Overview of Select Analysis

Analysis Shows Several Expected Effects of Rationalization

- Fleet consolidation in shoreside whiting, mothership whiting, and non-whiting sector
- Change in season length in SS and MS whiting
- Increased harvest of non-whiting groundfish
- Consolidation of processing capital in shoreside whiting and mothership whiting fishery, but expansion in non-whiting
- Potential for changes in negotiation power between harvesters and processors
- Potential for geographic shifts in fishery and delivery patterns in non-whiting sector
- Risks to harvesters from coverage of low OY or low allocation species with IFQ
- Gear switching in non-whiting trawl sector to target sablefish

Fleet Consolidation

- Non-whiting: from 100-120 to 40-60 vessels
- Shoreside whiting: from 37 – 23 vessels
- Mothership whiting: from 20 – 14 vessels

Timing and Distribution of SS Whiting Fishery

Timing and Distribution of MS Whiting Fishery

Increased Harvest and Gross Revenue in Non-Whiting
Processor Consolidation

- Shoreside whiting: need for processing capital may decline by 30 – 50%
- Mothership whiting: need for processing capital may decline by 40%
- Non-whiting: need for processing capital may increase by 12 – 35%

Exvessel Prices

- Appears exvessel prices in shoreside whiting sector have the potential to change more than in other sectors
- Exvessel prices may change in non-whiting to some degree, though not to the same degree as shoreside whiting
- May be cases where prices in mothership sector change. Vertical integration and BSAI pollock relationships may temper this effect.

Geographic shifts in fishing and delivery location

![Geographic shifts table]

Risks from Low OY or Low Allocation Species

- May constrain harvest activity and place a large burden on individuals if such species are encountered
- Many of these stocks do not have a conservation concern
  - Nearshore groundfish
  - Flatfish in whiting sectors

Gear switching

- Appears non-whiting trawlers may switch gears to target sablefish
  - May increase revenue in the aggregate
  - May decrease exvessel prices for FG sablefish by ~1%
  - May result in grounds competition
  - Provides more tools to IFQ holders to balance quota accounts and manage bycatch

Cooperatives or IFQs for the Whiting Sectors?
Co-ops or IFQs?
Why might the Council establish an IFQ system or a system of cooperatives?

• Several factors play into the consideration including:
  – Relative degree of administration for implementing co-ops or IFQs
  – Establish co-ops in regulation, or allow voluntary formation without a regulation?
  – Impose a high degree of individual accountability for OFS (IFQ), or spread the risk across multiple harvesters (co-ops)
  – The risk associated with the presence of a non-cooperative sector
  – Characteristics of participants in each sector

<table>
<thead>
<tr>
<th>IFQ Characteristic and Compatibility</th>
<th>Co-op Characteristic and Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Characteristics</td>
<td>Better in well functioning markets</td>
</tr>
<tr>
<td>Resource and Management complexity</td>
<td>Better in simple systems</td>
</tr>
<tr>
<td>Economic practices</td>
<td>Participants focus on profitability and innovation</td>
</tr>
<tr>
<td>Social structure</td>
<td>Loose and stranger relations among participants</td>
</tr>
<tr>
<td>Ability to deal with new entrants</td>
<td>Better able to deal with new entrants</td>
</tr>
</tbody>
</table>

Characteristics of fishery participants and their importance

Self-motivated harvesters
• Tend to harvest more of a collective resource
  – May find it difficult to agree to catch sharing arrangements in a coop system
  – May exacerbate derby conditions in the non-coop portion of a co-op fishery

Socially-motivated harvesters
• Operate in a manner that achieves a more collective outcome
  – Find it relatively easy to agree on catch sharing arrangements
  – More likely to continue operating in a collective manner if engaged in the non-co-op fishery

Objectives and Similarities of Harvesters:
• Harvesters with similar capacities and objectives may find it easier to reach collective agreements
• Harvesters with dissimilar capacities and objectives may not be able to reach agreement

Power and status among harvesters:
• Groups with power and status imbalances face difficulty reaching sharing agreements
• Imbalances can be solved by making sharing agreements for them (issuing IFQs or issuing “catch histories” in a coop program)

Group size:
• It is more likely that small groups will form collective relations
• Smaller group size makes it easier for participants to monitor and self-enforce one another
• Smaller group size enhances communication
Regulatory Co-ops vs Voluntary Arrangements

**Regulatory Co-ops**
- Guarantees groups will form, leading to relations that can manage risky, complex situations
- Requires there be a high degree of certainty that harvesters can coordinate effectively and find mutually beneficial objectives

**Voluntary Co-ops**
- Small, similar fleets may not need regulation to form co-ops, though they may be appropriate
- Large, diverse fleets may not operate effectively if co-ops are forced on them
  - May form arrangements among small sub-groups voluntarily

Characteristics of Sectors

**C-P**
- Relatively few entities
- Similar capacity
- Similar objectives

**Mothership**
- More entities than CP or MS
- Varying capacities
- Different catch histories
- Both varying and similar objectives

**Shoreside Whiting**
- More entities than CP or MS
- Varying capacities
- Different catch histories
- Both varying and similar objectives

**Non-whiting**
- Largest number of entities
- Wide array of capacities
- Highly different catch histories
- Varying objectives and targets

Catcher – Processor Sector

- Has operated under the voluntary cooperative for several years
  - This voluntary cooperative acts like a rationalized fishery
- Some potential for this cooperative to break apart under specific circumstances
  - Especially if another sector can affect the C-P sector
- “Learned behavior” suggests potential for break-up is relatively small
  - Participants have participated in Olympic fisheries and know the cost associated with breaking-up the coop.

Mothership Sector

- More vertical integration than other non-CP sectors
  - Means infrequent occurrences of catcher vessels switching motherships
  - Means relatively infrequent participation in non-coop fishery
- Many relationships in MS sector appear to be extensions of relationships from BSAI pollock.
- Approximately 20 catcher vessels in any given year
- 12 MS catcher vessels also participated in SS whiting from 2004-2006

Shoreside Whiting

- Least amount of vertical integration
- More participants than CP or MS sector
  - Participants appear more diverse: some participate in non-whiting, others in MS sector
  - Approximately 37 different catcher vessels from 2004-2006
    - 12 participate in MS sector. 27 in non-whiting sector
- Less concentration of processing activity than MS sector
3 versus 4 Sectors

- Related to IFQs or Coop Decision because:
  - If coops are established for SS whiting, we can only have 4 sectors

Considerations for 3 versus 4 Trawl Sectors

- Can one sector dominate another financially?
  - Could acquire OFS quota and restrict the opportunities in the other
- Will the creation of 4 sectors create barriers that operate as a constraint on fishing activity?
  - Under 3 sector option, entities can use the market to trade quota and avoid a constraining situation
  - Under 4 sector option, entities are restricted to the allocation made to their sector

Can one sector dominate another financially?

- Argument that SS whiting participants make more money, leading to better capability of purchasing quota
  - Analysis indicates non-whiting trawlers will generate substantially more under rationalized conditions
  - Non-whiting participants will take home over $300K on average after expenses and wages

Will 4 sectors operate as a constraint?

- Information shows bycatch of sablefish in SS whiting varies substantially from year to year
  - In years where bycatch is high, SS whiting harvesters may be constrained by sablefish
  - In years where it’s low, that sablefish may not be harvested, leading to lost economic opportunity

Bycatch of Sablefish in Whiting Sectors

- Graph showing the bycatch of sablefish in SS whiting sectors from 2001 to 2011.
Additional Considerations

• When widow become rebuilt, will non-whiting harvesters need more whiting quota in order to prosecute that fishery?
  – One possible option is to re-allocate some whiting to non-whiting sector through a Council process (under 4 sectors)
  – Another option is to allow that reallocation to occur through the market (under 3 sectors)

Initial Allocation to Processors, Processor Linkages, or Adaptive Management for Processors

Processor Linkages (harvester-processor relationships)

• Processor linkages:
  – Result two strong and mutually dependent entities involved in negotiation
    • Outcome is the sharing of profits being between harvesters and processors
  – As percent of processor linkage decreases, harvester negotiation power increases
  – As percent of linkage decreases, probability of catcher vessel going into non-coop to break linkage decreases
  – May foster stability in relations between harvesters and processors, leading to stable fishing practices
  – May have some asset value if a processor has a permit that can be transferred with linkages attached

IFQs (harvester–processor relationships)

• Theory suggests that the holder of quota will assume much of the profit associated with harvesting and processing
  – Harvesters with quota will bid up exvessel prices from processors, decreasing processor profitability
  – Processors with quota will bid down exvessel prices, decreasing harvester profitability
• Empirically, both harvesters and processors may exert some influence over prices
  – Harvesters can form FCMA bargaining groups and essentially act as a single entity when negotiating prices
  – Processing is concentrated into a few entities, which tends to reduce the amount of competition between processors for deliveries from harvesters

Adaptive Management for Processors (harvester-processor relationships)

• If adaptive management is distributed to select processors that have demonstrated harm then:
  – Adaptive management appears to benefit those processors that are recipients
    • May provide a reasonable expectation to those processors about deliveries
    • May allow those processors a greater ability to negotiate with harvesters over prices
  – Adaptive management does not appear to create an “asset” like IFQ or processor linkages appear to

How Will Rationalization Affect Harvester-Processor Relationships in Shoreside Whiting, Non-Whiting, and Mothership Sector?

Executive Summary:

• Assuming harvesters receive all quota share, or catch history without a processor linkage, then:
  – Appears exvessel prices in shoreside whiting may increase relatively more than MS or non-whiting
  – Appears non-whiting exvessel prices may increase, but not to the same degree as SS whiting.
  – Mothership sector exvessel prices may be moderately affected, or on a case by case basis
• Explanation to follow
Shoreside Whiting Sector

- Existing structure is generally an Olympic fishery
  - Under this structure, harvesters have difficulty forming and maintaining FCMA bargaining arrangements
    - If harvesters form a bargaining group, there is a large incentive for harvesters to “cheat”
  - 5 relatively large processors compete for deliveries with new processors entering in recent years
    - Exvessel price appears to follow export price, suggesting harvesters are able to exert some leverage under status quo

Effect of Rationalization on SS Whiting Industry Relationships (if 100% QS given to permits)

- Will make it relatively easy for harvesters to form and maintain bargaining groups (less incentive to “cheat” under rationalized conditions)
- Stronger bargaining groups among harvesters plus competition among processors suggests exvessel prices will increase in SS whiting fishery if 100% quota given to harvesters

Non-Whiting Trawl Sector

- Existing structure is not an Olympic fishery, but rather a system of 2-month quotas
  - Under this structure, the formation of FCMA bargaining groups is relatively easy
    - Less incentive to “cheat”
    - Group formation may break down as end of 2-month limit approaches

Non-Whiting (continued)

- 3 processors purchase majority of landings with little new participation or re-investment in recent years
  - Unclear whether exvessel price follows export price, questioning whether harvesters are able to exert leverage under status quo
  - Non-whiting harvesters make zero economic profit, suggesting that (if processors are generating profit) harvesters have very little negotiating power
- At least some harvesters are on “rotation assignments” from processors
  - Suggests some processors may have more influence over harvesting activity than vice versa
Effect of Rationalization on Non-Whiting Industry Relationships (if 100% QS given to harvesters)

- Improve the negotiating power of harvesters because of increased time horizon to “hold out” against processors
  - May improve bargaining position less than SS whiting because:
    - Harvesters already have a greater ability to form negotiating groups in non-whiting compared to SS whiting
    - Processing appears to be more concentrated into fewer companies than in SS whiting

Mothership Sector

- Existing structure is an Olympic fishery, but with more vertical integration than in other sectors
  - For those harvesters not vertically integrated, Olympic fishery makes it difficult to form FCMA bargaining groups
- 6 companies have purchased MS whiting in recent years, with 3 purchasing the majority
- Relationships in MS sector may be influenced by relations that exist in BSAI pollock fishery
  - Negotiations between harvesters and motherships appear to occur in some instances, while profit sharing arrangements may occur in others

Factors that may help determine whether and to what degree compensation should be given to processors

- What is negotiating power under status quo?
- How much vertical integration exists (how many permits owned by processors)?
  - And how much quota will be received from those permits
- What degree of processor consolidation may occur?

Where are we starting from?

- SS whiting: harvesters appear to have leverage over exvessel prices under status quo.
  - 5 large processors compete for deliveries
  - Exvessel price follows export price
- Non whiting: harvesters appear to have less leverage over exvessel prices under status quo than in SS whiting.
  - 3 large processors exist
  - Harvesters are put on rotations from processors
- Mothership whiting: Harvester-processor negotiations not clear and/or case dependent
  - Relatively vertically integrated sector.
  - Harvester-processor relationships appear to be influenced in many instances by BSAI pollock relationships.
  - 3 large processors exist.

Vertical Integration as a Factor Influencing Initial Allocation

- Vertical integration means exvessel price negotiation is irrelevant in some cases (processors pay themselves for fish)
- Vertical integration allows processors to “hold out” against harvesters
- More vertical integration may diminish argument for an initial allocation to processors
SS Whiting: Vertical Integration

- 3 permits owned by processing companies
  - Less than 10% of active vessels in any year
- These 3 permits comprise approximately 5.7% of shoreside whiting harvest in recent years
  - May receive 3.7% of initial allocation

Non-Whiting: Vertical Integration

- 17 permits owned by processing companies
  - Represents 14 – 17% of active vessels in any year
- Recent landings represent approximately 9% of sector landings
  - These permits may receive up to 11.6% of initial allocation

Mothership Whiting: Vertical Integration

- 5 permits owned by processing companies
  - Approximately 25% of vessels in any year
  - Anecdotal information also suggests partial ownership of vessels by processing companies exists
- Recent catch of 5 permits represents approximately 27% of sector catch in recent years
  - These permits could receive up to 22% of initial allocation

Consolidation as a Factor Influencing Initial Allocation

- Capital consolidation means less equipment is necessary to process same quantity
- Less equipment may decrease production costs (potentially increasing profit)
- May diminish the value of assets held by processors

- Effect of consolidation must be considered simultaneously with price negotiation
  - Combined effect determines whether decreased use of assets is to the detriment, or benefit, of processors

Necessary SS Whiting Processing Capacity

Necessary MS Whiting Processing Capacity
Summary of Processing Capacity Needs after Rationalization

- SS whiting: may decrease ~30% – 50%
- MS whiting: may decrease ~40%
- Non whiting: may increase ~12% – 35%
- Each above scenario can decrease processor production costs.
  - Decreased production costs can be beneficial to processors if they have some negotiation power
  - If processors do not have negotiation power, harvesters will simply leverage higher exvessel prices and processors may not benefit
  - Some processors may be adversely affected by consolidation, others may benefit

Concluding Remarks on Harvester – Processor Allocations

- SS whiting industry:
  - Likely to consolidate in both harvesting and processing
  - Highest potential of exvessel prices shifting toward the harvesters favor if all QS granted to permits
- Non-whiting industry:
  - Harvesters are likely to consolidate, while processing expected to expand
  - Exvessel prices may shift somewhat toward harvesters favor if allocated to permits, but not as much as in SS whiting and from a less advantageous starting point
- MS whiting industry:
  - Likely to consolidate in both harvesting and processing
  - Exvessel prices may shift moderately toward harvesters favor. Tempered by vertical integration and BSAI pollock relationships

Assessed based on following potential goals:

- Community protection
- Incentives for bycatch reduction
- Incentives for habitat and bycatch friendly gear

Adaptive Management

Community protection

- Unclear how and whether AM for community protection would work in at-sea sectors
  - Processing and harvesting activity takes place at sea
  - Harvesters and processors alike are heavily tied to Puget Sound region
- Could achieve community protection in SS whiting and non-whiting
Incentives for Bycatch Reduction

- AM used for bycatch reduction may be most appropriate for species not covered with IFQ/IBQ/coops
  - Example: Salmon → could be appropriate for all sectors
  - Bycatch reduction for species covered with IFQ/IBQ/coops may be more effective through direct management

Incentives for Gear Switching/Modification

- Gear switching/modification may not be appropriate in at-sea sectors unless used to stimulate bycatch reduction
  - Midwater trawl is off bottom. Impractical to target whiting without trawl gear
- Incentives for gear switching/modification may be more appropriate for non-whiting trawl fishery
  - May be appropriate to target some non-whiting species with non-trawl gear

Species Covered with IFQ or Managed in Cooperatives

Overview

- Several analyses and presentations have mentioned the implications of managing OFS with IFQ
  - High cost of purchasing that quota if one goes into a deficit
  - May be difficulties in finding quota on the market
  - Some possibility that a “disaster tow” could be large enough to take the sector allocation
    - This could pre-empt others
  - Possibility of “thin market” conditions
    - Catch may be relatively small, but prices may be highly variable. Leads to cases where entities pay high prices for quota

Extends beyond overfished species

- Analysis reveals that several stocks may pose this constraint in addition to overfished species
  - Nearshore groundfish
    - Minor nearshore, black rockfish, cabezon, kelp greenling, and others
  - Flatfish, minor shelf rockfish, and others in the whiting sector
  - And more
- Same conservation need may not exist as for overfished species, yet same burden may be placed on harvesters

(Assumes allocations made to sectors are similar to SQ catch levels)
Catch of Select Nearshore Species in Non-Whiting and SS Whiting Trawl Sector

<table>
<thead>
<tr>
<th>SPECIES</th>
<th>Non-Whiting</th>
<th>Whiting</th>
<th>Non-Whiting</th>
<th>Whiting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black rockfish</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other Nearshore</td>
<td>3</td>
<td>0.1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>rockfish S</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cabezon</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kelp greenling</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Catch of Select Species in the At-Sea Sectors

<table>
<thead>
<tr>
<th>SPECIES NAME</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARROWTOOTH FLOUNDER</td>
<td>3.6</td>
<td>2.8</td>
<td>3.0</td>
</tr>
<tr>
<td>BLACK ROCKFISH</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>BLUE ROCKFISH</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>DOVER SOLE</td>
<td>0.4</td>
<td>0.0</td>
<td>0.1</td>
</tr>
<tr>
<td>ENGLISH SOLE</td>
<td>0.1</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>FLATHEAD SOLE</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>KELP GREENLING</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>PETRALE SOLE</td>
<td>0.0</td>
<td>0.3</td>
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</tr>
<tr>
<td>REX SOLE</td>
<td>3.2</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>SLENDER SOLE</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

List of Non-OFS Species in ABC/OY Table for Which IFQ or Coop Coverage May not be Necessary

<table>
<thead>
<tr>
<th>Non-Whiting Fishery (shoreside fishery if 3 sectors)</th>
<th>Whiting Fishery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longspine S 34°27’ Lingcod S of 42° N. latitude</td>
<td></td>
</tr>
<tr>
<td>Minor Nearshore Rockfish N</td>
<td>Pacific Cod</td>
</tr>
<tr>
<td>Minor Nearshore Rockfish S</td>
<td>Pacific Ocean Perch</td>
</tr>
<tr>
<td>Black Rockfish (WA)</td>
<td>Chilipepper</td>
</tr>
<tr>
<td>Black Rockfish (OR-CA)</td>
<td>Sphoenea</td>
</tr>
<tr>
<td>California Scorpionfish</td>
<td>Shortspine</td>
</tr>
<tr>
<td>Cabezon</td>
<td>Lingspne</td>
</tr>
<tr>
<td>Kelp Greenling</td>
<td>Black Rockfish (WA)</td>
</tr>
<tr>
<td>Shortnose</td>
<td>Black Rockfish (OR-CA)</td>
</tr>
<tr>
<td>Other Rockfish?</td>
<td>Minor Nearshore Rockfish N</td>
</tr>
<tr>
<td>Other Shelf Rockfish?</td>
<td>California Scorpionfish</td>
</tr>
<tr>
<td>California Scorpionfish</td>
<td>Cabezon</td>
</tr>
<tr>
<td>Dover Sole</td>
<td>English Sole</td>
</tr>
<tr>
<td>Petrale Sole</td>
<td>Ammocoeloth</td>
</tr>
<tr>
<td>Ammocoeloth</td>
<td>Starry Flounder</td>
</tr>
<tr>
<td>Other Flatfish</td>
<td>Kelp Greenling</td>
</tr>
<tr>
<td>Shortnose</td>
<td>Lingspne</td>
</tr>
<tr>
<td>Lingspne</td>
<td>Other Rockfish?</td>
</tr>
<tr>
<td>Other Rockfish?</td>
<td>Other Shelf Rockfish?</td>
</tr>
</tbody>
</table>

Possible Approaches other than IFQ or Coop coverage

- Do not directly manage
  - Take some “off the top” in inter-sector allocation process and monitor catch levels
    - Currently done in whiting fishery
    - Gear switching may mean targeting of nearshore species without a limit
- Retain cumulative catch limits
  - Could be total catch based to retain individual accountability
    - Done under status quo
    - Retains a catch control tool with less burden on individuals, but also less individual accountability

Factors Affecting the Ability for the Industry to Manage Risk

Voluntary “risk pools” are one way of managing the catch of such high-risk species in an IFQ program:
- Voluntary agreements depend heavily on several points:
  - That participants in those agreements be relatively balanced in their negotiation power
  - That participants in those agreements be few enough in number that they can agree

Initial allocation, grandfather clauses, and accumulation limits heavily influence these factors

Decision Points Affecting the Ability to form and Maintain Voluntary “Risk Pools”

1. Fleet consolidation may assist the formation of risk pools
   - Fewer participants will increase the likelihood of agreements forming (means relatively high accumulation limits)
2. Initial allocation of constraining, risk species may influence the formation of risk pools
   - Greater balance across harvesters helps foster the development and maintenance of risk pools
3. Accumulation limits for constraining, risk species
   - Restricts the amount of species any one entity can control
4. Presence of a grandfather clause for constraining, risk species
   - Also impacts the amount of species any one entity can control
A-2.1.1.a – Groups Eligible for An Initial Allocation
(Overview for the -- GAC 5/13/08)

• Impact of Initial Distribution on Long Term Distribution (pg A-14 - A-70)
• Impact on Conservation (pg A-70 – A-73)
• Impact on Sector Health (pg A-73 – A-90)
• Impact on Net Benefits (pg A-90 – A-93)
• Impact on Equity (pg A-93 – A-100)

Main Focus Today:
Impact of Initial Distribution on Long Term Distribution (I)

Basic Concepts
– Raw Fish Markets (page A-22)
  • (Resource Rents and Fully Competition and Market Power Situations)
– QS/QP Market Interaction With Raw Fish Market (page A-25)
  • What Happens in the Market When IFQs are Introduced

Main Focus Today:
Impact of Initial Distribution on Long Term Distribution (II)

• Influences on QS Flow Among Groups
  (Figure 6, pg A-30, start at center of diagram)
  • Relative Efficiency (Page A-31)
  • Vertical Integration (Page A-33)
  • Market Power (Page A-37)
  • Access to Capital (Page A-53)
• Each section on influences addresses
  • Status quo conditions of the factors of influence
  • Effect of IFQs, Independent of the Initial Allocation
  • Effect of the Initial Allocation
• Summary of all in Table 2, page 21

• Raw Fish Markets
  – Market Equilibrium
  – Quota Constraints
  – Resource Rents and Dissipation
  – Fully Competitive Sectors
  – Exertion of Market Power

• QP Market and Interaction With Raw Fish Markets
  – QS/QP and Capture of Resource Rents
    • Fully Competitive Situation
    • Market Power
      • Allows an entity to capture more profits if
        • Market power is used for catch for which the entity does not hold QP
        • There is overcapitalization or other short term disequilibrium among trading partners (in which case profits related for return on capital could be at risk)
• Influences of Flow Among Groups
  (Figure 6, Page A-30)
  – Relative Efficiency (Page A-31)
    • Within Sectors
    • Across Sectors and Alternative Business Models
  – Vertical Integration (Page A-33)
    • Protect supply, protect returns on investment, rent
capture, foreclosure (accumulation limits affect)
  – Market Power (Page A-37)
    • Porter Model (Page A-38)
      – Rivalry, Substitutes, Bargaining Power, Barriers to Entry
        (Competitive Strategy, Techniques for Analyzing
        Industries and Competitors, Porter, 1980)
    – Access to Capital (Page A-53)

• Access to Capital (continued)
  – Demand
    • Willingness to Pay
    • Risk Preferences
  – Planning Time Horizons
  – Supply
    • Risk factors: size, diversity, equity of value in other
      industries, business plan

Summary of Influences on
Distribution of QS Over Time
(pages A-59 – A-70)
• Summary Table on Each Influence
  – The gray text in each table repeats
    information from previous tables on
    • Status Quo
    • Effects of IFQ Program
      – (without regard to initial allocation)
  – New text summarizes the effect of the initial allocation

A-2.1.1.a – Groups Eligible for
An Initial Allocation
• Recap of the Sections
  (we covered only the first today)
  – Impact of Initial Distribution on Long Term Distribution
    (pg A-14 - A-70)
    • starts with an executive summary and section overview,
    • ends with a more detailed summary
  – Impact on Conservation (pg A-70 – A-73)
  – Impact on Equity (pg A-93 - A-100)