New GAC Alternative for Mothership Linkages

- Requires that catcher vessels declare a mothership by a date certain each year.
  - Not required to go to non-cooperative fishery to switch motherships

Select Findings

- The new linkage alternative makes it relatively easy to switch motherships
- A mothership declaration process will have a similar exvessel price negotiation outcome as a system with no linkage
  - Those negotiations will occur prior to the declaration
- Business planning may be enhanced by a declaration requirement to some degree
- May affect some MS companies more than others

Factors influencing importance of having/not having strong mothership linkages

- Linkages help processors benefit from rationalization because:
  - Provides leverage in negotiations over exvessel prices
  - Provides some certainty about future delivery volumes
- Vertical integration affects the importance of linkages
  - More vertical integration tends to decrease importance of linkages
- Relative competition among firms for independent catcher vessels can influence importance of linkages

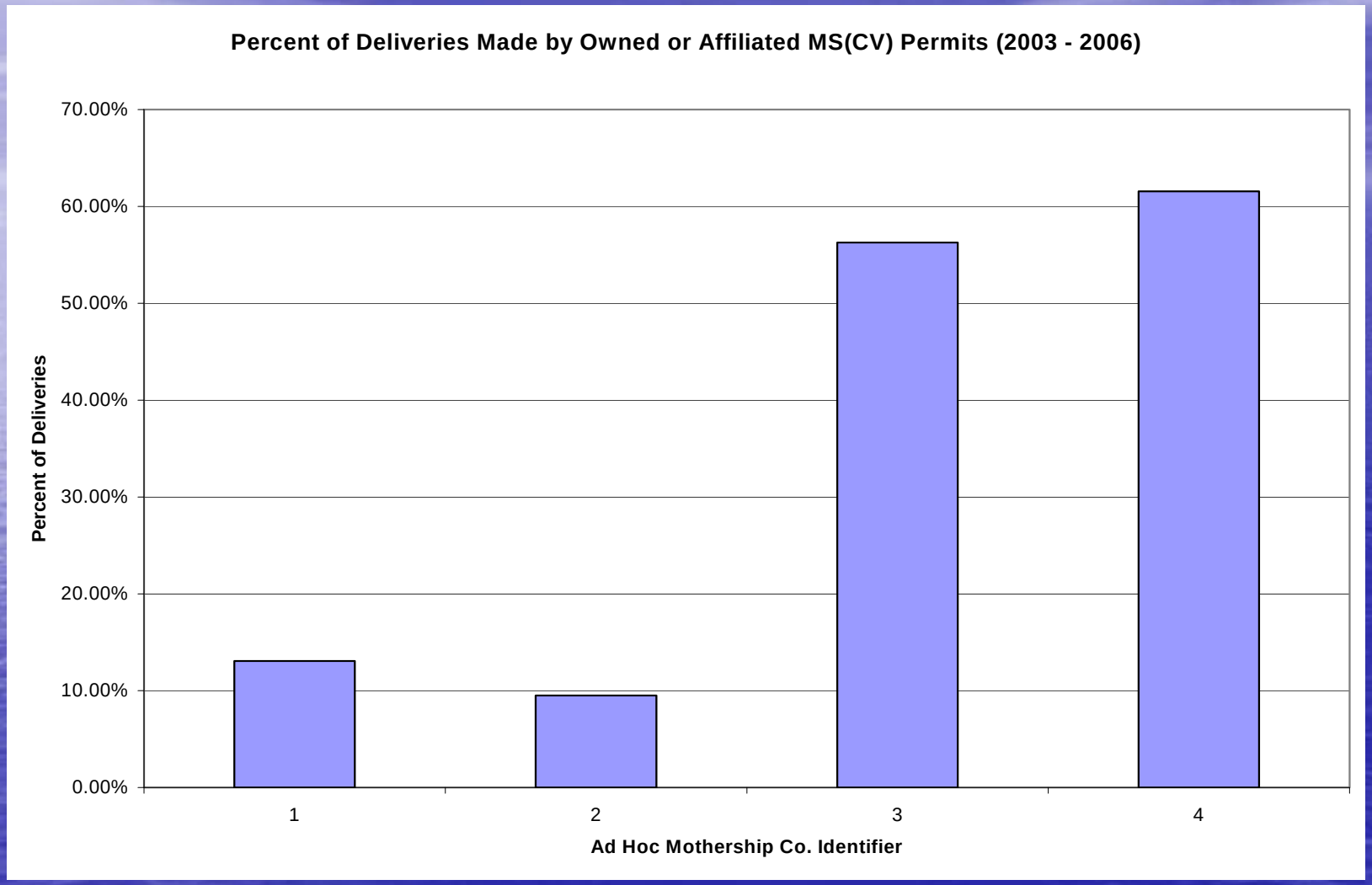
Vertical integration specifics

- The importance of vertical integration is dependent on some specific factors:
  1. Number of wholly owned catcher vessel permits
  2. Number of partially owned, or affiliated, catcher vessel permits
     - Does that partial ownership constitute a controlling interest?
  3. Number of independent catcher vessels
  4. Which companies are vertically integrated and to what degree?

Summary statistics for vertically integrated and affiliated CV permits

- 10 permits identified as being wholly owned or affiliated with a MS company
  - 6 are affiliated
- These 10 permits would receive approximately 41% percent of the MS allocation for the coop alternative
  - 6 affiliated permits would receive 21.5% to 22.6% of the MS allocation
- In recent years 2 of the affiliated permits have delivered to a non-affiliated mothership even when the affiliated mothership was active
  - May indicate whether affiliation equals control

Importance of owned and affiliated catcher vessels to qualifying motherships



Indicates that linkages may be more important to some companies than others

Competition among firms for independent catcher vessels

- Relative competition may be indicated by a couple of factors:
  1. Does a firm with a larger net revenue structure have the ability to squeeze their rival?
  2. Does a firm with a lower cost structure have the ability to squeeze their rival?

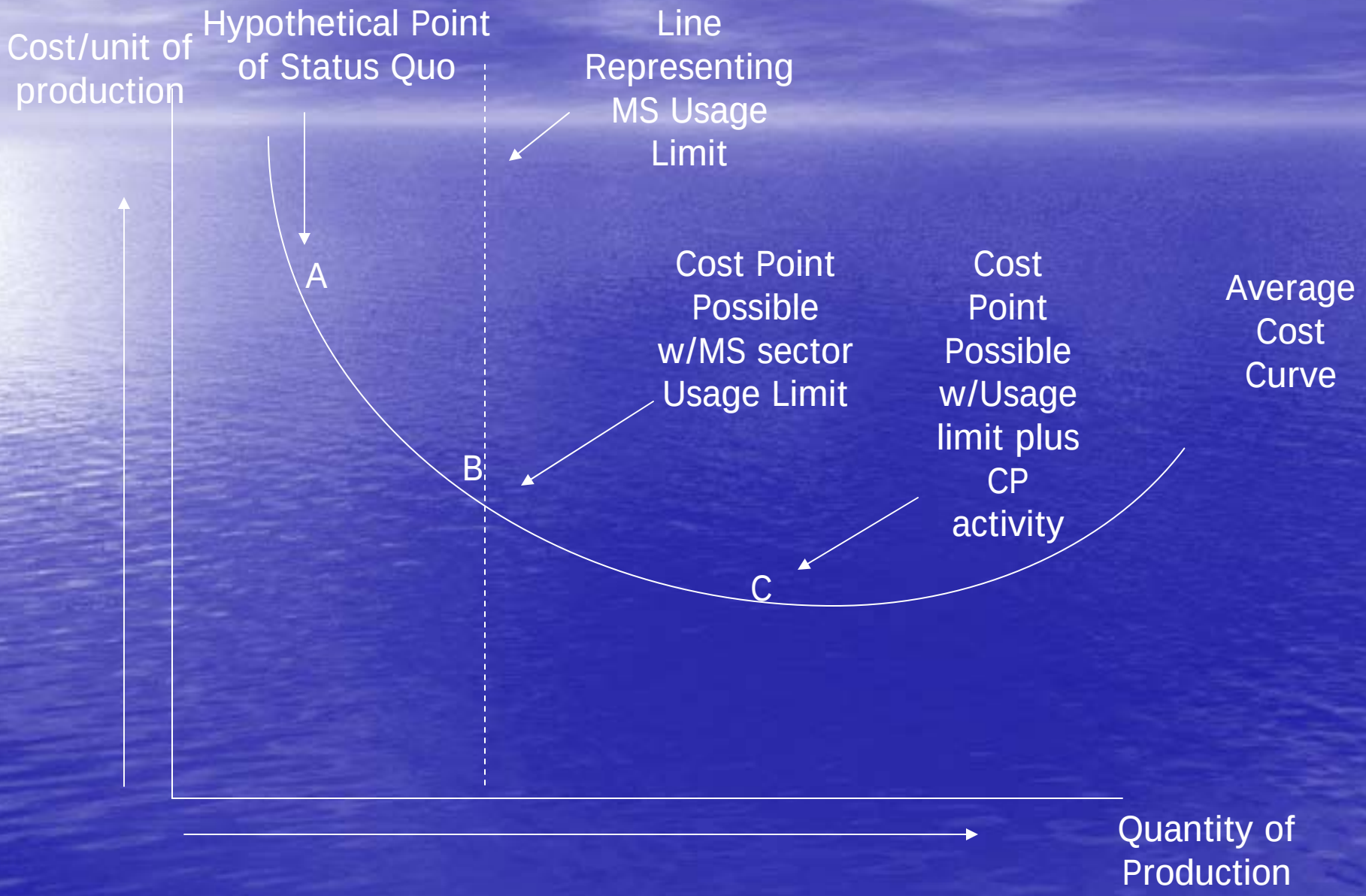
Net revenue structure

- Vertical integration affects net revenue
  - Those firms relatively vertically integrated will tend to generate greater net revenue
    - Revenue from processing
    - Revenue from harvesting
  - Can that additional revenue be used as leverage in competition with a rival?

Cost structure

- Mothership operations may all have a similar revenue structure, but:
  - Allowing a CP to operate as a mothership may affect that firms cost structure
    - Allowing a CP to operate as a mothership removes a vessel from the fishery, tending to decrease cost
- Can a lower cost structure be used as leverage in competition with a rival?

Conceptual effect on average costs from allowing a CP to operate as a MS



Summary findings

- New GAC alternative for the mothership linkage provision will tend to:
  - Lead to higher price negotiation power among catcher vessels than a case with firmer linkages
  - Tend to decrease business planning compared to a case with firmer linkages
  - Tend to affect some mothership companies more than others

GAC recommendation for species coverage in at sea sectors

- GAC recommendation:
  - That at sea sectors be held responsible for the same species as shoreside sectors
- Implication appears to be:
  - Adverse economic impacts
  - Little or no benefit to management and conservation for most species covered

Background

- Implied concept is that direct management of certain species will indirectly control catch of others
- Direct management of all species potentially encountered may lead to adverse economic/administrative effects
  - Especially the case for rarely encountered species with small sector allocations
  - Appears to have led to the exclusion of nearshore species from the IFQ program
- Applying similar rationale for including/excluding species to each sector results in a different mix of species for each sector

Intersector Allocation Alternative 3: Based on 1995-2005 Landed Catch shares

	CP	MS	SW	SN	TWL Total	Non TWL
Lingcod						
N of 42º (OR & WA)	1	3	10	2,250	2,264	1,620
S of 42º (CA)	-	-	0	97	97	355
Pacific Cod	0	0	1	739	740	7
Pacific Whiting (U.S.)	70,751	49,942	87,398	1,559	209,650	241
Sablefish						
N of 36º (Monterey north)	16	2	47	2,642	2,707	2,444
S of 36º (Conception area)	-	-	-	73	73	81
Yellowtail Rockfish	138	214	282	1,896	2,530	98
Shortspine Thornyhead - N of 34º27'	14	0	1	1,157	1,172	25
Shortspine Thornyhead - S of 34º27'	-	-	-	246	246	66
Longspine Thornyhead - N of 34º27'	0	0	0	1,622	1,622	19
Longspine Thornyhead - S of 34º27'	-	-	-	1	1	355
Slope Rockfish N	55	10	9	653	728	104
Slope Rockfish S	-	-	-	326	326	140
Dover Sole	0	0	1	11,926	11,927	5
English Sole	0	0	3	4,479	4,482	2
Petrale Sole (coastwide)	0	0	0	1,763	1,764	2
Arrowtooth Flounder	2	1	2	4,155	4,160	3
Starry Flounder	-	-	0	318	318	333
Other Flatfish	9	1	2	3,430	3,442	94

At Sea Sector Catch by Year and Species (mt)

Species	Year					OY/ Allocation
	2003	2004	2005	2006	2007	
SPINY DOGFISH	269	615	355	61	155	
WIDOW ROCKFISH	14	21	80	142	146	368
YELLOWTAIL ROCKFISH	36	47	112	110	79	4,548
SLOPE ROCKFISH (N)		24	51	8	32	1,160
SABLEFISH	17	29	15	2	3	2,651
DARKBLOTCHED ROCKFISH	4	7	11	11	12	330
SHORTSPINE THORNYHEAD	16	5	7	1	3	1,634
SHELF ROCKFISH (N)		5	7	4	2	958
ARROWTOOTH FLOUNDER	4	3	4	3	3	5,800
PACIFIC OCEAN PERCH	6	1	2	3	4	150
LINGCOD	1	1	3	3	6	5,558
CANARY ROCKFISH	1	5	1	1	2	44
PACIFIC HALIBUT	3	1	2	1	1	
OTHER FLATFISH		2	3	-	-	4,884
LONGNOSE SKATE		0	1	0	1	

Species	OY/ Allocation	Average portion of 2008 OY (2004 to 2006)	Substantially Caught in Non-trawl Sectors
WIDOW ROCKFISH	368	21.89%	No
CANARY ROCKFISH	44	4.85%	Yes
DARKBLOTCHED ROCKFISH	330	2.77%	No
SLOPE ROCKFISH (N)	1,160	2.48%	No
PACIFIC OCEAN PERCH	150	2.20%	No
YELLOWTAIL ROCKFISH	4,548	1.69%	No
SABLEFISH	2,651	0.50%	NA
SHELF ROCKFISH (N)	958	0.47%	Yes
SHORTSPINE THORNYHEAD	1,634	0.38%	No
ARROWTOOTH FLOUNDER	5,800	0.06%	No
LINGCOD	5,558	0.05%	Yes
OTHER FLATFISH	4,884	0.03%	No
LONGNOSE SKATE			No
PACIFIC HALIBUT			Yes
SPINY DOGFISH			Yes

Summary Findings

Several species appear to have a higher degree of priority for direct coverage than others.

This prioritization appears to be (in addition to whiting):

1. Widow rockfish
2. Canary rockfish
3. Darkblotched/Slope rockfish/POP
   - (Selecting one of these species may indirectly control the catch of the other two)

- Covering additional species may lead to adverse economic impacts as discussed in Ch 4 of EIS
- If 4 sectors are established, SS whiting and at sea should be held responsible for same set of species

Using the Herfindahl Index to Assess Control Limits

- Index is used by DOJ and FTC for looking at market power
- Establishes thresholds that help establish under which conditions market power may exist.

Index at a glance

- Herfindahl index examines the market share of each firm
  - Measures the sum of squares of market shares
- Result is affected by:
  - The share of the market held by largest firms
  - The share of the market held by smallest firms
  - The distribution of market share between them
  - The number of firms

DOJ Thresholds

- If an index result is less than 10%, the market is unconcentrated
- If index result is 10% – 18%, the market is moderately concentrated
- If index result is 18%, the market is concentrated

- If all entities hold quota up to the control limit, the Herfindahl index value is the control limit
  - Actual index result will depend on size of control limit and distribution of quota ownership under that control limit

Findings

- Approach is not necessarily applicable to specific species control limits
- If the aggregate species control limit is set at 10% or less, the ownership of quota will be unconcentrated
- If control limits are set between 10% and 18%, the ownership of quota could be moderately concentrated, or unconcentrated
  - Result will depend on distribution of ownership
- If control limits are set higher than 18%, the ownership of quota could be concentrated, moderately concentrated, or unconcentrated
  - Result will depend on distribution of ownership