allocation closing all fisheries) the limited access could be far less profitable than fishing in a cooperative, providing cooperative members with substantial leverage over the non-members that might wish to join.

### **Catcher Processor Efficiency**

Under this alternative, the catcher processor sector is likely to realize some gains in production efficiency capturing greater rents from the fishery. The primary efficiency gains of catcher processors will result from expenditure reductions as participants are likely to be able to reduce expenditures on inputs to some degree (possibly scaling down crews slightly) and increasing outputs slightly (with less loss due to diminished quality) by fishing in the rationalized cooperatives. In some cases, the choice of outputs is likely to be limited by equipment and regulatory costs of vessel upgrades. Efficiencies should also rise because of the cooperative structure of the alternative, which could reduce transaction costs of consolidating catch on fewer vessels and facilitate the full harvest of allocations. The extent of aggregation will depend both in the choices of participants in the fisheries and the excessive share caps (3.4.3 and 3.4.4).

The extent of any gain will depend, in part, on cooperative membership levels in the fleet. The extent of cooperative membership, however, is difficult to predict and will depend on cooperative formation requirements (3.3.7). Rules that require a majority of the fleet for cooperative formation could provide some sector members with substantial negotiating leverage over others. These rules could drive more participants to the limited access fishery than more lax rules for cooperative formation, such as a requirement of four distinct entities.

While most catcher processors are likely to join cooperatives to realize efficiency benefits of a rationalized fishery, some participants could remain in the limited access fishery, if they perceive a better opportunity in that fishery. The opportunity in the limited access will depend on whether PSC allocations to the fishery are reduced (3.6) and the management of secondary species in that fishery. If PSC is reduced and/or catch of valuable secondary species is limited by a low MRA (which may be necessary to prevent overharvest) participants are likely to perceive greater opportunities in cooperatives.

Participants in this sector will also have the option of transferring their annual allocations to the shore-based sector (3.4.7). Some historic participants could elect to transfer their allocations to the catcher vessel sector, if they perceive an added benefit from the transfer. Whether better returns can be realized in the shore-based fishery cannot be predicted and depends on both the difference in harvesting and processing costs and the value of the outputs produced.

### **Entry to the Fishery**

As under the previous catcher processor alternative, entry to the catcher processor sector under this alternative is likely to be limited. At first glance, the severable harvest histories under the program

alternative would create a more fluid market for entry than the existing LLP management, under which entry requires the purchase of a license. If cooperative formation is limited (or is subject to relatively strict requirements), opportunities for gradual entry by purchasing only a partial history may be limited. To participate in the limited access fishery, a person must hold an LLP and the complete history associated with a license at the implementation of the program (3.6). Entrants that do not purchase both the LLP and all history associated with the LLP would not be permitted in the limited access fishery. As a result, if the opportunity to enter the limited access fishery is important in negotiations with a cooperative (which is likely the case under relatively restrictive cooperative formation rules) entrants will need to purchase a license and all history associated with that license to be reasonably well positioned for negotiations.

Entry under this alternative could also be limited because cooperatives provide an easy avenue for history transfers, which would lead to consolidation among existing participants instead of entry. The ability to effectively enter will also be limited because of the small share of the Gulf fisheries controlled by the sector and the large capital cost of a vessel. Provisions allowing transfer of history from catcher processors to catcher vessels, but preventing transfers to the catcher processor sector in the long run will reduce the available market of catcher processor history for entry to the sector. The potential for a person to gradually purchase history and transition into vessel ownership in the catcher processor sector is likely to be very limited.

### **Small Entities**

In general, small entities are likely to receive smaller allocations under the history-based system of allocations under this alternative. The fairness of allocations is a matter of policy preference. Small entities could also be disadvantaged under this alternative, if cooperative formation rules allow formation of a single cooperative with the formation requiring a threshold percentage of the sector's history (3.3.7, Option 2). This provision would give participants that receive large allocations disproportionate control in the cooperative formation process.

### ***Catcher Vessel Cooperative/IFQ***

#### ***Fixed Gear Catcher Vessel Alternative Low 2***

Under this alternative, each eligible catcher vessel would receive a harvest share allocation that could be fished in a cooperative or as an IFQ. This option applies only to low producing fixed gear vessels (participants with less than either the median allocation or the 75<sup>th</sup> percentile) and would provide no specific processor protections. All processors would be permitted to compete for landings from these participants.

### **Catcher Vessel Efficiency**

As should be apparent from this discussion, a critical factor in the assessment of the effects of the alternatives on efficiency of the catcher vessels and shore-based processors is the ex vessel price of rockfish, which determines the distribution of product revenues between those two sectors. Landings generate revenues for harvesters and are a principal input cost to processors. Because of the importance of ex vessel prices in determining the efficiencies of the different shore-side sectors, the analysis in this section devotes considerable attention to the effects of the different alternatives on the distribution of revenues between these sectors (reflected in those ex vessel prices).

Efficiency in the harvest sector under this alternative is likely to be increased over the status quo. Harvesters receive an IFQ, which can be delivered to any processor. Harvesters should be able to generate substantial competition for landings for their catch, under this structure which provides no direct protection for processor interests. In general, all rents in the fishery should be realized by harvesters.

To some extent, efficiency gains could be reduced by limits on leasing (2.2.2.3.5) and owner on board requirements (2.2.3.3.7), if those provisions are incorporated into this alternative. Applying those limitations on a portion of each allocation (as is proposed for owner on board requirements) may achieve the goals of the provision without reducing efficiency because participants will have some flexibility in the harvest of their allocations. Limiting the application of these requirements to participants that are not in cooperatives is unlikely to achieve any goal other than to increase cooperative membership. Participants that do not wish to comply with the leasing limitations or owner on board requirements will join cooperatives to avoid the provisions. The Council should question whether the administrative cost of creating and implementing these requirements is worthwhile, if the requirements are waived for cooperative members.

Harvester efficiency (and rent capture) should be increased through the formation of cooperatives. Since the alternative contains no provisions that are intended to increase the incentives for cooperative membership (beyond the incentives inherent in the cooperative structure) and because participants in this sector are believed to be relatively independent, cooperatives may be less likely than for other sectors. Also, if cooperative monitoring and management is more costly (because of increased observer coverage or management costs) cooperative formation could be delayed. Over time, however, cooperative formation should become the norm, particularly if management costs are similar for cooperatives and individuals.

### **Processor Efficiency**

Processing efficiency is likely to be affected by a few different aspects of this alternative. First, as typically happens when a fishery is rationalized, fishing is slowed allowing processing efficiency to be improved by producing more output and higher quality output from the same quantity of fish. This quality improvement, however, may provide little direct benefit to processors, since this alternative provides processors with no leverage to capture a portion of the rents from the fishery. Processors that receive deliveries can still be expected to receive normal profits for their processing, but harvesters that receive IFQs can be expected to gain the rents from the fishery. Processor competition for landings (and product quality) will depend on the timing of harvests. At times when processors operating at capacity with catch from other fisheries (e.g., during the pollock roe season), fewer processors will compete aggressively for landings from this fleet. During periods of less intense activity, processors are likely to compete aggressively for landings.<sup>3</sup>

### **Overall Production Efficiency**

Overall efficiency should improve under this alternative, as the race for fish ends. As small producing vessels, improvements in quality of landings and cost reductions are likely to be less substantial than larger producers that race more aggressively to increase their overall harvests. Minor improvements in the quality of landings and reductions in the costs of harvesting fish are likely. Efficiency in processing should also improve as catch is distributed over a longer season. Since this fleet harvests a relatively small portion of the overall catch, a portion of the improvement of quality will result from slowing of catch and landing rates of other fleets that deliver to the same processors. Overall improvement should occur as processors are able to focus on higher value markets, particularly fresh markets that can be maintained over a longer period of the year. Two competing factors could affect efficiency under this alternative. First, the absence of any processor association could improve efficiency by allowing more competition for landings, fostering the development of greater efficiencies through cost reducing and revenue improving production improvements. Second, the absence of any processor associations could cause

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<sup>3</sup> Since the high producing portion of the fixed gear fleet is likely to be subject to processor protection under an alternative affecting that fleet, it is unlikely that this fleet will need to fish throughout the year to allow processors maintain a consistent supply of fish to fresh markets. Instead, this fleet is likely to fish when competition for landings is the greatest.

occasional short run efficiency losses, if harvesters remain too independent of the processing sector and fail to coordinate landings to achieve efficiencies in processing. In the long run, this loss of efficiency should dissipate, as harvesters realize the benefits of higher ex vessel prices of coordinating landings.

### **Entry to the Harvest Sector**

Entry to the harvest sector under this alternative should be similar to entry under the halibut and sablefish IFQ program. In an IFQ program entry can occur through the purchase of relatively small share holdings. Qualifying only individuals (and not corporations) to acquire shares (2.2.3.3.1) should also lead to a more active market for shares. Purchasing shares under this alternative will be relatively uncomplicated as landings will not be associated with a specific processor. The absence of processor associations, however, could increase the price of shares. Share caps and similar limitations on holdings (such as a block program under 2.2.7) could reduce the price of shares and also could lead to a more active market, since consolidation would be limited. Owner on board requirements could also facilitate entry, as persons not willing to fish their shares would be forced to divest a portion of their holdings.

### **Entry to the Processing Sector**

Entry to the processing sector is unlimited under this alternative. As a consequence, entry can occur without a requirement to purchase a license. In addition, a processor may enter without paying a premium price to attract harvesters from an associated processor, as would be required under any of the alternatives with processor associations.

### **Small Harvesting Entities**

Most of the participants in the sector subject to this alternative are likely to be small harvesting entities. The alternative provides these entities with the greatest flexibility in harvesting their shares and selling their catch. These small entities are likely to receive the greatest benefit under this alternative.

### **Small Processing Entities**

Many of the small processing entities in the Gulf are thought to purchase most of their fish from this fleet. This alternative, however, provides no protection to these processing entities. Under the current management, most of the larger processors devote most of their efforts to attracting landings from the larger fixed gear and trawl fleets. Once those fisheries are rationalized with processor protections, it is possible that the larger processors will devote greater effort to attracting landings from the low producing fixed gear participants to fill gaps in their processing activities. Attracting landings from this fleet could also help the larger processors develop a more consistent supply to higher value, fresh fish markets. This increased competition for landings could be detrimental to some small processors, if they are unable to compete with the larger processors with more diverse operations.

## ***Catcher Vessel Cooperative/IFQ with Limited Processor Entry***

### ***Trawl Catcher Vessel Alternative 2A and Fixed Gear Catcher Vessel Alternative High 2A***

Under this alternative, eligible catcher vessels would be allocated harvest shares that could be fished in a cooperative or that could be fished as an individual allocation. A specific portion of each allocation would be required to be delivered to a licensed processor. As under the parallel catcher processor alternative, options that govern cooperative formation and options that reduce the allocation to non-members of cooperatives could provide some catcher vessel participants with bargaining leverage over others. Rules that limit share trading by non-members of cooperatives could also affect bargaining leverage as binding allocations of one species may limit the ability of a person to harvest their allocations of other species. Processors might receive little protection from the limited license program, if a substantial pool of processors receives licenses. This alternative applies to trawl catcher vessels and fixed gear catcher vessels that qualify as high producers.

## **Catcher Vessel Efficiency**

Catcher vessel efficiency is likely to improve substantially under this alternative. Catcher vessels receiving exclusive allocations should refocus their efforts toward harvesting allocations with the greatest efficiency. Participants can be expected to balance cost efficiencies (i.e., reduce use of inputs such as fuel) against quality improvements that bring greater prices for landings to achieve the greatest possible efficiency. Some participants are likely to remove vessels from the fisheries to reduce costs. Although processor entry is limited, harvesters should be able to generate competition for landings among the licensed processors under this alternative. It is anticipated that most landings from the rationalized fisheries has been processed by processors that will qualify for licenses. Since fishing will be slowed under the alternatives, it is likely that these processors will be more able to compete for additional landings because of capacity constraints during the current, more abbreviated seasons.<sup>4</sup> Catcher vessel participants are likely to be in a strong negotiating position relative to processors under this alternative, because of the extended season and the limited protection of the processing limited license system. In general, the ability to coordinate harvest activity and remove vessels from the fleet without loss of harvest share, together with a relative improvement in bargaining strength arising from the relatively weak processor protection of the limit on processor entry should result in substantial improvements in harvest sector efficiency. Because cooperative formation rules are relatively liberal under this alternative (i.e., any four unique entities may form a cooperative), options that reduce IFQ allocations to persons that do not join cooperatives should not affect the distribution of benefits among harvesters. That distribution of benefits among harvesters should be a reflection of the initial allocations received under the program.

Although generally, harvesters can be expected to realize substantial efficiency gains under this alternative, it is possible that processors could effectively reduce competition for landings by consolidating license holdings. If relatively few processors can and are permitted to hold multiple licenses, it is possible that those processors could reduce the market of processors, limiting competition for landings. If processors successfully consolidate licenses in this manner, it is possible that harvester efficiency could be reduced substantially.

As noted under the previous alternative, efficiency gains could be reduced by limits on leasing (2.2.2.3.5) and owner on board requirements (2.2.3.3.7), if those provisions are incorporated into this alternative. Applying those limitations on a portion of each allocation (as is proposed for owner on board requirements) may achieve the goals of the provision without reducing efficiency. Limiting the application of these requirements to participants that are not in cooperatives is unlikely to achieve any goal other than increasing cooperative membership.

## **Processor Efficiency**

Under this alternative, processing efficiency should be affected by several factors. Catcher vessel participants are likely to use cooperatives to coordinate landings leading to processing technical efficiency improvements as processors are better able to schedule crews to process landings and improve product quality and produce more higher quality products. As under the previous alternative, short run efficiency losses could occur, if harvesters attempting to market their fish to the highest bidder prove to be unreliable sources of inputs.

Processors, however, may experience little improvement in their overall efficiency (profits) under this alternative because of their weak negotiating position in the market for landings. Although entry is limited under this alternative, the capacity of qualified processors likely exceeds that necessary to process landings in a slowed fishery with an extended season. Cooperation from catcher vessels may improve

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<sup>4</sup> Most processors with substantial participation in Gulf of Alaska LLP fisheries currently have substantial down times between seasons that occupy most of their processing capacity.

quality and value of processing outputs and help processors minimize costs of production, but catcher vessels should be in a relatively good negotiating position to receive most of the benefits of those improvements through ex vessel pricing. Notwithstanding the relatively strong position fishermen may have under this alternative, processors, in the long run, should obtain normal profits from their processing. Some less efficient processors, however, may be unable to realize normal profits, and may be expected to drop out of the fisheries.

In the long run, it is possible that processors could achieve a substantial gain in efficiency, if processor license holdings are not limited by a cap. In the absence of a cap, a few processors could purchase several licenses each, effectively limiting the market for landings. Whether this license consolidation will occur cannot be predicted with certainty, but should be expected given the incentive arising from potential gains. If realized, these gains could accrue to the few processors that are able to remain in the fishery. Although these processors will need to purchase licenses that they consolidate, it is likely that any departing processors will not be in a strong negotiating position with respect to licenses that they wish to divest.

In addition, some efficiencies may not be realized, if A shares (which required to be delivered to a licensed processor) are so large a portion of the overall harvest share allocation that entry of new processors is limited. Entry could be important to production developments that contribute to efficiency by reducing costs or increase revenues. If few B shares are allocated, little catch may be available for processors to enter the fishery to experiment with production developments.

### **Overall Production Efficiency**

Overall efficiency should be improved substantially under this alternative. Short run potential efficiencies may not be realized, if portions of the fleet are unwilling to coordinate landings with processors. Overtime, harvesters can be expected to coordinate landings to increase overall efficiency. If entry to processing is limited by the A share/B share ratio, some production improvements could be curtailed.

### **Entry to the Harvest Sector**

Entry to the harvest sector under this alternative should be similar to entry under the cooperative/IFQ alternative. The absence of specific processor associations and the limits on landings should provide a relatively wide market to any person wishing to enter the fisheries.

Limiting corporate ownership of shares to only recipients of an initial allocation (2.2.3.3.1) and restricting leasing and requiring owner on board could also lead to a more active market for shares. In developing the alternative, the Council should question whether these provisions are appropriate for the fleet governed by this alternative (which includes trawl catcher vessels many of which are currently corporate owned).

Purchasing shares under this alternative will be relatively uncomplicated as landings will not be associated with a specific processor. The absence of processor associations, however, could increase the price of shares. Share caps and similar limitations on holdings (such as a block program under 2.2.7 that could apply to some fixed gear shares) could reduce the price of shares and also could lead to a more active market, since consolidation would be limited. Owner on board requirements (2.2.3.3.7) and leasing limitations (2.2.3.3.5) could also facilitate entry, as persons not willing to fish their shares would be forced to divest a portion of their holdings. These provisions, however, are unlikely to have any effect on entry, unless they are applied to cooperative members.

## **Entry to the Processing Sector**

Entry to the processing sector is constrained by a limited license program. Under the options, the portion of each allocation that would be B shares (i.e., free to be delivered to any processor, including processors without licenses) will need to be identified. These unrestricted B shares are likely to be important to facilitating processor entry, because they would allow a potential entrant to experiment prior to making a potentially substantial investment in a license. The availability of licenses in the market cannot be predicted and likely will depend on both the circumstances of participants and whether the Council includes a limitation on the number of licenses a processor can hold. If processors are permitted to hold several licenses, it is possible that existing processors could effectively limit competition and entry by purchasing any available licenses. If B shares are a high portion of the allocation and licenses are readily available in the market, it is possible that entry could be relatively free.

## **Small Harvesting Entities**

Many of the participants in the sector subject to this alternative are likely to be small harvesting entities by RFA standards. Allocations will be history based, so to the extent that the selected qualifying years are reflective of historic participation and that history based allocations are equitable, small operations will not be discriminated against in the initial allocation. Although the alternative requires a portion of each allocation to be landed with licensed processors, harvesters are likely to have a substantial market for the sale of their catch at the outset. As a result, these entities are likely to receive great benefits from the program in the early years. Over time returns to harvesters could decline, if processors are not limited in the number of licenses that they can hold. In the absence of limitations on license holdings, processors could consolidate license holdings effectively constraining the market for landings of A shares. Whether this license consolidation is likely cannot be predicted.

## **Small Processing Entities**

Some of the small processing entities in the Gulf are thought to purchase fish from this fleet. This alternative, however, provides limited protection to processing entities. The limit on processing entry under this alternative provides no specific protection to any processor and will likely license processor with capacity to process substantially more fish than will be harvested.

As noted in the previous alternative, larger processors could be better positioned to compete for landings from all vessels once fisheries are rationalized the rate of landings and processing slows. Increased competition for landings could be detrimental to some small processors that currently pay premium prices, if they are unable to compete with the larger processors with more diverse operations.

## ***Catcher vessel Cooperative/IFQ with Processor Linkages***

### ***Trawl Catcher Vessel Alternative 2B and Fixed Gear Catcher Vessel Alternative High 2B***

This alternative would also allocate harvest shares to eligible catcher vessels that could be fished in cooperatives or individually. A specific portion of each harvest share allocation would be required to be landed with the processor to which the catcher vessel delivered the most groundfish during the processor qualifying period. The harvest share/processor association could be severed or changed, subject to a share reduction penalty. As under the other cooperative/IFQ alternatives, bargaining leverage among catcher vessel participants will be affected by the choice of options that govern cooperative formation and options that reduce the allocation to non-members of cooperatives could provide some catcher vessel participants with bargaining leverage over others. Rules that limit share trading by non-members of cooperatives could also affect bargaining leverage as binding allocations of one species may limit the ability of a person to harvest their allocations of other species. The protection granted to processors will depend on the percent of each allocation that must be landed with the associated processor and the size and duration of the share reduction penalty for movement among processors.

## Catcher Vessel Efficiency

Under this alternative, harvest costs should decrease with slowing of the race for fish. In addition, catcher vessels should contribute to an increase in product quality and improved product recovery as better care is taken of harvests to increase returns from the fishery. The processor associations under this alternative likely create a substantial incentive for harvesters and processors to cooperate in production during the term of the association to improve product value and overall returns from catch. Whether overall catcher vessel efficiency (profits) improves, however, will depend on ex vessel prices. The negotiating position of catcher vessels under this alternative will depend on the options included in the alternative by the Council.

Two specific sets of options together will have the greatest impact on the distribution of rents (and efficiency gains) between the sectors. First, the percentage of each allocation that is required to be delivered to the associated processor will affect the extent to which an associated processor will be assured of landings during the tenure of the association (2.3.1.1.1). Harvesters can be expected to receive rents from the unrestricted B shares.<sup>5</sup> Generally, A shares that are required to be delivered to an associated processor will be subject to a reduced level of competition, for which processors will receive a portion of the rents. While other processors may choose to compete to sever the association, the competing processors will need to pay a premium over the price offered by the associated processor to sever the association.<sup>6</sup> The magnitude of the premium depends on the terms of the share reduction penalty imposed for severing the association; the second set of options that will determine the distribution of rents (2.3.1.1.3). The current options would allow a reduction of between 10 and 20 percent for a period of 1 to 4 years. Generally, larger share reductions for longer periods will increase the rent distribution to processors with share associations.

The rent distribution from the association, however, could change at the time an association is severed. As long as a harvester maintains the association with a processor, the associated processor will receive the rents from the relatively low ex vessel price paid for landings of associated harvest shares. Once the association is severed, however, the share reduction is redistributed to the fleet that remains with the processor that the share holder left. If the penalty is entirely A shares, the processor should receive all rents from landings of those shares, since the harvesters receiving the reallocation will be required to land the shares with the processor during the term of the share reduction. If the penalty includes B shares, the harvesters receiving those shares during the term of the penalty should receive the rents from those shares. The redistribution of these B shares also provides little benefit to the associated processor. Since harvesters are likely to receive the benefits of the redistributed B shares, including B shares in the penalty could create an incentive for harvesters associated with a processor to drive other harvesters away from that processor for the short term reallocation. The ability of harvesters to force others away from a processor could be limited, if harvesters have reasonable opportunities to harvest their allocations independent of others associated with the same processor (i.e., if IFQ allocations are not reduced and cooperative formation rules are liberal).

A few other factors could affect the distribution of rents under this alternative. The transferability of associations could lead to consolidation of processing by acquisition of licenses and associations. While

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<sup>5</sup> Rules limiting the leasing of shares and requiring the share owner to be on board the vessel harvesting the shares could reduce the usefulness of B shares to harvesters as a negotiating tool, if the B share allocation is a small portion of the total share allocation. For example, if a share holder is required to be on the vessel harvesting the shares and B shares are a small portion of the total allocation, it could be impractical for the share holder to make deliveries to multiple processors.

<sup>6</sup> In most cases, the premium would be in the form of a higher ex vessel price. In some cases, however, a harvester may be motivated to break an association with a processor, in part, by terms of delivery that lower harvest costs. In either case, higher profits for the harvester would result.



this, in and of itself, is not likely to affect rent distributions, if the number of processing licenses that a person can hold is not limited, competition could be limited by consolidation of licenses. These two provisions together (transferable associations without license caps) could contribute to consolidation that limits competition shifting some rents to the processing sector.

Options to prohibit permanent trades of PSC (2.2.5.3.1) could reduce efficiency, if the provision limits the ability of participants to harvest their allocations or drive up transactions costs by requiring participants to trade shares on an annual basis. Provisions that reduce PSC allocations to non-members of cooperatives (2.2.5.4) could affect the distribution of benefits among harvesters, if some harvesters lose negotiating leverage in the cooperative formation process. The relatively liberal rules for cooperative formation (i.e., 4 distinct entities) should mitigate this potential, but it is possible that some harvesters holding shares associated with a processor with few associations could have little choice of cooperatives to join.

If included in the alternative, efficiency gains could be reduced by limits on leasing (2.2.2.3.5) and owner on board requirements (2.2.3.3.7). Applying those limitations on a portion of each allocation (as is proposed for owner on board requirements) may achieve the goals of the provision without reducing efficiency. As currently proposed, limiting the application of these requirements to participants that are not in cooperatives is unlikely to achieve any goal other than increasing cooperative membership.

### **Processor Efficiency**

As noted above, production under this alternative should be refocused toward increasing product quality and production of higher valued outputs. The extent to which processors realize benefits from these improvements will depend on the distribution of rents, as determined by the provisions defining harvest share/processor associations. Catch from A shares will be subject to less competition, so the larger the A share portion of the allocation, the larger the portion of landings that associated processors will have reduced competition for. The negotiating strength of (and rents to) associated processors will be determined by the share penalty, with the negotiating position of (and rents to) the associated processor increasing with the length and duration of the share reduction. The level of penalty should be set to balance the interests of processors that have established histories in the fisheries against the interests of harvesters in having a broader market in which to sell their harvests and potential losses of efficiency, if competition is muted.

In considering the penalty, the Council should consider that the penalty represents a temporary loss of revenues to a harvester, which could be used to defer long term fixed costs, such as vessel loans, in addition to variable costs, which are reduced by not having to harvest the shares subject to penalty. This temporary loss of revenues should be balanced against the long term loss of revenues to a processor that occurs, if a processor loses the association. While the loss to a processor from the severed association is greater, it should be kept in mind that the loss to a processor would only occur if the processor were unwilling to pay a price for landings that will retain the harvester association. And, the price that an associated processor will need to retain the association will be less than a competitive market price because of the penalty. So, the penalty has the effect of determining the extent of rents that can be captured by an associated processor by paying a reduced price for landings.

If the Council elects to impose penalties after the first move (i.e., a system of perpetual linkages), the price that a processor is willing to pay to induce a harvester to leave an associated processor could be increased, since the new processor will receive the benefit of a linkage that limits competition for delivery restricted shares. In addition, the Council could decide to apply the penalty at half the initial level to all movements after the first movement. Applying the penalty to only the first move would show the Council's intent to value only the historic harvester/processor relationships that exist prior to implementation of the program. If the Council elected to adopt a single penalty program, over time it

could be expected that all processor protections severed as harvesters pay the penalties needed to sever the linkages. Once linkages are severed, the program would have no processor element. An ongoing processor association might be favored by participants that see those associations as stabilizing the distribution of landings with processors.

In determining the penalty terms, the Council could decide whether the penalty will be applied in a single year or over the course of more than one year. Extended terms for penalties are likely to discourage movement between processors by increasing the cost of movement. Discounting suggests that extending a penalty over several years, however, is likely to be less costly to a harvester than imposing a penalty of the same quantity of fish over a shorter period of time (i.e., 2 percent per year for 4 years is less costly than 8 percent in a single year, if the TAC and product markets remain constant). Extending the penalty to reduce its magnitude in a single year could also avoid disruption to a harvester's operations that could occur from imposing a larger penalty in a single year. Long term penalties, however, could discourage movement and competition. On the other hand, penalties of relatively long terms could contribute to stronger relationships between harvesters and processors. If a penalty is imposed over several years, the processor with which a new linkage is established could establish a relationship for the term of the penalty (or beyond) to cover the harvester's costs of penalty.

### **Overall Production Efficiency**

Overall production efficiency should be improved through production improvements that typically arise through the slowing of the race for fish. Both A shares and B shares have competing, inherent properties that could affect efficiency. For A shares, the linkage should contribute to efficiency by contributing to the coordination of landings. This coordination should exceed the coordination of B share landings, at least at outset. A competing effect, however, arises because of the penalty that must be paid to change associations, since the penalty could deter efficiency improving movements among processors. For B shares, the lack of restrictions should allow harvesters to deliver their landings to the processor willing to pay the greatest price. The relative freedom to choose delivery time and location, however, could reduce coordination of landings with some efficiency loss. Over time (and in general), B share landings should stabilize as catcher vessels realize price benefits from coordinated landings.

This structure also could reduce production developments (and long run efficiency), if the B share pool does not accommodate processor entry to the fishery, as entry opportunities facilitate product experimentation. If harvesters see B shares primarily as a mechanism for encouraging their linked processor to pay higher price for A share landings, processor entry to the fishery could be compromised, despite a B share pool that would seem to be adequate to facilitate entry.

### **Entry to the Harvest Sector**

A few competing factors are likely to affect entry to the harvest sector under this alternative. First, since the program is an IFQ program with fully divisible allocations, persons should be able to enter the fisheries relatively easily by making several purchases of small numbers of shares over time.

Entry, however, could be complicated by the processor associations. A harvester that purchases small numbers of shares may not be able to purchase shares with associations to more than one processor. So, a person that wishes to enter by small share purchases will be required to purchase from a segment of the market associated with a single processor. The landing requirement of the associations under this alternative could complicate entry for persons that are unable to purchase shares that are less than a full delivery from a vessel.

Limiting corporate ownership of shares to only recipients of an initial allocation (2.2.3.3.1) and restricting leasing and requiring owner on board could also lead to a more active market for shares. In developing

the alternative, the Council should question whether these provisions are appropriate for the fleet governed by this alternative (which includes trawl catcher vessels many of which are currently corporate owned). In addition, provisions that limit leasing and require owner on board could make compliance with the landing requirements more difficult for entering harvesters that are unable to acquire shares associated with a single processor.

### **Entry to the Processing Sector**

Processor entry will also be constrained under this alternative. The extent of the constraint depends on choices of several options under consideration in the program. In most cases, decisions that facilitate entry also reduce the protection granted to existing processors. For example, small scale entry could be facilitated by a relatively large portion of the harvest share allocation being B shares. Yet, the larger the portion of the share allocation made up of B shares, the lower the protection to existing processors. Another option that is likely to affect entry opportunities is whether (and the extent of) share reduction penalties after the first movement among processors will also affect the ability of processors to enter the fisheries. If penalty share reductions apply only to the first move, the number of shares unconstrained by processor landing requirements will increase over time. Similarly, if penalties are reduced after the first move, the cost of larger scale entry should drop over time as fewer shares will be subject to the full, first move penalty.

License availability will also determine the extent to which entering processors can use pricing to entice harvesters to change associations. As under the previous alternative, if processors are not limited in the number of licenses that they can hold, it is possible that a few processors could acquire most of the licenses in the fisheries to limit competition.

### **Small Harvesting Entities**

Most of the participants in the harvest sector under this alternative are thought to be small harvesting entities by RFA standards. As under the previous alternative, this alternative's history based allocations are equitable to the extent that history based allocations and the qualifying years are equitable, the allocations will be fair to small entities. The processor associations and landing requirements under this alternative are more restrictive than the processor protections under the limited license alternative and should reduce revenues to all harvesters (including those that are small entities). Small entities, particularly those with small allocations, may have little opportunity for marketing their catch with processors other than their associated processor. Pooling of B shares in a cooperative, however, may create some opportunity for person's with small allocations to increase their returns from those landings.

### **Small Processing Entities**

Small processing entities could receive less protection under this alternative because of the winner-take-all nature of the processor associations. Under this alternative, each harvester will associate with the single processor to which it delivered the most groundfish during the processor qualifying years. This single association could leave some processors with substantially less protection with others. Large processors that participate in the largest (by volume) fisheries should realize the benefits of most of the associations, with small processors with limited capacity being left out of the associations.

## ***Catcher Vessel Cooperative/IFQ with Harvest Share Allocations to Processors***

### ***Trawl Catcher Vessel Alternative 2C and Fixed Gear Catcher Vessel Alternative 2C***

This alternative would also allocate harvest shares to eligible catcher vessels that could be fished in cooperatives or individually. A specific portion of the harvest share pool would be allocated to eligible processors. A processor could either harvest its allocation (if it is able to document a vessel) or contract

catcher vessels to harvest their allocations. In addition, a portion of the pool of harvest shares would be available for acquisition by processors.

### **Catcher Vessel Efficiency**

As under the other rationalization alternatives, a general trend toward reduction of harvest costs and improvement of quality of landings and production of higher valued products should occur under this alternative. At the outset, harvesters may be less inclined to coordinate landings with processors, instead choosing to bargain for deliveries with processors. Over time, harvesters should coordinate landings, which should be rewarded with higher ex vessel prices. In general, harvesters should realize the rents from the allocations to harvesters under the program.

Catcher vessel efficiency under this alternative could be affected by several different factors. The percentage of shares allocated to the processing sector is the greatest determinant of the distribution of benefits between the harvesting and processing sectors. The allocation of shares to processors will affect the overall return to harvesters by reducing their allocations of harvest shares. Competition for each harvester's allocation, however, will be unlimited by processor landing requirements. Through this competition, harvesters should capture all of the rents on landings from shares received in the initial allocation. Some harvesters could realize some returns from allocations to processors, if they are able to contract for the harvest of those processor allocations. Generally, the return from these harvests will be normal profits with the rents from the allocation being received by the processor holding the shares.

Options to prohibit permanent trades of PSC (2.2.5.3.1) could reduce efficiency, if the provision limits the ability of participants to harvest their allocations or drive up transactions costs by requiring participants to trade shares on an annual basis. Provisions that reduce PSC allocations to non-members of cooperatives (2.2.5.4) could affect the distribution of benefits among harvesters, if some harvesters lose negotiating leverage in the cooperative formation process. The relatively liberal rules for cooperative formation (i.e., 4 distinct entities) should mitigate this potential.

Limits on leasing (2.2.2.3.5) and owner on board requirements (2.2.3.3.7) could reduce efficiency gains. Applying those limitations on a portion of each allocation (as is proposed for owner on board requirements) may achieve the goals of the provision without reducing efficiency. As currently proposed, limiting the application of these requirements to participants that are not in cooperatives is unlikely to achieve any goal other than increasing cooperative membership. If these elements are included, provision should be made to ensure that processors that do not operate vessels have the ability to have their shares harvested (i.e., 2.3.2, paragraph 5 should control).

### **Processor Efficiency**

Processor efficiency will also be affected by several aspects of this alternative. First, processors will receive an allocation of harvest shares from which the processors should receive all rents, regardless of whether the processor harvests those shares on its own vessels or contracts with others for their harvest. The magnitude of this allocation will determine the distribution of benefits between the sectors (2.3.2., paragraph 6). Processors will need to compete for landings from allocations to harvesters, with each processor receiving normal profits, but not rents, for the deliveries that it processes. Some risk that harvesters may not coordinate landings with processors, would cost some processors. In the long run, coordinated landings should benefit harvesters with higher rents and reduce possible costs to processors that are able to benefit from scheduling. Some loss of stability in processing could arise without processor landing requirements, but processors that are concerned about stability could use their allocations to entice harvesters both to deliver their own allocations to the processor and to coordinate landings.

## **Overall Production Efficiency**

Under this alternative, overall production efficiency should be improved substantially. The absence of processor associations will allow harvesters to choose to deliver to the most efficient processors (typically the processor that is able to pay most). Processors can use their allocations to fill time gaps in production and to bargain for additional coordination of deliveries from harvesters. The result should be substantial gains in overall production efficiency, as participants give greater attention to product quality and cost reductions in making production decisions.

## **Entry to the Harvest Sector**

Entry to the harvest sector should be similar to entry under the IFQ alternative for low producing fixed gear vessels. Entry should be simplified since entry can be accomplished through gradually purchasing small numbers of shares, since shares are fully divisible. Since shares are not associated with a single processor, entrants can purchase shares from a broader market, without complicating the harvest and delivery of shares. Although allocations to processors could reduce shares in the market (or drive up the price for shares available to processors) a market for shares available to harvesters only should ensure a relatively large market for shares. Purchasing shares under this alternative will be relatively uncomplicated as landings will not be associated with a specific processor. The absence of processor associations, however, could increase the price of shares. Share caps and similar limitations on holdings (such as a block program under 2.2.7 that could apply to some fixed gear shares) could reduce the price of shares and also could lead to a more active market, since consolidation would be limited.

Limiting corporate ownership of shares to only recipients of an initial allocation (2.2.3.3.1) and restricting leasing and requiring owner on board could also lead to a more active market for shares.<sup>7</sup> Limitations on leasing and owner on board requirements, however, may have little effect, if cooperative members are exempt from these provisions.

## **Entry to the Processing Sector**

Entry to the processing sector should be simplified under this alternative since a processor can enter by simply competing for landings with price. Unlike other alternatives with license or linkage provisions, a processor that wishes to enter will not need to pay for a license or pay a premium to sever associations to attract any substantial amount of landings. A processor that wishes to develop large scale operations could also do so by a combination of purchasing shares from the pool available to processors or purchasing landings on an annual basis.

## **Small Harvesting Entities**

Small entities generally are treated similar to the IFQ alternative for fixed gear vessels, but with reduction of shares for allocations to processors. If history based allocations and inclusion of processors in the initial allocation are viewed as fair, this alternative could be viewed as fair to small harvest entities.

## **Small Processing Entities**

This alternative likely provides allocations to processors in direct proportion to their qualified processing history. Assuming eligibility criteria do not exclude small processors, small processors will receive protection in proportion to their historic processing. Small processors will have the option of harvesting their allocations directly or contracting their harvest with independent harvesters. Small processors may be able to attract additional landings by having independent harvesters catch their allocations.

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<sup>7</sup> It is assumed that the provisions would not apply to the pool of shares that could be purchased by processors. Eligibility to purchase shares from the pool available should be specified.

## ***Catcher Vessel Sector Allocations with Cooperatives with Processor Associations/ Limited Access***

### ***Trawl Catcher Vessel Alternative 3 and Fixed Gear Alternative 3***

This alternative creates history-based cooperative program, under which cooperatives would receive annual harvest share allocations based on the qualified histories of their members. Cooperatives would be required to be associated with a processor, but the details of that relationship (including the terms for severing the relationship) would be determined by negotiations among the cooperative members and the processor. Initially, each holder of qualified history would be eligible to join a cooperative associated with the processor to which it delivered the most pounds during a specific time period. Holders of qualified history that choose not to join a cooperative would be permitted to fish in a limited access fishery that would receive an annual allocation based on the histories of non-members of cooperatives. The allocation of PSC to the limited access fishery could be reduced. Once in a cooperative a participant would have the choice of remaining in the cooperative subject to the negotiated terms or severing the relationship in accordance with the terms for exit that also must be included in the initial agreement with the processor. It is contemplated that a harvester would compensate a processor (either by leaving shares with the processor permanently or for a period of years) on severing a relationship.

### **Antitrust Considerations**

Under this alternative, for each primary species group that a harvester receives an allocation that harvester will be required to join a cooperative in association with a processor. The general activity of these cooperatives is the harvest of fish allocated to the cooperative, so for clarity these cooperatives are often referred to and should be thought of as “harvest cooperatives” in this analysis. The creation of a harvest cooperative necessarily raises the question of whether the cooperative would or should qualify for the antitrust exemption of the Fishermen’s Collective Marketing Act. This section considers the activities of harvest cooperatives and the implications of limitations on antitrust on those activities.

Under the terms of the alternative, processor affiliated catcher vessels (i.e., vessels owned or controlled by a processor) are qualified for harvest cooperative membership. Allowing or requiring harvest cooperative membership by these entities disqualifies that cooperative from the antitrust exemption of the FCMA, limiting the activities that the cooperative can engage in. As a result, a harvest cooperative clearly cannot engage in any negotiations of the price or terms of delivery of catch to a processor. Since the contracts between harvesters and associated processors are intended to govern the terms of their relationship (including delivery obligations and the transfer of shares on severing the relationship), the negotiation of the terms of that agreement are not an appropriate role for a harvest cooperative. Harvesters without processor affiliations could enter a separate FCMA cooperative for negotiation of those terms, but that FCMA cooperative need not have (and in some cases may be prohibited from having) the same membership as the harvest cooperative.<sup>8</sup>

In considering the effect of the alternative, it should be noted that the provision requiring a harvest cooperative to accept membership of any eligible participants subject to the same terms and conditions as govern all other harvest cooperative members cannot effectively guarantee any harvester price or terms of delivery or exit agreement terms because the harvest cooperative agreement cannot contain those provisions, since the cooperative need not be an FCMA cooperative.

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<sup>8</sup> As currently written, 3.3.11 requires a contract between a harvest cooperative and its associate processor that includes the terms under which a harvester may exit the cooperative and association. To be consistent with current antitrust law, this provision should be modified so that each “cooperative member” is required to enter a contract with the processor defining the terms under which the cooperative member may exit the cooperative and the processor association.

To carry forward the intention of the current motion consistent with this understanding of the role of cooperatives the Council could revise section 3.3.11 and 3.4.1 of the current motion as follows:

### 3.3.11 Initial Cooperative Requirements

The following provision is required for the initial co-op:

Catcher vessel co-ops may be formed by eligible harvesters (the co-op) subject to the terms and conditions of a co-op membership agreement. In order to receive an allocation of GH under this program, **an eligible harvester co-ops** must enter into a duly executed contractual agreement (Contract) with the processor identified in Section 3.3.5.

Contracts established under this section shall specify the terms and conditions for transferring GQ or GH from the cooperative, including mechanisms whereby a member exiting the co-op (or transferring GH from the co-op) compensates the remaining co-op members and/or the associated processor for exiting the co-op (or transferring GH from the co-op). Compensation can take on any form agreed to by the **members eligible harvester** and the associated processor, including permanent transfer of some or all GH generated by the existing participant to the remaining co-op members and/or the associated processor.

Following the initial co-op period, new GH can be generated by eligible harvesters that have never been co-op members only by **entering into a Contract with the processor identified in Section 3.3.5 and** joining a co-op in association with **the eligible that** processor pursuant to the terms **of an agreement** that meets the requirements for an initial co-op.

Any shareholder under this program is intended to comply with all existing laws concerning the documentation of vessels and entry of vessels to U.S. fisheries in fishing those shares. Shareholders unable to enter a vessel into U.S. fisheries may lease share holdings or use holdings through cooperative membership to the extent permitted by the program, but not in contravention of current law pertaining to entry of vessels in U.S. fisheries.

### 3.4.1 General Cooperative Requirements

The following provisions apply to all cooperatives:

1. The harvesters that enter into a co-op membership agreement shall be the members of the co-op. The processor will be an associate of the cooperative but will not be a cooperative member.
2. Except for CP cooperative, a pre-season Contract between **an** eligible, willing harvesters in association with a processor is a pre-requisite to **cooperative membership and** a cooperative receiving an allocation of GQ **based on the history of that harvester**. For an initial co-op, the Contract must meet the provisions in 3.3.11. After meeting the requirements of Section 3.3.11 and following any periods established pursuant to 3.3.12, a holder of GH may join a cooperative in association with any processor pursuant to a Contract that meets the provisions of this section.
3. The co-op membership agreement and the Contract will be filed with the RAM Division. The **Contract cooperative agreement** must contain a fishing plan for the harvest of all co-op fish.
4. Co-op members shall internally allocate and manage the co-op's allocation per the **Contract cooperative agreement**.
5. Subject to any harvesting caps that may be adopted, GH or GQ may be transferred and consolidated within the co-op to the extent permitted under the **cooperative agreement Contract**.
6. The **cooperative agreement Contract** must have a monitoring program. Monitoring and enforcement requirements would be at the co-op level. Co-op members are jointly and severally responsible for co-op vessels harvesting in the aggregate no more than their co-op's allocation of primary species, secondary species and halibut PSC mortality, as may be adjusted by inter-cooperative transfers.

7. Co-ops may adopt and enforce fishing practice codes of conduct as part of their membership agreement. Co-ops may penalize or expel members who fail to comply with their membership agreement.
8. **The cooperatives formed under this program are harvest associations that are intended only to conduct and coordinate harvest activities of their members and are not FCMA cooperatives. Processor affiliated vessels will be permitted to join harvest cooperatives.** Co-op membership agreements will specify that processor affiliated vessels cannot participate in negotiations concerning price setting, code of conduct, mechanisms for expelling members, or exit agreements, **except as permitted by general antitrust law.**
9. Co-op membership agreements shall allow for the entry of other eligible harvesters into the co-op under the same terms and conditions as agreed to by the original **cooperative** agreement. Harvesters that have never been a member of a cooperative must enter an agreement that meets all requirements for an initial co-op, as specified under Section 3.3.11.

### **Catcher Vessel Efficiency**

This alternative does not impose the specific terms of the harvester/processor relationship on participants (i.e., delivery obligations and penalties), instead leaving those to negotiation. The absence of defined terms to the harvester/processor association under this alternative makes it difficult to predict the effects of the alternative. Certain aspects of the structure, however, should affect the relative negotiating leverage that participants. Each harvester will choose to fish in one of three environments (or sets of rules). At the start of the program, a harvester will balance the opportunity in the limited access fishery against the opportunity in a cooperative with a processor association. After the initial cooperative formation period has ended,<sup>9</sup> the harvester will balance these first two modes of fishing against the opportunity to comply with the exit agreement and participating in any other cooperative without the requirement of a second exit agreement. The different opportunities presented by these three choices are likely to depend in part on the participants' relative circumstances, as those circumstances will affect their negotiating positions. As a result, the effects of the alternative are likely differ across participants.<sup>10</sup> In addition, fishing under this alternative could evolve as participants elect to move from one management environment to the next.

Since this alternative allows a harvester to either fish in a cooperative or a limited access fishery, it is possible that some participants may not choose to enter the rationalized fishery, at least at the outset. As participation in the different management structures changes, fishing practices and efficiency are likely to change. Participants that remain in the limited access are likely to have greater harvest costs, since they will continue to race for catch to maintain their share of the allocation of the limited access allocation. Quality of landings is likely to suffer and a relatively high rate of landings could prevent the production of high quality or more processed outputs. Processor competition could be limited by the time constraint on landings from the limited access, particularly if some processors choose not to compete for landings from the limited access because of conflicts with landings from their associated cooperatives. Notwithstanding this loss of overall efficiency, it is possible that some participants may elect to fish in the limited access fishery, if they cannot come to an acceptable agreement (concerning deliveries and exit from the cooperative) with their associated processor.

The terms of any potential harvester/processor agreement will depend on the negotiating leverage of the different parties, which will be affected by several factors. Since the limited access is the only option for a

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<sup>9</sup> A harvester cannot comply with an exit agreement to leave a cooperative until after the initial cooperative formation period has ended. This period is intended to allow participants the experience of working together in the new management prior to making decisions to leave a cooperative.

<sup>10</sup> Although it may appear that the different catcher vessel participants associated with a processor will be subject to the same terms, the



harvester that chooses not to enter an agreement with its associated processor, the limited access opportunity will have a great effect on the strength of negotiations for the harvester. A processor may be able to demand greater concessions in negotiations with a harvester, if the limited access presents a poor opportunity. The limited access opportunity will depend on circumstances in the fishery and is likely to change over time. The number and catching power of sector participants entering that fishery and the size of the allocations of limited access participants are likely to have the greatest influence on the opportunity in the limited access fishery. If several participants with small allocations of history and substantial catching power elect to participate in the limited access, a participant with substantial history may have little opportunity in the limited access fishery. In some instances, it is possible that the limited access fishery may not open (providing no opportunity), if the number is persons choosing to enter that fishery is large relative to the allocation to the fishery.<sup>11</sup> If the Council elects to reduce the PSC allocation to the limited access fishery, the negotiating position of harvesters would decline commensurately with that reduction (3.6). Delaying the onset of the reduction would decrease the extent to which harvesters lose negotiating strength through the share reduction. Prior to satisfying an exit agreement, each year a harvester will compare the opportunity presented by the limited access against the opportunity presented by cooperative membership.

A harvester's opportunity in a cooperative in large part depends on the history that the harvester would bring to the cooperative. The other factor that will generally determine the cooperative opportunity is the terms of the processor association. The negotiation of those terms will involve some interplay of the two most critical aspects of the relationship, the terms of delivery of any landings and the exit agreement (or terms for severing the relationship) contrasted with the opportunity in the limited access fishery.<sup>12</sup> The interaction of these two negotiated terms (delivery terms and the exit agreement) makes the effects of the alternative very difficult to predict. The harvester will gain all rents from any portion of its history that is free to be delivered to other processors and any history that it will retain after exiting, but neither of those amounts can be determined because they are subject to negotiation. It is possible that some harvesters may elect to enter a cooperative, regardless of relatively punitive terms for exiting, if a processor offers relatively good terms for deliveries knowing that the limited access opportunity exists. On the other hand, some harvesters may refuse to enter a cooperative without terms for exit that they are likely to accept, for fear that they will be unable to come to terms in a future renegotiation of terms of delivery. To a great extent, the terms that a harvester will be willing to agree to (and the opportunity in a cooperative) will depend on relative negotiating leverage of the harvester and processor.<sup>13</sup>

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<sup>11</sup> A few effects that are not initially apparent or intuitive could arise because of the effect of the limited access on negotiating strength. If the fishery follows a predictable trend, with participants moving strictly from the limited access to the cooperative, then the opportunity in the limited access will decrease over time. In some instances, this could create an incentive for a processor to hold out in negotiations, rather than conceding to terms, knowing that negotiating leverage may improve in the following year. A second effect is that from the harvester's perspective the limited access opportunity depends on the ability to succeed in that fishery. This may create an incentive for a harvester to maintain or even increase harvest capacity, in the short run, to increase negotiating leverage.

<sup>12</sup> Once in a cooperative, a harvester will have the choice of remaining in the cooperative, exiting under the terms of the exit agreement, or reentering the limited access fishery. Although the terms of the exit agreement are important to the harvester, the ability to reenter the limited access fishery provides a second choice for a harvester that is unable to come to terms with the processor when renegotiating the terms of delivery of catch. As noted earlier, the limited access opportunity is not predictable and may worsen over time. Exit of the cooperative by complying with the exit agreement is only allowed after the "initial formation period".

<sup>13</sup> Several other factors, which cannot be predicted, could also affect efficiency under this alternative. For example, since a harvester may have different associations for different species, if terms of the two agreements limit the harvester's use of its secondary species and PSC, it is possible that the harvester may not be able to harvest all of its primary species from one group (e.g., flatfish) without compensating a processor, even if it had PSC remaining from another species group (e.g., Pacific cod). As should be apparent, the unlimited scope of the harvester/processor agreement create unlimited uncertainty concerning the potential impacts of this alternative.

The relative overall financial positions of the specific harvesters and the processor involved in any negotiation will likely determine negotiating strength, as much the alternative structure itself. If a harvester (or group harvesters<sup>14</sup>) or processor has substantial interests elsewhere that it can rely on for income and little debt can hold out in negotiations much longer than a smaller participant with fewer sources of income. Likewise, participants from either sector that have more stable and diverse financial situations are in a relatively strong position in comparison to participants that are less financially stable and have fewer interests in other fisheries. The result is that the distribution of benefits under this alternative could differ substantially across participants. This ability to hold out could be very important to a processor, if a processor perceives that the limited access opportunity for fishermen will worsen as others join cooperatives over time. This effect will certainly arise, if the Council elects to impose a reduction in PSC allocated to the limited access fishery that starts after a period of years (3.6). On the other hand, it is possible that if only a small group of harvesters remain in the limited access, those harvesters could effectively develop a cooperative without processor association, limiting competition for catch, thereby preventing their associated processors from gaining any advantage in negotiations. Typically, such a cooperative will only develop, if a relatively small number of similarly situated harvesters are present in the limited access. As long as some of the limited access participants perceive a potential benefit from racing for fish, agreement among limited access participants is unlikely.

The cooperative formation requirements could also affect the distribution of benefits between a harvester and its associated processor (3.3.7). Under the more stringent formation thresholds (i.e., formation requires the holders of 75 percent of the shares eligible for the cooperative), holders of 25 percent of the eligible shares could prevent cooperative formation and assert substantial negotiating leverage, if the processor is dependent on that particular fishery. Less stringent rules (such as a rule requiring four distinct entities) would likely remove some of this leverage for processors with many associated harvesters. The ability of harvesters to assert leverage will be limited to some extent by the separation of the primary species into 4 groups for purposes of determining processor associations (i.e., pollock, Pacific cod, rockfish, and flatfish).

The ability of a harvester to sever a relationship with its associated processor under the exit agreement could lead this alternative to evolve over time. Since exit from an initial cooperative and compliance with the exit agreement is a one-time action, it is possible that in the long run, the fishery under this alternative will be similar to a harvester only IFQ program with processors holding a portion of the harvest history pool.<sup>15</sup> The distribution of benefits at this stage is likely to be determined by the distribution of history under the exit agreements, with each holder of history gaining all rents from that history.

An additional factor that could affect efficiency under the alternative is an option that would limit the separability of secondary species and PSC history from primary species history (3.3.3.3). The inability to separate these shares permanently could require participants to engage in annual transactions at some additional cost. Since these transactions are likely to involve different primary species groups, trading within a cooperative is unlikely to be useful for addressing this concern.

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<sup>14</sup> Some harvesters may choose to negotiate collectively with a processor. Collective negotiations could strengthen a harvester's position by denying the processor a larger portion of its associated history. On the other hand, if a processor has reached agreement with a substantial portion of its associated fleet, the position of those holding out may be weakened substantially, since the processor will already have a portion of its historic landing committed by the fleet it has settled with.

<sup>15</sup> Although individual limits on share holdings apply, no limit on overall processor holdings of harvest history is contained in the alternative. An overall limit on processor holdings of harvest shares could be difficult to develop since it could limit the ability of a harvester to transfer history to a processor under a reasonable exit agreement once the cap is reached through other processors holding relatively large amounts history.

In conclusion, the effects of this alternative structure are very uncertain and likely vary across participants with circumstance. At each stage, a harvester will weigh the available opportunities against one another, choosing the one that appears to offer the best returns. Whether a harvester that receives an allocation of history could end up worse off under this alternative than under the status quo likely depends on the specific circumstances of the harvester and its associated processor.

### **Processor Efficiency**

As with harvester efficiency, processor efficiency under this alternative is difficult to predict and could change over time as the fishery evolves from limited access to cooperatives with associated processors to cooperatives after payment of exit agreement terms. A few generalizations, however, can be made.

Clearly, some processors will be disadvantaged by the winner-take-all nature of the processor associations under this alternative. In the initial cooperative formation period, processors with substantial landings, but few associations are likely to have to compete for landings from the limited access and for landings of cooperatives that are not committed to the associated processor. After the initial cooperative formation period, these processors will also be able to compete for cooperative associations of harvesters that have left their initial cooperative after satisfying the terms of the exit agreement. In any case, these processors are unlikely to gain any rents from these landings. If these processors are able to be competitive over time, they should realize normal profits in the long run.

Efficiency of processors that gain associations because of historic landings is uncertain for reasons similar to the uncertainty surrounding catcher vessel efficiency. At the outset, it is possible that some processors could suffer a loss of efficiency, if associated harvesters elect to remain in the limited access fishery to leverage their position in negotiations. Revenues from landings from the limited access are likely to be less than from the rationalized fishery, if quality or product values decline as a result of participants racing to quickly harvest and process the catch from the fishery.

As noted in the discussion of catcher vessel efficiency, the distribution of benefits between harvesters and processors in the cooperative fishery depends in large part on the relative negotiating strength of the different participants and is likely to vary across the fishery. The delivery terms and the exit agreement will largely dictate the distribution of benefits. In a negotiation, a processor would balance its possible opportunities in not reaching an agreement with an associated harvester (leaving that harvester to fish in the limited access) and coming to terms with the harvester on deliveries and an exit agreement. The terms of agreements between processors and their associated harvesters are likely to vary across participants with the relative negotiating strength of the participants. Larger more diverse entities that are more financially stable are likely to be in a relatively stronger negotiating position than entities that rely on the Gulf of Alaska fisheries for the large majority of their revenues or that carry substantial debts. A reduction in the allocation of PSC to the limited access fishery could also substantially strengthen the negotiating leverage of processors with harvester associations by reducing the value of that opportunity for harvesters.

A few additional dynamics should affect the negotiating strength of processors that have many associated harvesters as cooperatives are initially formed. In general, as a processor increases the portion of its fleet that it has come to terms with, the stronger its position when negotiating with harvesters that have held out in negotiations.<sup>16</sup> Processors with affiliated vessels should be in a relatively stronger position than those without affiliated vessels because of the certainty of landings from those vessels. Once cooperatives

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<sup>16</sup> This relative strengthening of position will arise both within a fishery and across fisheries. In other words, a processor that reaches an agreement with a portion of its pollock fleet should be in a relatively stronger position with respect to the remainder of its pollock fleet and its flatfish fleet.

are formed, processors will either receive landings in accordance with the terms of the agreements with harvesters. The distribution of rents from these landings will vary with the terms of the agreement. As noted above, the terms governing deliveries are likely to change over time. On renegotiation, if the fishing opportunity in the limited access has changed, the negotiating positions of the harvester and processor may also change. If the limited access fishery provides a poor opportunity when terms are being renegotiated, a harvester may be compelled to either accept less agreeable terms in the negotiation or comply with the exit agreement to sever the association.

As harvesters comply with exit strategies and sever initial associations, the position of processors in the fishery will also change. Processors that retain a substantial associated fleet (that have not severed the initial association) will retain the initial fleet landings from their agreements with cooperative members and may compete for landings from (and cooperative associations with) harvesters that have left their original cooperative and are free to enter any cooperative. A few factors could influence this competition. Processors that have lost harvester initial associations will likely have history holdings of their own that they can use to develop a cooperative and to attract harvesters that have severed initial processor associations. Vertically integrated processors may also benefit from history that they received in the initial allocation or that they have acquired through transfer. Processors that have maintained substantial initial associations should also benefit from the stability of the landings from those associations. In general, however, a processor should expect to receive only normal profits from landings of harvesters that are free to move among cooperatives after complying with an exit agreement. During transitions (such as the first year that many harvesters comply with exit agreements are first free to move among cooperatives) competition for landings among processors is likely to be the greatest, so processors may not receive normal profits from these landings. A processor can expect to receive rents from any history that it has acquired through exit agreements. If, over time, most harvesters choose to exit their initial cooperatives, this alternative functionally becomes an IFQ program with allocations to processors. Harvesters would receive the rents from their history holdings, while processors would receive the rents from their history holdings. The distribution of history between the sectors, however, cannot be determined and depends on the relative negotiating strength of the participants that are paired by the rule for determining associations.

### **Overall Production Efficiency**

In the long run, overall production efficiency should improve substantially under this alternative. The transition to a rationalized fishery, however, could take some time, if harvesters are reluctant to join cooperatives at the outset. In addition, the extent of landings coordination in the rationalized fishery is difficult to predict and may change over time. At the outset, participants in the rationalized fishery will likely be bound by delivery obligations that contribute to landings coordination. As harvesters change cooperatives by meeting the exit agreements obligations, it is possible that some coordination of landings could be lost. In the long run, however, harvesters are likely to realize benefits from coordinating landings to serve markets and to aid processors in achieving technical efficiencies in their operations.

All else aside, overall production efficiency should be substantially lower in the limited access fishery than in cooperatives. Overall production efficiency therefore depends on the choices of harvesters and their responses to incentives arising under the relationship required by the alternative. Those choices depend on the relative opportunities presented by the different forms of management (i.e., the cooperative opportunity relative to the limited access opportunity). Harvesters that perceive a better opportunity in the limited access fishery are unlikely to elect to join a cooperative. Reduced PSC allocations to the limited access could reduce the opportunity in the limited access substantially. Management decisions could also affect the limited access opportunity. For example, if MRAs for valuable species need to be reduced to prevent overharvest, it is likely harvesters will see little opportunity in the limited access. If many participants with small history allocations perceive the limited access as an opportunity to improve

harvests amounts, participants with large allocations may see little opportunity in the limited access. While these provisions may lead more harvesters to enter the rationalized fishery, improving overall production efficiency, they also have distributive effects.

### **Entry to the Harvest Sector**

Entry opportunities in the harvest sector are difficult to predict and are likely to change over time. At the outset, little opportunity for entry will exist as harvesters choose to fish in the limited access fishery or negotiate cooperative agreements and the delivery obligations that are likely in the cooperatives. During the initial cooperative formation period, licenses and histories are not severable and history cannot be sold outside of a cooperative, so entry will require purchase of a license. Although history held by cooperative members is separable and can be severed from a license after the initial cooperative formation period, the market for history may not expand quickly for a few reasons. First, an LLP cannot be used in the limited access fishery unless it is accompanied by all history originally associated with the license. Harvesters may be reluctant to trade history separately from a license that see the limited access option as important to their negotiations with a processor. Second, since fishing in the rationalized fishery only occurs in processor associated cooperatives, cooperatives are likely to provide a convenient market for trading history. The ability for new entrants to find available history in the market could be limited, as result of the market arising within the cooperative structure. A third factor that is likely to limit entry, particularly early in the program is the processor association. The processor association could affect the history market in several ways. Any transfer by a license holder that is still subject to a processor association could foreclose (or at least complicate) reentry to the limited access fishery for that license holder, since a entrants that purchase history subject to the initial processor association will either need to accept the existing processor association or compensate the processor under the terms of the exit agreement to sever an association. Once a new entrant accepts a processor association, the association could effectively limit the market available to the entrant to history associated with that processor or history for which exit agreement terms were met. Otherwise, the entrant could be required to deliver to multiple processors, which is may not be feasible for a person trying to enter by purchasing small amounts of history over time. In the long run, it is possible that associations may be severed by harvesters meeting the exit agreement terms. This could result in a better market for history for new entrants, but since all fishing of this will take place in cooperatives it is possible that the market will be difficult for new entrants.

Another factor that could complicate entry to the harvest sector under this alternative is the potential for processors to hold a substantial portion of the harvest allocation. Although each processor is limited in their holdings of harvest history,<sup>17</sup> exit agreements are intended to provide processors with a portion of the harvest allocation. In addition, all processors that have associated harvesters at the outset will be permitted to acquire harvest shares by transfer. Allowing processors to purchase a portion of the harvest share pool, as well as acquire shares through exit agreements could limit the available market to persons wishing to enter on a small scale. As with most other aspects of this alternative, the effect of processor holdings on entry is difficult to predict. Processors that own their own vessels are likely to use those vessels to harvest their allocations in most instances. It is possible that processor held history could be an avenue of entry for a harvester that owns or has purchased a vessel and has limited resources or holds a small amount of history. In some instances, it is possible that an entrant in this position could contract to harvest the processor's shares. A processor, however, might be better served by using their history to attract landings from harvesters with larger portfolios of history rather than a new entrant. Drawing persons with large holdings into an associated cooperative is likely to be more important than attracting new entrants that have little to offer beyond their vessel's catching power.

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<sup>17</sup> The limitation on processor holdings of harvest history is contained in 3.4.5. This provision is assumed to limit entity holding a federal processing permit.

## **Entry to the Processing Sector**

Entry opportunities for processors are very difficult to predict under this alternative. A few different methods of entering the processing sector could be used. At the outset, a processor could enter by competing for landings in the limited access fishery. Entry in this manner could be tenuous, particularly as harvesters transition to the rationalized fishery decreasing the limited access pool. Small scale entry may also be possible during the rationalized fishery, by entering processors attracting landings from cooperatives that are associated with other processors. At the outset entrants may be greatly disadvantaged by the processor associations that are intended to protect the interests of existing processors. Since the delivery obligations of cooperative members are subject to negotiation, the extent to which allocations will be available for new entrants cannot be predicted. For allocations that are not committed, the associated processors should be much better positioned to negotiate for landings because of the existing relationship and the pattern of deliveries for the committed allocation.

When a substantial portion of the harvest sector has exercised its exit agreements, it is possible the entry may be simplified for processors that wish to compete for cooperative associations and harvester. Existing processors, however, should maintain a great advantage over entering processors. Existing processors are likely to benefit from either the initial cooperative associations or from the shares receive through exit agreements as the associations are severed. Entering processors may be able to purchase shares, if they meet the qualifications for the acquisition of shares (3.4.2.1).

## **Small Harvesting Entities**

As with other aspects of this alternative, the effects on small harvesting entities are difficult to predict. A few general inferences, however, can be drawn. Small harvesters are more likely to be less diversified and carry greater debt than larger harvesting entities. As a result, small harvesters may be less able to hold out in negotiations of terms of delivery and exit from a processor association. If the PSC allocation to the limited access fishery is reduced that reduction could further erode the negotiating position of small harvesters with respect to their associated processors. Also, for a period of time it is possible that the processor associations in this alternative could lead to a segmented market for history (i.e., a market for history associated with each processor) limiting the ability of a small harvester to grow.

## **Small Processing Entities**

The specific effects of the alternative on small processors is also difficult to predict and will depend on the circumstances of the processor. Processors with few associations will be greatly disadvantaged under this alternative. Quantitative estimates of associations will be necessary to assess the extent of harvest associations of small processors. While small processors generally can be expected to have less associated history, it is possible that small processors will receive some associations.

Negotiations for landings (with associated harvesters, from the limited access, and from harvesters that have severed their initial association) are likely to be subject to the same influences described in the section on processor efficiency. In general, greater overall stability will increase negotiating leverage. Since small processors are likely to have limited operations, it is likely that any stability will be derived from operations in Gulf fisheries and possible associated harvesters under this program. Small processors with greater debt loads and fewer associations can be expected to be in a relatively weaker negotiating position.

## **Preliminary Analysis of Entry Opportunities**

At its December 2004 meeting, the Council's requested staff to provide a discussion of the Magnuson Stevens Act requirement for entry to fisheries and the entry opportunities under the program elements that the Council has included in its alternatives. The preceding discussion includes a general discussion of

entry opportunities under the alternative structures developed by the Council. This section includes discussion of specific provisions that the Council could include in its final alternatives and the potential objectives and impacts of those options. In all cases, the impacts of the options will depend on the alternative in which the options are included and the interaction of the options with other provisions of the alternative.

### ***Magnuson Steven Act Entry Requirements***

Under the Magnuson Stevens Act, in submitting a new individual fishing quota program a Council must ensure that the program:

provides for a fair and equitable initial allocation of individual fishing quotas, prevents any person from acquiring an excessive share of the individual fishing quotas issued, and **considers the allocation of a portion of the annual harvest in the fishery for entry-level fishermen, small vessel owners, and crew members who do not hold or qualify for individual fishing quotas.** Section 303(d)(5)(C) (emphasis added).

The requirement of this provision is that the Council consider a set aside intended to accommodate entry level fishermen, small vessel owners, and crewmembers that do not hold or qualify for shares under the share-based program. The provision, however, does not state the method by which this allocation should be made or fished. At least two approaches could be used that are likely to achieve different results.

First, the allocation could be made to an “entry-level” or “small vessel” limited access fishery. To participate in this fishery a person would need to own or lease a vessel and possibly meet other criteria, such as limits on quota holdings or vessel length. This type of an allocation is likely to support a small scale fishery that operates independently from the primary share-based program. Depending on the specific limits on participation (such as gear and vessel limits) and the number of applicants, the fishery could result in a race for fish or the fishery could operate efficiently. While this type of an allocation may serve certain interests, including community interests, this fishery is unlikely to result in either entry to the main quota program or any assistance to crewmembers that fish on vessels in the main program.

A second approach would be to make annual or longer term allocations of shares available to crewmembers or persons wishing to enter the fishery or fish off small vessels. These allocations would be fished under the rules of the main quota program and would be used to provide crew or entrants with allocations to leverage their position in the fishery. Applying this second approach would require that the Council develop criteria for the allocation of these shares. Since these share allocations would provide crew or entrants with a direct allocation in the main quota program, the allocations could be used simultaneously with shares purchased in the main program and could assist the person in making the gradual transition to becoming a full fledged participant in the main quota program. Alternatively, crewmembers could use the allocation in negotiating crew shares with their employer.

The Magnuson Stevens Act also provides for the creation of loan programs for small vessel participants or entrants with the following provision:

A Council may submit...a program which reserves up to 25 percent of any fees collected from a fishery...to issue obligations that aid in financing the –

- (i) purchase of individual fishing quotas in that fishery by fishermen who fish from small vessels; and
- (ii) first-time purchase of individual fishing quotas in that fishery by entry level fishermen. Section 303(d)(4)(A).

Loan program under this provision can be used by potential entrants to overcome difficulty in securing financing for shares purchases.

The Magnuson Stevens Act also requires that the Council consider the recommendations of the National Academy of Sciences report on IFQ programs, “Sharing the Fish,” in submitting an IFQ program to the Secretary of Commerce. Section 303(d)(5). That report expresses concern that IFQ programs could limit entry opportunities. Entry, however, may be inconsistent with the objectives of an IFQ program that is intended to facilitate some consolidation and efficiency gains. The report recommends that measures intended to facilitate entry avoid expanding the quota share pool. Allowing transferability of shares, creating ownership qualifications, limits on excessive shares, and purchasing mechanisms (such as zero revenue auctions<sup>18</sup> or loan programs) can be included in programs to facilitate entry. The report also suggests that taxes on quota rents could be used to keep share prices down to facilitate entry.

### ***Provisions Affecting Entry Opportunities***

The Council alternatives contain several provisions that affect opportunities in the fisheries. These provisions create entry opportunities through either providing for an entry-level limited access fishery or through providing persons with the opportunity to purchase shares in the fishery, entering the share-based or main quota program. This section presents those provisions and provides a brief discussion of the potential implications of and issues addressed by each provision.

**Allocation to the jig fishery (2.2.1 and 3.1)** – Under this provision a portion of the TAC would be allocated to a jig fishery, which would be prosecuted as an open access fishery. The allocation to the fishery could be permitted to expand to as much as twice the historic harvests. This provision would allow for entry to a small scale fishery, but not provide for entry into the share-based fishery.

**State water fishery (2.2.2.3 and 3.3.1)** – Allocation of a portion of the TAC to a State managed fishery is likely to affect entry opportunities, but the implications depend on the management program developed by the State. The specific management of State water cannot be predicted and may serve objectives different from those of the Council.

**Low producer fixed gear sector (2.2.3.2.1 and 3.3.1.1)** – These provisions would identify a “low producing fixed gear” sector, which could be exempt from provisions intended to protect processors (i.e., creating a harvester only IFQ program for the sector). This exemption could affect entry opportunities in share-based fishery several ways. Most of these effects depend on the specific options incorporated into the alternative. If shares issued are fully transferable IFQ with few constraints on use and transfer, this alternative could increase the price of shares (because rents would be incorporated into share prices). If limitations on transfers and share accumulation are included, entry could be aided by the development of this sector.

**Transfers to individuals only (2.2.3.3.1)** – This provision would allow only individuals to acquire shares. Limiting corporate ownership of shares could have a minor effect on share accumulation, which could facilitate entry to the share-based fishery.

**Allocations to and purchases by community entities (2.2.3.3.1 and community provisions)** – Community share holdings will affect entry in a few ways. Persons residing in eligible communities that fish these shares will benefit from these community entity holdings, which could facilitate their entry to the fisheries by supplementing their own holdings. These allocations and holdings, however, reduce the percentage of the TAC held by individuals and available for purchase by individuals that wish to enter.

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<sup>18</sup> Under a zero revenue auction, all recipients of an initial allocation are required to put up shares for auction a number of years after program implementation. Auctions can be phased over time so that auctions occur over a period of years with a portion of each share endowment auctioned each year. The share recipient is permitted to participate in the auctions. Revenues from each auction are redistributed to the recipients of the initial allocations. The objective of this system is to convey the benefits of the allocation to the initial recipients, but create a fluid market for shares arises to permit entry and ensure that the most efficient fishermen hold and fish the shares.



Depending on the management and distribution of these allocations, these shares could create some uncertainty for users of shares (who may not be certain of receiving shares to fish in future years). In some cases, the use of these shares could be biased toward some participants and away from others even within a community.

**Excessive share caps (2.2.3.3.6, 3.4.3, and 3.4.4) and limits on vertical integration (2.2.3.3.4, 3.4.5, and 3.4.6)** – Limits on excessive shares and holdings of harvest shares by processing entities can help facilitate entry to the share-based fishery by limiting consolidation. In the short run, the effects of these provisions depends on the levels of the caps relative to existing participation levels.

**Limits on leasing (2.2.3.3.5) and owner on board requirements (2.2.3.3.7)** – Limits on leasing and owner on board requirements could increase the supply of shares in the market in the long run, increasing entry opportunities in the share-based fisheries. Exemption of recipients of an initial allocation, however, could substantially delay the effect of this provision. In addition, exemption of cooperative members is likely to result in these provisions stimulating cooperative membership, rather than limiting leasing or encouraging share owner participation in the fishery. The cooperative exemption is likely to mean that this provision has little effect on the quantity of shares available to potential entrants.

**Block program (2.2.7)** – The block program that could be applied to small initial allocations (or blocks) would limit the ability of persons to acquire shares when holding blocks. This provision should ensure that small amounts of quota are on the market for entrants. Depending on the threshold block size, the provision should allow for entrants to acquire small share holdings after which they may transition to the less restricted general share market.

**Skipper and crew shares (2.2.8)** – Allocations to and creation of a separate class of shares available only to active skippers and crew would create a pool of shares that should trade at a lower price and be more actively traded than those in the general market. These shares should facilitate entry by those eligible to acquire the shares.

**Cooperatives (2.4 and 3.3)** – Creation of cooperative generally create a mechanism for the exchange of shares among existing participants. Although cooperatives may serve several efficiency purposes, cooperatives are likely to be a favored means for the exchange of shares, limiting the development of markets available to persons wishing to enter the fishery.

**Harvester/processor associations (Alternatives 2C and 3)** – Alternatives that directly associate harvest shares (or history) with a particular processor have the potential to segregate the market for shares (or history), which could complicate entry. Potential entrants are likely to have relatively small share holdings that would be governed by these associations. It may not be practicable for an entrant to acquire shares associated with more than one processor in a fishery because of landings limitations.

## ***Summary on Entry Opportunities***

In assessing entry opportunities, it is important to understand that different levels of entry will be supported by different provisions. Providing an open access jig fishery may provide some opportunity to persons wishing to enter that small scale sector, but is not likely to provide these entrants with an opportunity to enter the share-based fishery. Entry opportunities in the share-based fishery arise from elements that directly affect the participants in those sectors (such as limits on consolidation and eligibility requirements for share acquisition). In addition, entry opportunities for one sector (e.g., the low producer fixed gear catcher vessel sector) could have no effect on entry to another sector (e.g., the trawl catcher vessel sector). The relative independence of entry opportunities across sectors means that an evaluation of entry opportunities must consider both each sector independently and overall entry opportunities across all sectors.