THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF CALIFORNIA						
	HONORABLE JANIS L. SAMMARTINO UNITED STATES DISTRICT JUDGE PRESIDING					
IN RE: PACKAGED SEAFOC ANTITRUST LITIGATION	) NO. 15-MD-2670-JLS ) JANUARY 15, 2019 ) VOLUME 2 OF 3					
APPEARANCES:						
FOR THE PLAINTIFFS:	HARGEELD IID					
FOR THE PLAINTIFFS:	BY: BETSY MANIFOLD					
	WOLF HALDENSTEIN BY: THOMAS H. BURT					
	HULETT HARPER STEWART LLP BY: DENNIS STEWART					
FOR THE DEFENDANTS:	LATHAM & WATKINS LLP BY: BELINDA S. LEE					
	PAUL, WEISS, RIFKIND BY: KENNETH A. GALLO					
	` WILLIAM MICHAEL					
COUDE DEPONERS.	DANK I DANCHE OCD					
COURT REPORTERS: F	GAYLE WAKEFIELD, RPR, CRR					

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3	WITNESSES:					
4			<u>DR</u>		<u>R D</u>	
5	DAVID SUNDING		259	318	365/447 461	458
6	LAILA HAIDER		370	415	443	
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JANUARY 15, 2019

MORNING SESSION

THE CLERK: NUMBER ONE ON THE CALENDAR, 15-MD-2670, REGARDING PACKAGED SEAFOOD PRODUCTS ANTITRUST LITIGATION, DAY TWO MOTION HEARING.

THE COURT: GOOD MORNING, COUNSEL. WE'RE GOING TO

FOLLOW PRETTY MUCH THE SAME PROCEDURE AS YESTERDAY, BUT WE

BENEFIT FROM YESTERDAY'S EXPERIENCES, AND ONE THING I WOULD

URGE PEOPLE TO DO IS, PLEASE, IF YOU CHOOSE TO MAKE SOME

PRELIMINARY COMMENTS THIS MORNING, IT IS NOT HELPFUL TO THE

COURT TO MAKE THEM IN A GENERAL NATURE. LET'S CUT TO THE

CHASE. WE ARE HERE TO TALK ABOUT THE DIFFERENCES IN THE

EXPERTS AND THE METHODOLOGY. LET'S NOT TALK IN A GENERALIZED

WAY ABOUT ANYTHING ELSE. I'LL ENTERTAIN YOU, BUT AT THE END OF

YESTERDAY, IT WOULD HAVE BEEN NICE TO HAVE HAD A LITTLE BIT

MORE TIME WITH THE EXPERTS AS OPPOSED TO THE INTRODUCTORY

COMMENTS, WHICH WERE HELPFUL AND GOOD, BUT WE CAN ONLY TAKE SO

MUCH TIME.

I RECALL WHEN THE INITIAL REQUEST WAS MADE DO THIS, I

DO BELIEVE THE DEFENDANTS SAID, "JUDGE, WE CAN DO ALL OF THIS

IN THREE HOURS." I THOUGHT THAT WAS INCREDIBLE AT THE TIME. I

THINK NOW IT'S EVEN MORE INCREDIBLE, SO I WOULD ASK PEOPLE TO

BE A LITTLE BIT MORE FOCUSED IN ANY GENERALIZED COMMENTS THAT

YOU MAKE OR ANY PRELIMINARY COMMENTS -- NOT GENERALIZED

COMMENTS BECAUSE WE DON'T NEED THOSE, AND WITH THAT I THINK WE

CAN BEGIN. PLEASE, EVERYBODY, KEEP THAT IN MIND. 1 2 WE WILL GO TODAY UNTIL NOON. WE'LL BREAK FROM NOON TO 1:30. WE'LL TAKE A SHORT BREAK MIDMORNING AROUND 10:30, AND DO 3 4 THE SAME THING THIS AFTERNOON, WE'LL GO TO 4:30, AS WE DID 5 YESTERDAY. SO WITH THAT, I AM PREPARED TO PROCEED, AND WHY DON'T 6 7 YOU COME TO THE PODIUM, MS. MANIFOLD, AND ENTER YOUR 8 APPEARANCE, MA'AM. MS. MANIFOLD: GOOD MORNING, BETSY MANIFOLD, WOLF HALDENSTEIN, ON BEHALF OF THE END-PAYER PLAINTIFFS. AS THE 10 COURT WAS SPEAKING, I WAS CUTTING PARAGRAPHS. 11 THE COURT: AND THAT IS APPRECIATED, MA'AM. FOR YOUR 12 13 CONSIDERATION, BUT TIME IS OF SIGNIFICANT WHEN WE GET TO THE EXPERTS SO I JUST WANT -- WE HAVE MORE ISSUES. WE HAVE A 14 15 PASS-THROUGH ISSUE ON THIS. WE DIDN'T HAVE THE PASS-THROUGH 16 ISSUE YESTERDAY. 17 MS. MANIFOLD: THAT ELIMINATES ANOTHER PARAGRAPH FOR 18 ME, YOUR HONOR. THANK YOU VERY MUCH. SO IN LIGHT OF THE COURT'S COMMENTS, I AM GOING TO KEEP MY INTRODUCTION VERY BRIEF 19 SO YOU CAN HEAR FROM THE TESTIMONY OF OUR EXPERT, DAVID L. 20 SUNDING, WHO IS THE CHAIR OF THE DEPARTMENT OF AGRICULTURAL AND 21 22 RESOURCE ECONOMICS AT U.C. BERKELEY. THERE'S ONE THING THAT I REALLY DO HAVE TO EMPHASIZE 23 24 AND THAT IS THAT ANTITRUST LIABILITY ALONE CONSTITUTES A COMMON QUESTION, AND WE ALL HAVE HEARD A GREAT DEAL ABOUT THE GUILTY 25

PLEAS HERE AND THE ADMISSIONS, SO I'M GOING TO MOVE ON FROM

THAT, BUT I REALLY WOULD LIKE TO HIGHLIGHT THE FACT THAT IN THE

STARKIST PLEA TRANSCRIPT, WHICH IS EXHIBIT 1 TO THE BINDER,

THEY -- THE STARKIST DEFENDANTS DID MAKE THE FOLLOWING COMMENT,

THEY SAID, "WE'RE NOT WALKING AWAY FROM OUR RESPONSIBILITY

HERE, YOUR HONOR, WE'RE AGREEING TO PAY A MINIMUM OF 50

MILLION. IT'S SIMPLY JUST A HUNDRED MILLION WILL EITHER

BANKRUPT THE COMPANY OR ABSOLUTELY IMPAIR ITS ABILITY TO PAY

RESTITUTION TO VICTIMS."

SO EVEN THOUGH I KNOW THE COURT WANTS TO HEAR FROM THE EXPERTS, I JUST WANT TO SAY I DO REPRESENT THE VICTIMS HERE.

THEY WERE CONSUMERS WHO WERE OVERCHARGED DURING THE CLASS

PERIOD BECAUSE OF THE DEFENDANTS' CONDUCT, AND WE HAVE A GROUP

OF CONSUMERS HERE THAT STEPPED FORWARD, PROVIDED DISCOVERY,

WERE DEPOSED, AND ARE READY, WILLING AND ABLE TO REPRESENT THIS

CLASS.

I WOULD BE REMISS NOT TO AT LEAST SAY, "LOOK, WE HAVE RETIREES. WE HAVE A PARAMEDIC. WE HAVE VETERINARIANS. WE HAVE A HOUSEKEEPER. WE HAVE STAY-AT-HOME MOMS. WE HAVE DETENTION OFFICERS, POLICE OFFICERS, AND EVEN TWO COLLEGE PROFESSORS. I WANT THE COURT TO KNOW WHO OUR CONSUMERS ARE.

THIS CASE IS VERY WELL SUITED FOR CLASS CERTIFICATION.

IN SIMPLE TERMS, IT'S TUNA IN A CAN OR A POUCH. IT MEETS THE

DEFENDANTS' PRODUCTIONS SITES. IT ARRIVES ON THE RETAILERS'

SHELVES AND IT'S STORED. IT'S A VERY SIMPLE DISTRIBUTION

1 CHAIN.

AS YOUR HONOR NOTED YESTERDAY, THERE'S NO CONTEST ON THE 23(A) CLAIMS. WE'RE REALLY HERE TO FOCUS ON RULE 23(B)(3), WHICH IS PREDOMINANCE AND SUPERIORITY, AND WE'VE SATISFIED THAT CLAIM BY THE GENERALIZED PROOF OFFERED BY THE END-PAYER PLAINTIFFS FOR ALL THREE KEY ELEMENTS, CONSPIRACY, IMPACT, DAMAGES.

YESTERDAY YOU HEARD DR. MANGUM'S TESTIMONY ON THE
CLASS-WIDE PROOF OF THE OVERCHARGE OF THE DIRECT PURCHASERS,
AND THE COURT'S EXACTLY RIGHT, TODAY YOU'RE GOING TO HEAR ABOUT
THAT DIRECT PROOF AS WELL AS PASS-THROUGH.

THE DEFENDANTS ARE ALSO GOING TO SPEND A LOT OF TIME
TALKING ABOUT NEW ISSUES THAT DIDN'T APPEAR IN THE BRIEFING,
THAT WASN'T ADDRESSED BY THE EXPERTS, AND THEY'RE GOING TO TRY
TO SEND THIS COURT INTO THE WEEDS. DON'T GO. NOTHING NEW
THAT'S OFFERED BY THE DEFENDANTS IS GOING TO CHANGE THE
ANALYSIS AND THE CONCLUSIONS THAT YOU'RE GOING TO HEAR FROM DR.
SUNDING. COMMON EVIDENCE STILL PROVES THAT THE DEFENDANTS'
LIABILITY ON ANTICOMPETITIVE SURCHARGE, CLASS-WIDE INJURY,
PASS-THROUGH AND THE IMPACT ON THE END-PAYER PLAINTIFFS ON THE

SO IN JUST A FEW MINUTES YOU'RE GOING TO HEAR FROM OUR EXPERT. HE'S GOING TO IDENTIFY THIS COMMON EVIDENCE AND WALK THROUGH THE PROCESS. HE'LL BE AVAILABLE TO ANSWER ANY OF THE COURT'S QUESTIONS. THAT'S THE CRITICAL PART HERE.

SO ONE OF THE THINGS TO KEEP IN MIND WHEN YOU'RE 1 2 LISTENING TO DR. SUNDING IS FAIRLY SIMPLE, IT'S A MATTER OF ECONOMIC THEORY AND A MATTER OF EVIDENCE THAT OVERCHARGES ROLL 3 4 DOWNHILL, SO THE PEOPLE WHO GET LEFT HOLDING THE BAG ARE THE 5 PEOPLE THAT ARE MOST UNABLE TO TOLERATE THIS TYPE OF HARM 6 INFLICTED BY CRIMINAL PRICE-FIXING. FOR THEM IT'S THE CLASS 7 ACTION REMEDY OR NOTHING. 8 SO I JUST WANT TO ADDRESS IN TWO SENTENCES THE 9 SUPERIORITY ELEMENT THAT MS. LEE TALKED ABOUT WITH THE COURT AND ASK YOU TO GIVE SERIOUS CONSIDERATION TO IT. CONSUMERS 10 11 NEITHER HAVE THE ABILITY OR THE INCENTIVE TO BRING AN 12 INDIVIDUAL ACTION. AND HAVING DEALT WITH OVER A HUNDRED -- I 13 THINK IT WAS 108 OF THE DIRECT ACTION PLAINTIFFS, THE MANAGEABILITY OF A FEW INDIVIDUAL STATE LAW CLASSES IS GOING TO 14 15 SEEM FAIRLY STRAIGHTFORWARD TO THIS COURT. SO FOR THE END-PAYER PLAINTIFFS' CLASS TREATMENT OF THEIR SMALL CLAIMS IS 16 17 NOT SUPERIOR TO ANY ALTERNATIVE METHOD. IN FACT, IT'S THE ONLY 18 PRACTICAL METHOD FOR THEM TO RECOVER DAMAGES. THANK YOU. 19 THE COURT: THANK YOU, MS. MANIFOLD. MS. LEE. 20 21 MS. LEE: GOOD MORNING, YOUR HONOR. I BELIEVE YOUR HONOR HAS A SET OF SLIDES. THEY LOOK THICKER THAN THEY WILL 22 23 BE, I PROMISE. I WILL SKIP THROUGH MANY OF THEM IN LIGHT OF 24 YOUR COMMENTS. I WANTED TO START THOUGH FIRST, YOUR HONOR, WITH 25

SOMETHING THAT I REALIZED YESTERDAY, AND I WAS KICKING MYSELF
BECAUSE I FORGOT TO START MY OPENING WITH ONE VERY IMPORTANT
POINT, WHICH WAS TO THANK YOUR HONOR AND YOUR LAW CLERKS AND
REALLY ALL OF THE OTHER FEDERAL EMPLOYEES IN THIS COURTHOUSE
WHO NO DOUBT HAVE BEEN WORKING INCREDIBLY HARD TO ACCOMMODATE
US AND PREPARE FOR THIS THREE-DAY HEARING DURING WHAT I'M SURE
IS A VERY DIFFICULT AND UNCERTAIN TIME FOR EVERYONE BECAUSE OF
THE FEDERAL SHUTDOWN, SO ON BEHALF OF ALL OF THE DEFENDANTS,
PLEASE ACCEPT MY BELATED THANK YOU FOR THAT.

MS. MANIFOLD: OBVIOUSLY YOU'LL GIVE ME 15 SECONDS TO JOIN. THANK YOU.

THE COURT: THAT'S APPRECIATED, AND I'M GLAD WE GOT
THIS IN BEFORE ALL I'M DOING IS CRIMINAL MATTERS, SO THAT'S
EXCELLENT. THANK YOU.

MS. LEE: AS A PRELIMINARY HOUSEKEEPING MATTER, I JUST WANTED TO MENTION YESTERDAY THERE WAS A REPRESENTATION THAT THE DEFENDANTS HAD TAKEN UP ALL OF THE TIME AT THE HEARING, AND THAT'S ACTUALLY NOT TRUE, BUT --

THE COURT: SOMEBODY SAID THAT AT THE END. I THINK MS.

SWEENEY SAID THAT YOU HAD TAKEN MORE TIME. I WASN'T KEEPING

TRACK, BUT I THINK YOU WERE.

MS. BAUER: YES, YOUR HONOR. I HAD A STRONG REACTION,
YOUR HONOR, AND I'VE SPOKEN TO COUNSEL AND WE UNDERSTAND EACH
OTHER. WE'VE ALSO SPOKEN AND WE HAVE A GREAT UNDERSTANDING OF
HOW IT WILL WORK TODAY, AND WE APOLOGIZE FOR ANY CONFUSION TO

1 THE COURT. 2 THE COURT: I KNEW PEOPLE WERE KEEPING TRACK. MS. BAUER: VERY CLOSELY. 3 4 MS. LEE: ON TO THE EPP CASE. HERE'S MY PLAN FOR 5 TODAY, YOUR HONOR; I WANT TO GET YOU TO THE EXPERTS AS QUICKLY AS POSSIBLE, SO I'LL PREVIEW FOR YOU SOME OF THE ISSUES ON 6 7 CLASS-WIDE IMPACT. I THINK I HEARD MS. MANIFOLD JUST SAY 8 BEFORE THAT LIABILITY ALONE IS THE COMMON QUESTION, AND, OF COURSE, THAT'S NOT THE CASE. IT'S IMPACT. IT'S WHAT WE'VE BEEN TALKING ABOUT FOR -- AND WILL TALK ABOUT FOR THESE THREE 10 DAYS, SO I JUST WANTED TO CLARIFY THAT POINT. 11 WE DO HAVE SOME SLIDES IN RESPONSE TO YOUR HONOR'S 12 13 ORDER MENTIONING CHOICE OF LAW. MY PLAN IS TO LEAVE THAT FOR LATER, IF WE HAVE TIME, BECAUSE I KNOW YOU DO WANT TO GET TO 14 THE EXPERTS, BUT WE DO HAVE THAT IF YOU HAVE ANY QUESTIONS. 15 16 THE COURT: THANK YOU. I APPRECIATE THAT, MS. LEE. 17 MS. LEE: ON SLIDE 3, YOUR HONOR, JUST TO NOTE, AS YOU 18 MENTIONED, THIS IS AN INDIRECT PURCHASER CASE SO OF COURSE THE PLAINTIFFS BEAR THE BURDEN OF PROVING NOT JUST THE OVERCHARGE 19 TO ALL OR NEARLY ALL DIRECT PURCHASERS AND THEIR CHAIN OF 20 DISTRIBUTION, BUT THEN PROVING IT ALL THE WAY DOWN THROUGH 21 22 EVERY LINK OF THE CHAIN, DOWN TO THE ALL OR NEARLY ALL CONSUMERS IN THE END CLASS, END PURCHASER CLASS. OF COURSE, AS 23 I WAS JUST MENTIONING, IT IS A VERY COMPLEX AND VARIED PATH TO 24

THESE END PURCHASER PLAINTIFFS.

25

THE EPP SUIT INCLUDES ALL DIFFERENT TYPES OF PRODUCTS
OF PACKAGED TUNA, FROM PREMIUM POUCH PRODUCTS TO PRIVATE LABEL,
BRANDED PRODUCTS, TUNA IN WATER, OIL, YELLOWFIN, ALBACORE,
PLAIN OLD CHUNK LIGHT TUNA, BUT THERE'S ALSO ALL SORTS OF OTHER
LEMON PEPPER FLAVOR, THAI CHILI STYLE, RANCH, HOT BUFFALO, A
VERY, VERY DIVERSE SET OF PRODUCTS THAT YOU'RE DEALING WITH
HERE. MY POINT IS THAT THESE PRODUCTS ARE DIFFERENT AND
CONSUMERS VIEW THEM AS DIFFERENT.

DR. SUNDING, PLAINTIFFS' OWN EXPERT, RECOGNIZES THAT
THERE ARE SIGNIFICANT DIFFERENCES IN THESE BRANDS. DR. SUNDING
HAS SAID THAT THERE ARE DIFFERENT TYPES OF CONSUMER PERCEPTIONS
ABOUT THE PRODUCTS AND, MORE IMPORTANTLY, CONSUMERS ARE WILLING
TO PAY DIFFERENT PRICES FOR THOSE DIFFERENT PRODUCTS.

ON THE NEXT SLIDE, YOUR HONOR, I'VE BLANKED OUT IN THE COURTROOM THE SLIDE BECAUSE OF PROTECTIVE ORDER ISSUES, BUT THE POINT OF THIS SLIDE, AND I BELIEVE YOU WILL HAVE IT ON PAPER, IS THAT THERE'S BEEN TESTIMONY THROUGHOUT THE CASE, FROM BOTH THE END PURCHASER PLAINTIFFS AS WELL AS THE DIRECT PURCHASERS, THAT DEFENDANTS HAVE SIGNIFICANTLY DIFFERENTIATED PRODUCTS THAT THEY CAN COMPETE ON QUALITY AND THAT CONSUMERS EXPRESSED STRONG BRAND PREFERENCES. THE EVIDENCE SHOWS THAT THE PRODUCTS AND BRANDS IN THIS CASE ARE NOT THE INTERCHANGEABLE COMMODITIES THAT EPP'S AND DR. SUNDING WOULD HAVE THIS COURT BELIEVE.

SLIDE 7, YOUR HONOR, YOU HEARD A LOT ABOUT LIST PRICES
YESTERDAY, AND WE KNOW THAT DIRECT PURCHASERS -- WE KNOW THAT

DIRECT PURCHASERS ACTUALLY NEGOTIATE INDIVIDUALLY WITH THE

DEFENDANTS, AND THAT RESULTS IN SIGNIFICANT PRICE VARIABILITY

ACROSS THE MARKET. EPP'S WANT YOU TO BELIEVE THAT ALL DIRECT

PURCHASERS PAY ROUGHLY THE SAME PRICE, THAT THE LAW OF ONE

PRICE APPLIES. YOU'LL HEAR THAT TERM A LOT I PREDICT TODAY.

BUT EVEN THE MOST SURFACE REVIEW OF THE EVIDENCE AND THE DATA

IN THIS CASE SAYS THAT'S WRONG. VIRTUALLY NO ONE PAYS LIST

PRICE. THERE'S NO SINGLE NATIONAL PRICE, AND THAT'S A FACT

THAT'S GOING TO DISTINGUISH US FROM A LOT OF THE CASES THAT EPP

CITE IN SUPPORT OF THEIR ARGUMENTS. THERE'S NO PRICING FORMULA

IN THIS CASE.

PLAINTIFFS ARE INVITING THE COURT TO ASSUME THAT THE CONSPIRACY RAISED ALL PRICES WHEREVER THEY WERE, BUT EPP'S HAVE NOTHING TO BACK UP THAT CLAIM, AND IN FACT THE TESTING SHOWS QUITE THE OPPOSITE.

SLIDE 8, WHICH AGAIN I'VE REDACTED FOR THE COURTROOM,
IS A SLIDE ABOUT THE TESTIMONY THAT HAS BEEN GIVEN IN THIS CASE
ABOUT ALL OF THE INDIVIDUALIZED NEGOTIATIONS AND THE PRICE
VARIATION WITH -- BETWEEN THE DIRECT PURCHASERS AND THE
DEFENDANTS. I BELIEVE ALSO, YOUR HONOR, IN ADDITION TO THE
SLIDES, WE'VE SUBMITTED THE ACTUAL TESTIMONY BEYOND JUST THE
EXCERPTS HERE.

AS YOU'LL SEE ON THIS SLIDE, THE DIRECT PURCHASERS WERE CLEAR IN THEIR DEPOSITION TESTIMONY THAT THEY NEGOTIATE PRICES AGGRESSIVELY, THAT THEY DO NOT PAY LIST PRICE, AND THEY'RE

CONSTANTLY SEEKING TO LOWER THEIR COSTS. I WON'T READ THE

NAMES HERE BECAUSE OF PROTECTIVE ORDER ISSUES, BUT THE FIRST

DIRECT PURCHASER HERE, A RETAILER, NOTED THAT THEY'RE GREAT AT

NEGOTIATING. THEY'RE NOT EVEN A TERRIBLY LARGE RETAILER, BUT

THEY MAKE THE POINT "WE'RE A GREAT NEGOTIATORS. WE'RE

CONSTANTLY NEGOTIATING TO GET TO A LOWER COST." THE EPP'S ASK

THIS COURT TO IGNORE ALL OF THIS EVIDENCE AND PRICE DATA SO

THAT THEY CAN SQUEEZE THE FACTS OF THIS CASE INTO INAPPLICABLE

CASE LAW THAT ANALYZED VASTLY DIFFERENT MARKETS.

ON TO THE GOOD STUFF. I WON'T BELABOR THE POINT HERE.

WE BRIEFED THIS IN OUR PAPERS. EPP'S ARGUE FOR A PRESUMPTION

OF COMMON IMPACT. I THINK IT'S PRETTY CLEAR THE SUPREME COURT

HAS MADE IT CLEAR TIME AND TIME AGAIN THERE IS NO PRESUMPTION

OF IMPACT. PLAINTIFFS HAVE TO PROVE IMPACT THROUGH COMMON

METHODS ON A CLASS-WIDE BASIS.

EPP'S, AS YOU WILL HEAR TODAY, THEIR PROOF OF COMMON

IMPACT FAILS FOR FOUR REASONS; FIRST BEING THAT EPP'S WRONGLY

ASSUME THAT A POSITIVE AVERAGE OVERCHARGE ACROSS THE MARKET AS

A WHOLE IMPLIES THAT ALL OR NEARLY ALL CONSUMERS PAID AN

OVERCHARGE. THEY FUNDAMENTALLY MISUNDERSTAND WHAT AN "AVERAGE"

MEANS.

YOU'LL HEAR FROM DR. SUNDING TODAY, SO I WON'T TAKE A
LOT OF TIME ON THIS SLIDE. THE POINT IS DR. SUNDING POOLS HIS
DATA TO ESTIMATE AN AVERAGE OVERCHARGE, AND THAT IGNORES KEY
DIFFERENCES AMONG THE PRODUCTS AND THE DEFENDANTS. BY DOING

THIS, EPP'S ARE ASKING THE COURT TO INFER COMMON IMPACT, AND
THAT INFERENCE FAILS AS A MATTER OF LAW AND A MATTER OF
ECONOMICS, AS YOU'LL HEAR TODAY.

I THINK THIS SLIDE IS HELPFUL, YOUR HONOR. I WON'T GO
THROUGH ALL OF THE CASES HERE, DON'T WORRY, BUT THE POINT WE
WANT TO MAKE HERE, YOUR HONOR, IS THAT THERE ARE MANY COURTS
THAT HAVE REJECTED EPP'S APPROACH OF USING AVERAGES. THE ONES
THAT I THINK THAT YOUR HONOR MAY FIND HELPFUL ARE FOOD LION,
FLASH AND PROCESSED EGG PRODUCTS. IN THOSE CASES, THE COURTS
HAVE TALKED ABOUT HOW THE USE OF AVERAGES IS THE SAME THING AS
-- LARGELY THE SAME THING AS ASSUMING IMPACT, AND THAT AVERAGES
OBSCURE INDIVIDUAL VARIATION OVER TIME.

IN THE REPLY BRIEF, THE EPP'S ATTEMPT TO DISTINGUISH

CASES LIKE FLASH, ODD AND GPU. THOSE ARE CASES THAT ALL SAID

THAT AVERAGES WERE IMPERMISSIBLE, AND THEY TRIED TO DISTINGUISH

THOSE CASES BY SAYING THAT THOSE CASES INVOLVED COMPONENTS AND

COMPLEX DISTRIBUTION CHAINS. I THINK IT'S IMPORTANT TO NOTE

THAT WHAT WE'RE TALKING ABOUT HERE IS THE OVERCHARGE, THE FIRST

STEP IN THE PROCESS.

SO EVEN THOUGH FLASH, ODD AND GPU WERE PRODUCTS THAT

EVENTUALLY BECAME COMPONENTS IN A LARGER FINISHED ELECTRONIC

PRODUCT, WHEN THE COURT SAID YOU COULDN'T AVERAGE, THEY WERE

TALKING ABOUT THE SALE OF THE PRODUCT, NOT THE COMPONENT IN A

PRODUCT. SO EPP'S ATTEMPTS TO DISTINGUISH IT AS COMPONENT

CASES JUST DOESN'T APPLY TO THE ISSUE THAT WE'RE TALKING ABOUT

1 HERE.

SO EPP'S ARE ASKING THE COURT TO INFER IMPACT BASED ON A NUMBER OF THINGS, THE FIRST BEING THEIR THEORY OF THE LAW OF ONE PRICE. WE TALKED ABOUT YESTERDAY ECONOMIC THEORY IS LEGALLY INSUFFICIENT. AS I MENTIONED BEFORE, EPP'S HAVE NO EVIDENCE TO ACTUALLY SUPPORT THEIR THEORY OF THE LAW OF ONE PRICE.

THE NEXT SLIDE, YES, THERE WE GO. YOU'LL HEAR FROM DR.

HAIDER ON THIS SLIDE, SO I WON'T SPEND A LOT OF TIME ON THIS.

FOR NOW WHAT I'LL SAY IS IF THE LAW OF ONE PRICE APPLIED, YOU

WOULD EXPECT TO SEE A SINGLE PRICE CHARGED TO ALL DIRECT

PURCHASERS AT ANY GIVEN POINT IN TIME. THAT'S WHAT YOU WOULD

EXPECT TO SEE. WHAT YOU ACTUALLY SEE IN THE DATA ON THE RIGHT

SIDE IS WIDE VARIATION IN PRICES. THAT'S AN EXAMPLE OF HOW THE

EVIDENCE IN THIS CASE JUST DOESN'T MATCH UP WITH DR. SUNDING'S

ECONOMIC THEORY.

DR. SUNDING'S OWN TESTING DOESN'T EVEN MATCH UP TO HIS THEORY, AND I WON'T SPEND A LOT OF TIME ON THESE BECAUSE I KNOW DR. HAIDER WILL COVER THEM.

ONE THING I WILL ADDRESS THOUGH IS THE PLASTICS

ADDITIVES CASE. THIS IS A CASE THAT I THINK IS VERY

INSTRUCTIVE ON THE ISSUE OF PRICE LISTS, AND IN THAT CASE THE

COURT HELD THAT JUST THE FACT THAT THERE ARE PRICE LISTS IS

IRRELEVANT WHEN IN THE END OF THE DAY THERE ARE SIGNIFICANT

PRICE VARIATION, AND THAT'S ULTIMATELY WHAT THE COURT NEEDS TO

LOOK AT.

ANOTHER INFERENCE THAT THE EPP'S AND DR. SUNDING ARE

ASKING THIS COURT TO MAKE -- I BELIEVE THEY'RE ASKING HIM TO

MAKE IS BASED ON THIS ARGUMENT THAT IF WALMART SUSTAINED AN

OVERCHARGE THEN SURELY EVERYONE ELSE DID, AND THIS, BY THE WAY,

IS THE ONLY TEST THAT DR. SUNDING INITIALLY RAN.

FIRST OF ALL, THE TESTING THAT DR. SUNDING RAN SHOWED

THAT WALMART AND ALL DIRECT PURCHASES WERE NOT THE SAME, THAT

SOME MIGHT HAVE PAID -- MIGHT NOT HAVE PAID AN OVERCHARGE AT

ALL. INSTEAD OF INVESTIGATING FURTHER, DR. SUNDING STOPPED

THERE AND THEN HE FILLED HIS GAPS WITH ASSUMPTIONS AND ECONOMIC

THEORY, BUT HE COULD HAVE EASILY TESTED OTHER DIRECT

PURCHASERS, INCLUDING LARGE DIRECT PURCHASERS SIMILAR TO

WALMART. I THINK IT'S IMPORTANT TO ASK YOURSELF AND TO ASK DR.

SUNDING, "WHY DIDN'T YOU DO THAT?"

SO THE PREMISE IS THIS IDEA THAT WALMART IS THE -- HAS
THE LARGEST MARKET SHARE, WALMART'S THE BIG GORILLA IN THE
MARKET. IF THEY WERE UNABLE TO AVOID AN OVERCHARGE, THEN
EVERYONE ELSE MUST HAVE AS WELL. THAT PREMISE IS WRONG THOUGH,
YOUR HONOR. THERE ARE SO MANY OTHER INSTANCES AND REASONS AND
WAYS IN WHICH OTHER DIRECT PURCHASERS NEGOTIATE WITH THE
DEFENDANTS. THERE'S NO REASON TO ASSUME THAT WALMART'S
EXPERIENCE IN ITS NEGOTIATIONS WITH DEFENDANTS WAS REPLICATED
OR THE BASELINE FOR EVERYONE ELSE'S NEGOTIATIONS. IT'S
SOMETHING YOU NEED TO TEST. IT WASN'T TESTED, AND WHEN YOU

LOOK AT THE DATA YOU SEE THAT THAT'S JUST NOT THE CASE.

LAST, HERE'S A SECTION ON THE CASE LAW THAT EPP'S RELY ON TO ARGUE FOR THEIR INFERENCES. I WON'T SPEND A LOT OF TIME ON THESE, YOUR HONOR, JUST THE FLONASE CASE I MENTIONED AS AN EXAMPLE OF A CASE THAT IS FACTUALLY DISTINGUISHABLE FROM OUR CASE. FLONASE INVOLVED TWO GENERIC DRUGS THAT WERE SOLD AT A SINGLE NATIONAL PRICE. THAT'S NOT THE CASE HERE. WE HAVE MANY DIFFERENT PRODUCTS AND CLEARLY MANY DIFFERENT PRICES FOR THESE PRODUCTS, SO THE IDEA THAT FLONASE CONTROLS IS JUST LEGALLY DISTINGUISHABLE.

EPP'S ALSO RELY HEAVILY ON PAIGE VS. CALIFORNIA.

THAT'S A SUMMARY JUDGMENT CASE WHICH DID NOT ASSESS VARIATION

WITHIN A CLASS. IN A VERY DIFFERENT PROCEDURAL CONTEXT, THE

COURT NOTED THAT AGGREGATED STATISTICAL DATA MAY BE USED WHEN

IT IS MORE PROBATIVE THAN SUBDIVIDED DATA, BUT AGGREGATING DATA

AND CALCULATING AN AVERAGE IS NOT MORE PROBATIVE IN THIS CASE

WHERE PLAINTIFFS HAVE TO PROVE THAT ALL OR NEARLY ALL CLASS

MEMBERS WERE IMPACTED.

PLAINTIFFS HAVE ACCESS TO THE NECESSARY DATA AND STATISTICAL TOOLS TO TEST FOR COMMON IMPACT, AND ALL SIGNS IN THE RECORD POINT TO SPECIFIC PRICE VARIATION IN THE MARKET, BUT THEY DIDN'T DO THAT.

YOUR HONOR MENTIONED, OF COURSE, THAT AS AN INDIRECT
PURCHASER CLASS THE EPP'S HAVE TO PROVE PASS-THROUGH IN
ADDITION TO THE DIRECT OVERCHARGE. YOUR HONOR, WE THINK THAT

THE EPP'S FAIL EVEN ON THAT FIRST STEP AND DON'T GET TO PASS-THROUGH BECAUSE THEY FAILED TO PROVE THAT IN MANY INSTANCES THE DIRECT PURCHASERS DID NOT PAY A POSITIVE STATISTICALLY SIGNIFICANT OVERCHARGE.

DR. HAIDER TESTED DR. SUNDING'S ASSUMPTIONS AND HIS
OPINIONS, AND YOU'LL HEAR A LOT ABOUT IT TODAY, AND YOU'VE
HEARD A LOT ABOUT MANY SIMILAR THINGS YESTERDAY, SO I WON'T
SPEND A LOT OF TIME ON THIS. DR. HAIDER ASKED, "IS IT
STATISTICALLY DEFENSIBLE TO POOL ALL OF THE DIRECT PURCHASER
DATA? DOES THE EXISTENCE OF AN AVERAGE OVERCHARGE IMPLY THAT
NEARLY ALL DIRECT PURCHASERS PAID AN OVERCHARGE? AND WHEN YOU
TAKE INTO ACCOUNT SOME OF THE REAL WORLD DIFFERENCES THAT DR.
SUNDING IGNORED IN HIS OPINIONS, DOES THAT AFFECT THE OUTCOME?"

TO ANSWER THOSE QUESTIONS, DR. HAIDER RAN FOUR SEPARATE TESTS ON DR. SUNDING'S OVERCHARGE. THE FIRST ONE WAS THE CHOW TEST. WE HEARD A LOT ABOUT THAT YESTERDAY. I WON'T GO OVER IT HERE. SUFFICE IT TO SAY THAT WE HAVE THE SAME ISSUE HERE WHERE DR. SUNDING DID NOT RUN A CHOW TEST, AND WHEN DR. HAIDER DID, THE CHOW TEST REJECTED THE NOTION OF POOLING DATA.

I'LL SKIP AHEAD ON THIS. I KNOW YOU'VE HEARD A LOT ON
THE CHOW TEST. THE SECOND TEST DR. -- DR. HAIDER RAN THREE
OTHER TESTS, THE SECOND OF WHICH WAS TO APPLY -- SHE APPLIED
DR. SUNDING'S REGRESSIONS TO EACH INDIVIDUAL PURCHASER AS THE
CHOW TEST REQUIRED. THE RESULTS SHOWED THAT THERE WAS NO PROOF
OF IMPACT FOR NEARLY A THIRD OF DIRECT PURCHASERS, INCLUDING

DIRECT PURCHASERS WITH LARGE SAMPLE SIZES.

PLAINTIFFS MAKE THESE ARGUMENTS ABOUT SAMPLE SIZES AND FALSIFIABILITY. I'LL LEAVE A LOT OF THIS TO THE DIRECT TESTIMONY. I THINK IT'S IMPORTANT TO NOTE THAT WITH RESPECT TO SAMPLE SIZES, YOUR HONOR, DR. HAIDER RAN TESTS ON MANY LARGE CUSTOMERS, MANY OF WHOM YOU'LL RECOGNIZE, WHO HAD NO SAMPLE SIZE PROBLEMS AT ALL, SO THAT'S SOMETHING TO LISTEN FOR IN THE TESTIMONY TODAY. ON FALSIFIABILITY, IT'S A LOT OF WHAT WE HEARD YESTERDAY, SO I WON'T COVER THIS WITH YOU.

THE IDEA THAT COURTS REJECTED DR. HAIDER'S APPROACH,

AGAIN A LOT OF THE SAME LEGAL CASES THAT WERE CITED TO YOUR

HONOR THAT I THINK ARE JUST INAPPLICABLE HERE.

I WANT TO PAUSE FOR A MINUTE ON TEST THREE. THIS WAS SOMETHING THAT WE HEARD ABOUT YESTERDAY. DR. HAIDER RAN A TEST SIMILAR TO WHAT WE TALKED ABOUT YESTERDAY ABOUT THE WALMART ROBUSTNESS CHECK. I WAS LISTENING TO DR. MANGUM'S EXAMINATION YESTERDAY AND IT WAS FUNNY BECAUSE HE DESCRIBED -- IN THE CONTEXT OF DR. JOHNSON, OF COURSE, BUT IT'S THE SAME TEST HERE, HE SAID THAT WHAT DR. JOHNSON DID IN APPLYING THE WALMART ROBUSTNESS CHECK TO ALL DIRECT PURCHASERS, HE SAID IT WAS LIKE DR. JOHNSON HAD SAID TO THE COMPUTER, "I WANT DIFFERENT ANSWERS." OF COURSE, THAT'S NOT WHAT DR. JOHNSON DID. THAT'S NOT WHAT DR. HAIDER DID. WHAT DR. HAIDER AND WHAT DR. JOHNSON DID WAS THEY SAID, "I WANT TO TEST IF THERE ARE DIFFERENT ANSWERS. I WANT TO ALLOW FOR THE POSSIBILITY THAT THERE MIGHT

BE DIFFERENT ANSWERS," SO THEY APPLIED THE WALMART SENSITIVITY

TO ALLOW FOR DIFFERENT OVERCHARGES WITH EACH DIRECT PURCHASER.

THAT'S NOT THE SAME THING AS SAYING, "I WANT DIFFERENT

ANSWERS."

OF COURSE, PLAINTIFF SAW IT THAT WAY BECAUSE DR. MANGUM AND PLAINTIFFS HERE WERE DOING THE EXACT OPPOSITE, THEY WERE DOING THE FLIP SIDE OF IT WHERE THEY WERE SAYING, "I WANT THE SAME ANSWER" BECAUSE THEY ALLOWED ONLY FOR ONE OVERCHARGE.

THAT'S NOT WHAT DR. JOHNSON AND DR. HAIDER HAVE DONE HERE.

THEY'VE ALLOWED FOR THE POSSIBILITY THAT THERE ARE DIFFERENT OVERCHARGES, AND WHEN YOU DO THAT, PROOF OF IMPACT DISAPPEARS.

PAUSE ON, YOUR HONOR, THE FOURTH TEST THAT DR. HAIDER RAN WAS
AN ANALYSIS WHERE INSTEAD OF ALLOWING THE OVERCHARGE

PERCENTAGES FOR ALL DIRECT PURCHASERS TO VARY AT THE SAME TIME,
THE WALMART SENSITIVITY THAT I JUST DESCRIBED, DR. HAIDER ALSO
RAN ANOTHER TEST WHERE SHE ALLOWED THE OVERCHARGE PERCENTAGE

FOR A SINGLE CUSTOMER TO VARY AT ONE TIME. SO BASICALLY THE

WALMART SENSITIVITY BUT DONE FOR DIFFERENT CUSTOMERS, LIKE

COSTCO, WHERE ONLY COSTCO HAS ITS OWN OVERCHARGE, FOR TARGET.

AND WHEN YOU APPLY THIS TO OTHER LARGE CUSTOMERS, JUST LIKE WALMART, THERE IS NO PROOF OF IMPACT FOR COSTCO, TARGET, PIGGLY WIGGLY, SO NO SAMPLE SIZE PROBLEM WITH THESE LARGE CUSTOMERS.

NOW, IN RESPONSE TO THIS, EPP'S SERVED US WITH WHAT

THEY CALL NEW WORK JUST TWO DAYS AGO, SO IT CAME TO US MORE
THAN A WEEK AFTER THE COURT'S DEADLINE FOR SERVING NEW
REGRESSIONS. BUT BE THAT AS IT MAY, THIS WORK ACTUALLY SHOWS
US WHY EPPS' MOTION SHOULD BE DENIED. IN DR. HAIDER'S FOURTH
TEST, SHE APPLIED THE SAME EXACT TEST THAT DR. SUNDING HAD
PERFORMED ON WALMART TO THE OTHER DIRECT PURCHASERS. EPP'S
COULDN'T COME UP WITH A RESPONSE TO THAT EXCEPT TO CHANGE THEIR
MODEL. THEY GAVE US NEW WORK THAT CHANGED DR. SUNDING'S OWN
WALMART SENSITIVITY ANALYSIS IN ORDER TO GET TO THE POINT WHERE
THEY COULD FIND A POSITIVE OVERCHARGE FOR COSTCO.

OF COURSE, AFTER THEY CHANGED IT FOR COSTCO, THAT MODEL STILL WASN'T FINDING A POSITIVE OVERCHARGE FOR TARGET, SO THEY HAD TO CHANGE IT AGAIN TO GET TO THE POINT OF A POSITIVE OVERCHARGE FOR TARGET, AND THAT, YOUR HONOR, WE THINK EXEMPLIFIES EXACTLY WHY THE EPP'S' MOTION SHOULD BE DENIED. THIS IS THE EPITOME OF CUSTOMER BY CUSTOMER, RETAILER BY RETAILER INDIVIDUALIZED NEGOTIATIONS. IT'S NOT A COMMON METHOD FOR PROVING IMPACT.

SO LAST, AND I WON'T SPEND A LOT OF TIME ON THIS -- I'M

GETTING THE YANK FROM MY COLLEAGUES HERE -- JUST ON

PASS-THROUGH, I THINK IT'S IMPORTANT TO NOTE, AND YOU WILL HEAR

ABOUT THIS, DR. SUNDING'S PASS-THROUGH OPINIONS REALLY ARE

BASED ON A LOT OF ASSUMPTIONS WHICH ARE NOT BACKED UP BY THE

EVIDENCE. LASTLY, OF COURSE, DR. SUNDING'S OUTCOME-DRIVEN

METHODOLOGY, HE MAKES A LOT OF ASSUMPTIONS AND THEY RESULT IN

ABSURD RESULTS. HE'S BASED HIS WORK ON TIME PERIODS THAT WERE 1 2 CHOSEN BY LAWYERS, AND IGNORES OVER 350 MILLION REAL DOLLARS IN DISCOUNTS TO GET TO THE RESULTS THAT HE SEEKS. 3 4 SO I WILL LEAVE IT AT THAT, YOUR HONOR, AND IF WE HAVE 5 TIME, I'LL COME BACK TO THE CHOICE OF LAW ARGUMENTS LATER TODAY. THANK YOU. 6 7 THE COURT: THANK YOU VERY MUCH, MS. LEE. 8 SO WITH THAT, WE'RE TO THE DIRECT EXAMINATION OF YOUR 9 EXPERT, COUNSEL. PLEASE COME FORWARD AND STATE YOUR APPEARANCE FOR THE RECORD, SIR. 10 MR. BURT: THOMAS BURT FOR EPP'S. THANK YOU, YOUR 11 HONOR. EPP'S CALL PROFESSOR DAVID SUNDING. 12 13 (WITNESS SWORN ON OATH.) THE CLERK: PLEASE STATE YOUR FULL NAME AND SPELL YOUR 14 15 LAST NAME FOR THE RECORD. 16 THE WITNESS: MY NAME IS DAVID SUNDING, LAST NAME IS 17 SPELLED S-U-N-D-I-N-G. 18 DIRECT EXAMINATION BY MR. BURT: 19 O. GOOD MORNING, PROFESSOR. 20 Α. 21 GOOD MORNING. 22 Ο. I WANT TO KNOW IF YOU SAW THAT SLIDE PRESENTATION. WAS THAT PICTURE TAKEN BY THE DEPARTMENT OF MOTOR VEHICLES? 23 DR. SUNDING, DO YOU HAVE AN ACADEMIC POSITION? 24 A. I DO. 25

- WHAT IS THAT ACADEMIC POSITION? 1 2 I'M A PROFESSOR AT BERKELEY IN THE DEPARTMENT OF Α. AGRICULTURAL AND RESOURCE ECONOMICS. 3 Q. DO YOU HAVE A PARTICULAR POSITION WITHIN YOUR DEPARTMENT? 5 I DO. I HOLD THE THOMAS GRAFF CHAIR OF NATURAL RESOURCES, Α. 6 AND I'M ALSO THE DEPARTMENT CHAIR. 7 HOW LONG HAVE YOU BEEN IN ACADEMIA? Ο. 8 SINCE I FINISHED MY PH.D IN 1989. I'VE BEEN A PROFESSOR 9 FOR MOST OF THAT TIME. AND HAVE YOU BEEN IN ACADEMIA CONTINUOUSLY SINCE YOU GOT 10 YOUR PH.D.? 11 NO, AT THE END OF THE FIRST CLINTON TERM, AND THE 12 13 BEGINNING OF THE SECOND CLINTON TERM, I WAS A SENIOR ECONOMIST AT THE PRESIDENT'S COUNCIL OF ECONOMIC ADVISERS. 14 15 Q. IS THAT THE ONLY THING YOU'VE DONE FOR THE GOVERNMENT? 16 Α. NO. 17 WHAT ELSE HAVE YOU DONE FOR THE GOVERNMENT? Ο. 18 WELL, A GOOD DEAL OF MY UNIVERSITY RESEARCH IS FUNDED BY 19 FEDERAL GOVERNMENT AGENCIES. I'VE ALSO SERVED ON PANELS OF THE NATIONAL ACADEMY OF SCIENCES AND THE U.S. EPA SCIENCE ADVISORY 20 21 BOARD. 22 O. DO YOU PUBLISH RESEARCH IN PEER-REVIEWED ACADEMIC 23 JOURNALS? A. I DO. THAT'S THE NAME OF THE GAME AS A PROFESSOR. 24
  - Q. CAN YOU GIVE ME A BALLPARK FIGURE FOR HOW MANY PAPERS

1 YOU'VE PUBLISHED? 2 A. I DON'T HAVE AN EXACT NUMBER, CERTAINLY NORTH OF A HUNDRED 3 PAPERS IN PEER-REVIEWED JOURNALS. DO YOU EVER SOLE AUTHOR PAPERS FOR PUBLICATION? 5 SOLE AUTHORING IS UNUSUAL IN ECONOMICS, BUT I HAVE SOLE 6 AUTHORED PAPERS, YES. 7 Ο. DO ANY OF YOUR PAPERS MEASURE ECONOMIC IMPACT? 8 Α. THE VAST MAJORITY OF THEM DO. Ο. IS YOUR PROFESSORSHIP YOUR ONLY JOB? Α. 10 NO. 11 Q. WHAT OTHER JOBS DO YOU HAVE? 12 I'M ALSO A PRINCIPAL IN THE LITIGATION PRACTICE OF A FIRM 13 CALLED THE BRATTLE GROUP, WHICH IS AN ECONOMIC AND FINANCIAL 14 CONSULTING FIRM. 15 AND IS YOUR CONSULTING IN CLASS ACTIONS OR MOSTLY IN CLASS 16 ACTIONS OR SOMETHING ELSE? 17 A. I HAVE WORKED IN CLASS ACTIONS. I THINK A UNIFYING -- I 18 TRY TO DO CONSULTING WORK THAT COMPLEMENTS WHAT I DO AS AN 19 ACADEMIC, SO I TRY TO WORK ON SIMILAR TYPES OF TOPICS. I FIND DOING THIS KIND OF WORK MAKES ME A BETTER TEACHER AND 20 21 RESEARCHER. 22 Ο. HAVE YOU GIVEN TESTIMONY IN COURT BEFORE? 23 Α. I HAVE. WHAT IS THE HIGHEST COURT BEFORE WHICH YOU'VE TESTIFIED? 24 Q. I TESTIFIED IN A COUPLE OF INSTANCES BEFORE A SPECIAL 25 Α.

1 MASTER OF THE U.S. SUPREME COURT. THAT WAS IN ORIGINAL 2 JURISDICTION CASES BETWEEN STATES. I WAS HIRED AS AN EXPERT BY THE STATE OF FLORIDA RECENTLY IN ITS CASE AGAINST GEORGIA. 3 4 WAS HIRED AS AN EXPERT BY THE STATE OF TEXAS IN ITS CASE 5 AGAINST NEW MEXICO, AND ALSO BY THE STATE OF KANSAS -- I'M SORRY, I WAS HIRED BY NEBRASKA IN ITS CASE AGAINST KANSAS. 6 7 WHAT'S THE HIGHEST COURT TO CITE YOU? Ο. 8 THAT WOULD ALSO BE THE SUPREME COURT. IN SUPREME COURT 9 DECISIONS I WAS CITED FOR MY WORK THAT I DID IN THE ORIGINAL JURISDICTION CASES, BUT I'VE ALSO -- THE SUPREME COURT CITED MY 10 ACADEMIC RESEARCH. 11 12 Q. CAN YOU TELL ME WHAT YOU WERE ENGAGED TO DO IN THIS CASE. 13 SURE. I WAS ENGAGED TO DO TWO THINGS; FIRST TO DETERMINE WHETHER OR NOT, USING ACCEPTED ECONOMIC METHODS, THERE WAS 14 15 EVIDENCE OF INJURY SUSTAINED ON A CLASS-WIDE BASIS DURING THE 16 CARTEL PERIOD -- WHAT I'LL CALL THE CARTEL PERIOD. SECOND WAS 17 MORE OF A METHODOLOGICAL OUESTION, COULD THAT DAMAGE BE 18 ASSESSED USING CLASS-WIDE EVIDENCE? 19 Ο. AND DOES YOUR REPORT SUMMARIZE THE OPINIONS THAT YOU 20 FORMED? IT DOES. I HAVE TWO REPORTS, AND TOGETHER THEY SUMMARIZE 21 Α. 22 MY OPINIONS. HAVE YOU SEEN ANYTHING RELEVANT TO THIS CASE BETWEEN THE 23

TIME YOU FINISHED YOUR LAST REPORT AND TODAY?

WELL, THERE ARE A NUMBER OF DEPOSITIONS THAT ARE ONGOING.

24

25

Α.

I'VE SEEN WHAT I THINK IS REFERRED TO AS THE DAP DEPOSITIONS, 1 2 AND I'VE SEEN SOME OF THE RESULTS OF THAT. WE HAVE NEW WORK NOW FROM DR. HAIDER THAT I'VE RESPONDED TO, THAT WE'LL TALK 3 4 ABOUT TODAY IN SOME DETAIL. HAS ANYTHING YOU'VE SEEN, FROM THE TIME THAT YOU FINISHED 5 6 YOUR REPLY REPORT UNTIL YOU TOOK THE STAND TODAY, CAUSED YOU TO 7 WITHDRAW OR CHANGE ANY OF YOUR OPINIONS? 8 Α. NO, ABSOLUTELY NOT. IS THIS THE ONLY CASE WHERE YOU'VE EXAMINED CARTEL BEHAVIOR? 10 11 Α. NO. 12 WHERE DOES AN ECONOMIST BEGIN IN EXAMINING A CARTEL? 13 WELL, JUST LIKE IN ACADEMIC WORK, IN ANALYSIS OF THE IMPACTS OF A CARTEL, IT'S IMPORTANT FOR THE MODEL TO BE 14 GROUNDED IN REALITY, IN THE REAL WORLD, AND SO IN A CASE LIKE 15 16 THIS THERE'S ADMISSIONS, THERE ARE GUILTY PLEAS, THERE'S THINGS 17 THAT HAVE BEEN ADMITTED INTO EVIDENCE THAT GUIDE ME AS A 18 RESEARCHER IN THE WORK THAT I HAVE TO DO. 19 Ο. OKAY. WE'VE HEARD A LOT ABOUT THE INDICTMENTS, THE GUILTY PLEAS, THE INTERROGATORIES, WHAT DOES THAT STUFF TELL YOU AS AN 20 ECONOMIST DIFFERENTLY FROM WHAT IT TELLS THE REST OF US? 21 22 Α. A COUPLE OF THINGS. IT'S USEFUL TO ME TO HEAR THE PEOPLE WHO HAVE ADMITTED GUILT, FOR EXAMPLE, TALK ABOUT WHAT IT IS 23 24 THEY DID, TO TALK ABOUT THE NATURE OF THE PRICE-FIXING CONSPIRACY. THAT MAY REVEAL EVIDENCE THAT I WOULD WANT TO 25

INCORPORATE INTO MY ECONOMIC MODELING. SECOND, ONE OF THE 1 2 FEATURES THAT I NEED TO BUILD INTO MY MODEL IS SOME INFORMATION ABOUT THE TIMING OF THE CARTEL, WHEN DID IT BEGIN, WHEN DID IT 3 4 END. 5 DID THE EVIDENCE YOU HAD AVAILABLE TO YOU ALLOW YOU TO Q. 6 FORM AN OPINION ABOUT -- THAT THERE WAS A POINT IN TIME WHEN 7 YOU SHOULD START LOOKING FOR THE EFFECT OF THE CARTEL ON PRICES 8 IN THE MARKET? 9 IT DID. THE BEGINNING POINT I USED WAS THE MIDDLE OF 10 2011. IS THAT A CHOICE THAT YOU MADE OR A CHOICE THAT LAWYERS 11 Ο. 12 MADE FOR YOU? 13 WELL, ULTIMATELY THE LAWYERS ARE IN CHARGE OF DECISIONS LIKE THAT, THE LAWYERS ARE THE ONES THAT HAVE TO FILE THE 14 15 MOTIONS AND ARGUE THE CASE, SO IT'S ULTIMATELY THEIR DECISION, BUT I THINK IT'S FAIR TO CHARACTERIZE MY CHOICE OF A CARTEL 16 17 PERIOD AS BEING I GUESS WHAT I'LL CALL AN ITERATIVE PROCESS, 18 SOME BACK AND FORTH BETWEEN ME AND MY TEAM AND THE ATTORNEYS, 19 AS WE'RE ALL LOOKING AT THE EVIDENCE. AND WHAT WAS THE POINT IN TIME WHEN YOU CHOSE TO START 20 LOOKING FOR A PRICE EFFECT FROM THE CARTEL? 21 22 Α. AGAIN, THE MIDDLE OF 2011. AND WHAT'S THAT BASED ON? 23 Q. BASED ON THE -- THERE WERE ADMISSIONS OF PRICE-FIXING 24 BEGINNING AROUND THAT TIME, SO IN MY REPORT I HAVE SOME 25

SPECIFIC DOCUMENTS AND PIECES OF EVIDENCE I TIE THAT CHOICE TO. 1 2 Q. HOW DID YOU TREAT THE PERIOD FROM SUMMER OF 2008 TO THE SUMMER OF 2011? 3 4 SO THAT WAS INCLUDED IN MY ANALYSIS BECAUSE I THINK IT 5 HELPS US LEARN ABOUT WHAT I'LL TALK ABOUT LATER WHEN I TALK ABOUT THE RELATIONSHIP BETWEEN ECONOMIC FUNDAMENTALS AND MARKET 6 7 PRICES, BUT I DID NOT INCLUDE THAT AS BEING PART OF THE CARTEL 8 PERIOD. 9 AND DID YOU INCLUDE IT AS BEING PART OF THE BENCHMARK 10 PERIOD? Α. NO, I DID NOT. 11 12 DOES A BENCHMARK HAVE TO BE 100 PERCENT FREE OF COLLUSION? 13 NO. THAT WOULD BE IDEAL, BUT I THINK THAT'S SOMEWHAT UNREALISTIC. LIFE DOESN'T ALWAYS WORK OUT SO CLEANLY. 14 15 BELIEVE, AS I THINK THIS WAS DISCUSSED YESTERDAY, USING A 16 BENCHMARK OR A COMPETITIVE PERIOD WOULD HAVE SOME DEGREE OF 17 PRICE INFLATION RESULTING FROM COLLUSION. IF I'M MEASURING A 18 DIFFERENCE BETWEEN CARTEL PRICE AND AN ALREADY INFLATED BENCHMARK PRICE, LOGICALLY IT STANDS TO REASON THAT IT WOULD 19 RESULT IN A CONSERVATIVE ESTIMATE OF THE EFFECT OF THE CARTEL. 20 AND IS THERE PARTICULAR BEHAVIOR THAT YOU'RE AWARE OF 21 Ο. 22 DURING THE 2008 TO 2011 PERIOD THAT DROVE YOUR DECISION TO TREAT IT THE WAY YOU DID? 23 SURE. AS I TALK ABOUT IN MY REPORT, I THINK THERE'S WHAT 24 I WOULD CHARACTERIZE AS MIXED EVIDENCE, SOME PERIODS OF 25

COOPERATION AMONG THE DEFENDANTS DURING THE 2008 TO 2011 1 2 PERIOD, AND OTHER INSTANCES OF VERY AGGRESSIVE, MAYBE EVEN NASTY, PRICE COMPETITION BETWEEN THEM. SO THERE'S NOT A CLEAN 3 4 OR JUST ONE WAY TO CHARACTERIZE WHAT HAPPENED DURING THE 2008 5 TO 2011 PERIOD. AND DO YOU HAVE -- WE HEARD SOME TESTIMONY YESTERDAY ABOUT 6 Ο. 7 THE POSSIBILITY OF DOING A CLASS PERIOD THAT STRETCHED ALL THE 8 WAY FROM 2004 TO MAYBE AS FAR AS 2017. DID YOU HEAR THAT 9 TESTIMONY? I DID. I HEARD DR. JOHNSON TALK ABOUT THAT. 10 Α. ALL RIGHT. AS AN ECONOMIST, DO YOU HAVE A VIEW OF WHAT 11 Q. 12 WOULD HAPPEN IF YOU TRIED TO MEASURE THAT CLASS PERIOD WITH THE 13 DATA THAT YOU'VE GOT HERE? I DO. THAT WOULD BE -- FOR LACK OF A BETTER WORD, THAT 14 15 WOULD A WEIRD MODEL TO RUN BECAUSE THINK ABOUT WHAT YOU WOULD BE DOING, AND THINK ABOUT WHAT DR. JOHNSON DID DO, HE TESTIFIED 16 17 THAT HE DIDN'T THINK HE HAD ANY COMPETITIVE OBSERVATIONS 18 POST-2017, SO BASICALLY WHAT -- OR POST-2015, SO WHAT HE DID DO IS ESTIMATE A MODEL WHERE YOU'RE TRYING TO PREDICT A 19 COMPETITIVE PRICE FROM 2004 ONWARDS BASED ONLY ON DATA FROM 20 21 2002 TO 2004. WELL, THAT'S A VERY DIFFICULT ASSIGNMENT, AND 22 IT'S NOT ONE THAT I THINK WOULD BE LIKELY TO LEAD TO A SENSIBLE 23 OUTCOME. OKAY. SO DO YOU HAVE A VIEW AS TO WHEN THE EFFECT OF THE 24 CARTELS STOPPED? 25

1 Α. YES, IN THE MIDDLE OF 2015. 2 Q. WHAT'S YOUR BASIS FOR THAT DECISION? THAT WAS THE PUBLIC ANNOUNCEMENT OF THE ANTITRUST 3 Α. 4 INVESTIGATION BY THE FEDERAL GOVERNMENT. 5 DID YOU START YOUR BENCHMARK IMMEDIATELY AT THAT POINT? Q. NO, I ALLOWED FOR A SIX-MONTH WHAT I CALL A COOLING OFF 6 Α. 7 PERIOD. 8 Ο. AND WHY DID YOU DO THAT? WELL, THERE'S SOME ACADEMIC LITERATURE ON THIS POINT. 9 ONCE COLLUSIVE BEHAVIOR IS DETECTED, THINGS DON'T REVERT TO A 10 COMPETITIVE ENVIRONMENT IMMEDIATELY. THINK ABOUT SOME OF THE 11 PRACTICALITIES OF THAT. IF THE GOVERNMENT ANNOUNCES AN 12 13 ANTITRUST INVESTIGATION IN AN INDUSTRY, AND IMMEDIATELY PRICES DROP BY 20 PERCENT, THAT WOULD BE EVIDENCE THAT THEY WERE TOO 14 HIGH TO BEGIN WITH SO NORMALLY THINGS COOL OFF FOR A PERIOD OF 15 TIME. SIX MONTHS WAS A MODELING CHOICE THAT I USED. 16 17 O. I'M GOING TO SORT OF SKIP THE REGRESSION 101 BECAUSE WE'VE 18 HAD A LOT OF TESTIMONY ON IT. HOW DOES AN ECONOMIST CHOOSE THE INDEPENDENT VARIABLES FOR A REGRESSION? 19 SURE. I'M GOING TO USE TERMINOLOGY THAT I THINK WE HEARD 20 YESTERDAY, BUT THE THING THAT WE'RE TRYING TO EXPLAIN IN A 21 22 REGRESSION MODEL I'LL CALL THE DEPENDENT VARIABLE, THAT'S THE THING THAT WE'RE INTERESTED IN UNDERSTANDING. AND THEN THERE 23 ARE A SERIES OF EXPLANATORY OR INDEPENDENT VARIABLES. THOSE 24 INDEPENDENT VARIABLES THEY SHOULD BE RELATED, THEORETICALLY, 25

1 EMPIRICALLY TO THE DEPENDENT VARIABLE. YOU DON'T WANT THEM TO 2 BE TOO RELATED TO EACH OTHER, AND MOREOVER THEY SHOULD BE WHAT 3 WE CALL EXOGENOUS, SO DETERMINED OUTSIDE THE INDUSTRY THAT 4 WE'RE LOOKING AT. 5 SO HOW DO YOU CHOOSE THE SUPPLY VARIABLES? 6 Α. SURE. SO IN THE OVERCHARGE REGRESSIONS THAT I RAN, WHICH 7 IS WHAT I THINK WE'RE TALKING ABOUT NOW, THE DEPENDENT 8 VARIABLE, THE THING I'M TRYING TO EXPLAIN, IS THE WHOLESALE PRICE, THE NET PRICE, AND THEN I HAVE TWO SETS OF EXPLANATORY 9 OR INDEPENDENT VARIABLES. ONE SET OF THOSE RELATES TO SUPPLY 10 CONDITIONS THAT AFFECT COST, ANOTHER SET OF THEM REFERS TO OR 11 12 REFLECTS DEMAND CONDITIONS THAT AFFECT THE AMOUNT OF TUNA THAT 13 CONSUMERS MIGHT WANT TO PURCHASE. 14 SO WHEN YOU GET TO THE DEMAND SIDE, CAN YOU JUST USE 15 SOMETHING ABOUT TUNA SALES? 16 Α. NO. MODEL -- AND I DON'T THINK THERE SHOULD BE 17 DISAGREEMENT ABOUT THIS AMONG THE EXPERTS, A MODEL THAT HAD THE 18 PRICE OF TUNA AS A DEPENDENT VARIABLE, AND THE QUANTITY OF TUNA 19 SALES AS AN EXPLANATORY VARIABLE, THAT WOULD SUFFER FROM WHAT WE CALL (EXOGENATING), IT WOULD BE A MIS-SPECIFIED MODEL. YOU 20 21 WOULDN'T KNOW IF YOU WERE ESTIMATING A SUPPLY RELATIONSHIP OR A 22 DEMAND RELATIONSHIP. SO I USED AN APPROACH THAT IS VERY COMMON IN THE ECONOMICS LITERATURE TO EXPLAIN PRICE, THE DEPENDENT 23 24 VARIABLE AS A FUNCTION OF EXOGENOUS SUPPLY AND DEMAND FACTORS. IS THERE ALWAYS FOR ECONOMISTS A SINGLE RIGHT ANSWER FOR 25 Ο.

WHICH VARIABLES SPECIFY A MODEL?

- A. NO. I WISH IT WERE THAT SIMPLE. NO, YOU CAN HAVE A SITUATION, AND WE SEE IT ALL THE TIME IN THE UNIVERSE AND ELSEWHERE, WHERE VERY GOOD, COMPETENT ECONOMISTS CAN APPROACH A SITUATION AND USE SOMEWHAT DIFFERENT MODELS WITH SOMEWHAT DIFFERENT DATA, REACH SOMEWHAT DIFFERENT CONCLUSIONS, AND THEY CAN BOTH BE GOOD APPROACHES.
- Q. HOW DOES A REGRESSION TELL YOU ABOUT THE EFFECT OF A CARTEL ON THE PRICES FOR THE CARTEL'S GOODS?
- A. SO, YEAH, I HEARD A LITTLE BIT OF TESTIMONY ABOUT THIS YESTERDAY, BUT LET ME EXPLAIN IT IN MY OWN WORDS. WHAT I'M TRYING TO MEASURE IS WHETHER OR NOT THE CARTEL RESULTED IN AN ELEVATION IN WHOLESALE PRICES. WELL, ELEVATION RELATIVE TO WHAT? SO WE HAVE ACTUAL PRICES, BUT THEN I NEED A MODEL TO ESTIMATE WHAT WOULD HAVE BEEN PRICES IF ALL THE INDUSTRY PARTICIPANTS HAD BEEN BEHAVING COMPETITIVELY. SO THAT IS A "BUT FOR" WORLD THAT I'LL NEED TO MODEL USING STATISTICAL ANALYSIS.

SO MY BASIC APPROACH IS TO LOOK AT PERIODS WHEN THE INDUSTRY'S COMPETITIVE, DEVELOP A RELATIONSHIP BETWEEN

FUNDAMENTALS AND MARKET PRICES, AND THEN USE THAT RELATIONSHIP

TO PREDICT WHAT WOULD HAVE BEEN THE PRICE UNDER COMPETITION

DURING THE CARTEL PERIOD, AND THEN TEST, NOT ASSUME, BUT TEST

WHETHER OR NOT ACTUAL PRICES DURING THE CARTEL PERIOD WERE

HIGHER THAN WHAT ONE HAVE PREDICTED BASED ON OTHER EPISODES OF

1 COMPETITION. 2 Q. DID YOU HAVE A CHANCE TO WATCH DR. MANGUM'S TESTIMONY 3 YESTERDAY? A. I DID. 5 Q. IS WHAT DR. MANGUM DID FOR HIS OVERCHARGE DIFFERENT FROM 6 WHAT YOU DID? 7 IT CERTAINLY DIFFERS IN SOME FEATURES. I WILL TELL THE 8 COURT AND TELL YOU THERE ARE MANY MORE SIMILARITIES THAN DIFFERENCES, WHICH I THOUGHT WAS GOOD, AND FRANKLY CONFIRMING OF THE ROBUSTNESS OF MY FINDINGS. WE WORKED INDEPENDENTLY. 10 I'VE NEVER TALKED TO DR. MANGUM IN MY LIFE. I'VE NEVER MET HIM 11 BEFORE HE WAS IN THE COURTROOM YESTERDAY, BUT WE CAME TO WHAT I 12 13 WOULD CHARACTERIZE AS QUITE SIMILAR APPROACHES AND FAIRLY SIMILAR RESULTS USING SOMEWHAT DIFFERENT METHODS. 14 15 Q. SO WERE THE TWO OF YOU MEASURING THE SAME UNIVERSE OF 16 DATA? A. NO, WE WERE NOT. 17 18 Ο. CAN YOU TELL ME THE DIFFERENCES. 19 A. SURE. I LIMITED MY ANALYSIS BECAUSE I'M CONCERNED WITH, ULTIMATELY, IMPACTS ON END-PAYER PLAINTIFFS. I LIMITED MY 20 ANALYSIS TO MORE CONSUMER SIZES, PRODUCTS THAT WERE LESS THAN 21 22 40 OUNCES, AND HE INCLUDED WHAT I'LL CHARACTERIZE AS FOOD SERVICE SIZES, GREATER THAN 40 OUNCES. 23 DID DR. HAIDER'S REPORT SAY THAT YOU USED SOME DOZEN 24 PRODUCTS THAT WERE 40 OUNCES OR LARGER? 25

1 Α. SHE DID SAY THAT. 2 Q. IS SHE RIGHT ABOUT THAT? NO, SHE'S WRONG. 3 Α. Q. HOW DID YOU CHECK THAT? 5 Α. WELL, I WENT BACK AND SHE SAID SHE FOUND A NUMBER OF OBSERVATIONS WHERE I WAS LOOKING AT PRODUCTS THAT WERE GREATER 6 7 THAN 40 OUNCES, AND WHAT I FOUND PRETTY QUICKLY, WHEN I CHECKED 8 AGAINST THE DATA, IS THOSE WERE CASES WHERE SMALL CONTAINERS WERE SOLD IN MULTIPACKS, RIGHT, AND SO I THINK WHAT HAPPENED THERE WAS THE DESCRIPTION OF THE PRODUCT IN THE IRI DATABASE IS 10 LESS FULSOME THAN THE DESCRIPTION IN THE DEFENDANT'S OWN DATA 11 SO SHE DIDN'T, I THINK, GO BACK AND CHECK AGAINST THE 12 13 DEFENDANT'S OWN DATA. O. SO I HEARD ON -- I BELIEVE ON THE REDIRECT I HEARD DR. 14 MANGUM USE THE TERM "DATA CLEANING," IS THAT A TERM YOU'VE 15 16 HEARD BEFORE? 17 A. SURE. OF COURSE. 18 IS WHAT YOU'VE JUST DESCRIBED A DATA CLEANING ISSUE? 19 Α. IT IS. SO DID YOU CALCULATE ONE REGRESSION FOR ALL THE PACKAGED 20 0. TUNA AT WHOLESALE OR SOMETHING ELSE? 21 22 NO, I CALCULATED ONE -- REMEMBER, WE'RE STILL ON THE Α. OVERCHARGE REGRESSION TOPIC. I CALCULATED ONE OVERCHARGE 23 REGRESSION FOR EACH OF THE THREE DEFENDANTS. 24 25 Q. WHY?

WELL, TO START WITH, WE SAW A MAP YESTERDAY THAT SHOWS THE 1 2 LOCATIONS OF FACTORIES AROUND THE WORLD FOR EACH OF THE THREE DEFENDANTS. THEY DON'T ALL PRODUCE IN THE SAME LOCATIONS. 3 4 BECAUSE THEY HAVE DIFFERENT SHIPPING COSTS, THEY MAY BE 5 AFFECTED DIFFERENTLY BY, SAY, FUEL PRICES OR LABOR RATES BECAUSE THEY'RE HIRING LABORERS TO WORK IN THESE FACTORIES IN 6 7 DIFFERENT PARTS OF THE WORLD. SO I ALLOWED THE MODEL TO BE 8 FLEXIBLE ENOUGH TO TAKE ACCOUNT OF THE FACT THAT DEFENDANTS --9 THEY MAY NOT BE ALL AFFECTED BY SAY COST CHANGES IN EXACTLY THE SAME WAY. I DIDN'T ASSUME THEY WERE DIFFERENT, BUT I ALLOWED 10 THE MODEL THAT DEGREE OF FLEXIBILITY. 11 WHEN YOU CALCULATED THE RELATIONSHIP BETWEEN THE ECONOMIC 12 Q. 13 FUNDAMENTALS AND THE WHOLESALE PRICE JUST FOR PACKAGED TUNA THAT THE DEFENDANTS CHARGED, WHAT WERE YOUR RESULTS? 14 I FOUND EVIDENCE OF A POSITIVE AND STATISTICALLY 15 16 SIGNIFICANT OVERCHARGE DURING THE CARTEL PERIOD FOR ALL THREE 17 DEFENDANTS. IT WAS 4 AND-A-HALF PERCENT FOR STARKIST, 18 9.4 PERCENT FOR BUMBLEBEE, AND 8.1 PERCENT FOR CHICKEN OF THE SEA WERE ALL POSITIVE AND STATISTICALLY SIGNIFICANT. 19 NOW, YOU JUST SAID STARKIST WAS A SOMEWHAT LOWER NUMBER 20 THAN THE OTHERS. CAN YOU EXPLAIN TO ME THAT DIFFERENCE. 21 22 Α. SURE. STARKIST HAS THE LARGEST MARKET SHARE. THEY'RE THE BIGGEST FIRM IN THE INDUSTRY, AND THERE IS SOME EVIDENCE, THAT 23 I TALK ABOUT IN MY REPORT, THAT THERE MAY BE A BIT MORE BRAND 24 AWARENESS OR A LITTLE BIT HIGHER WILLINGNESS TO PAY FOR 25

STARKIST PRODUCTS, SO THEY CAN COMMAND A BIT OF A PRICE PREMIUM
RELATIVE TO THE OTHER DEFENDANTS.

SO IN A SITUATION WHERE -- IN COMPETITION, ONE FIRM IS

LARGER THAN THE OTHERS AND HAS A BIT OF A PRICE PREMIUM, IT

STANDS TO REASON, FROM AN ECONOMIC THEORY POINT OF VIEW, THAT

THEIR PERCENT PRICE ELEVATION IN A CARTEL IS GOING TO BE LOWER

THAN FIRMS THAT HAVE A SOMEWHAT SMALLER MARKET SHARE AND

SMALLER ABILITY TO COMMAND A PRICE PREMIUM IN COMPETITION, SO

THE RESULTS TO ME MADE SENSE AS AN ECONOMIST.

- Q. WAS THERE A WAY FOR YOU TO DO A REALITY CHECK OF THE RESULTS OF YOUR OVERCHARGE REGRESSION AGAINST THE REAL WORLD PERFORMANCE OF THE DEFENDANT COMPANIES?
- A. YES, ABSOLUTELY.

- O. HOW DID YOU DO THAT?
  - A. SURE. WELL, IN THE FIRST INSTANCE I CHECKED THE

    OVERCHARGE PERCENTAGES AGAINST THE DEFENDANTS' OWN REPORTED

    PROFIT MARGINS. SO IF IT WERE THE CASE, JUST FOR EXAMPLE, IF I

    ESTIMATED AN OVERCHARGE OF 20 PERCENT, AND DEFENDANTS ARE

    REPORTING A PROFIT MARGIN OF 10 PERCENT, THAT WOULD CAUSE ME TO

    THINK LIKE WHAT -- IS THAT RIGHT? WHAT ELSE IS GOING ON HERE?

    THAT IS NOT WHAT I FOUND. WHAT I FOUND HERE IS THAT THE

    OVERCHARGE WAS SIGNIFICANTLY SMALLER FOR ALL THREE DEFENDANTS

    THAN THEIR REPORTED PROFIT MARGIN.
  - Q. CAN YOU TELL IF THE AVERAGE OVERCHARGE FOR EACH DEFENDANT APPLIES TO EACH WHOLESALE CUSTOMER?

1 NO, IT DOESN'T. 2 Q. CAN YOU DO ANYTHING TO HELP YOU DETERMINE WHETHER THAT'S GENERALLY THE CASE? 3 Α. ABSOLUTELY. 5 WHAT CAN YOU DO? Q. SURE. SO WHAT I DID -- JUST TAKE A SECOND AND LET'S 6 Α. 7 REVIEW THE STEPS IN MY METHODOLOGY. I START WITH COLLECTION OF 8 DATA AND ANALYSIS OF THE EVIDENCE IN THE CASE. THAT HELPS ME GO TO STEP 2, WHICH IS TO BUILD AN OVERCHARGE MODEL BASED ON A REGRESSION ANALYSIS SEPARATELY FOR EACH DEFENDANT. THEN THE 10 THIRD STEP IS I DON'T JUST ASSUME THAT OVERCHARGES ARE POSITIVE 11 EVERYWHERE IN THE MARKET, I ACTUALLY TEST THAT, AND I TESTED 12 13 THAT IN WAYS THAT WERE INFORMED BY MY THINKING AS AN ECONOMIST. I DIDN'T JUST LOOK RANDOMLY EVERYWHERE. I MADE SOME SORT OF 14 15 INFORMED CHOICES ABOUT SENSITIVITY ANALYSES TO RUN. I LOOKED 16 AT WHETHER OR NOT OVERCHARGES VARIED BY LIGHT MEAT VERSUS WHITE 17 MEAT. I LOOKED AT WHETHER OVERCHARGES VARIED BY PRODUCTS IN A 18 POUCH VERSUS PRODUCTS IN A CAN. IMPORTANTLY, I ALSO LOOKED AT 19 WHETHER THE OVERCHARGE VARIES FOR WALMART, WHICH PURCHASES --

WALMART BY ITSELF IS ABOUT 20 PERCENT OF THE MARKET.

THEY'RE A VERY LARGE CUSTOMER. SO IT SEEMED TO ME REASONABLE

TO CHECK IN A SENSITIVITY ANALYSIS WHETHER OR NOT WALMART, ARE

THEY ABLE TO NEGOTIATE THEIR WAY OUT OF THE OVERCHARGE OR DO

THEY EXPERIENCE AN OVERCHARGE, TOO? AND WHAT I FOUND IS

WALMART INDIVIDUALLY PAYS AN OVERCHARGE.

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1 IS THERE ANY WAY TO KNOW WHETHER THE CARTEL TARGETED A 2 BROAD MARKET IMPACT? 3 Α. I THINK THERE IS. 4 Q. WHAT'S THAT? 5 SURE. SO WELL, I HAVE MY OVERCHARGE REGRESSIONS THAT FIND Α. 6 EVIDENCE OF -- WHEN YOU TAKE THE OVERCHARGE REGRESSIONS, 7 COMBINED WITH THE SENSITIVITY ANALYSES, I JUST DON'T FIND 8 ANYWHERE IN THE MARKET WHERE THERE WASN'T EVIDENCE OF AN 9 OVERCHARGE. AND ARE THOSE WHAT YOU CALL SENSITIVITY TESTS? 10 Q. Α. YES. 11 CAN YOU DESCRIBE FOR ME THE SENSITIVITY TEST THAT YOU 12 13 PERFORMED. SURE. I THINK I JUST WENT THROUGH THREE OF THEM. I COULD 14 15 GIVE MORE TECHNICAL DETAIL IF THAT WOULD HELP. 16 Q. LET ME JUST ASK YOU THIS, DR. MANGUM TESTIFIED TO A FEW 17 THINGS LATER, WHITE MEAT VERSUS LIGHT MEAT -- YESTERDAY I MEAN. 18 WHITE MEAT VERSUS LIGHT MEAT, POUCH VERSUS CAN, THAT SORT OF THING. HE MADE SOME OF THE SAME CHOICES ABOUT SENSITIVITY 19 TESTING AS YOU DID; IS THAT COINCIDENCE? 20 NO. AGAIN I THINK, FROM WHAT I HEARD YESTERDAY FROM HIM, 21 Α. 22 HE AND I BOTH APPROACHED THE SENSITIVITY TESTING EXERCISE BASED ON OUR KNOWLEDGE AS ECONOMISTS. WE LOOK FOR THE PLACES WHERE 23 24 WE WOULD EXPECT TO SEE A DIFFERENCE IN OVERCHARGE, IF ONE 25 EXISTED.

WOULD AN ECONOMIST PICK A PLACE THAT DOESN'T PARTICULARLY 1 2 SUGGEST ITSELF FROM THEORY OR FACTS TO DO SENSITIVITY TESTING? NO. IF YOU WERE TO DO THAT, THAT WOULD BE DATA MINING AND 3 Α. 4 NOT ECONOMICS. 5 AND WHAT'S THE PROBLEM WITH THAT? Q. 6 Α. WELL, THE PROBLEM WITH THAT IS IT'S IMPORTANT TO HAVE A 7 PRINCIPLE REASON WHY YOU'RE RUNNING A HYPOTHESIS TEST. 8 NOT APPROPRIATE TO JUST THROW SPAGHETTI AT THE WALL AND RUN 9 HUNDREDS OR THOUSANDS OF INDIVIDUAL REGRESSIONS WITHOUT THOUGHT GIVEN TO WHY YOU'RE DOING THAT, WHAT IS IT YOU HOPE YOU'RE 10 GOING TO FIND WITH THAT SORT OF AN EXERCISE. 11 Q. AND DID ANYTHING ELSE IN DR. MANGUM'S WORK BEAR ON WHETHER 12 DIRECT PURCHASERS ALL PAID AN OVERCHARGE? 13 14 HE FOUND THAT THEY DID, YES. BASED ON HIS, AGAIN, SIMILAR 15 BUT SLIGHTLY DIFFERENT APPROACH, HE FOUND AN OVERCHARGE VIRTUALLY EVERYWHERE. 16 17 O. NOW, IN DR. HAIDER'S REPORT THERE'S A BIT ABOUT A 18 COEFFICIENT IN YOUR OVERCHARGE MODEL THAT'S FOR POUCH TUNA THAT'S 30 TIMES -- THE EFFECT IS -- I'M NOT GOOD AT THIS MATH. 19 A 3,000 COEFFICIENT, DO I HAVE THAT RIGHT? 20 YES. SHE MAKES THE ASSERTION THAT ONE OF MY ESTIMATED 21 Α. 22 COEFFICIENTS IMPLIES THAT GOING FROM POUCH TO CAN, OR MAYBE IT'S THE OTHER WAY AROUND, CHANGES THE PREDICTED PRICE IN MY 23 24 MODEL BY 3,000 PERCENT.

O. IS SHE RIGHT ABOUT THAT?

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A. NO, SHE'S NOT. SHE DID THE ANALYSIS INCORRECTLY ON THAT POINT. SHE NEGLECTED TO ACCOUNT FOR THE FACT THAT MY PACKAGING TYPE VARIABLE ENTERS MORE THAN ONCE INTO THE REGRESSION. IT ENTERS IT BY ITSELF, AND THEN ENTERS INTERACTED WITH OTHER TERMS. WHEN YOU DO THE ANALYSIS PROPERLY, WHAT YOU FIND IS THAT SELLING TUNA IN A POUCH MY MODEL PREDICTS IT SHOULD BE ABOUT 50 PERCENT MORE EXPENSIVE THAN TUNA IN A CAN, AND THAT'S ABOUT WHAT IT IS IN THE MARKETPLACE.

- Q. I THINK WE ALL HEARD THE TERM CHOW TEST SEVERAL TIMES,

  BOTH YESTERDAY AND THIS MORNING. I'M NOT SURE I EVER GOT A

  REAL EXPLANATION OF WHAT IT IS. CAN YOU EXPLAIN TO ME WHAT A

  CHOW TEST IS.
- A. SURE. I THINK THIS IS IMPORTANT BECAUSE WE'VE HEARD, BOTH
  THE ECONOMIST AND THE ATTORNEYS CHARACTERIZE WHAT A CHOW TEST
  IS.

WHAT A CHOW TEST IS IS A TEST FOR WHETHER OR NOT
ESTIMATED COEFFICIENTS IN A REGRESSION MODEL ARE EQUAL. IT'S
NOT DIRECTLY A TEST FOR POOLING, AS HAS BEEN REPRESENTED, IT'S
A TEST FOR WHETHER OR NOT ESTIMATED COEFFICIENTS ARE EQUAL.
THAT'S IMPORTANT TO KEEP IN MIND. IT'S A TEST THAT ORIGINATED
IN MACROECONOMICS, IN TIME SERIES ANALYSIS, AND IT WAS A TEST
FOR STRUCTURAL BREAKS IN THE ECONOMY, WHETHER THE ECONOMY IN
THE 1970'S LOOKS DIFFERENT THAN IT WAS IN THE 1940'S, FOR
EXAMPLE. I DO THINK IT'S IMPORTANT TO CLEAR OUT SOME OF THE
UNDERBRUSH ON THIS POINT. THE CHOW TEST IS A TEST FOR EQUALITY

1 OF COEFFICIENTS. DOES DR. HAIDER'S CHOW TEST TELL YOU SOMETHING? 2 Q. WELL, IT TELLS ME THAT WHAT I SAID IN MY ORIGINAL REPORT 3 4 WAS TRUE. WHAT DR. HAIDER IS TESTING IS WHETHER OR NOT IN MY 5 OVERCHARGE REGRESSIONS ALL THE ESTIMATED COEFFICIENTS, ALL OF THEM, ARE THE SAME FROM ONE DEFENDANT TO ANOTHER, AND THAT IS 6 7 NOT A TEST THAT I WOULD EXPECT TO PASS, JUST FOR A NUMBER OF 8 TECHNICAL REASONS, AND I SAID IN MY ORIGINAL REPORT THAT THE OVERCHARGE IS NOT EXACTLY THE SAME EVERYWHERE IN THE MARKET, BUT IT'S POSITIVE AND STATISTICALLY SIGNIFICANT EVERYWHERE I 10 11 LOOKED. MR. BURT: YOUR HONOR, AT THIS POINT I WANT TO USE 12 SOMETHING WE HAVEN'T PREMARKED. THIS IS THE DAILIES FROM 13 YESTERDAY THAT WE GOT THIS MORNING. 14 15 THE COURT: OKAY. 16 MR. BURT: I HAVE AN EXTRA COPY. I HAVE MINE MARKED 17 UP. I NEED TO GET ONE TO THE WITNESS, AND I ASSUME YOUR HONOR 18 NEEDS ONE. THE COURT: I DO. THANK YOU. YOU MAY APPROACH THE 19 20 WITNESS. PROFESSOR, WERE YOU IN THE ROOM FOR DR. JOHNSON'S 21 Ο. 22 TESTIMONY YESTERDAY? I WAS, YES. 23 Q. I WANT TO HAVE YOU FLIP, IF YOU COULD, IN THIS TRANSCRIPT 24 FOR ME TO PAGE 51. SO THERE'S AN ANSWER THAT STARTS AT LINE 25

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NUMBER 10, AND YOU CAN TAKE TIME TO READ THE WHOLE QUESTION AND ANSWER FOR CONTEXT, I JUST WANT TO READ A LOUD A PORTION OF THIS ANSWER STARTING AT LINE 12. "IT IS THE CASE IN CAPACITORS THAT THERE I DID SOMETHING DIFFERENT. I ACTUALLY DID INDIVIDUAL REGRESSIONS FOR EACH CLASS MEMBER ON ALL THE FACTORS." DO YOU SEE WHERE IT SAYS THAT? I DO. Α. FOR THOSE OF US THAT CAN'T ACTUALLY WRITE A REGRESSION MODEL, CAN YOU EXPLAIN THE APPROACHES THAT ARE BEING DISCUSSED THERE. A. SURE. SO THERE ARE A COUPLE OF DIFFERENT THINGS GOING ON HERE. WHAT DR. HAIDER DOES IN HER FIRST REPORT, HER LEAD ANALYSIS THAT'S CRITICIZING MY OVERCHARGE MODEL, WHAT SHE DOES IS RUN TOTALLY SEPARATE REGRESSIONS, SUB-REGRESSIONS, FOR EACH DEFENDANT PURCHASER PAYER. SO SHE TAKES THE DATA AND DIVIDES IT UP INTO VERY CLOSE TO 600 INDIVIDUAL SUB-REGRESSIONS, THAT'S WHAT SHE DOES. WHAT DR. JOHNSON DID, WHAT HE DOES NOW, IS NOT IN THE CAPACITORS CASE, BUT WHAT HE'S DOING NOW IS MAINTAINING THE POOLED MODEL AND THEN TESTING FOR INDIVIDUAL DEFENDANTS WHERE THERE ARE DEVIATIONS FROM THE AVERAGE. IT'S A SIMILAR BUT VERY DIFFERENT APPROACH. SO WHAT YOU DESCRIBED FOR DR. HAIDER'S REPORT, WHAT'S WRONG WITH THAT? A. WELL, WE HEARD A LITTLE BIT OF TESTIMONY ABOUT IT TODAY,

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BUT LET ME EXPLAIN IT THIS WAY, IN MY OWN WORDS. FIRST OF ALL, IT'S WRONG. IT LACKS WHAT WE CALL MICROFOUNDATIONS. THERE'S NOT A GOOD REASON GROUNDED IN ECONOMIC THEORY TO ACT AS IF THIS MARKET IS 600 TOTALLY INDEPENDENT RELATIONSHIPS BETWEEN DEFENDANTS AND PURCHASERS. IT JUST DOESN'T WORK LIKE THAT. THE DEFENDANTS COMPETE WITH EACH OTHER. THE PURCHASERS, SOME OF THEM ARE COMPETING DIRECTLY AT THE RETAIL LEVEL. IT'S JUST NOT 600 SEPARATE MARKETS. FURTHERMORE, THE SUB-REGRESSION APPROACH, IT DIVIDES THE DATA UP INTO SO MANY LITTLE BUCKETS THAT IT RESULTS IN STATISTICAL PROBLEMS, AND A NUMBER OF HER RESULTS, WHERE SHE'S CLAIMING THAT SHE'S FINDING A LACK OF SIGNIFICANCE, ARE ACTUALLY ATTRIBUTED TO THE FACT THAT WHEN YOU RUN 600 SEPARATE REGRESSIONS FOR A NUMBER OF THEM YOU BARELY HAVE ANY DATA. IT'S NOT SURPRISING. Q. I WANT TO RETURN TO THIS THEORETICAL FOUNDATION THING. Ι WANT TO MAKE SURE I UNDERSTAND THIS. IS THE REGRESSION SEPARATE FOR EACH -- IN DR. HAIDER'S ORIGINAL WORK IN HER REPORT, IS THE REGRESSION EQUATION SEPARATE FOR EACH CUSTOMER? IT IS. Α. 0. AND IS IT --Α. SHE'S RUNNING -- JUST AGAIN TO RESTATE IT A LITTLE BIT,

A. SHE'S RUNNING -- JUST AGAIN TO RESTATE IT A LITTLE BIT,

SHE'S RUNNING COMPLETELY SEPARATE SUB-REGRESSIONS FOR EVERY

DEFENDANT PURCHASER PAYER, AND SOMETIMES FOR SOME PURCHASERS

SHE'S ACTUALLY RUNNING THREE REGRESSIONS BECAUSE THEY BUY FROM

1 ALL THREE DEFENDANTS. 2 Q. IS THAT AS IF THE PAYER OF ONE PRODUCER AND ONE PURCHASER ARE SEPARATE EQUATIONS? 3 Α. YES, THAT'S EXACTLY WHAT IT IS. 5 WHY WOULD AN ECONOMIST DO THAT? Q. FIRST OF ALL, IT MAKES NO SENSE AS A MATTER OF ECONOMIC 6 Α. 7 THEORY AND THE REALITIES OF THE MARKET. BUMBLEBEE DOESN'T HAVE 8 A SEPARATE FACTORY FOR COSTCO AND AMAZON, THEY HAVE ONE FACTORY. THAT'S INFLUENCED BY COST FACTORS, AND THEY SELL THE OUTPUT FROM THAT FACTORY INTO THE MARKETPLACE. THEY SERVICE A 10 11 NUMBER OF THEIR CUSTOMERS. IT DOESN'T MAKE ANY SENSE AT ALL TO 12 ACT AS IF THESE ARE 600 INDEPENDENT RELATIONSHIPS. 13 HAVE YOU ACTUALLY LOOKED INTO THE COMPUTER PROGRAM THAT RUNS THE RESULTS THAT DR. HAIDER GENERATED? 14 15 Α. I HAVE. 16 Q. AND DOES IT REFLECT THAT SHE DID WHAT WE'VE JUST BEEN 17 DISCUSSING? 18 IT DOES. THERE'S NO DOUBT ABOUT IT, AND SHE SAID IT VERY 19 PLAINLY IN HER REPORT. HAVE YOU HAD A CHANCE TO REVIEW HER DEPOSITION? 20 21 Α. I'M NOT SURE ACTUALLY. I'M SORRY, YES, I HAVE. I'VE 22 LOOKED AT A LOT OF STUFF FOR THIS CASE. I HAVE SEEN HER DEPOSITION. 23 DOES SHE SAY ANYTHING IN HER DEPOSITION TESTIMONY THAT 24 BEARS ON THIS ISSUE OF WHETHER SHE RAN A SEPARATE EQUATION FOR 25

EACH PURCHASER, PRODUCER, PAYER? 1 2 Α. SHE DOES. SHE WAS PRETTY ADAMANT ABOUT IT. 3 0. SO THE WAY THAT SHE RAN IT IN HER REPORT, WHAT DID DR. 4 HAIDER SAY SHE FOUND? 5 SHE FOUND THAT -- AGAIN, THERE WERE 600 INSTANCES WHERE Α. 6 SHE'S RUN SUB-REGRESSION. SHE FINDS THAT IN A NUMBER OF CASES, 7 BETWEEN 27 AND 36 PERCENT OF THE PURCHASERS DON'T HAVE EVIDENCE 8 OF A POSITIVE AND STATISTICALLY SIGNIFICANT OVERCHARGE DURING 9 THE CARTEL PERIOD. IS ANY OF THAT RESULT DRIVEN BY THE LIMITATIONS OF DATA 10 SIZE? 11 A. OF COURSE IT IS, AND I CAN GIVE YOU A SPECIFIC EXAMPLE OF 12 13 THAT. O. WHAT EXAMPLE DO YOU HAVE? 14 15 A. SURE. SO SHE CALLS OUT IN HER REPORT THE FACT THAT HER 16 BELIEF THAT WHEN SHE RUNS MY MODEL ON THE SUB-REGRESSION BASIS 17 THAT STARKIST SALES TO COSTCO DON'T HAVE ANY OVERCHARGE, AT 18 LEAST NO POSITIVE STATISTICALLY SIGNIFICANT OVERCHARGE. SO I READ THAT, AND THAT -- IF THAT'S WHAT SHE'S TELLING THE COURT, 19 THAT'S A SURPRISING STATEMENT BECAUSE THAT DOESN'T SEEM TO ME 20 TO BE VERY REALISTIC. SO I ACTUALLY WENT BACK AND CHECKED WHAT 21 WAS GOING ON IN THAT CASE, AND IN THAT INSTANCE, BECAUSE OF THE 22 WAY SHE'S CHALKED UP THE DATA, SHE HAS ONLY FOUR OBSERVATIONS 23 IN THE COMPETITIVE PERIOD, WITH THE RESULT THAT IN THE END THE 24 MODEL CAN BARELY EVEN ESTIMATE. THE COMPUTER ACTUALLY HAS 25

TROUBLE BECAUSE THERE'S SO LITTLE INFORMATION IN THE DATA THAT 1 2 SHE'S TRYING TO USE THAT IT HAS A HARD TIME EVEN COMPUTING A 3 RESULT. Q. AND WHEN YOU SAY IT HAS A "HARD TIME EVEN COMPUTING A 5 RESULT, " DOES THAT EXPRESS ITSELF SOMEWHERE IN THE OUTPUT? IT DOES. THE MODEL IS SO UNSTABLE, AND THE STANDARD 6 Α. 7 ERRORS ARE SO LARGE, BECAUSE OF HER LACK OF DATA, THAT 8 LITERALLY EVERY TIME YOU PUSH A BUTTON AND RUN THE MODEL YOU'LL GET A DIFFERENT RESULT. YOU'RE BUMPING UP AGAINST THE COMPUTING POWER, AND WE WERE HAVING -- WE HAD DIFFERENT TEAMS 10 OF PEOPLE REPLICATING THIS AND WE KEPT GETTING DIFFERENT 11 ANSWERS, AND FINALLY, WHEN WE LOOKED AT THE DATA, WE FIGURED 12 13 OUT WHAT WAS GOING ON. AND WHEN YOU SAY WHAT WAS GOING ON, YOU MEAN SAMPLE SIZE 14 Ο. 15 ISSUES? YES, SAMPLE SIZE ISSUES. SHE HAD FOUR OBSERVATIONS IN THE 16 Α. 17 COMPETITIVE PERIOD. 18 SO BIG PICTURE, WHAT DOES THIS MEAN FOR THE 19 CUSTOMER-BY-CUSTOMER RESULTS THAT DR. HAIDER SETS FORTH IN HER REPORT? 20 21 Α. WELL, I THINK THE CUSTOMER-BY-CUSTOMER RESULTS, AS A 22 MATTER OF ECONOMIC THEORY, IS WRONG. THIS IS NOT 600 SEPARATE MARKETS, THAT'S TOTALLY UNREALISTIC, SO HER APPROACH LACKS 23 24 MICROFOUNDATIONS. IT'S NOT SOMETHING THAT SOMEONE WOULD DO IN A PEER-REVIEWED ARTICLE. IT'S NOT SOMETHING THAT SOMEONE WOULD 25

DO IN AN ACADEMIC SEMINAR, SO I THINK IT FAILS ON THAT GROUND. 1 2 AND THEN ON PRACTICAL, TECHNICAL STATISTICAL GROUNDS, I THINK THERE ARE PROBLEMS WITH IT AS WELL HAVING TO DO WITH THE 3 4 FACT THAT WHEN YOU DIVIDE THE DATA INTO 600 SEPARATE PILES 5 YOU'RE GOING TO HAVE SOME INSTANCES, IMPORTANT INSTANCES, LIKE 6 STARKIST SELLING TO COSTCO, WHERE YOU DON'T HAVE ENOUGH 7 VARIATION TO ESTIMATE THE RELATIONSHIPS YOU'RE INTERESTED IN. 8 JUST TO BE CLEAR, COSTCO IS NOT A MOM AND POP SHOP, FAIR 9 TO SAY? NO, THEY'RE BIG. A LOT OF FOOD IN MY HOUSE COMES FROM Α. 10 COSTCO. 11 12 SO WAS THERE A WAY FOR YOU TO TEST THE MODEL DR. HAIDER 13 PUT FORTH IN HER ORIGINAL REPORT TO SEE IF IT WAS GIVING YOU BAD ANSWERS OTHER THAN BY LOOKING AT THE SAMPLE SIZE? 14 15 SO AGAIN, I DID SENSITIVITY TESTS TO SEE WHETHER OR NOT 16 THE OVERCHARGES WERE POSITIVE AND STATISTICALLY SIGNIFICANT BUT SOMEWHAT DIFFERENT IN DIFFERENT PARTS OF THE MARKET, AND I JUST 17 18 WAS NOT ABLE TO FIND EVIDENCE, WHEN YOU APPLY THE TEST 19 PROPERLY, THAT THERE'S ANYWHERE IN THE MARKET WHERE THERE'S EVIDENCE OF NO OVERCHARGE. 20 21 0. YOU USED THE TERM "STATISTICAL POWER" BEFORE, CAN YOU 22 EXPLAIN WHAT STATISTICAL POWER IS? SURE. STATISTICAL POWER IT'S A TECHNICAL TERM, AND TO PUT 23 24 IT SIMPLY IT MEANS THE LIKELIHOOD THAT A STATISTICAL TEST WILL UNCOVER A TRUE RELATIONSHIP WHEN IT ACTUALLY IS TRUE. 25

IS THERE A WAY TO TEST DR. HAIDER'S MODEL IN HER ORIGINAL 1 2 REPORT TO SEE IF WHEN A RELATIONSHIP IS TRUE, HER MODEL 3 UNCOVERS IT? 4 THERE IS. I PROVIDED WHAT I CALL A FALSIFIABILITY TEST, 5 AND THE WAY THAT WORKS IS I TOOK THE UNDERLYING DATA AND I 6 ARTIFICIALLY ADDED 10 PERCENT TO THE WHOLESALE PRICES DURING 7 THE CARTEL PERIOD ACROSS THE BOARD, AND THEN I RAN HER 8 SUB-REGRESSION APPROACH TO SEE IF THEY WOULD BE ABLE -- HER 9 SUB-REGRESSIONS WOULD BE ABLE TO DETECT THE OVERCHARGE THAT I INTENTIONALLY PUT IN THERE. SO WE KNOW FOR A FACT THERE'S AN 10 OVERCHARGE. I WANTED TO SEE WHETHER HER MODEL WOULD DETECT 11 12 THAT OVERCHARGE. 13 AND WHAT HAPPENED? HER MODEL FAILED THE FALSIFIABILITY TEST. 14 THERE WAS STILL 15 BETWEEN 11 AND I THINK 29 PERCENT OF THE CASES, THESE 16 INDIVIDUAL DEFENDANT PURCHASER PAYERS, WHERE EVEN THOUGH I PUT A 10 PERCENT OVERCHARGE IN THE DATA, HER APPROACH WAS UNABLE TO 17 18 RECOVER THAT. WHEN YOU MAKE THE OVERCHARGE -- THE FACT OF OVERCHARGE 19 Ο. TRUE BY BUILDING IT INTO THE MODEL, IS THERE A WAY TO DETERMINE 20 21 HOW BIG IT WOULD HAVE TO BE BEFORE THE MODEL IN DR. HAIDER'S 22 REPORT WOULD SHOW IT CONSISTENTLY? THAT CAN BE CALCULATED, AND WHEN I DID THAT, 23 THERE IS. 24 WHAT I SHOWED WAS THAT THE OVERCHARGE WOULD HAVE TO BE IN THE NEIGHBORHOOD OF 200 PERCENT FOR HER APPROACH TO SHOW THAT 25

1 95 PERCENT OF THE PURCHASERS HAD A POSITIVE AND STATISTICALLY 2 SIGNIFICANT OVERCHARGE. O. OKAY. FOR THE KIDS WHO ARE NOT GREAT AT MATH, 200 PERCENT 3 4 WOULD BE THE CARTEL CAUSE OF THE TRIPLING OF THE PRICE; DO I 5 HAVE THAT RIGHT? 6 Α. THAT'S RIGHT. THE STATISTICAL POWER OF HER SUB-REGRESSION 7 APPROACH IS SO LOW THAT IT COULDN'T DETECT AN OVERCHARGE UNLESS 8 PRICES WERE TRIPLED. NOW, DR. HAIDER PURPORTS TO HAVE DONE A FALSIFIABILITY 9 TEST OF YOURS; DID YOU SEE THAT? 10 11 Α. I DID. WHEN DID YOU FIRST SEE THAT? 12 THAT WAS NEW WORK THAT SHE DID. I SAW IT FOR THE FIRST 13 14 TIME A WEEK AGO TODAY. WHEN I WOKE UP TUESDAY MORNING, IT WAS 15 THERE IN MY INBOX. 16 Q. AND SO IN THE INTERVENING DAYS, HAVE YOU BEEN ABLE TO --17 WITHDRAW AND LET ME ASK YOU THIS. DO YOU HAVE ANY DEPOSITION 18 TESTIMONY TO EXPLAIN WHAT THEY DID? I DON'T HAVE DEPOSITION TESTIMONY. THEY HAVE THEIR 19 TURNOVER MATERIAL THAT I'VE BEEN THROUGH, AND SO I THINK I HAVE 20 A GOOD IDEA OF WHAT SHE'S DOING. 21 22 Ο. RIGHT. THIS IS NOT WORK THAT'S IN A REPORT. YOU DON'T HAVE A WRITTEN VERSION OF WHAT SHE DID? 23 THAT'S RIGHT. I HAVE THE SLIDES, AND THEN I HAVE A 24 TURNOVER OF PRODUCTION, BUT THERE'S NO EXPLICIT TYING OF ONE 25

THING TO ANOTHER, AND CERTAINLY NO REPORT. 1 Q. YOU USED THE TERM TURNOVER LIKE YOU KNOW WHAT YOU'RE 2 TALKING ABOUT, AND LIKE I KNOW WHAT YOU'RE TALKING ABOUT. WHEN 3 4 WE TALK ABOUT A TURNOVER, CAN YOU DESCRIBE FOR ME WHAT THAT IS. 5 SURE. SO WHEN I RECEIVED THE SLIDES FROM DR. HAIDER WITH Α. THE NEW WORK DESCRIBED IN IT, SHE ALSO TURNED OVER THE DATA, 6 7 THE COMPUTER CODES THAT SUPPOSEDLY GENERATED THESE RESULTS, AND 8 SO I WENT THROUGH THE COMPUTER CODES AND WAS ABLE TO REPLICATE SOME OF WHAT SHE DID. 9 OKAY. SO I GUESS, FIRST OF ALL, HAVING LOOKED AT THAT 10 WORK, DOES IT CHANGE YOUR OPINION ABOUT THE OVERCHARGE? 11 12 NO, DEFINITELY NOT. 13 NOW, CAN YOU EXPLAIN TO ME WHAT IT IS THAT DR. HAIDER DID IN THIS NEW WORK? 14 SURE. COULD I ACTUALLY -- DO YOU HAVE A COPY OF HER 15 SLIDES? 16 17 O. WE DO. THERE'S AN EXHIBIT BINDER -- A BIG BINDER AND A 18 LITTLE BINDER TO YOUR RIGHT HAND, I THINK, I HOPE. OH, YES. IS IT IN 1 OR 2? 19 Α. THE BIG BINDER, ONE. 20 Ο. Α. 21 OKAY. 22 Q. AT TAB 4 THERE'S SLIDES THAT THE DEFENDANTS TURNED OVER. Α. ALL RIGHT. 23 MR. BURT: BIG BINDER, JUDGE. 24 THE COURT: I'VE GOT SO MANY BINDERS. IT'S NOT THIS 25

1	BINDER, IS IT?
2	MR. BURT: IT SHOULD SAY EPP EXHIBIT 1.
3	THE COURT: 1 OF 2?
4	MR. BURT: EXACTLY.
5	THE COURT: I'VE GOT IT. WHAT TAB?
6	Q. SO, PROFESSOR, YOU ASKED IF YOU COULD JUST LOOK AT THE
7	SLIDES. THEY ARE
8	MS. MANIFOLD: SHE ASKED
9	MR. STEWART: SHE ASKED WHAT SLIDE.
10	MR. BURT: TAB 4.
11	Q. PROFESSOR, HAVE YOU HAD A CHANCE TO TAKE A LOOK AT THOSE
12	SLIDES AND REFRESH YOUR RECOLLECTION?
13	A. I HAVE. I THINK THIS WILL HELP OUR DISCUSSION GO MORE
14	EFFICIENTLY.
15	Q. WHAT WAS IT THAT DR. HAIDER'S NEW WORK DID?
16	A. SO SHE DID TWO THINGS THAT I WOULD HIGHLIGHT.
17	YOUR HONOR, IF YOU TURN TO THE LAST PAGE THERE, THIS IS
18	HER VERSION OF WHAT SHE CALLS A FALSIFIABILITY TEST THAT SHE
19	APPLIED TO MY WORK.
20	Q. PROFESSOR, FOR YOUR BENEFIT AND THE COURT, I WOULD JUST
21	NOTE THAT AT THE BOTTOM RIGHT HAND OF EACH SLIDE THERE'S A
22	NUMBER. THE ONE I THINK THE PROFESSOR JUST ASKED US TO LOOK AT
23	IS PAGE 16.
24	THE COURT: GREAT.
25	Q. PROFESSOR, WHAT WAS IT THAT YOU ASKED TO LOOK AT PAGE 16

1 FOR? WELL, THIS IS ONE NEW PIECE OF WORK, ONE OF THE TWO THAT I 2 Α. WOULD LIKE TO TALK ABOUT, THAT DR. HAIDER DID AND TURNED OVER A 3 4 WEEK AGO. SO WHAT SHE DID HERE WAS AN EXERCISE WHERE SHE WENT 5 THROUGH AND SHE REMOVED THE OVERCHARGE FROM EVERY THIRD PURCHASER, ALL RIGHT, SO SHE KNOCKED OUT A THIRD OF THE 6 7 OVERCHARGE. 8 Ο. AND WHAT DOES THAT TELL YOU? WELL, THE RESULTS -- I COULD HAVE TOLD YOU WHAT THE 9 RESULTS WOULD BE WITHOUT EVEN RUNNING THE REGRESSION, THE 10 ESTIMATED OVERCHARGE GOES DOWN BY A THIRD. 11 DOES IT TELL YOU ANYTHING OTHER THAN THAT? 12 Q. 13 Α. NO. DID THEY GO BACK -- HAVING REDUCED THE INDIVIDUAL FIGURE 14 0. 15 FOR ONE-THIRD OF THE CUSTOMERS, DID THEY GO BACK AND DO 16 SOMETHING TO EXAMINE EACH OF THOSE INDIVIDUAL CUSTOMERS 17 SEPARATELY AFTER DOING THAT? 18 Α. NO, THEY DIDN'T. SO PROFESSOR, WHILE WE HAVE THIS SLIDE OPEN, I WANTED TO 19 HAVE YOU TAKE A LOOK AT SLIDE NUMBER 15, WHICH IS THE ONE 20 BEFORE THAT. DO YOU HAVE THAT IN FRONT OF YOU? 21 22 A. I DO. MR. BURT: YOUR HONOR, SINCE MS. LEE PUT THIS SLIDE UP, 23 I GUESS THIS ONE IS OPEN SO WE CAN DISCUSS THE NAMES OF THE 24 25 PURCHASERS?

1 THE COURT: SHE HAD SOME TABS ON THEM. I DON'T KNOW. 2 LET ME LOOK. 3 MS. LEE. 4 MS. LEE: I'M SORRY, WHICH SLIDE ARE YOU ON? 5 THE COURT: WE'RE ON PAGE 15 NOW, WHICH I THINK WAS 6 YOUR --7 MS. LEE: THAT'S FINE. 8 THE COURT: IS THAT AGREEABLE? 9 MS. LEE: YES. PROFESSOR, WAS THERE A WHOLESALE OVERCHARGE FOR COSTCO? 10 Q. Α. YES, THERE WAS. 11 AND THIS SLIDE SAYS THAT THERE WAS NOT. DO YOU UNDERSTAND 12 Q. 13 HOW THEY REACHED THAT RESULT? Α. I DO. 14 15 Q. HOW WAS THAT? Α. 16 SURE. SO IN THIS CASE DR. HAIDER IS APPLYING THE SAME 17 SENSITIVITY TEST THAT I USED IN MY ORIGINAL REPORT FOR WALMART, 18 SO SHE HAS THE POOLED REGRESSION MODEL FOR ALL DEFENDANTS AND CUSTOMERS TOGETHER, AND THEN SHE'S TESTING -- OR WHAT I DID WAS 19 TO TEST WHETHER OR NOT WALMART -- THE OVERCHARGE FOR WALMART 20 SIGNIFICANTLY DEVIATES FROM THE REPRESENTATIVE OVERCHARGE IN 21 THE MARKET. SO SHE'S TAKING THAT TEST AND APPLYING IT TO THESE 22 THREE, THESE THREE PURCHASERS. 23 AND IS THERE A REASON THAT SHE GOT THIS RESULT THAT THERE 24 WAS NO OVERCHARGE? 25

1 Α. YES. 2 Q. WHAT WAS THAT? SO WHEN YOU DIG A LITTLE DEEPER BEHIND COSTCO, WHAT 3 4 HAPPENED WAS THAT FOR COSTCO, RIGHT DURING THE CLASS PERIOD, 5 THEY SWITCHED FROM HAVING A VARIETY OF CAN SIZES TO EVERYTHING 6 SOLD AT COSTCO WAS A 7-OUNCE CAN, SO THERE WAS A DRAMATIC SHIFT 7 IN THE TYPE OF PRODUCTS THAT COSTCO WAS PURCHASING. THAT 8 AFFECT CONFOUNDS THE EFFECT OF THE CARTEL PERIOD, AND SO WHEN I 9 BACK OUT -- WHEN I CONTROL FOR THE EFFECT OF THE CHANGE IN CAN SIZE, I GET A POSITIVE AND STATISTICALLY SIGNIFICANT 10 11 OVERCHARGE. SO SHE RAN THE TEST, GOT THE RESULT, AND QUIT, AND WHAT 12 13 SHE SHOULD HAVE DONE IS GO BACK AND LOOK AT WHAT WAS ACTUALLY 14 HAPPENING IN THE DATA, AND WHEN YOU DO THAT, YOU GET THE RESULT 15 AGAIN THAT THERE'S A POSITIVE AND STATISTICALLY SIGNIFICANT 16 OVERCHARGE. O. SO WE TALKED A LITTLE EARLIER ABOUT DATA CLEANING. WOULD 17 18 YOU CHARACTERIZE THAT AS A DATA CLEANING ERROR? 19 YES, IN THE SENSE THAT SHE'S FINDING SOMETHING THAT'S NOT WHAT SHE THINKS IT IS BECAUSE SHE DIDN'T GO BACK AND LOOK MORE 20 21 CAREFULLY AT THE DATA. 22 O. ARE THERE ANY OF THE OTHER RESULTS ON THIS SLIDE THAT ARE ACCOUNTED FOR BY A SIMILAR ISSUE WITH CAREFULLY LOOKING AT THE 23 24 DATA? A. YES. THE THIRD ROW SHOWS PIGGLY WIGGLY. I'LL POINT OUT 25

THAT THIS IS ACTUALLY JUST PIGGLY WIGGLY MIDWEST. IT'S NOT ALL
OF PIGGLY WIGGLY, SO THE FIGURE IS MISLABELED SOMEWHAT. VERY
SIMILAR ISSUE THERE, IN FACT, AN IDENTICAL ISSUE THERE, THERE
WAS A CHANGE IN THE MIX OF PRODUCTS THAT WERE SOLD TO PIGGLY
WIGGLY, THAT HAPPENED RIGHT DURING A CLASS PERIOD, THAT
EXPLAINS THE RESULT. WHEN YOU CONTROL FOR THAT, YOU GET AGAIN
A POSITIVE AND STATISTICALLY SIGNIFICANT OVERCHARGE FOR PIGGLY
WIGGLY MIDWEST.
Q. DOES THE SAME ERROR ACCOUNT FOR THE TARGET RESULT?
A. NO, THE TARGET RESULT IS EVEN EASIER TO EXPLAIN. WHAT
HAPPENS IN -- SO THESE ARE PURCHASES THAT TARGET MADE FROM
CHICKEN OF THE SEA, RIGHT? THAT'S THE DEFENDANT PURCHASER
PAYER THAT SHE'S LOOKING AT HERE, AND WHAT YOU SEE WHEN YOU

HAPPENS IN -- SO THESE ARE PURCHASES THAT TARGET MADE FROM
CHICKEN OF THE SEA, RIGHT? THAT'S THE DEFENDANT PURCHASER
PAYER THAT SHE'S LOOKING AT HERE, AND WHAT YOU SEE WHEN YOU
LOOK AT THE TARGET DATA MORE CAREFULLY IS THAT CHICKEN OF THE
SEA CHANGED THE DATA CODE THAT IT USED TO CATEGORIZE TARGET
RIGHT DURING THE MIDDLE OF THE CARTEL PERIOD, AND THAT HAS
NOTHING TO DO WITH REALITY. THAT'S JUST THE WAY CHICKEN OF THE
SEA DID ITS BOOKKEEPING. IT HAS NOTHING DO WITH AN OVERCHARGE.
IT'S JUST THEY CHANGED THE WAY THEY COLLECTED THE DATA. SO
WHEN YOU CONTROL FOR THAT, YOU AGAIN GET THE RESULT THAT TARGET
HAS A POSITIVE AND STATISTICALLY SIGNIFICANT OVERCHARGE WITH
RESPECT TO ITS PURCHASES.

Q. I JUST WANT TO MAKE SURE I UNDERSTAND SOMETHING. YOU SAID
THAT THE TARGET ISSUE SHE WAS MEASURING A PURCHASER, PRODUCER,
PAYER. ARE THESE RESULTS REFLECTING ONLY ONE OF THE PRODUCERS

1 AND THIS RETAILER? 2 NO, I'M SORRY, I MISSPOKE THERE. Α. SO DID THIS TURNOVER THEY PRODUCED TO YOU OCCASION YOU TO 3 Ο. DO ANY ADDITIONAL WORK ON WHOLESALE OVERCHARGE? 5 Α. IT DID, YES. WHAT DID YOU DO? 6 0. 7 Α. SURE. SO I ALWAYS LIKED MY WALMART SENSITIVITY TEST. I 8 THINK IT'S A REASONABLE METHODOLOGY TO START WITH A REPRESENTATIVE INDUSTRY OVERCHARGE, SEE WHAT YOU FIND, AND THEN DO A SERIES OF REALISTIC INTERESTING SENSITIVITY ANALYSES TO 10 11 SEE IF YOU CAN UNCOVER OVERCHARGING IN ANY SEGMENT OF THE 12 MARKET, SO I LIKE THAT APPROACH. 13 BUT WHAT I DID, BASED ON THIS TURNOVER THAT WE GOT, OR THIS NEW WORK THAT WE GOT FROM DR. HAIDER IS, I SAID, "OKAY, 14 15 LET'S DO MY WALMART TEST, BUT I'M GOING TO DO IT FOR THE 10 16 LARGEST PURCHASERS FOR EVERY DEFENDANT AND LET'S SEE HOW IT 17 COMES OUT." 18 Ο. HOW DID IT COME OUT? THIS CAME OUT WITH POSITIVE AND STATISTICALLY SIGNIFICANT 19 OVERCHARGES IN EVERY INSTANCE, ALL 10 OF THE LARGEST CUSTOMERS, 20 FOR ALL THREE OF THE DEFENDANTS. 21 22 Ο. WHEN YOU GET DOWN TO THE NUMBER 10 PURCHASER, HOW MUCH OF THE UNIVERSE OF WHOLESALE SALES HAVE YOU TAKEN INTO ACCOUNT? 23 24 SO THE TOP -- LOOKING ACROSS AT THE THREE DEFENDANTS, THE TOP 10 PURCHASERS ACCOUNT FOR ABOUT 60 PERCENT, SO JUST UNDER 25

TWO-THIRDS OF ALL THE SALES IN THE MARKET. AND I JUST WANTED 1 2 TO SORT OF NOTE FOR THE COURT WHERE WE'RE AT NOW. SO WHAT I'VE DONE WITH THIS SENSITIVITY TEST WAS I'VE DONE AN INDIVIDUALIZED 3 4 INQUIRY FOR INDIVIDUAL PURCHASERS THAT MAKE UP 60 PERCENT OF 5 THE MARKET AT THE CLASS CERT STAGE. THAT IS REMARKABLE, IN MY VIEW. AND I STILL FIND A POSITIVE AND STATISTICALLY 6 7 SIGNIFICANT OVERCHARGE IN EVERY INSTANCE. THERE IS NO 8 REMAINING CUSTOMER THAT'S NOT IN THAT ANALYSIS THAT ACCOUNTS 9 FOR MORE THAN 3 PERCENT OF SALES. BASED ON THAT, DO YOU THINK IT'S FAIR TO SAY THAT THE 10 11 CARTEL'S OVERCHARGES CAUSED SOME WHOLESALE -- THE CARTEL'S 12 BEHAVIOR CAUSED SOME WHOLESALE OVERCHARGE EVERYWHERE ACROSS THE 13 UNIVERSE OF WHOLESALE PURCHASERS? YES. BASED ON ALL THE WORK THAT I'VE DONE WITH RESPECT TO 14 15 OVERCHARGES, THAT IS MY CONCLUSION. 16 Q. WERE THE OVERCHARGES PAID AT THE WHOLESALE LEVEL PASSED 17 THROUGH TO THE CONSUMER? 18 Α. YES. Ο. HOW DO YOU KNOW? 19 Α. I KNOW BECAUSE I TESTED. 20 AND SO WHAT WOULD ECONOMIC THEORY TELL US ABOUT THAT 21 Ο. 22 OUESTION, BEFORE WE GET TO YOUR EMPIRICAL TESTING? WELL, IT'S ACTUALLY WHAT I WOULD CHARACTERIZE AS A SHORT 23 24 PUTT. THE IDEA THAT RETAIL GROCERS, WHO ARE OPERATING IN A COMPETITIVE INDUSTRY WITH SMALL MARGINS, THE IDEA THAT THEY 25

WOULD PASS ON WHOLESALE PRICE CHANGES TO THEIR CUSTOMERS IS 1 2 NOT, AS AN ECONOMIST, NOT HARD TO BELIEVE, THAT THAT'S CONSISTENT WITH MY UNDERSTANDING OF THE INDUSTRY, AND IT'S 3 4 CERTAINLY CONSISTENT WITH ECONOMIC THEORY. 5 AND OTHER THAN THEORY AND DATA, DID YOU HAVE ANYTHING ELSE THAT YOU COULD LOOK TO TO DETERMINE WHETHER YOU SHOULD EXPECT 6 7 TO FIND PASS-THROUGH? 8 Α. YES, I DID. Ο. WHAT WAS THAT? WELL, THE DEFENDANTS THEMSELVES -- THERE ARE A NUMBER OF 10 Α. DOCUMENTS THAT I READ WHERE THEY TALK ABOUT THE FACT THAT WHEN 11 THEY'RE MAKING PRICE-SETTING DECISIONS THAT THEY UNDERSTAND 12 WHOLESALE PRICE CHANGES WILL BE PASSED ONTO THE RETAIL LEVEL. 13 WERE YOU ABLE TO REVIEW ANY DOCUMENTS OR STATEMENTS BY 14 Ο. 15 PEOPLE WHO WERE ACTUALLY IN THE INDUSTRY MAKING PRICING 16 DECISIONS? 17 Α. YES. 18 Q. AND ARE THOSE REFLECTED IN YOUR REPORT? 19 Α. THEY ARE. OKAY. AND GENERALLY, WHAT DID THOSE TELL YOU? 20 Ο. THE SAME THING, THAT THE PEOPLE WHO WERE IN CHARGE OF 21 Α. 22 MAKING THE BUSINESS DECISIONS, IN PARTICULAR SETTING WHOLESALE PRICES, UNDERSTOOD -- THERE WERE BOTH FORWARD-LOOKING 23 24 STATEMENTS AND THEN BACKWARD-LOOKING STATEMENTS WHERE THEY LOOKED AT ACTUAL INSTANCES OF PRICE CHANGES AND SAW IT 25

REFLECTED AT THE RETAIL LEVEL, THAT THERE IS AN AWARENESS AMONG 1 2 INDUSTRY PARTICIPANTS THAT WHOLESALE PRICES ARE PASSED THROUGH. O. DID YOU HAVE AVAILABLE TO YOU, AFTER YOUR REPORT, ANYTHING 3 4 FROM FOLKS OTHER THAN THE DEFENDANTS WHO DEAL WITH TUNA PRICING 5 IN THEIR ORDINARY COURSE OF BUSINESS THAT WOULD BEAR ON THE OUESTION WHETHER YOU EXPECT TO FIND PASS-THROUGH? 6 7 SURE. WELL, FOR EXAMPLE, THERE ARE THE DAP DEPOSITIONS I 8 REFERRED TO BEFORE, THOSE CONTINUE TO ROLL IN. I'VE SEEN SOME CONSISTENT STATEMENTS THERE. PROFESSOR, I WANT TO POINT YOU TO A PARTICULAR ONE, AND 10 THIS IS SENSITIVE SO I WOULD LIKE TO JUST HAVE YOU LOOK AT IT 11 IN YOUR BINDER, AND I WOULD LIKE THE COURT TO LOOK AT IT IN THE 12 13 BINDER, AND I'M NOT GOING TO READ IT ALOUD. I'M LOOKING AT THE SMALL VOLUME BINDER, NUMBER 2, NUMBER 42. 14 TAB 42? 15 Α. 16 Q. 42. 17 Α. ALL RIGHT. 18 PROFESSOR, DOES YOUR COPY OF THE BINDER HAVE THE 19 HIGHLIGHTING THERE? IT DOES, YES. 20 Α. I SEE THAT THE COURT'S DOES, TOO. I WANT TO HAVE YOU READ 21 Ο. 22 THOSE NINE LINES OF INDICATED TESTIMONY AND WE'LL TALK ABOUT 23 THEM. 24 A. READ THEM ALOUD? Q. NO, I WOULD LIKE YOU TO JUST READ THEM TO YOURSELF. 25

1 Α. ALL RIGHT. THE COURT: COUNSEL, MAYBE WHILE WE'RE TAKING A LOOK AT 2 THAT, THIS WOULD BE A GOOD TIME TO TAKE A MID-MORNING BREAK FOR 3 4 10 MINUTES, IF THAT'S AGREEABLE, SIR. WE'VE BEEN IN SESSION 5 FOR AN HOUR AND-A-HALF. 6 MR. BURT: I'M FINE WITH THAT, YOUR HONOR. 7 THE COURT: WE'RE GOING TO TAKE A BREAK RIGHT NOW, SIR. 8 SO 10 MINUTES, FOLKS. WE'LL BE BACK. 9 (COURT WAS AT RECESS.) THE COURT: PLEASE GO AHEAD, COUNSEL. 10 MR. BURT: THANK YOU, YOUR HONOR. 11 12 DR. SUNDING, WE WERE LOOKING AT THIS EXHIBIT 42, AND AGAIN 13 I'M NOT GOING TO READ THE PASSAGE ALOUD. I'M GOING TO ASK YOU NOT TO READ THE PASSAGE ALOUD, AND I'M GOING TO AVOID SAYING 14 15 THE NAME OF THE WITNESS OR ITS FIRM THAT EMPLOYS THIS WITNESS FOR CONFIDENTIALITY CONCERNS, BUT I WANT YOU TO READ THOSE NINE 16 17 LINES OF TESTIMONY. 18 (WITNESS READS TESTIMONY). I HAVE. O. HOW DOES THAT TESTIMONY INFORM YOU ABOUT WHETHER YOU 19 EXPECT TO FIND PASS-THROUGH OF OVERCHARGE AT THE WHOLESALE TO 20 THE RETAIL PRICE? 21 22 Α. THE TESTIMONY'S CONSISTENT WITH MY CONCLUSION THAT WHOLESALE PRICES ARE PASSED ON TO THE RETAIL LEVEL. 23 WITHOUT SAYING THE NAME OF THE COMPANY THAT EMPLOYS THE 24 WITNESS, CAN YOU, AS AN ECONOMIST, JUST GENERALLY CHARACTERIZE 25

1 THAT COMPANY. 2 A LARGE RETAIL GROCERY CHAIN. Α. DID YOU HAVE AN OPPORTUNITY TO CHECK WHETHER THAT 3 4 PARTICULAR -- IN THE DAYS SINCE THIS TESTIMONY WAS TAKEN, WHICH 5 I THINK WAS JANUARY 9TH, HAVE YOU HAD THE OPPORTUNITY TO CHECK 6 WHETHER THAT -- THE EMPLOYER OF THIS WITNESS HAD THEIR DATA 7 INCLUDED. WE HAVEN'T SPOKEN ABOUT THE IRI DATA SET YET, BUT 8 WAS THEIR DATA INCLUDED IN THE IRI DATA SET? 9 I BELIEVE SO, YES, THAT'S MY RECOLLECTION. SO PROFESSOR, YOU SAID BEFORE THAT YOU DID SOME EMPIRICAL 10 WORK ON PASS-THROUGH. WE'RE GOING TO TALK ABOUT THIS AT SOME 11 12 LENGTH. FAIR TO SAY THAT IN YOUR REPORT THAT YOU EXPRESS THE 13 PASS-THROUGH AS ELASTICITIES? 14 Α. YES. 15 0. WHY DID YOU DO IT THAT WAY? 16 Α. WELL, THAT'S A COMMON CONVENTION IN THE LITERATURE ON 17 PASS-THROUGH, SO I ADOPTED THAT. IT ALSO TENDS TO FIT THE DATA 18 WELL TO RUN THE MODEL IN WHAT WE CALL DOUBLE LOG FORM. 19 IS THE ELASTICITY ALWAYS THE SAME THING AS THE PERCENTAGE OF AN OVERCHARGE THAT'S PASSED THROUGH? 20 Α. 21 NO. 22 ONCE AGAIN, I'M ONE OF THESE KIDS THAT DID NOT TAKE CALCULUS IN HIGH SCHOOL. I'M GOING TO TRY TO MAKE SURE THAT 23 24 EVEN THOSE OF US WHO ARE AS BAD IN MATH AS ME HAVE IT STRAIGHT. IF YOU HAVE A PASS-THROUGH ELASTICITY OF .9, AND SO WE CAN ALL 25

DO THE MATH, EVEN ME, IF THE INITIAL WHOLESALE PRICE IS A 1 2 DOLLAR, AND THEN THE WHOLESALE PRICE GOES UP TO \$1.10 DUE TO AN OVERCHARGE, WHAT DOES THAT MEAN FOR THE RETAIL PRICE? 3 4 SO FIRST LET ME DEFINE WHAT AN ELASTICITY IS BECAUSE THAT 5 WILL HELP WITH THE EXPLANATION. AN ELASTICITY IS A PERCENT 6 CHANGE IN A RETAIL PRICE ASSOCIATED WITH A PERCENT CHANGE IN A 7 WHOLESALE PRICE. SO TO USE MR. BURT'S EXAMPLE, AN ELASTICITY 8 OF .9 WOULD MEAN THAT A 10 PERCENT INCREASE IN THE WHOLESALE 9 PRICE IS ASSOCIATED WITH A 9 PERCENT INCREASE, 9 OVER 10, 9 PERCENT INCREASE IN THE RETAIL PRICE. 10 SO IF THERE'S A 30 PERCENT MARKUP FROM WHOLESALE TO 11 Ο. 12 RETAIL, WHAT WOULD THAT MEAN FOR THAT DOLLAR CAN OF TUNA? 13 SO LET'S WORK THROUGH THE EXAMPLE. LET'S SUPPOSE -- TO BEGIN WITH, THE PRICE OF A CAN OF TUNA IS A DOLLAR, AND THE 14 15 RETAILER SELLS IT FOR \$1.30, SO THEY HAVE A 30 PERCENT MARKUP. 16 IN YOUR EXAMPLE THAT YOU GAVE ME A MINUTE AGO, THE WHOLESALE 17 PRICE GOES UP BY \$0.10 TO A \$1.10, OR A 10 PERCENT INCREASE, 18 THE PASS-THROUGH ELASTICITY OF .9 WOULD MEAN THAT THE RETAIL 19 PRICE GOES UP TO 9 PERCENT GREATER THAN A \$1.30 OR A \$1.42. SO IF I UNDERSTAND THAT RIGHT, THE OVERCHARGE CAUSES THE 20 21 WHOLESALE PRICE TO GO FROM A DOLLAR TO A 1.10, BUT THE RETAIL 22 PRICE TO GO FROM A \$1.30 TO A \$1.42 OR \$0.12 UP. THAT IS CORRECT. 23 24 OKAY. SO IF YOU WERE GOING TO EXPRESS THE PASS-THROUGH AS 25 A PERCENTAGE, WHAT WOULD YOU EXPRESS THAT AS? INSTEAD OF

ELASTICITY, WHAT WOULD YOU EXPRESS IT AS? 1 2 A. YOU COULD LOOK AT A FIXED MARKUP RATE, SOMETHING LIKE THAT, OR YOU COULD LOOK AT PASS-THROUGH ON AND ABSOLUTE BASIS, 3 4 WHICH IS WHAT WE JUST DID. A \$0.10 INCREASE IN THE WHOLESALE 5 PRICE WITH AN ELASTICITY OF .9 RESULTED IN A \$0.12 INCREASE IN 6 THE RETAIL PRICE. 7 SO 120 PERCENT, THE RETAIL CONSUMER PAYS 120 PERCENT OF 8 THE AMOUNT OF INCREASE THAT WAS CAUSED AT THE WHOLESALE LEVEL? 9 Α. THAT'S CORRECT. Q. SO WHEN YOU DECIDED TO DO EMPIRICAL TESTING OF 10 PASS-THROUGH, WHERE WAS THE FIRST PLACE YOU LOOKED FOR DATA 11 12 WITH WHICH TO DO THAT? 13 THE FIRST PLACE I LOOKED WAS AT DATA SOURCE, A VERY HIGH OUALITY, COMMONLY-USED DATA SOURCE THAT HAS GREAT GEOGRAPHIC 14 15 COVERAGE, AND THAT DATA IS COMPILED BY A FIRM CALLED IRI. 16 Q. AND DOES IRI DO THIS JUST FOR LITIGATION? OH, NO. THEY ACTUALLY HAD TO BE DRUG INTO THIS WITH A 17 18 SUBPOENA TO GIVE UP THEIR DATA. THEY EXIST PRIMARILY TO SERVICE FIRMS THAT ARE IN THE INDUSTRY. 19 O. AND DO FIRMS IN THE INDUSTRY ACTUALLY -- IN THIS INDUSTRY 20 ACTUALLY USE THE DATA? 21 22 Α. YES. IRI DATA? 23 Q. A. YES. I'VE SEEN EVIDENCE OF FIRMS USING BOTH IRI DATA AND 24 DATA THAT'S SOLD BY THE OTHER MAJOR COMPETITOR, WHICH IS 25

1 NIELSEN, THE SAME COMPANY THAT DOES THE TV RATINGS.

- Q. AND DO ACADEMIC ECONOMISTS EVER MAKE USE OF ANY OF THIS

  MARKET RESEARCHERS DATA?
  - A. ROUTINELY. THE UNIVERSITY OF CHICAGO ACTUALLY MAINTAINS
    AN ARCHIVE OF THIS DATA THAT'S DERIVED FROM -- IT COMES FROM
    INDIVIDUAL SCANNER SWIPES AT THE CHECKOUT STAND. TALK ABOUT
    BIG DATA, JUST FOR TUNA WE HAVE BILLIONS AND BILLIONS OF
    OBSERVATIONS OF INDIVIDUAL SCANNER SWIPES, AND THAT ALL GETS
- Q. YOU SAID THE UNIVERSITY OF CHICAGO ARCHIVES SOME OF THIS

  MARKET RESEARCH SCANNER DATA FOR USE BY ACADEMIC ECONOMISTS?

AGGREGATED AND THEN SOLD TO INDUSTRY PARTICIPANTS.

12 A. YES.

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- 13 Q. WHICH COMPANIES DO THEY USE?
- A. THEY HAVE BOTH IRI AND NIELSEN.
- Q. SO HOW DOES THE IRI DATA COME TO YOU? IS IT ONE BIG

  DATABASE OR SOMETHING ELSE?
  - A. IT CAME AS A BIG DATABASE. THESE BILLIONS OF SWIPES ARE
    THEN PUT INTO A DATABASE, AND THAT'S WHAT WE GOT.
  - O. AND WHAT KIND OF OUTLETS ARE INCLUDED WITHIN THE IRI DATA?
    - A. THE IRI DATA COVERS TWO WHAT I'LL CALL RETAIL CHANNELS,

      ONE IS WHAT THEY REFER TO AS MULO, M-U-L-O IS THE ACRONYM, AND

      IT STANDS FOR MULTIPLE OUTLET, THAT CHANNEL COVERS THINGS LIKE

      BIG BOX STORES, COSTCO, TARGET, RETAIL GROCERY STORES, THINGS

      OF THAT NATURE.
    - Q. HOW MANY OF THE STATES THAT ARE AT ISSUE HERE ARE COVERED

1 BY THE IRI DATA THAT WAS AVAILABLE TO YOU? THE IRI DATA COVERS 27 STATES IN THE MULTIPLE OUTLET DATA 2 Α. 3 SET. WAS IT A DIFFERENT NUMBER FOR THE C STORES? Q. 5 YES, IT WAS SOMEWHAT LESS, THE IRI -- THIS IS THE SECOND Α. RETAIL CHANNEL THAT IRI COLLECTS DATA FOR, FOR CONVENIENCE 6 7 STORES, CORNER STORES, GAS STATIONS, THINGS OF THIS NATURE, AND 8 THEY COLLECT INFORMATION FOR 21 CLASS STATES. 9 DO THE STATES FOR WHICH YOU HAD IRI DATA TELL YOU ANYTHING ABOUT THE STATES FOR WHICH YOU DON'T? 10 11 Α. I BELIEVE SO, YES. HOW IS THAT? 12 Q. 13 WELL, THE ECONOMIC FUNDAMENTALS AREN'T NECESSARILY THAT DIFFERENT ONE PLACE TO ANOTHER. ESPECIALLY IF I'M FINDING, AS 14 I DO, VERY STABLE, VERY CONSISTENT PASS-THROUGH ELASTICITIES 15 16 FOR BOTH THE MULO CHANNEL AND THE CONVENIENCE STORE CHANNEL, 17 THAT GIVES ME CONFIDENCE THAT IN OTHER AREAS THAT I DON'T HAVE 18 DATA FOR I WOULD BE LIKELY TO FIND THE SAME THING. WE'RE GOING TO TALK ABOUT SOME OF THE OTHER STUDIES YOU 19 Ο. DID, BUT LET ME JUST BIG PICTURE THIS. FOR ALL OF THE 20 EMPIRICAL STUDIES YOU DID OF PASS-THROUGH, IN TOTAL WERE THERE 21 22 ANY STATES THAT YOU DID NOT HAVE ANY DATA FOR? ANY CLASS STATES, I THINK JUST TWO. 23 WHAT WERE THOSE? 24 Q. THOSE WERE HAWAII AND GUAM. 25 Α.

HOW MUCH OF THE TOTAL SALES THAT ARE AT ISSUE HERE ARE 1 2 ACCOUNTED FOR BY HAWAII AND GUAM? LESS THAN A PERCENT. 3 Α. 4 IS THERE SOMETHING ECONOMICALLY ABOUT THE STATES OF -- THE 5 STATE OF HAWAII OR THE TERRITORY OF GUAM THAT'S SO FUNDAMENTALLY DIFFERENT THAT YOU WOULD EXPECT TO FIND NO 6 7 PASS-THROUGH THERE? 8 Α. NO. PROFESSOR, I WOULD LIKE TO HAVE YOU TAKE A LOOK AT YOUR 9 REPORT. IT'S EXHIBIT 2 IN THE BIG BINDER, FIRST VOLUME. 10 11 Α. ALL RIGHT. Q. YOU'VE GOT A TABLE 4 THERE, IT'S AT PAGE 83. THE EXHIBIT 12 13 NUMBER -- IT'S ALSO EXHIBIT PAGE 86. MS. LEE: I'M SORRY, COULD YOU REPEAT THAT, COUNSEL. 14 MR. BURT: THAT'S AT EXHIBIT 2. IT'S REPORT PAGE 83, 15 16 BUT IT IS EXHIBIT PAGE 86, AND WE'RE LOOKING AT TABLE 4. NOW, PROFESSOR, I THINK WE'RE FREE TO TALK ABOUT THE STUFF 17 Ο. 18 THAT APPEARS ON TABLE 4. IF WE END UP TALKING ABOUT RESULTS, 19 WE MAY HAVE TO BE A LITTLE MORE SENSITIVE ABOUT THAT. Α. RIGHT. 20 SO WHAT'S THE -- HOW DID YOU CHOOSE THE ENTITIES THAT 21 Ο. 22 APPEAR ON THE LEFT-HAND SIDE OF THIS TABLE? WELL, MY OVERALL APPROACH HERE WAS TO TAKE THIS VERY GOOD 23 24 QUALITY IRI DATA, WITH THE GREAT GEOGRAPHIC SCOPE, AND RUN OTHER STUDIES THAT MAY BE MORE DETAILED FOR A PARTICULAR 25

RETAILER OR IN ONE INSTANCE GOING ALL THE WAY DOWN TO THE LEVEL 1 2 OF INDIVIDUAL STORE, INDIVIDUAL STORE LOCATIONS, TO LOOK AT PASS-THROUGH. SO MY INTENT WAS TO DO SOME OTHER ANALYSES AT 3 4 DIFFERENT LEVELS OF AGGREGATION FOR PARTICULAR TYPES OF 5 RETAILERS TO SEE IF I COULD VERIFY OR CORROBORATE THE RESULTS 6 OF THE IRI STUDY. 7 SO WHY WALMART IN PARTICULAR? THAT'S THE FIRST ONE THAT Ο. 8 APPEARS ON THE TABLE. WELL, I THINK WE HEARD MS. LEE DESCRIBE WALMART AS THE 9 GORILLA OF THE INDUSTRY. THEY ACCOUNT FOR ABOUT 20 PERCENT OF 10 11 CANNED TUNA PURCHASES. THEY ARE A VERY LARGE FIRM. 12 SALES ARE IN THE HUNDREDS OF BILLIONS OF DOLLARS ANNUALLY. 13 THEY HAVE GEOGRAPHIC COVERAGE IN ALL 50 STATES. IT SEEMED TO ME TO BE A REASONABLE PLACE TO LOOK IF WE HAD DATA. 14 15 AND IN TERMS OF THE COVERAGE OF THE DATA FOR PURPOSES OF DOING A PASS-THROUGH ANALYSIS, HOW MANY OF THE STATES THAT ARE 16 17 AT ISSUE HERE WERE COVERED BY WALMART STATES? 18 Α. I OBTAINED DATA FOR WALMART FOR 27 CLASS STATES. 19 Ο. OKAY. AND CAN YOU DESCRIBE FOR ME THE TEMPORAL REACH OF THAT DATA SET. 20 SURE, IT'S FROM JANUARY 2002 TO 2017. 21 Α. 22 IS IT HELPFUL TO HAVE DATA THAT'S FOR A LONGER TIME PERIOD Ο. THAN THE PERIOD AT ISSUE HERE? 23 24 Α. SURE. YEAH. 25 O. HOW SO?

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WELL, IT'S AGAIN MORE OBSERVATIONS, MORE ABILITY TO TEST A RELATIONSHIP AGAINST WHAT'S HAPPENING IN THE MARKETPLACE. I DON'T KNOW MANY ECONOMISTS THAT WOULD TURN DOWN DATA WHEN THEY HAVE ACCESS TO IT. DOES THAT HAVE TO DO WITH THE STATISTICAL POWER OF THE ANALYSIS? Α. YES, IT HELPS. Ο. WE HAVE TO BE SENSITIVE TO THE RESULTS, BUT WITHOUT GIVING ME NUMBERS, CAN YOU CHARACTERIZE FOR ME WHAT IT IS YOU FOUND WHEN YOU LOOKED AT THE WALMART DATA. SURE. WHAT I FOUND FOR WALMART WAS -- FOR EACH INDIVIDUAL Δ STATE, WHAT I WAS ABLE TO DO IS ESTIMATE A PASS-THROUGH ELASTICITY FOR WALMART FOR EACH INDIVIDUAL STATE. AND, YOUR HONOR, YOU CAN SEE THE RESULTS ON PAGE 86 OF MY REPORT. WHAT I FOUND THERE WAS PASS-THROUGH ELASTICITIES THAT WERE POSITIVE AND STATISTICALLY SIGNIFICANT FOR EVERY ONE OF THE STATES I HAD DATA FOR. AND IN TERMS OF MAGNITUDES, THE PASS-THROUGH ELASTICITIES ALL LIE WITHIN A SIMILAR RANGE. THE NEXT IDENTIFIED ENTITY THAT YOU STUDIED DATA FROM IS SAM'S CLUB? IS SAM'S CLUB OWNED BY WALMART? Α. SAM'S CLUB IS OWNED BY WALMART. IT HAS A SOMEWHAT DIFFERENT BUSINESS MODEL. IT'S AN EXAMPLE OF A CLUB STORE, SO SOMEWHAT DIFFERENT CLIENTELE.

O. NOW, WAS THE TEMPORAL SPAN OF THAT DATA THE SAME AS THE

1 WALMART DATA? A. IT WAS, 2002 TO 2017. 2 WHAT WAS THE GEOGRAPHIC COVERAGE? 3 Ο. A. IN THAT INSTANCE, FOR SAM'S CLUB, I HAD DATA FOR 25 CLASS 5 STATES. Q. CAN YOU DESCRIBE FOR ME, WITHOUT GIVING ME THE NUMBERS, 6 7 WHAT YOU FOUND WHEN YOU STUDIED THE SAM'S CLUB DATA IN TERMS OF 8 THE COHESIVENESS AND THE OVERALL EFFECT OF PASS-THROUGH ELASTICITIES. 10 A. YES. YOUR HONOR, PAGE 90 OF MY REPORT, I HAVE THE SAM'S CLUB 11 12 RESULTS. 13 AND AGAIN, WITHOUT GETTING TOO MUCH INTO DETAIL, I FOUND POSITIVE AND STATISTICALLY SIGNIFICANT PASS-THROUGH 14 15 ELASTICITIES FOR EVERY STATE THAT I HAD DATA FOR. 16 Q. OKAY. NOW, WE'VE BEEN TALKING ABOUT DATA THAT'S STATE BY 17 STATE. DID YOU HAVE DATA THAT ALLOWED YOU TO LOOK AT A MORE 18 GRANULAR LEVEL THAN THAT? A. YES. FROM KROGER, WHICH IS A LARGE NATIONAL SUPERMARKET 19 CHAIN, I ACTUALLY GOT DATA DOWN TO THE INDIVIDUAL LEVEL OF THE 20 STORE, SO I WAS ABLE TO TEST PASS-THROUGH AT A TOTALLY 21 22 DIFFERENT DEGREE OF DETAIL. OKAY. IS KROGER RELATED TO ANY OF THE OTHER ENTITIES THAT 23 24 ARE LISTED IN YOUR TABLE 4? A. IT IS. YOUR HONOR, BACK ON PAGE 83, TABLE 4, KROGER OWNS 25

1 ROUNDY'S AND HARRIS TEETER. THOSE ARE RETAIL BRANDS THAT 2 KROGER OPERATES. 3 Q. SO TAKING THOSE THREE ENTITIES TOGETHER, HOW MANY TOTAL RETAIL STORES DID YOU HAVE DATA FOR? 5 FOR KROGER'S, ROUNDY'S, AND HARRIS TEETER TOGETHER, I HAD Α. JUST UNDER 2,000 INDIVIDUAL STORE LOCATIONS. 6 7 Ο. AND HOW MANY OF THOSE STORES SHOWED A POSITIVE AND 8 STATISTICALLY SIGNIFICANT PASS-THROUGH? 9 Α. ALL 2,000. EVERY SINGLE ONE? 10 Q. 11 Α. EVERY SINGLE ONE. DO YOU KNOW WHERE THOSE STORES ACTUALLY WERE? 12 Q. 13 Α. I DO. IS THAT IN YOUR REPORT? 14 Ο. IT IS. I HAVE A MAP, FIGURE 17 ON PAGE 91, YOU CAN SEE 15 16 THE GEOGRAPHIC SCOPE OF THAT DATA. 17 DID YOU NEED TO LOOK AT THE STORE-BY-STORE LEVEL TO KNOW Ο. 18 WHETHER YOU COULD SHOW PASS-THROUGH ACROSS THE RETAIL UNIVERSE? I DON'T THINK IT'S NECESSARY. I THINK AGAIN IT'S A NICE 19 THING TO BE ABLE TO LOOK AT, AS AN ECONOMIST IT GIVES ME 20 CONFIDENCE IN MY RESULTS, THAT IF I LOOK AT AGGREGATED DATA OR 21 22 MORE DISAGGREGATED DATA, I'M GETTING SIMILAR CONCLUSIONS. AGAIN TO ME IT'S SORT OF A ROBUSTNESS CHECK. 23 WERE THESE THREE, KROGER, ROUNDY'S, AND HARRIS TEETER WERE 24 THOSE THE ONLY ONES YOU HAD STORE-BY-STORE DATA? 25

1 Α. NO. 2 Q. WHO ELSE DO YOU HAVE STORE-BY-STORE DATA FROM? CHECK BACK TO TABLE 4 ON PAGE 83, FOR TRADER JOE'S, I HAD 3 Α. 4 DATA FROM INDIVIDUAL STORES FOR 353 STORE LOCATIONS ACROSS 25 5 CLASS STATES. AND FOR HOW MANY OF THOSE DID YOU FIND STATISTICALLY 6 Ο. 7 SIGNIFICANT AND POSITIVE PASS-THROUGH? 8 Α. EVERYWHERE. WHY DID YOU DECIDE TO LOOK AT TRADER JOE'S AFTER YOU HAD 9 ALREADY DONE THE KROGER, ROUNDY'S, AND HARRIS TEETER STUDY? 10 WELL, TRADER JOE'S HAS A SLIGHTLY DIFFERENT BUSINESS 11 Α. MODEL. AGAIN, THEY'RE WHAT I WOULD CHARACTERIZE AS KIND OF A 12 13 HIGHER END RETAILER THAN SOME OF THE OTHER EXAMPLES HERE. TRADER JOE'S ALSO HAS A STRATEGY OF DISFAVORING BRANDS. THEY 14 15 LIKE TO HAVE THEIR OWN PRIVATE LABELS FOR THINGS. 16 Q. NOW, EVERYONE THAT WE'VE TALKED ABOUT SO FAR HAS BEEN A 17 RETAILER. IS CORE-MARK A RETAILER? 18 Α. NO, CORE-MARK IS A DISTRIBUTOR. WHY DID YOU DECIDE TO LOOK AT CORE-MARK'S DATA? 19 Ο. CORE-MARK IS AN EXAMPLE OF A FIRM THAT DOESN'T SELL TO 20 CONSUMERS. THEY DON'T SELL DIRECTLY TO END PAYERS. CORE-MARK 21 22 PURCHASES WERE -- PURCHASES FROM THE DEFENDANTS AND THEN IT RESELLS PRODUCT TO, SAY, CONVENIENCE STORES, FOR EXAMPLE, SO 23 THERE'S ANOTHER LINK IN THAT PART OF THE RETAIL CHAIN. 24 O. AND DO THEY SELL ONLY TO CONVENIENCE STORES? 25

1 Α. NO, THEY DON'T. 2 Q. WHO ELSE DO THEY SELL TO? THEY ACTUALLY -- CORE-MARK SELLS TO SOME RETAIL GROCERS. 3 Α. Q. CAN YOU DESCRIBE FOR ME THE GEOGRAPHIC SCOPE OF THE DATA 5 YOU HAD FROM CORE-MARK. 6 Α. SURE. I HAD DATA FOR CORE-MARK. REMARKABLY, HERE ALSO, 7 LIKE ROUNDERS AND HARRIS TEETERS, I HAD TRANSACTIONAL LEVEL 8 DATA, SO INDIVIDUAL PURCHASES MADE BY CORE-MARK FROM THE 9 DEFENDANTS -- I'M SORRY, INDIVIDUAL PURCHASES AT THE RETAIL LEVEL. SO WHEN CORE-MARK IS SELLING I HAVE ALL OF THEIR 10 11 INDIVIDUAL TRANSACTIONS FOR 30 CLASS STATES. THE GEOGRAPHIC SCOPE AGAIN WAS 30 CLASS STATES. THE TIME PERIOD WAS 12 13 JANUARY 2010 TO JULY 2017. WHAT DID YOU HOPE TO LEARN, LOOKING AT CORE-MARK DATA, 14 0. 15 THAT YOU DIDN'T ALREADY KNOW FROM LOOKING AT WALMART AND SAM'S 16 CLUB, THE KROGER, ROUNDY'S, HARRIS TEETER DATA, AND TRADER 17 JOE'S? 18 IT'S PROBABLY JUST SOMEWHERE DIFFERENT TO LOOK. IT'S A 19 DIFFERENT BUSINESS MODEL, A DIFFERENT DISTRIBUTION STRUCTURE, BUT ALSO I WANTED TO CHECK TO SEE IF THE CORE-MARK DATA WOULD 20 21 BE CONSISTENT. BECAUSE CORE-MARK SELLS TO CONVENIENCE STORES, 22 I WANTED TO SEE IF THOSE RESULTS WOULD BE CONSISTENT WITH THE CONVENIENCE STORES DATA I GOT FROM IRI, SO IT WAS KIND OF A 23 24 CROSS CHECK. O. WHAT DID YOU FIND WHEN YOU DID THAT STUDY? 25

I FOUND THAT THEY WERE CONSISTENT. THAT CORE-MARK'S 1 2 PASS-THROUGH IS JUST PART OF THE ULTIMATE PASS-THROUGH TO THE END PAYER, BUT IT NESTS NICELY WITHIN THE PASS-THROUGH 3 4 ELASTICITY I ESTIMATED FOR THE CONVENIENCE STORE CHAIN. 5 OKAY. DOES DR. HAIDER'S REPORT SAY THAT SHE AFFIRMATIVELY FOUND THERE'S NO PASS-THROUGH? 6 7 Α. NO, SHE DOES NOT. 8 CAN YOU DESCRIBE FOR ME WHAT SHE DOES SAY ABOUT 9 PASS-THROUGH. SURE. SEE, SHE UNDERTAKES A NUMBER OF I GUESS WHAT I 10 11 WOULD CALL VARIATIONS OF MY ANALYSIS, AND THEN PURPORTS TO FIND A FEW INSTANCES WHERE THERE'S NOT STATISTICALLY SIGNIFICANT 12 13 PASS-THROUGH. AND DID YOU EXAMINE THE WORK THAT SHE DID IN HER REPORT? 14 Ο. 15 I DID. NOTABLY, SHE DOESN'T FIND -- FOR HER SORT OF 16 LEADING ANALYSIS, SHE DOESN'T FIND ANY INSTANCES FOR THE MULO 17 CHANNEL WHERE THERE'S NOT POSITIVE AND STATISTICALLY 18 SIGNIFICANT PASS-THROUGH. SO FOR THOSE OF US WHO DON'T KEEP THE DEFINITION OF MULO 19 IN OUR HEADS, WHAT DOES THAT MEAN? 20 21 Α. MULTIPLE OUTLET, SO IT'S RETAILERS THAT HAVE MULTIPLE 22 LOCATIONS. SO WHAT DOES THAT MEAN FOR THE REAL WORLD. IN TERMS OF 23 24 WHAT -- DR. HAIDER'S CRITIQUES OF PASS-THROUGH WHERE SHE SAYS THAT IF YOU DO SOME THINGS YOU DROP BELOW STATISTICAL 25

1 SIGNIFICANCE, WHAT DOES THAT MEAN FOR CLUB STORES, BIG BOXES, 2 GROCERIES? 3 SHE DOES NOT FIND EVIDENCE OF NO PASS-THROUGH IN THOSE LOCATIONS. 4 5 Q. OKAY. 6 Α. SHE FINDS ACTUALLY IN THE AFFIRMATIVE, SHE FINDS EVIDENCE 7 OF PASS-THROUGH. 8 SO WHEN YOU LOOKED AT HER RESULTS FOR THE CONVENIENCE 9 STORES THAT SHE SAID CAUSED -- CERTAINLY TO DROP BELOW STATISTICAL SIGNIFICANCE, WHAT DID YOU FIND? 10 THAT THERE WERE A FEW INSTANCES WHERE SHE FOUND CERTAIN 11 Δ 12 CONVENIENCE STORES IN CERTAIN LOCATIONS DROPPED BELOW A LEVEL OF STATISTICAL SIGNIFICANCE. 13 DO YOU THINK SHE'S RIGHT ABOUT THAT? 14 Ο. 15 Α. I DO NOT. 16 Q. WHY IS SHE NOT RIGHT ABOUT THAT? 17 A. SHE DERIVES THOSE RESULTS BY TAKING MY PASS-THROUGH MODEL, 18 START WITH IRI -- SHE DOES SOMETHING SIMILAR FOR KROGER'S AND 19 CORE-MARK. SO SHE TAKES MY IRI MODEL AND LOADS IT UP WITH HUNDREDS OF OTHER VARIABLES AND COMES UP WITH RESULTS THAT ARE 20 21 SOMEWHAT DIFFERENT THAN MINE. O. OKAY. AND CAN YOU EXPLAIN TO ME WHY PUTTING ADDITIONAL 22 VARIABLES INTO A MODEL WOULD CHANGE THE RESULTS. 23 24 WELL, IT CAN BE FINE. THAT CAN BE TOTALLY APPROPRIATE. THE PROBLEM IS IN HER CASE THE VARIABLES THAT SHE PUT INTO THE 25

1 MODEL ARE FAR TOO CORRELATED WITH THE VARIABLES THAT I HAD IN 2 MY ORIGINAL MODEL, AND SO SHE ENDS UP WITH A CONFUSION. SHE CAN'T TELL WHAT'S CAUSING WHAT. 3 4 CAN YOU GIVE ME AN EXAMPLE OF VARIABLES THAT ARE FAR TOO 5 CORRELATED WITH EACH OTHER? SURE. WHAT SHE DOES IS SHE TAKES, FOR EXAMPLE, LOCATION 6 Α. 7 FIXED EFFECTS, SO AN INDICATOR VARIABLE FOR WHERE THE LOCATION 8 OF THE PARTICULAR STORE OR STATE IS, AND THEN INTERACTS THAT --9 OR ADDS IT INTO A MODEL WHERE I ALREADY HAVE THOSE EXACT SAME EFFECTS INTERACTED WITH THE WHOLESALE PRICE, SO SHE'S BASICALLY 10 ADDING ANOTHER VARIABLE THAT'S VERY SIMILAR TO ONE THAT I 11 12 ALREADY HAVE IN. 13 SO WHEN THERE ARE A BUNCH OF VARIABLES IN A MODEL THAT ARE SIMILAR TO OTHER VARIABLES IN A MODEL, IS THERE A WAY TO TEST 14 15 WHETHER THAT IS AFFECTING THE RESULTS? 16 Α. YES. WHAT IS THAT WAY? 17 Ο. 18 THE STANDARD TEST, ECONOMETRICS, ONE USES FOR THAT TO 19 DETECT FOR THE PRESENCE OF WHAT WE CALL MULTICOLLINEARITY, WHICH IS A STATISTICAL RELATIONSHIP AMONG THE EXPLANATORY 20 21 VARIABLES. THAT TEST IS CALLED THE VARIANCE INFLATION FACTOR, 22 AND SO I CALCULATED VARIANCE INFLATION FACTOR STATISTICS FOR 23 HER MODELS. WHAT DO YOU WANT A VARIANCE INFLATION FACTOR TO BE IN AN 24 Q. ECONOMETRICS ANALYSIS? 25

1 THE RULE OF THUMB IS THE VIF STATISTICS SHOULD TAKE ON A 2 VALUE OF LESS THAN 10 FOR -- IF THE VALUES ARE GREATER THAN 10, TO SAY IT OTHERWISE, THAT'S EVIDENCE OF PROBLEMATIC 3 4 MULTICOLLINEARITY. 5 AND DID YOU -- WERE YOU ABLE TO DERIVE RESULTS FROM THE 6 WORK THAT DR. HAIDER DID ON YOUR PASS-THROUGH? 7 I WAS. Α. 8 Q. AND WHAT WERE THOSE, IN TERMS OF VIF STATISTICS? 9 Α. YES. AND WHAT WERE THOSE? 10 Q. Α. THAT HER VARIANCE INFLATION FACTOR STATISTICS WERE FAR 11 12 BEYOND THE THRESHOLD THAT ONE WOULD NORMALLY CONSIDER TO BE 13 ACCEPTABLE IN A WELL-SPECIFIED MODEL. DEPENDING ON THE SPECIFIC VERSION THAT SHE ESTIMATED, SHE HAD VARIANCE INFLATION 14 15 FACTOR STATISTICS AS HIGH AS 37,000, WHEN THE THRESHOLD IS 10, 16 SO THAT'S EVIDENCE TO ME OF A MIS-SPECIFIED APPROACH. O. HOW MUCH TOTAL DATA DID YOU HAVE AVAILABLE TO YOU FROM 17 18 INDIVIDUAL RESELLERS OR RETAILERS PACKAGED TUNA TO DO YOUR 19 PASS-THROUGH STUDIES? THE DATA TAKEN TOGETHER COVERED SOMETHING ON THE ORDER OF 20 21 \$6 BILLION IN RETAIL TRANSACTIONS, WITH MILLIONS OF INDIVIDUAL 22 OBSERVATIONS. BASED ON THAT WORK THAT YOU DID, WHAT CAN YOU TELL ME 23 24 ABOUT PASS-THROUGH? A. WHAT I CAN TELL YOU IS THAT PASS-THROUGH IS POSITIVE AND 25

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STATISTICALLY SIGNIFICANT EVERYWHERE I LOOKED. IT DOES VARY A LITTLE BIT FROM ONE STATE TO ANOTHER, OR FROM ONE RETAILER TO ANOTHER, BUT IT'S POSITIVE AND STATISTICALLY SIGNIFICANT EVERYWHERE I INVESTIGATED IT. DOES THE PASS-THROUGH HAVE TO BE THE SAME ELASTICITY OR THE SAME RATE EVERYWHERE IN ORDER FOR THE RETAIL PURCHASERS OF THE PRODUCT TO SUFFER SOME INJURY WHEN THERE'S OVERCHARGE AT THE WHOLESALE LEVEL? NO, DEFINITELY NOT. WHAT POSITIVE PASS-THROUGH MEANS IS THAT A CHANGE IN THE WHOLESALE PRICE IS PASSED THROUGH, TO SOME DEGREE, TO THE RETAIL LEVEL. A PASS-THROUGH ELASTICITY OF 1 SAYS THAT IF THERE'S A 10 PERCENT INCREASE IN THE WHOLESALE PRICE, THAT RESULTS IN A 10 PERCENT INCREASE IN THE RETAIL PRICE. BUT REMEMBER, EVEN A PASS-THROUGH ELASTICITY, AND THIS IS IMPORTANT, EVEN A PASS-THROUGH ELASTICITY OF LESS THAN 1 CAN RESULT IN A SITUATION WHERE ALL OR EVEN MORE OF THE ACTUAL AMOUNT OF THE PASS-THROUGH -- THE ACTUAL AMOUNT OF THE WHOLESALE PRICE CHANGE GOES TO THE RETAIL LEVEL. THAT WAS THE EXAMPLE WE WENT THROUGH A LITTLE WHILE AGO. DID YOU IGNORE LOSS LEADER PRICING? Ο. Α. I DID NOT. DID YOU TALK ABOUT LOSS LEADER PRICING IN YOUR ORIGINAL REPORT?

A. YES. I HAD A MULTI-PAGE SECTION ON THE NOTION OF LOSS

1 LEADER PRICING. 2 Q. DOES LOSS LEADER PRICING RESULT IN THERE BEING NO PASS-THROUGH? 3 4 Α. IT DOES NOT. 5 HOW DO YOU KNOW? Q. 6 Α. WELL, I KNOW BECAUSE I TESTED IT. 7 HOW DID YOU TEST THAT? 8 Α. SO A TINY EXPLANATION WOULD HELP, BUT I KNOW WE MAY BE RUNNING SHORT ON TIME. LOSS LEADER PRICING IS A SITUATION WHERE A RETAILER MAY 10 TEMPORARILY HEAVILY DISCOUNT THE PRICE OF A PARTICULAR ITEM, 11 AND YOU SEE EVIDENCE OF THAT FOR CANNED TUNA DURING THE LENT 12 13 PERIOD, WHEN THERE IS SOME CONSUMERS WHO ARE NOT EATING RED MEAT AND USING TUNA AS A SUBSTITUTE. SO THERE ARE EXAMPLES, 14 15 AND THERE'S ACTUALLY ACADEMIC WORK ON THIS, WHERE YOU SEE SHARP PRICE DROPS FOR CANNED TUNA PRODUCTS DURING THE LENT SEASON AND 16 17 THEN THEY'LL COME BACK UP. 18 DID YOU IGNORE FOCAL POINT PRICING IN YOUR ORIGINAL 19 REPORT? A. NO, I DID NOT. 20 I'M SORRY, I'M NOT SURE WE COMPLETED OUR DISCUSSION OF 21 LOSS LEADERS. WHAT HAPPENS DURING THE PERIOD WHEN LOSS LEADERS 22 ARE MOST FREQUENT? 23 A. OH, THE RETAILER WILL DISCOUNT, SAY, THE PRICE OF TUNA IN 24 THIS CASE, BUT WHAT I DID TO TEST THE PROPOSITION THAT THERE'S 25

PASS-THROUGH, EVEN DURING THE LOSS LEADER PERIOD, WAS I 1 2 ACTUALLY RERAN MY PASS-THROUGH MODEL FOR THE LENT PERIOD ONLY, AS OPPOSED TO THE REST OF THE YEAR, AND I FOUND POSITIVE 3 4 PASS-THROUGH IN BOTH INSTANCES. 5 HOW DOES THE PASS-THROUGH DURING LENT COMPARE TO THE 6 PASS-THROUGH FOR THE REST OF THE YEAR? 7 I DON'T REMEMBER THE SPECIFIC MAGNITUDES. MY RECOLLECTION 8 IS IT'S SIMILAR, BUT I WOULD HAVE TO LOOK TO SEE THE SPECIFIC 9 NUMBERS, BUT THERE WAS SIGNIFICANT PASS-THROUGH, POSITIVE AND SIGNIFICANT, BOTH DURING LENT AND THE REST OF THE YEAR. 10 OKAY. DID YOU IGNORE FOCAL POINT PRICING IN YOUR ORIGINAL 11 Ο. 12 REPORT? 13 Α. I DID NOT. CAN YOU EXPLAIN TO THE COURT WHAT FOCAL POINT PRICING IS. 14 Ο. 15 SURE. FOCAL POINT PRICING IS A STRATEGY THAT'S EMPLOYED 16 BY SOME RETAILERS WHERE THEY LIKE TO -- AN EXAMPLE WOULD BE 17 ENDING A PRICE ON THE NINE, SO SELLING SOMETHING FOR \$0.99 OR A \$1.09 AS OPPOSED TO \$1.04, SO THEY KIND OF TAKE THE PRICING 18 SPACE AND DIVIDE IT UP INTO A GRID. 19 AND HOW DOES THAT AFFECT PASS-THROUGH? 20 I THINK IN THIS INSTANCE IT DOES NOT. THE OVERCHARGES 21 Α. 22 THAT I'M ESTIMATING, UP TO AROUND 10 PERCENT, THOSE ARE LARGE ENOUGH THAT I BELIEVE A RETAILER WOULD HAVE TO RESPOND TO THAT. 23 24 PROFESSOR, IF YOU WERE AT AN ACADEMIC CONFERENCE PRESENTING YOUR WORK HERE AS A PAPER, AND A COLLEAGUE ASKED YOU 25

IF YOU'D BEEN ABLE TO SHOW WITH YOUR MODEL THAT THE CARTELS 1 2 AFFECT ON PRICE HARMED THE WHOLE CLASS, WHAT WOULD YOU SAY? A. MY ANSWER WOULD BE YES. I ALWAYS, WITH LITIGATION, 3 4 CONSULT AND TRY TO USE THE SAME STANDARDS THAT I WOULD USE IF I 5 HAD TO SHOW UP IN FRONT OF MY PEERS AT THE UNIVERSITY AT AN 6 ACADEMIC SEMINAR. IN FACT, ONE OF THE REASONS THAT I LIKE TO 7 DO THIS KIND OF WORK IS IT GIVES ME FOOD FOR THOUGHT AS A 8 RESEARCHER. SO YES, I WOULD BE VERY COMFORTABLE STANDING UP IN 9 FRONT OF ACADEMIC ECONOMISTS AT A UNIVERSITY AND SAYING THAT THERE ARE DAMAGES THAT ARE EXPERIENCED ON A CLASS-WIDE BASIS. 10 O. WHAT DO YOU NEED TO KNOW TO ESTIMATE DAMAGES FOR THE 11 12 CLASS? 13 I HAVE EVERYTHING I NEED RIGHT NOW. JUST IN TERMS OF THE FORMULA, I NEED AN OVERCHARGE PERCENTAGE, AND THEN SOME NOTION 14 15 OF HOW THE CHANGE IN WHOLESALE PRICES PASSED THROUGH AT THE 16 RETAIL LEVEL. THE OVERCHARGE PERCENTAGES I'VE ALREADY 17 ESTIMATED, AND THE PASS-THROUGH I'VE ALREADY ESTIMATED. 18 THINK I HAVE WHAT I NEED. MR. BURT: YOUR HONOR, SUBJECT TO ANY -- WELL, I THINK 19 THIS IS PROBABLY A GOOD TIME TO ASK IF THE COURT HAS OUESTIONS. 20 21 THE COURT: NOT AT THIS TIME, COUNSEL. THANK YOU. 22 MR. BURT: SUBJECT TO ANY REDIRECT OR POSSIBLY RECALLING THE WITNESS, I HAVE NO FURTHER QUESTIONS AT THIS 23 24 TIME. THE COURT: THANK YOU VERY MUCH. 25

YOUR WITNESS, MR. GALLO. 1 2 MR. GALLO: THANK YOU, YOUR HONOR. MAY WE APPROACH WITH BINDERS FOR THE COURT AND THE WITNESS, YOUR HONOR? 3 4 THE COURT: CERTAINLY. 5 MR. GALLO: I'M INFORMED THE COURT ALREADY HAS OURS. MS. MANIFOLD: CAN WE GET BINDERS? 6 7 MR. GALLO: OF COURSE. 8 CROSS EXAMINATION 9 BY MR. GALLO: DR. SUNDING, PLEASURE TO MEET YOU. I'M KEN GALLO, AND I 10 REPRESENT BUMBLEBEE. 11 GOOD TO MEET YOU AS WELL. 12 13 I JUST WANT TO CLARIFY A COUPLE OF THINGS. YOU RAN A SEPARATE REGRESSION FOR EACH DEFENDANT HERE, CORRECT? 14 CAN YOU BE MORE SPECIFIC? 15 Α. WELL, YOU RAN ONE FOR BUMBLEBEE, A REGRESSION MODEL, YOU 16 Q. 17 GOT A COEFFICIENT FOR BUMBLEBEE, CORRECT? 18 YES. IF YOU'RE TALKING ABOUT THE OVERCHARGE REGRESSIONS, YES, I RAN A SEPARATE OVERCHARGE MODEL FOR EACH DEFENDANT. 19 O. RIGHT. AND SO YOU RAN IT, AND YOU RAN ONE FOR CHICKEN OF 20 THE SEA AND ONE FOR STARKIST, RIGHT? 21 22 A. YES, I DID. YOU RECALL IN YOUR DEPOSITION YOU TESTIFIED THAT YOU DID 23 24 THAT BECAUSE THEY'RE ALL POSITIONED DIFFERENTLY IN THE INDUSTRY. YOU GAVE ABOUT FOUR OR FIVE REASONS. ONE REASON WAS 25

1 THEY'RE ALL POSITIONED DIFFERENTLY IN THE INDUSTRY, REMEMBER 2 THAT? 3 Α. SURE. 4 AND THEY ALL HAVE DIFFERENT MARKET SHARES. 5 Α. YES, THEY DO. AND YOU DID IT BECAUSE THERE ARE DEGREES OF DIFFERENT 6 Ο. 7 CONSUMER PERCEPTIONS, AND I THINK YOU ALLUDED DURING YOUR 8 DIRECT TESTIMONY TO THE FACT THAT STARKIST MAYBE IS PERCEIVED 9 BY SOME PEOPLE AS A PREMIUM BRAND, RIGHT? YES, THOSE FACTORS ARE ALL PART OF WHAT WENT INTO MY 10 11 THINKING. Q. AND THEY HAVE OPERATIONS IN DIFFERENT PARTS OF THE WORLD, 12 13 ETC. THEY DO. IT'S POSSIBLE THAT COST FACTORS, AGAIN LIKE THE 14 15 PRICE OF DIESEL FUEL, MIGHT IMPACT THEIR WHOLESALE PRICES 16 DIFFERENTLY. 17 O. RIGHT. SO YOU TALKED ABOUT THE FACT THAT THIS IS A --18 WHEN YOU WERE DISCUSSING THE FACT THAT DR. HAIDER RAN MULTIPLE 19 REGRESSIONS, YOU REFERRED TO THE FACT THAT THIS IS A SINGLE NATIONAL MARKET; DO YOU REMEMBER THAT TESTIMONY? 20 A. I DO. 21 22 SO EVEN THOUGH IT'S A SINGLE NATIONAL MARKET, YOU ALSO RAN 0. MORE THAN ONE REGRESSION ON THIS MARKET, YOU RAN THREE 23 REGRESSIONS, RIGHT? 24 A. I DID. I RAN A SEPARATE OVERCHARGE REGRESSION FOR EACH 25

1 DEFENDANT. 2 Q. RIGHT. AND THEN YOU RAN A REGRESSION THAT WAS DIFFERENT FROM YOUR WALMART SENSITIVITY TEST, CORRECT? 3 CORRECT. I PUT IN AN INTERACTION TERM THAT ESTIMATED A 5 DIFFERENT OVERCHARGE FOR WALMART. Q. AND THEN WE'RE GOING TO GET BACK TO THIS LATER, BUT THEN 6 7 YOU RAN SOME DIFFERENT REGRESSIONS JUST IN THE LAST WEEK IN 8 RESPONSE TO THE NEW MATERIAL YOU GOT FROM DR. HAIDER, RIGHT? 9 YES. USING THE SAME DATA, SAME CODE, JUST EXTENDED TO A SET OF PURCHASERS LARGER THAN WALMART. 10 YOU RAN A REGRESSION FOR EACH OF THE 10 LARGEST PURCHASERS 11 Q. 12 FOR EACH OF THE DEFENDANTS. DO I HAVE THAT RIGHT? 13 YES, I DID. SO I RAN A TOTAL OF 30 SENSITIVITY TESTS FOR THE LARGEST CUSTOMERS. 14 OKAY. SO EVEN THOUGH THERE'S ONE MARKET, YOU'VE NOW RUN 15 16 AT LEAST 34 REGRESSIONS TO SUPPORT YOUR TESTIMONY. 17 A. YES. THE IDEA THAT THERE'S ONE MARKET IS NOT CONTRADICTED 18 BY EVIDENCE THAT THE OVERCHARGE VARIES SLIGHTLY FROM ONE 19 CUSTOMER TO ANOTHER. I UNDERSTAND. 20 Ο. I SAID EVEN IN MY FIRST REPORT THAT THAT WAS THE CASE. 21 Α. 22 RIGHT. I UNDERSTAND. IN OTHER WORDS, LET ME -- THAT'S A Ο. GOOD POINT. LET ME PICK UP ON THAT. SO WHEN YOU SAY THAT YOUR 23 24 FIRST REGRESSION, THIS SORT OF BASE REGRESSION, JUST FOR LACK OF A BETTER WORD, YOU MENTIONED THAT ON BUMBLEBEE IT SHOWED A 25

9.4 PERCENT OVERCHARGE. YOU'RE SIMPLY NOT CONTENDING THAT 1 2 EVERY PURCHASER PAID A 9.4 PERCENT OVERCHARGE? 3 Α. NO, I'M NOT. 4 THERE'S VARIATION AROUND THAT OVERCHARGE, CORRECT? 5 YES. I DEVELOPED RESULTS IN MY FIRST REPORT THAT THE Α. 6 OVERCHARGE VARIES SOMEWHAT BY WHAT'S IN THE CAN, WHITE MEAT 7 VERSUS LIGHT MEAT, BY POUCH VERSUS CAN, AND ALSO BY ORIGINAL 8 WALMART SENSITIVITY TESTS, THE OVERCHARGE WAS SOMEWHAT 9 DIFFERENT THAN IT IS FOR OTHER PURCHASERS. IN SIMPLE TERMS, YOU'RE RUNNING THESE REGRESSIONS BECAUSE 10 YOU'RE TRYING TO DETERMINE WHETHER ALL OR SUBSTANTIALLY ALL OF 11 THE MEMBERS OF THE CLASS WERE IMPACTED BY THE ALLEGED 12 13 COLLUSION, RIGHT? THAT'S CORRECT. I HAD -- I THINK WHAT I DESCRIBED EARLIER 14 15 WAS A THREE-STEP METHODOLOGY, START WITH THE DATA, RUN A 16 STATISTICAL MODEL FOR EACH DEFENDANT SEPARATELY, AND GET A 17 REPRESENTATIVE OVERCHARGE, IF THERE IS ONE. THERE MAY NOT HAVE 18 BEEN, BUT THERE WAS IN THIS CASE. 19 Q. RIGHT. AND THEN DO A SERIES OF SENSITIVITY TESTS TO SEE IF THAT 20 21 RESULT DIFFERS, AND, IF SO, BY HOW MUCH IN DIFFERENT PARTS OF 22 THE MARKET. RIGHT. AND SO THE TEST IS, IN ESSENCE, ARE EACH OF THE 23 24 MEMBERS OF THE CLASS IMPACTED -- OR SUBSTANTIALLY ALL OF THE MEMBERS OF THE CLASS IMPACTED BY THE COLLUSION. FIRST YOU RAN 25

YOUR THREE AVERAGE OVERCHARGES, RIGHT, AND THEN YOU DID SOME 1 2 SENSITIVITY TESTS. ONE OF THEM WAS BY PRODUCT TYPE, WHITE MEAT VERSUS LIGHT MEAT, CORRECT? 3 4 Α. THAT'S CORRECT. 5 ANOTHER ONE WAS CAN VERSUS POUCH, RIGHT? Q. Α. THAT'S ALSO CORRECT. 6 7 0. AND THEN WALMART. 8 Α. YES. AND THEN UNTIL YOU RESPONDED TO SOME THINGS DR. HAIDER 9 Ο. DID, THAT'S WHERE YOU STOPPED THE ORIGINAL WORK, RIGHT? 10 11 Α. YES. SO WHAT YOU DIDN'T DO IS DO A TEST ON INDIVIDUAL MEMBERS 12 13 OF THE CLASS OTHER THAN WALMART TO SEE WHAT THE OVERCHARGE WAS ON THEM, RIGHT? 14 WELL, NOW I'VE TESTED THE 10 LARGEST PURCHASERS FOR EACH 15 16 OF THE THREE DEFENDANTS. BUT, NO, IN MY ORIGINAL REPORT THE 17 ONLY PURCHASER I TESTED INDIVIDUALLY WAS WALMART. 18 Q. OKAY. WE'LL GET TO THOSE OTHER 10. I'M ANXIOUS TO TALK ABOUT THAT, I KNOW THAT YOU ARE, TOO, SO WE'LL AGREE ON THAT 19 20 MUCH. SO THE WALMART SENSITIVITY TEST, LET'S JUST TALK ABOUT 21 22 THAT FOR A MOMENT. YOU CHECKED WALMART AND YOU CAME OUT WITH A POSITIVE BUT DIFFERENT OVERCHARGE COEFFICIENT FOR WALMART, 23 24 CORRECT? A. THAT'S CORRECT. 25

AND YOU SAID IT WAS SOMEWHAT LOWER, AND THAT DID NOT 1 2 SURPRISE YOU. THAT'S CORRECT. WALMART IS A VERY LARGE FIRM THAT HAS A 3 4 LOT MORE BARGAINING POWER THAN A NUMBER OF THE OTHER 5 PURCHASERS, SO I WASN'T SURPRISED TO SEE A LOWER OVERCHARGE. RIGHT. OKAY. NOW, JUST HYPOTHETICALLY, IF YOU HAD GOTTEN 6 0. 7 A NEGATIVE COEFFICIENT FOR WALMART, WOULD YOU WANTED TO HAVE 8 DONE MORE ANALYSIS TO FIGURE OUT WHY THAT WAS HAPPENING? 9 YES, I THINK SO. 10 Q. OKAY. THAT CERTAINLY WOULD HAVE CAUSED ME TO DO SOME MORE 11 Α. 12 DIGGING IN THE DATA. 13 AND I UNDERSTAND YOUR REPORT TO SAY THAT YOU THOUGHT IT WAS REASONABLE TO STOP AT WALMART IN PART BECAUSE WALMART'S A 14 DOMINANT PLAYER IN THE MARKET, AND YOU SAID THAT THIS MORNING 15 16 ALSO, CORRECT? 17 THEY'RE A DOMINANT PLAYER IN THE RETAIL GROCERY MARKET, 18 ABSOLUTELY. AND THAT IT'S A NATIONAL MARKET, AND YOU WOULD EXPECT THE 19 LAW OF ONE PRICE TO HOLD IN SUCH A MARKET. 20 Α. 21 YES. 22 Ο. OKAY. YOU DIDN'T REALLY TALK ABOUT THE LAW OF ONE PRICE THIS MORNING. THAT WAS IN YOUR ORIGINAL REPORT, WASN'T IT? 23 24 Α. IT WAS, YES.

O. AND WOULD YOU JUST EXPLAIN TO THE COURT BRIEFLY WHAT THE

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1 LAW OF ONE PRICE IS SO WE CAN ALL BE SURE WE'RE COMMUNICATING 2 WITH ONE ANOTHER? 3 SURE. THE LAW OF ONE PRICE SAYS THAT IN A COMPETITIVE MARKET, YOU KNOW, WHEN THEY'RE WITHIN A MARKET THAT PRICES WILL 5 -- DON'T HAVE TO ALL NECESSARILY BE EXACTLY THE SAME, BUT THEY'LL TEND TO MOVE UP OR DOWN TOGETHER. 6 7 THEY WILL BE PRETTY CLOSE, RIGHT, THAT -- YOU WOULD EXPECT Ο. 8 THEM TO BE -- PRICES TO BE QUITE CLOSE TO ONE ANOTHER IN THE 9 SAME GEOGRAPHIC REGION, FOR THE SAME PRODUCT, AT APPROXIMATELY THE SAME TIME; ISN'T THAT TRUE? 10 NO. I SHOWED EVIDENCE IN MY FIRST REPORT OF PRICE 11 Δ 12 DISPERSION, CERTAINLY AT THE RETAIL LEVEL. TUNA DOESN'T ALWAYS 13 SELL FOR THE SAME PRICE AT THE RETAIL LEVEL. OKAY. SO YOU DIDN'T DO AN EMPIRICAL ANALYSIS THOUGH TO 14 Ο. 15 DETERMINE THAT IN FACT THE LAW OF ONE PRICE APPLIED IN THIS 16 MARKET, DID YOU? YOU DIDN'T PUBLISH IN YOUR REPORT STATISTICS OR ANYTHING LIKE THAT, RIGHT? 17 18 WELL, I THINK THAT THE LAW OF ONE PRICE IDEA IS CONSISTENT WITH THE WHOLE ANALYSIS I DID OF OVERCHARGES AND PASS-THROUGH. 19 WAIT A MINUTE, JUST ANSWER MY OUESTION. YOU DON'T HAVE 20 21 ANY EMPIRICAL DATA SHOWING THAT THE LAW OF ONE PRICE PREVAILS 22 IN THIS MARKET. YOU SAID YOU WOULD EXPECT IT TO, BUT YOU 23 DIDN'T TEST IT. A. RIGHT. I DON'T THINK I DID AN EXPLICIT TEST OF THAT. 24 25 MR. GALLO: WOULD YOU PULL UP DEMONSTRATIVE NO. 1,

1 PLEASE. 2 Q. DO YOU THINK THIS IS SORT OF A FAIR REPRESENTATION OF WHAT YOU WOULD EXPECT TO SEE IF THE LAW OF ONE PRICE PREVAILED IN 3 THE MARKET, THAT THERE WOULD BE THIS MOVEMENT OF PRICES BUT 5 WITHIN A RELATIVELY NARROW BAND? NO. WHAT YOU'RE SHOWING HERE IS PRICES MOVING OVER TIME. 6 Α. 7 THAT DOESN'T HAVE ANYTHING TO DO WITH THE LAW OF ONE PRICE. 8 Q. ALL RIGHT. MR. GALLO: WOULD YOU PULL UP DEMONSTRATIVE 2. YOU REMEMBER THAT DR. HAIDER COMMENTED ON YOUR LAW OF ONE 10 11 PRICE AND SET FORTH IN HER REPORT SOME PRICE DISPERSION INFORMATION? DO YOU REMEMBER THAT? 12 13 Α. I DO. O. AND THIS IS WHAT DR. HAIDER SAID SHE SAW WHEN SHE LOOKED 14 15 TO SEE IF THIS MARKET WAS CHARACTERIZED BY THE LAW OF ONE PRICE; DO YOU REMEMBER THAT? 16 17 A. I DO REMEMBER SEEING A NUMBER OF FIGURES THAT LOOK LIKE 18 THIS IN HER REPORT. IT'S SHOWING PRICES DISPERSED ALL OVER, UP FROM .70 PRICE 19 Ο. PER UNITS UP TO NEARLY A DOLLAR, AND EVERYWHERE IN BETWEEN, 20 21 RIGHT? 22 A. CERTAINLY. LIKE I SHOWED BACK IN MY FIRST REPORT, THERE'S DEFINITELY PRICE DISPERSION IN THE MARKET. 23 24 Q. ALL RIGHT. THANK YOU. NOW, I WANT TO MOVE TO THIS TESTING THAT WE'RE BOTH 25

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ANXIOUS TO SPEAK ABOUT, BUT THERE'S A LITTLE BIT OF LACK OF CLARITY HERE SO I WANT TO BE CLEAR FOR THE COURT. BECAUSE TARGET AND COSTCO ACTUALLY -- YOU WERE TALKING ABOUT TWO DIFFERENT SETS OF TESTS, RIGHT? IN OTHER WORDS, FIRST DR. HAIDER DID SOME TARGET AND COSTCO TESTING IN HER REPORT, AND THIS MORNING YOU TESTIFIED ABOUT SOME OF THAT TESTING, RIGHT? Α. YES. IT'S A LITTLE HARD TO KEEP TRACK OF ALL THE TESTING THAT SHE DID BECAUSE SHE RAN A NUMBER OF DIFFERENT THINGS ON SLIGHTLY DIFFERENT DATA SETS, BUT, YES, IN HER ORIGINAL REPORT SHE HAD SOME TESTING. AND WHEN YOU CRITICIZED THE COSTCO SAMPLE SIZE, IT WAS A Ο. LITTLE UNCLEAR TO ME SO I WANT TO BE SURE I'M FOLLOWING. YOU WERE TALKING ABOUT THAT TESTING IN HER REPORT ON COSTCO, CORRECT? THAT'S CORRECT. SHE CALLS OUT COSTCO PURCHASES FROM STARKIST THAT SHE -- RESULTS SHE DEVELOPS FROM HER 600 SUB-REGRESSION APPROACH. SHE CALLS THAT OUT AS BEING AN EXAMPLE OF WHERE WHEN WE DO THINGS THE WAY SHE THINKS THEY SHOULD BE DONE YOU DON'T FIND A POSITIVE AND STATISTICALLY SIGNIFICANT OVERCHARGE.

Q. SO LET'S CALL THAT THE FIRST SET OF TESTING, JUST SO THE COURT CAN BE CLEAR.

LET'S TALK ABOUT THE SECOND SET OF TESTING. THE SECOND SET OF TESTING IS THE DATA YOU SAID YOU WOKE UP TO A WEEK AGO
THAT DR. HAIDER DID, AND THAT'S WHAT I WANT TO FOCUS ON FOR A

MOMENT, OKAY, AND WHAT YOU DID IN RESPONSE TO THAT. 1 A. SURE. THERE ARE ACTUALLY SEVERAL SETS OF TESTS IN BETWEEN 2 THOSE TWO, BUT WE CAN CERTAINLY TALK ABOUT THOSE TWO. 3 4 LET'S JUST CALL IT THE SECOND SET SO WE'RE BOTH 5 COMMUNICATING. Α. 6 OKAY. 7 Q. NOW, AS I UNDERSTOOD IT, DR. HAIDER PROVIDED THAT TESTING 8 TO YOU, AND YOU UNDERSTOOD WHAT SHE WAS DOING THERE -- I WANT TO BE SURE YOU DO -- WAS EXTENDING YOUR -- TAKING YOUR WALMART 9 SENSITIVITY ANALYSIS AND APPLYING IT TO COSTCO AND TARGET, 10 11 RIGHT? 12 YES, AND PIGGLY WIGGLY MIDWEST. 13 Q. AND PIGGLY WIGGLY, YOU'RE RIGHT. I LEFT THAT OUT. BUT IT WAS THE SAME THING YOU DID FOR WALMART SHE DID FOR PIGGLY 14 WIGGLY, COSTCO AND TARGET. 15 16 Α. YES. IT'S WHAT I CALLED BEFORE THOUGH ONE AT A TIME 17 SENSITIVITY ANALYSIS. 18 RIGHT. AND HER RESULTS PRODUCED NEGATIVE OVERCHARGE COEFFICIENTS FOR THOSE THREE CUSTOMERS, CORRECT? 19 Α. THEY DID. 20 Q. RIGHT. AND WHAT YOU DID IN RESPONSE TO THAT WAS NOT JUST 21 22 TO TEST COSTCO, PIGGLY WIGGLY, AND TARGET, BUT THIS IS WHERE YOU TOOK THE TOP 10 CUSTOMERS OF EACH OF THE THREE DEFENDANTS 23 24 AND RAN A REGRESSION ON THOSE -- ALL OF THOSE TOP 10 CUSTOMERS,

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RIGHT?

1 NO. FIRST I TESTED THE THREE EXAMPLES THAT SHE INCLUDED 2 IN HER SLIDE. 3 Ο. OKAY. 4 AND THEN I WENT ON AND TOOK THE EXTRA STEP OF TESTING ALL 5 10 FOR EACH DEFENDANT. RIGHT. BUT WE'RE NOT -- LET ME JUST BE CLEAR. WE'RE NOT 6 Ο. 7 AGREEING -- WHEN YOU DID THAT, WHEN YOU TRIED TO -- WHEN YOU 8 DID THE SAME THING SHE DID, YOU GOT NEGATIVES FOR COSTCO AND 9 TARGET -- FOR COSTCO AND TARGET, DIDN'T YOU, JUST LIKE SHE DID? I DID. WHEN I RAN HER CODE, I GOT NEGATIVE OVERCHARGES 10 FOR THOSE SPECIFIC CASES, AND THAT PROMPTED ME TO DO SOME 11 ADDITIONAL DIGGING --12 13 Q. RIGHT, RIGHT, RIGHT. -- TO FIGURE OUT WHAT WAS GOING ON THERE. 14 Α. 15 BECAUSE -- MAYBE I MISSED THAT. I DIDN'T HEAR YOU SAY THAT THIS MORNING, BUT THERE'S SOMETHING ELSE I DON'T THINK I 16 17 HEARD YOU SAY, THAT WHEN YOU RAN IT ON THE TOP 10 CUSTOMERS, 18 FOR EACH OF THE THREE DEFENDANTS, YOU EXTENDED YOUR OWN WALMART 19 TEST, YOU GOT A NEGATIVE FOR SAM'S CLUB -- NEGATIVE COEFFICIENT FOR SAM'S CLUB FOR STARKIST, RIGHT? 20 I WOULD HAVE TO SEE THE OUTPUT. 21 Α. 22 YOU DON'T REMEMBER THAT YOU GOT FIVE OTHER NEGATIVES, YOU Ο. GOT A NEGATIVE FOR FIVE, INCLUDING COSTCO? 23 24 WELL, NO. AFTER THE DATA CLEANING THAT I THINK IS APPROPRIATE TO UNDERSTAND TO ISOLATE THE EFFECT OF THE 25

- 1 OVERCHARGE, THEN I GOT POSITIVE AND STATISTICALLY --2 Q. WE'RE GOING TO --3 Α. EXCUSE ME, PLEASE LET ME FINISH. Q. I'M SORRY. I APOLOGIZE. GO AHEAD. 5 THAT ONCE I DID THE DATA CLEANING, THAT I THINK IS Α. APPROPRIATE TO REALLY UNDERSTAND WHAT'S DRIVING THOSE RESULTS, 6 7 THEN I GOT THE RESULT THAT I DESCRIBED HERE. 8 Ο. FAIR ENOUGH. BUT WHAT YOU DIDN'T TELL THE COURT WAS WHEN 9 YOU FIRST JUST TOOK YOUR WALMART MODEL, AND YOU APPLIED IT TO THOSE TOP 10 CUSTOMERS, YOU GOT FIVE NEGATIVE COEFFICIENT. 10 THAT'S CORRECT, AND THAT IS ONE OF THE DANGERS OF DOING A 11 Α. COMPANY-BY-COMPANY ANALYSIS, WHICH IS WHAT THAT IS, YOU'VE GOT 12 13 TO UNDERSTAND WHAT WAS HAPPENING TO INTERPRET YOUR RESULTS. AND LET'S -- JUST FOR THE RECORD, YOU GOT A NEGATIVE FOR 14 15 SAM'S CLUB FOR STARKIST. 16 Α. THAT SOUNDS RIGHT. 17 YOU GOT A NEGATIVE FOR RALPH'S FOR COSTCO -- FOR COSI. 0. 18 Α. THAT ALSO SOUNDS RIGHT. YOU GOT A NEGATIVE FOR PEYTON'S FOR CHICKEN OF THE SEA. 19 Q. I DON'T REMEMBER THAT ONE. 20 Α. 21 Q. YOU GOT A NEGATIVE FOR WAKEFERN FOR CHICKEN OF THE SEA. I REMEMBER THAT. 22 Α. AND YOU GOT A NEGATIVE FOR COSTCO FOR BUMBLEBEE. 23 Q.
  - O. SO LET'S GO BACK IN TIME NOW TO YOUR ORIGINAL REPORT. IF

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YES.

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YOU HAD RUN YOUR FIRST BASIC REGRESSION ON EACH OF THE THREE, AND THEN YOU USED COSTCO INSTEAD OF WALMART, YOUR SENSITIVITY TESTS WOULD HAVE COME UP WITH A NEGATIVE COEFFICIENT INSTEAD OF A POSITIVE COEFFICIENT. YES. APPLYING IT MECHANICALLY, WITHOUT DOING THE EXTRA ANALYSIS TO UNDERSTAND WHAT'S GOING ON AND WHETHER IT WAS RELATED TO THE CARTEL BEHAVIOR OR SOME OTHER DATA ISSUE, LIKE THE FACT BUMBLEBEE CHANGED THE WAY THEY CATEGORIZED CUSTOMERS. LET'S TALK ABOUT -- WHAT YOU CALL SO FAR DATA CLEANING. WHAT YOU DID TO YOUR MODEL THEN -- HAVING NOW BEEN CONFRONTED WITH FIVE NEGATIVES OUT OF 10, WHAT YOU DID TO YOUR MODEL IS YOU CHANGED IT SO THAT THE COEFFICIENT -- THE INPUT COEFFICIENT FOR PACKAGE SIZE COULD VARY, CORRECT? Α. YES. AND YOU CHANGED YOUR MODEL SO THAT THE PACKAGE --COEFFICIENT FOR PACKAGE TYPE COULD VARY, CORRECT? Α. THAT'S RIGHT. NOW, WHEN YOU STARTED YOUR TESTIMONY THIS MORNING, YOU SAID -- YOU EXPLAINED TO THE COURT THAT YOU USED EXPLANATORY VARIABLES AND PUT THEM IN THE RIGHT SIDE OF YOUR REGRESSION MODEL, RIGHT? Α. SURE. AND THEY'RE SUPPOSED TO EXPLAIN THE PRICE, RIGHT? Q. Α. YES.

AND THEN YOU COMPARED THE EXPLANATORY VARIABLES TO -- IN

THE "BUT FOR" PERIOD, WITH NO COMPETITIVE HARM, TO WHAT YOU GET 1 2 IN THE CONSPIRACY PERIOD, AND IF YOU GET A POSITIVE COEFFICIENT THAT INDICATES THERE'S A PROBLEM. 3 4 Α. THAT'S RIGHT. 5 OKAY. AND NOW -- SO WHAT YOU DID WHEN CONFRONTED WITH Q. 6 FIVE NEGATIVES, IN YOUR OWN SENSITIVITY TEST REGRESSION, WAS 7 YOU CHANGED THE INPUTS. YOU CHANGED THE COEFFICIENT FOR 8 PACKAGE SIZE, AND YOU CHANGED THE COEFFICIENT FOR PACKAGE TYPE. 9 YES, BECAUSE THOSE TWO CHANGES, AS WELL AS CUSTOMER TYPE, THOSE OCCURRED DURING THE CARTEL PERIOD, AND SO THERE WAS MORE 10 THAN JUST ONE THING THAT WAS CHANGING AT THAT TIME, AND WHAT 11 DR. HAIDER WAS UNCOVERING WAS A RESULT WITH HER NEGATIVE 12 13 COEFFICIENT, THAT WAS NOT A RESULT THAT HAD TO DO WITH THE CARTEL, THAT WAS A RESULT THAT HAD TO DO WITH THE FACT THAT ONE 14 15 COMPANY CHANGED ITS CATEGORIZATION SCHEME AND ANOTHER COMPANY STARTED SELLING ONLY 7-OUNCE CANS. 16 17 WAIT A MINUTE, THAT'S COSTCO AND TARGET. 0. 18 Α. YES. THAT'S NOT RALPH'S. 19 Q. Α. NO, BUT IT'S THE SAME --20 NOT SAM'S CLUB --21 Ο. 22 Α. EXCUSE ME. IT'S THE SAME KIND OF EX POST DATA CLEANING THAT HAS TO BE DONE TO REALLY UNDERSTAND WHAT YOU'VE GOT AND 23 DISENTANGLE THE EFFECT OF FACTORS THAT DON'T HAVE ANYTHING TO 24 DO WITH THE CARTEL. 25

OKAY. SO, SIR, I THOUGHT YOU TOLD THE COURT THAT YOU WERE 1 2 CONFIDENT THAT YOU COULD RUN THE MODEL RECORDED IN YOUR FIRST REPORT, THE ONE YOU RAN ON WALMART, AND IT WOULD SHOW EVERYBODY 3 4 THAT EVERYBODY WAS OVERCHARGED. ISN'T THAT WHAT YOUR TESTIMONY 5 WAS? Α. 6 YES. 7 THAT MODEL SHOWED HALF OF THE TOP 10 CUSTOMERS WITH 0. 8 NEGATIVE COEFFICIENTS. 9 THERE IS AN EXTRA STEP THAT'S REQUIRED TO REMOVE THE PRESENCE OF CONFOUNDING FACTORS. WHAT WE'RE INTERESTED IN HERE 10 WAS THE AFFECT OF THE CARTEL ON THE OVERCHARGE. I WANT TO KNOW 11 ABOUT THAT COMPONENT OF THE PRICE CHANGE. 12 13 Q. RIGHT. I DON'T CARE ABOUT THE FACT THAT A CUSTOMER GOT 14 15 CATEGORIZED AS SPECIAL RETAIL VERSUS RETAIL, SO I REMOVED THAT 16 KIND OF THING. 17 MAYBE WE CAN AGREE ON ONE THING, THE ONLY WAY YOU COULD Ο. 18 FIGURE IT OUT WAS TO LOOK AT THE CUSTOMERS INDIVIDUALLY. 19 AND I DID THAT. I DID AN INDIVIDUALIZED INQUIRY ALREADY ON JANUARY 15TH FOR 60 PERCENT OF THE MARKET. 20 GOOD, AND THAT'S -- YOU DID AN INDIVIDUALIZED INQUIRY TO 21 Ο. 22 GET PROOF OF COMMON IMPACT; IS THAT RIGHT? I DID -- I ESTIMATED MY MODEL, AND THEN I TESTED VARIOUS 23 PARTS OF THE MARKET, VARIOUS CUSTOMERS, AND ASKED THE QUESTION, 24 DO I SEE THE OVERCHARGE GO AWAY IN A SIGNIFICANT PART OF THE 25

MARKET, AND I DO NOT. 1 Q. STATED DIFFERENTLY, YOU KEEP CHANGING THE MODEL TO GET THE 2 RESULT YOU WANT. 3 4 A. THAT'S ABSOLUTELY NOT TRUE. 5 Q. ALL RIGHT. LET'S GO ON TO ANOTHER REALITY CHECK YOU DID. YOU SAID YOU COMPARED YOUR POST -- YOUR OVERCHARGE FIGURE, IN 6 7 THE CASE OF STARKIST, FOR EXAMPLE, THE 4.5 PERCENT OVERCHARGE 8 COEFFICIENT YOU CAME UP WITH, YOU COMPARED THAT TO STARKIST'S PROFIT MARGIN BECAUSE YOU WANTED TO BE SURE THAT, IN ESSENCE, 9 IT WAS LOWER THAN THE PROFIT MARGIN SO THAT IT MADE SENSE, 10 11 RIGHT? A. YES, I WANTED TO CHECK TO SEE IF MY ESTIMATED OVERCHARGE 12 13 NESTED WITHIN THE REPORTED PROFIT MARGIN. Q. WHAT PROFIT MARGIN ARE YOU TALKING ABOUT, GROSS OR NET OR 14 15 WHAT? A. I WOULD HAVE TO LOOK AT MY REPORT --16 17 O. COULD YOU, PLEASE. -- TO GIVE A PARTICULAR DEFINITION. IS IT IN THE BINDER 18 19 YOU GAVE ME? ABSOLUTELY. IT'S NUMBER 1 IN BINDER 1. 20 Ο. I WOULD HELP YOU IF I KNEW WHERE THE NUMBER WAS, BUT I 21 Α. 22 DON'T. I'VE GOT IT. 23 Α. 24 Q. YOU DO?

A. I DO.

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1 0. THANK YOU. 2 Α. SO THOSE ARE GROSS MARGINS FOR ALL THREE DEFENDANTS. VERY SMART. 3 0. 4 Α. YES. 5 DO YOU KNOW WHAT STARKIST'S NET MARGIN WAS DURING THE PLEA Q. PERIOD, FOR EXAMPLE, FOR STARKIST? 6 7 I DON'T, CERTAINLY NOT OFF THE TOP OF MY HEAD. Α. 8 Ο. DO YOU KNOW IT'S PUBLICLY REPORTED AT 2 PERCENT, WHICH IS LESS THAN YOUR OVERCHARGE? 9 Α. SURE. 10 O. SO THAT WOULD MEAN, IF YOU REDUCE THEIR PRICING BY 4 11 AND-A-HALF PERCENT, THEY WOULD BE RUNNING AT A NET LOSS, RIGHT? 12 13 WELL, SURE. THEY MAY HAVE A REPORTED NET MARGIN -- AND I'M NOT AN ACCOUNTANT. THEY MAY HAVE A REPORTED NET MARGIN 14 THAT'S QUITE A BIT LOWER. I WOULD WANT TO KNOW WHAT'S LOADED 15 INTO THAT AND IS IT RELEVANT FOR THE KIND OF COMPARISON THAT 16 17 I'M TRYING TO DO HERE. 18 AND YOU DON'T KNOW WHAT'S LOADED INTO THAT. IT'S IN HERE NOW. I WOULD HAVE TO LOOK AT THE DATA. 19 Α. WHAT WAS BUMBLEBEE'S NET MARGIN DURING THE RELEVANT 20 PERIOD; DO YOU KNOW THAT? 21 22 Α. I HAVE NO WAY OF KNOWING. DO YOU THINK IT WAS LESS THAN 9.4 PERCENT? 23 Q. NET MARGINS ARE USUALLY LESS. 24 Α. O. AND YOU DIDN'T CHECK THAT. 25

1 Α. NO. 2 Q. AND YOU KNOW BUMBLEBEE UNFORTUNATELY PLED GUILTY AND IT GOT A VERY SUBSTANTIALLY REDUCED FINE BECAUSE OF INABILITY TO 3 PAY, RIGHT, YOU KNOW THAT? 5 I KNOW THAT THEY PLED GUILTY. I DON'T KNOW ABOUT THE 6 FINE. 7 Ο. YOU DIDN'T KNOW THAT THEY WERE UNABLE TO PAY WHAT THE 8 SENTENCING GUIDELINES SAID THEY WOULD NORMALLY PAY? 9 NO. I VAGUELY REMEMBER HEARING --10 Q. DO YOU --Α. EXCUSE ME. I VAGUELY REMEMBER HEARING A DISCUSSION ABOUT 11 12 THAT. 13 BUT YOU THOUGHT IT WAS REASONABLE TO ASSUME THAT THEY COULD DROP THEIR PRICES 9.4 PERCENT WITHOUT KNOWING WHAT THEIR 14 15 NET MARGIN WAS AND STILL CONTINUE TO OPERATE? 16 A. DURING THE CARTEL PERIOD, YES. I FOUND THAT RELATIVE TO A 17 COMPETITIVE BENCHMARK, THAT THEY THEMSELVES OPERATED IN FOR A 18 NUMBER OF YEARS, THEIR PRICES WERE SIGNIFICANTLY HIGHER. 19 Q. OKAY. LET ME ASK ABOUT ANOTHER ONE OF THE TESTS YOU RAN. WELL, ACTUALLY I THINK THIS WAS A COMMENT ON -- YOU TALKED 20 ABOUT REMOVING -- MOVING ONE-THIRD OF THE CUSTOMERS FROM THE 21 22 OVERCHARGE DOWN TO ZERO OVERCHARGE, RIGHT? THIS IS SOMETHING THAT DR. HAIDER DID, RIGHT? 23 SORRY, YOU'RE REALLY JUMPING AROUND. JUST SO I'M 24 TRACKING, YOU'RE TALKING ABOUT THE NEW ANALYSIS THAT WE GOT A 25

1 WEEK AGO? 2 Q. NO, NO, I'M SORRY, LET ME BE CLEAR. I APOLOGIZE. I'M NOT TRYING TO CONFUSE YOU, BELIEVE ME. I'M JUST TRYING TO DO MY 3 4 BEST. 5 Α. SURE. OF COURSE. ONE OF THE THINGS THAT YOU DID WAS -- DR. HAIDER DID A 6 0. 7 TEST THAT YOU CRITICIZED, AND THE THE WAY I WOULD CHARACTERIZE 8 IT IS SHE REMOVED THE -- SHE DROPPED THE OVERCHARGES DOWN ON 9 ONE-THIRD OF THE CUSTOMERS IN THE CLASS TO ZERO, AND SHE SAID, "WHEN I PULL OUT ONE-THIRD OF THE PEOPLE, THEN WE KNOW THAT 10 ONE-THIRD OF THE PEOPLE ARE PRICING -- ARE PRICING AT A ZERO 11 12 OVERCHARGE," SHE STILL GOT AN AVERAGE OVERCHARGE IN YOUR 13 REGRESSION THAT WAS POSITIVE, REMEMBER THAT TEST? I DO. THAT'S WHAT SHE TURNED OVER A WEEK AGO, THAT TEST. 14 Α. 15 Ο. I'M SORRY. I DIDN'T MAKE THAT CONNECTION. 16 ALL RIGHT. AND YOU SAID, "WELL, OF COURSE THAT'S WHAT I WOULD EXPECT IS THAT THE MARGINS WENT DOWN BY GIVE OR TAKE --17 18 I MEAN THE OVERCHARGE ON AVERAGE WENT DOWN BY GIVE OR TAKE A THIRD, " RIGHT? 19 YES, IF YOU REMOVE A THIRD OF THE OVERCHARGES, YOU'RE 20 LIKELY TO ESTIMATE AN OVERCHARGE ACROSS THE INDUSTRY THAT'S A 21 22 THIRD LOWER THAN WHAT HE STARTED WITH. BUT YOU KNOW THAT WASN'T HER POINT, RIGHT? YOU KNOW HER 23 24 POINT WAS YOU'RE STILL GETTING A POSITIVE AVERAGE OVERCHARGE, EVEN THOUGH WE KNOW THAT ONE OUT OF EVERY THREE CUSTOMERS 25

WASN'T OVERCHARGED, SO THAT CAN'T PROVE THAT EVERYBODY'S BEEN 1 2 COMMONLY INJURED. I'M NOT SURE EXACTLY WHAT SHE WAS TRYING TO PROVE WITH 3 4 THAT EXERCISE. I COULD HAVE TOLD HER HOW IT WOULD COME OUT 5 BEFORE SHE EVEN RAN IT. WHAT SHE DID NOT DO WAS TAKE THE NEXT STEP, THAT I TOOK IN MY ANALYSIS, TO GO BACK AND LOOK AT 6 7 INDIVIDUAL CUSTOMERS TO SEE WHAT WAS HAPPENING AT THAT LEVEL. OKAY. SO JUST TO BE CLEAR, I DON'T THINK SHE WAS TRYING 8 Ο. TO SUGGEST YOU WOULDN'T UNDERSTAND THE MATH. I THINK WHAT WE'RE LOOKING FOR IS AN EXPLANATION OF HOW IT CAN BE TRUE THAT 10 11 YOUR AVERAGE OVERCHARGE COEFFICIENT CAN BE POSITIVE, AND YOU 12 CAN TELL THE COURT THAT MEANS EVERYBODY'S IMPACTED, WHEN WE 13 KNOW BY DESIGN THAT ONE-THIRD OF THE CUSTOMERS ARE NOT IMPACTED. YOU HAVEN'T EXPLAINED THAT. 14 15 WELL, I THINK I HAVE EXPLAINED IT MULTIPLE TIMES, AND LET 16 ME TRY AGAIN. 17 Ο. OKAY. 18 YOU CAN ONLY DO THAT THE FIRST -- SECOND STEP IN MY 19 ANALYSIS WAS TO ESTIMATE AN OVERCHARGE FOR THE WHOLE INDUSTRY SERVED BY A PARTICULAR DEFENDANT, SO I DID THAT ONE FOR EACH 20 DEFENDANT. BUT THEN I TOOK THE TIME TO GO BACK AND CHECK AND 21 22 DO A SENSITIVITY ANALYSIS IN SPECIFIC SUBSETS OF THE INDUSTRY TO SEE IF THE OVERCHARGE STILL SHOWS UP. 23 24 OF COURSE, IF YOU AVERAGE IN A BUNCH OF ZEROES YOU'RE GOING TO GET A LOWER NUMBER, BUT THAT DOESN'T FAIRLY REPRESENT

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1 WHAT I DID. 2 Q. OKAY, SIR. YOU'RE GOING TO GET A LOWER BUT POSITIVE 3 NUMBER. A. SURE. IF YOU ADD IN A BUNCH OF ZEROES MATHEMATICALLY, 5 THAT'S OBVIOUS. O. WHAT YOU ARE TELLING THE COURT IS AN INDICATION THAT 6 7 NEARLY EVERYBODY'S BEEN INJURED. 8 NO. YOU NEED TO TAKE MY ANALYSIS AS A WHOLE. I DIDN'T 9 STOP WITH THE OVERCHARGE REGRESSION FOR EACH DEFENDANT. I DID THE EXTRA WORK OF LOOKING IN SUBSETS OF THE MARKET TO SEE IF 10 THE OVERCHARGE STILL PERSISTS. HER TEST IS A STRAW MAN. IT'S 11 NOT A FAIR REPRESENTATION OF WHAT I DID, AND I THINK IT'S BEEN 12 13 MISINTERPRETED HERE. ALL RIGHT. SO I AM JUMPING AROUND, AND I'M GOING TO JUMP 14 Ο. 15 AROUND TO SOMETHING ELSE. A. ALL RIGHT. 16 Q. YOU MADE THE COMMENT -- YOU TESTIFIED, WHEN YOU WERE ASKED 17 ABOUT DR. MANGUM'S REPORT, AND YOU SAID YOU HAD NEVER SPOKEN TO 18 19 DR. MANGUM BEFORE HE ISSUED HIS REPORT AND DIDN'T KNOW WHAT HE WAS GOING TO DO, CORRECT? 20 21 Α. THAT'S CORRECT, I DID NOT COORDINATE WITH HIM AT ALL. 22 O. DID YOUR TEAMS COORDINATE? MR. BURT: EXCUSE ME, JUDGE, THERE'S A STIPULATION 23 24 GOVERNING COMMUNICATIONS BETWEEN COUNSEL AND PRELIMINARY WORK. THE COURT: I WOULD THINK THERE WOULD BE, SO I'M GOING 25

1	TO SUSTAIN AN OBJECTION. MOVE ON.
2	MR. GALLO: I WILL MOVE ON, YOUR HONOR. I DO THINK
3	THAT IT'S INAPPROPRIATE TO ELICIT TESTIMONY SUGGESTING HE
4	DIDN'T TALK TO DR. MANGUM AND THEN SAY I CAN'T INQUIRE AS TO
5	WHETHER THERE WAS SOME OTHER CHANNEL OF COMMUNICATION. IT
6	SEEMS LIKE YOU CAN'T HAVE IT BOTH WAYS IS MY ONLY POINT, BUT I
7	WILL MOVE ON.
8	THE COURT: I THINK THE COMMENT MAY BE INAPPROPRIATE.
9	WE CAN DISCUSS THIS LATER.
10	MR. GALLO: THAT'S FINE.
11	THE COURT: LET'S FINISH WITH THE WITNESS AND WE CAN
12	TALK LATER ABOUT THIS.
13	MR. GALLO: THAT'S FINE.
14	Q. I'M TOLD I MISPRONOUNCED THIS WORD, SO FORGIVE ME,
15	MULTICOLLINEARITY. DID I GET THAT CORRECT?
16	A. YES, YOU DID.
17	Q. SO YOU CRITICIZE DR. HAIDER BECAUSE YOU RAN HER REGRESSION
18	MODEL AND YOU SAID IT CAME OUT WITH HIGH DEGREES OF
19	MULTICOLLINEARITY, RIGHT?
20	A. YES, IN CERTAIN OF HER SPECIFICATIONS, IT CAME OUT WITH A
21	HIGH DEGREE OF MULTICOLLINEARITY.
22	Q. NOW, JUST TO BE CLEAR, EVERY REGRESSION HAS SOME DEGREE OF
23	MULTICOLLINEARITY, RIGHT?
24	A. VIRTUALLY, YES.
25	Q. AND YOU IDENTIFY THE VIF NUMBER AS AN IMPORTANT NUMBER,

AND I THINK YOU SAID A BENCHMARK IS 10, IF IT'S ABOVE 10 IT'S A 1 2 PROBLEM. THAT'S A RULE OF THUMB THAT WE USE IN ECONOMETRICS. 3 4 Q. YOU DIDN'T REPORT IN YOUR REPORT OR GIVE IN YOUR TESTIMONY 5 WHAT THE VIF NUMBER IS ON YOUR REGRESSION MODELS, DID YOU? Α. 6 NO. 7 DID YOU RUN THEM? Ο. 8 BOY, I THINK YES, BUT I DID NOT REPORT A LOT OF TEST STATISTICS IN MY ORIGINAL REPORT. OKAY. LET ME JUST CHAT ABOUT YOUR PASS-THROUGH ANALYSIS 10 FOR A MOMENT, AND I ONLY AM GOING TO MAKE A RELATIVELY NARROW 11 POINT ABOUT THAT. 12 13 MR. GALLO: WOULD YOU PUT UP DEMONSTRATIVE 4, PLEASE. IT HELPED ME TO HAVE A GRAPH HERE. I UNDERSTOOD YOUR 14 Ο. 15 TESTIMONY TO BE THAT THERE ARE TWO MAIN PATHS BY WHICH TUNA 16 TRAVELS FROM DEFENDANTS TO RETAILERS TO THE END PURCHASER 17 MEMBERS, AND THIS IS ALL I'M TRYING TO SHOW ON THIS GRAPH. THE TOP ONE IS FROM THE DEFENDANT MANUFACTURERS TO BIG RETAILERS 18 LIKE KROGER, RIGHT? 19 Α. YES. 20 21 Ο. AND ON TO THE END PURCHASERS, RIGHT? 22 Α. YES. AND THE OTHER ONE IS MANUFACTURERS TO A DISTRIBUTOR, AND 23 24 YOU USED THE EXAMPLE OF CORE-MARK ON TO, GENERALLY SPEAKING, SMALLER RETAILERS, CORRECT? 25

YES. I'M GLAD YOU PUT THIS UP. I CAME VERY CLOSE TO 1 2 REFERRING TO A SIMILAR FIGURE IN MY REPORT, SO THIS HELPS. O. AND LIKE -- THESE BIG RETAILERS ARE PEOPLE LIKE WALMART 3 4 AND TARGET AND COSTCO AND SAM'S CLUB, PEOPLE LIKE THAT, RIGHT, 5 THAT'S WHAT KROGER --YES, THE LARGER RETAILERS WILL GENERALLY JUST BUY DIRECTLY 6 Α. 7 FROM THE DEFENDANTS. 8 Ο. RIGHT. AND IN EACH OF THOSE TWO CHANNELS YOU'VE GIVEN TESTIMONY, AND IT'S IN YOUR REPORT, ABOUT THE -- HOW MUCH OF 9 THE WHOLESALE OVERCHARGES ARE PASSED ON TO END USERS, RIGHT? 10 YES. AND JUST SO THE COURT'S CLEAR, WHEN I REFER TO A 11 Δ MULO PASS-THROUGH ELASTICITY, IT'S THIS TOP SET OF ARROWS WHERE 12 13 THE MANUFACTURERS ARE GOING TO RETAILERS TO END PURCHASERS, AND THEN THE CONVENIENCE STORES TEND TO GO THROUGH THE LOWER PATHS, 14 15 WHERE THEY'RE BUYING FROM, BECAUSE THEY'RE SMALL, THEY'RE 16 BUYING FROM DISTRIBUTORS. 17 Q. RIGHT. AND MY RECOLLECTION, FROM HAVING READ YOUR REPORT 18 MORE THAN ONCE, IS THAT THE ONLY DISTRIBUTOR YOU SPECIFICALLY 19 ANALYZED WAS CORE-MARK IN THE SECOND CHANNEL, RIGHT? Α. YES. 20 Q. OKAY. AND IN YOUR REPORT, AND YOU CAN LOOK AT IT IF YOU 21 22 WANT, IT'S AT PARAGRAPH 154, BUT YOU SAID, "YOU ANALYZED THE SALES DATA FROM CORE-MARK, A NATIONAL DISTRIBUTOR WHO SELLS 23 PRIMARILY TO CONVENIENCE STORES." REMEMBER YOU SAID THAT IN 24 25 YOUR REPORT?

1 I DO REMEMBER THAT. 2 MR. GALLO: AND THEN WOULD YOU PULL UP DEMONSTRATIVE 5, PLEASE 3 4 Q. DR. HAIDER RESPONDED TO YOUR REPORT BY MAKING A CRITICISM, 5 WHICH IS NOW SHOWING UP ON THE SCREEN, WHICH IS THAT YOU DIDN'T REALLY LOOK AT THE DISTRIBUTOR CHANNEL, AND WE HAVE AN EXAMPLE 6 7 HERE, C&S, THAT SELLS TO OTHER GROCERY STORES AND SUPERMARKETS 8 PRIMARILY. REMEMBER, SHE SAID THAT THAT LEFT OUT 18 TO 9 23 PERCENT OF THE DEFENDANTS' SALES? DO YOU REMEMBER THAT CRITICISM? 10 I DO REMEMBER SHE SAID THAT. Α. 11 Q. AND JUST TO BE CLEAR, WHEN YOU DESCRIBED CORE-MARK IN YOUR 12 13 OPENING REPORT, YOU DESCRIBED IT AS A DISTRIBUTOR PRIMARILY TO CONVENIENCE STORES, RIGHT? 14 YES, BUT "PRIMARILY" BEING AN IMPORTANT WORD. 15 16 Q. RIGHT. NOW, WHEN YOU WERE DEPOSED, YOU ALSO REFERRED TO 17 IT AS A DISTRIBUTOR PRIMARILY TO CONVENIENCE STORES; DO YOU REMEMBER THAT TESTIMONY? 18 19 A. YES, I DO. NOW, IN YOUR REPLY, AFTER YOU WERE CRITICIZED FOR LEAVING 20 21 OUT 18 TO 23 PERCENT OF THE SALES, YOU SAY FOR THE FIRST TIME 22 CLEARLY, AT LEAST EXPRESSLY, I'LL TAKE THE POINT "PRIMARILY" YOU SAID BEFORE, YOU SAY EXPRESSLY IN YOUR REPLY, AT PARAGRAPH 23 63, "CORE-MARK DOES SELL TO GROCERY STORES." THAT'S WHAT YOU 24 SAID, RIGHT? 25

1 Α. YES. 2 Q. AND YOU IDENTIFIED ONE EXAMPLE OF A GROCERY STORE THAT CORE-MARK SOLD TO. DO YOU REMEMBER THAT EXAMPLE? 3 4 I DON'T REMEMBER BY NAME, BUT I REMEMBER PUTTING AN 5 EXAMPLE IN. Q. WHY DON'T YOU LOOK, IF YOU DON'T MIND, AT YOUR REPLY 6 7 REPORT. IT'S AT TAB 3 IN THE FIRST BINDER, AND IF YOU LOOK AT 8 PARAGRAPH 63, THAT'S WHERE THE REFERENCE IS I'M GOING TO. 9 A. ALL RIGHT. MR. GALLO: WE CAN PUT IT UP ON THE SCREEN, TOO. 10 YOU RECITE IN THE FIRST SENTENCE, PAGE 30 OF YOUR REPLY 11 Ο. REPORT, THIS IS ALL YOU SAY ABOUT THIS CRITICISM, YOU SAY, "SHE 12 13 CRITICIZED ME FOR --THE COURT REPORTER: I COULDN'T HEAR YOU. 14 15 -- GROCERY STORES. IN FACT, CORE-MARK DOES SELL TO 16 GROCERY STORES. CORE-MARK'S FINANCIAL REPORTS STATE," AND THEN 17 YOU OUOTE THE FINANCIAL REPORT, RIGHT? 18 Α. YES. Q. AND THEN YOU GIVE ONE EXAMPLE, BONFARE MARKET, WHICH IS A 19 GROCERY STORE IN CALIFORNIA? 20 21 A. CORRECT. 22 Ο. IT TURNS OUT THAT BONFARE MARKET'S NEAR BERKELEY. I'M WONDERING IF YOU'VE EVER SEEN THAT? 23 I HAVE ACTUALLY. 24 Α. O. WE'VE GOT A PICTURE OF ONE NEAR BERKELEY OFF THE WEB. 25

MR. GALLO: WOULD YOU PULL UP DEMONSTRATIVE 6. 1 2 Q. WE WERE CURIOUS, DOES THAT LOOK LIKE A GROCERY STORE TO YOU OR A CONVENIENCE STORE? 3 4 IT'S, AGAIN -- WE NOTICED THE SAME THING. IT'S 5 CATEGORIZED BY CORE-MARK ITSELF AS A GROCERY STORE. THE PICTURES ARE WHAT THEY ARE. I DON'T KNOW. THEY MIGHT HAVE 27 6 7 OTHER LOCATIONS THAT LOOK DIFFERENT THAN THIS. 8 Ο. WE LOOKED AT THAT, TOO. DID YOU TRY TO FIGURE OUT WHAT 9 THE AVERAGE SOUARE FOOT OF A BONFARE MARKET IS? Α. 10 NO. WOULD IT SURPRISE YOU TO KNOW THAT IT'S PUBLICLY AVAILABLE 11 Ο. INFORMATION THAT BONFARE IS 4,300 SQUARE FEET, AND YOU KNOW 12 13 WHAT THE AVERAGE GROCERY STORE FOOTPRINT IS PROBABLY, GIVEN YOUR FIELD OF EXPERTISE. 14 SURE, MUCH LARGER. 15 Α. 16 Q. YEAH, LIKE 43000 SQUARE FEET, MAYBE 12 TIMES AS LARGE. 17 Α. THAT SOUNDS ABOUT RIGHT. 18 BUT THIS WAS YOUR RETORT TO THE FACT THAT YOU HAD NOT OMITTED THE GROCERY STORE CHANNEL OF DISTRIBUTORS. 19 IT WAS A FACTUAL POINT THAT -- JUST TO CLEAR THINGS UP. 20 Α. BUT DID IT DO IT? 21 Ο. 22 Α. WELL, THAT WAS THE INTENT. MAYBE IT WASN'T SUCCESSFUL, BUT MY INTENT WAS TO SAY, WELL, IN ACTUALITY, IF WE'RE BEING 23 EXACT ABOUT IT, CORE-MARK DOES SAY THAT THEY SELL TO GROCERY 24 STORES. REALLY, IT WAS NOTHING BEYOND THAT. 25

1	Q. OKAY. LET'S MOVE TO THE CLASS PERIOD
2	MR. GALLO: YOUR HONOR, I'M MINDFUL OF THE TIME.
3	THE COURT: WE'LL BREAK AS CLOSE TO NOON AS IS
4	CONVENIENT, SIR. WHEN YOU GET TO A GOOD POINT, LET US KNOW.
5	MR. GALLO: ACTUALLY I WAS ABOUT TO CHANGE SUBJECTS,
6	AND I PROBABLY ONLY HAVE ONE MORE SUBJECT.
7	THE COURT: THIS MIGHT BE A GOOD PLACE TO BREAK. WE'LL
8	TAKE OUR NOON RECESS AND RESUME AT 1:30, COUNSEL.
9	MR. GALLO: THANK YOU, YOUR HONOR, I APPRECIATE IT.
10	(COURT WAS AT RECESS.)
11	
12	
13	
14	
15	CERTIFICATE
16	
17	I, GAYLE WAKEFIELD, CERTIFY THAT I AM A DULY
18	QUALIFIED AND ACTING OFFICIAL COURT REPORTER FOR THE UNITED STATES DISTRICT COURT, THAT THE FOREGOING IS A TRUE AND ACCURATE TRANSCRIPT OF THE PROCEEDINGS AS TAKEN BY ME IN THE ABOVE-ENTITLED MATTER ON JANUARY 15, 2019; AND THAT THE FORMA
19	
20	USED COMPLIES WITH THE RULES AND REQUIREMENTS OF THE UNITED STATES JUDICIAL CONFERENCE.
21	
22	DATED: JANUARY 22, 2019 /S/ GAYLE WAKEFIELD  GAYLE WAKEFIELD, RPR, CRR
23	OFFICIAL COURT REPORTER
24	
25	

1 AFTERNOON SESSION 1:30 P.M. 2 THE COURT: GOOD AFTERNOON, COUNSEL. YOU MAY CONTINUE, SIR. 3 4 MR. GALLO: THANK YOU, YOUR HONOR. 5 (BY MR. GALLO) DR. SUNDING, YOU TESTIFIED THIS MORNING ABOUT SOME DIRECT, SOME RETAILER TESTIMONY YOU HAD READ ABOUT 6 7 PASS-THROUGH, AND WE DIDN'T WANT TO GET INTO THE SPECIFICS OF 8 IT BECAUSE IT'S SEALED, BUT DO YOU REMEMBER THE TESTIMONY I'M 9 TALKING ABOUT? I DO. 10 Α. HAVE YOU READ -- DO YOU BELIEVE YOU'VE READ ALL OF THE DAP 11 Ο. 12 OR RETAILER TESTIMONY ABOUT PASS-THROUGH? 13 YOU KNOW, THERE'S BEEN A LOT OF DEPOSITION TESTIMONY COMING IN VERY RECENTLY. I'VE CERTAINLY READ SOME. I CAN'T 14 15 SAY THAT I'VE READ ALL. I DON'T KNOW EVERYTHING THAT EXISTS. 16 Q. ARE YOU AWARE THAT SOME DIRECT ACTION PLAINTIFF RETAILERS 17 HAVE TESTIFIED THAT THEY DON'T NECESSARILY PASS THROUGH THE 18 COSTS? 19 I THINK I'VE SEEN THAT, YES. OKAY. LET ME TALK A LITTLE BIT MORE ABOUT THAT AGAIN, 20 JUST TO FOCUS ON THE SUBJECT. YOU TALKED THIS MORNING ABOUT A 21 22 90-PERCENT ELASTICITY, AND YOU DID THE MATHEMATICAL TRANSLATION AND SAID THAT INDICATES IN SOME CASES THAT AN INCREASE IN TUNA 23 24 COSTS TO A RETAILER MIGHT TRANSLATE INTO A HUNDRED-PERCENT OR EVEN MORE THAN A HUNDRED-PERCENT INCREASE IN THE RETAIL PRICE. 25

1 DO YOU REMEMBER THAT TESTIMONY? A. I DO, YES. 2 OKAY. SO NOW LET ME CHANGE THE FOCUS TO THE RELATIONSHIP 3 4 BETWEEN FISH COSTS WHEN SOMEBODY LIKE MY CLIENT, BUMBLE BEE, 5 BUYS FISH AND THEN WHAT HAPPENS TO BUMBLE BEE'S PRICE WHEN IT SELLS TUNA IN YOUR REGRESSION MODEL. OKAY? 6 7 Α. ALL RIGHT. 8 AND YOU INDICATED, I THINK, THAT FISH COSTS IS ONE OF THE EXPLANATORY VARIABLES IN YOUR REGRESSION MODEL, RIGHT? IT IS. THAT'S CORRECT. 10 Α. AND IT'S AN IMPORTANT VARIABLE, FISH IS AN IMPORTANT 11 Q. VARIABLE COST. STRIKE THAT. I'M SORRY. FISH COST IS AN 12 13 IMPORTANT VARIABLE IN THE PRODUCTION OF TUNA, RIGHT? IT IS. FISH, THE COST OF THE FISH THAT GOES INTO THE 14 CONTAINERS IS ABOUT 80 PERCENT OF THE TOTAL COST OF PRODUCING 15 16 THE PRODUCT. 17 RIGHT. AND IT'S -- THAT EXPLANATORY VARIABLE, LIKE ALL OF 0. 18 YOUR EXPLANATORY VARIABLES, ARE, YOU SAID THIS MORNING, EXOGENOUS VARIABLES, RIGHT? 19 YES. IDEALLY, IN A REGRESSION MODEL, ONE WOULD LIKE 20 EXOGENOUS VARIABLES AS EXPLANATORIES. 21 22 O. RIGHT. THAT MEANS IT'S NOT DEPENDENT OR INFLUENCED BY THE PRICE DEPENDENT VARIABLE THAT YOU'RE TRYING TO ARRIVE AT, 23 24 RIGHT? A. YES. IDEALLY, YES. 25

1 RIGHT. OKAY. AND I NOTICED IN YOUR MATERIALS THAT, WELL, 2 TIN IS ANOTHER INGREDIENT INTO FISH, PRODUCTION OF TUNA, RIGHT? 3 Α. YES. 4 Q. AND I NOTICE IN YOUR MATERIALS THAT YOUR COEFFICIENT FOR 5 TIN IS NEGATIVE MANY TIMES. CORRECT? 6 Α. YES. 7 THAT WOULD MEAN, IF I UNDERSTAND IT CORRECTLY, THAT WHEN Ο. TIN PRICES GO UP, ALL THINGS EQUAL, THAT COEFFICIENT IS 8 9 INDICATING THAT THE TUNA PRICE THAT BUMBLE BEE WOULD CHARGE, FOR EXAMPLE, IS GOING DOWN, IN THE OPPOSITE DIRECTION. 10 Α. I WISH IT WERE THAT SIMPLE. IT'S NOT, HOWEVER, BECAUSE 11 THE PRICE OF TIN IS CORRELATED TO SOME DEGREE WITH OTHER 12 13 EXPLANATORY VARIABLES IN THE REGRESSION. ALL RIGHT. SO LET'S TAKE FISH COSTS, THEN. FISH COST IS 14 Ο. 15 80 PERCENT OF THE COST OF PRODUCING FISH, AND YOU WOULD AGREE 16 WITH ME IF YOU HAVE A NEGATIVE COEFFICIENT ON FISH COSTS, THAT 17 WOULD INDICATE THAT, AS FISH COSTS ARE GOING UP, THE PRICE OF 18 TUNA AT WHICH BUMBLE BEE CAN SELL IT, EVEN THOUGH IT'S PAYING MORE FOR THE FISH, IS GOING IN THE OPPOSITE DIRECTION. 19 YOU KNOW, I'D GIVE YOU THE SAME ANSWER I GAVE A MINUTE 20 AGO. IT'S NOT THAT SIMPLE. 21 22 Ο. IT'S NOT THAT SIMPLE BECAUSE WHY, SIR? NO, BECAUSE THERE IS SOME DEGREE IN A RELATIONSHIP AMONG 23 24 THE EXPLANATORY VARIABLES AND A REGRESSION. IF I WERE DOING THIS FOR AN ACADEMIC PAPER IN A REDUCED-FORM PRICE EQUATION 25

LIKE I ESTIMATED, ONE WOULDN'T EVEN REPORT ALL OF THOSE 1 2 COEFFICIENTS BECAUSE IT'S NOT THE RELATIONSHIP OF INTEREST, AND IN A REDUCED-FORM MODEL THE INTERPRETATION OF ANY INDIVIDUAL 3 4 COEFFICIENT IS MORE COMPLICATED THAN WHAT YOU'RE IMPLYING. 5 OKAY. DO YOU KNOW WHO DR. JERRY HAUSMAN IS? Q. Α. 6 I DO. 7 YOU AGREE HE'S A FAMOUS ECONOMETRICIAN AT MIT? Ο. 8 Α. YES, HE IS. 9 Ο. AND VERY WELL REGARDED. Α. 10 YES. 11 YOU KNOW HE'S SITTING IN THE COURTROOM BACK HERE. HAVE Q. 12 YOU NOTICED THAT? 13 Α. YES. YEAH. WELL, HE'S HERE. HAVE YOU READ DR. HAUSMAN'S 14 Ο. 15 HANDBOOK ON ECONOMETRICS THAT TALKS ABOUT HOW ONE TREATS THESE 16 KINDS OF JOINT VARIABLES, ENDOGENOUS VARIABLES IN THE 17 REGRESSION MODEL, THE REDUCED-FORM REGRESSION MODEL THAT YOU'RE 18 OPINING ABOUT? YOU'RE TALKING ABOUT A TEXTBOOK. 19 Α. I'M TALKING ABOUT DR. HAUSMAN'S TEXT, YES. 20 Ο. I'M SURE I'VE SEEN HIS TEXTBOOK. 21 Α. 22 YES. DO YOU KNOW THAT HE ACTUALLY CONTENDS THAT THE Ο. NEGATIVE COEFFICIENT THAT YOU'RE REFLECTING IN YOUR FISH COSTS 23 24 IS ACTUALLY A REAL INDICATOR OF THE FACT THAT IT'S INDICATING IT'S GOING THE OPPOSITE WAY FROM PRICE? 25

I WOULD HAVE NO WAY OF KNOWING THAT. 1 2 Q. OKAY. WOULD YOU LOOK AT FIGURE NINE ON PAGE 62 OF YOUR REPORT, WHICH IS AT TAB ONE IN THE FIRST BINDER? IT SHOWS, 3 4 DOESN'T IT, SOME OF THE FISH COSTS FOR ALBACORE FOR STARKIST, 5 ALBACORE FOR COSI, ALBACORE FOR BUMBLE BEE, AND THE DOTTED LINES BELOW THE HORIZONTAL LINE OVER A PERIOD OF TIME ARE 6 7 REFLECTING THAT THOSE FISH COSTS HAVE A NEGATIVE COEFFICIENT 8 RELATIVE TO PRICE? DOESN'T IT INDICATE THAT? 9 Α. YES. OKAY. AND CAN YOU TELL THE COURT HOW MUCH THAT NEGATIVE 10 COEFFICIENT FOR -- LET ME ASK ONE MORE QUESTION. IF I WERE 11 CORRECT, AND I UNDERSTAND YOU HAVEN'T AGREED WITH ME, BUT IF I 12 13 WERE CORRECT THAT THE NEGATIVE FISH COSTS WERE ASCENDING, FISH COSTS ARE GOING UP, BUT IN YOUR MODEL THAT'S SHOWING, THAT 14 15 WOULD INDICATE THAT THE BUT-FOR PREDICTED PRICE FOR FISH WAS 16 GOING DOWN IF I WERE CORRECT, RIGHT? 17 A. AGAIN, I THINK IT'S A LOT MORE COMPLICATED THAN WHAT 18 YOU'RE IMPLYING. Q. I UNDERSTAND THAT, AND I'M NOT TRYING TO ARGUE WITH YOU. 19 JUST FOR PURPOSES OF EXPLAINING IT TO US, IF I WERE CORRECT 20 THAT THIS IS INDICATING THAT PRICE IS MOVING IN THE OPPOSITE 21 22 DIRECTION OF COSTS AND THE COEFFICIENT IS NEGATIVE, IT WOULD TEND TO BE REDUCING YOUR BUT-FOR PRICE IN YOUR MODEL, RIGHT? 23 MR. BURT: OBJECTION, YOUR HONOR. INCOMPLETE AND 24 COUNTER-FACTUAL HYPOTHETICAL. 25

1 THE COURT: I WOULD SUSTAIN THAT OBJECTION. 2 MR. BURT: OKAY. 3 BY MR. BURT: 4 DO YOU KNOW HOW MUCH THE NEGATIVE -- CAN YOU EXPLAIN TO 5 THE COURT WHETHER AND HOW MUCH THE NEGATIVE FISH-COST COEFFICIENT THAT YOU HAVE HAS CONTRIBUTED TO YOUR OVERCHARGE 6 7 CONCLUSION IN YOUR REPORT? CAN YOU OUANTIFY IT? 8 I'VE LOOKED AT THAT QUALITATIVELY, AND I THINK IT MIGHT 9 HELP IF I EXPLAIN TO THE COURT WHAT'S GOING ON IN THIS FIGURE. WHAT THIS IS SHOWING, THE ISSUE THAT I'M TRYING TO INCORPORATE 10 INTO THE MODEL IS THAT THERE IS SOME LAG BETWEEN WHEN FISH IS 11 CAUGHT, SAY, IN THE SOUTH PACIFIC AND WHEN IT'S PUT INTO A CAN 12 13 AND SOLD AT THE WHOLESALE LEVEL. THAT FISH HAS TO BE CLEANED. IT'S STORED ON A SHIP FOR SOME TIME. IT'S FROZEN. 14 15 PROCESSED AND THEN SENT TO A FACTORY AND PUT INTO A CAN. FISH THAT'S CAUGHT TODAY IS NOT NORMALLY PUT INTO A CAN TODAY. 16 17 FISH THAT'S CAUGHT TODAY IS NORMALLY PUT INTO A CAN SEVERAL 18 PERIODS LATER, FOUR MONTHS LATER THAN WHEN IT IS CAUGHT IN THE OCEAN. SO THAT'S WHAT THIS LAG FIGURE IS PICKING UP. THE FISH 19 THAT'S CAUGHT SOME PERIODS AGO HAS THE BIGGEST EFFECT ON PRICE 20 TODAY BECAUSE THAT'S THE FISH THAT'S IN THE CAN. 21 DOES YOUR REPORT SHOW ANYWHERE -- IS THERE ANYWHERE WE CAN 22 Ο. LOOK IN YOUR REPORT THAT SHOWS THAT FISH COSTS IN YOUR 23 REGRESSION MODEL AND PRICES IN YOUR REGRESSION MODEL ARE MOVING 24 IN THE SAME DIRECTION? 25

1 Α. YES. 2 Q. WHERE IS THAT? THE ESTIMATED COEFFICIENTS ON THIS POLYNOMIAL DISTRIBUTED 3 Α. 4 LAG STRUCTURE. AREN'T SOME OF THEM NEGATIVE? 5 Q. THE ONES THAT ARE NEGATIVE ARE IN THOSE INITIAL TWO 6 Α. 7 PERIODS. THEN THEY TURN POSITIVE AND PEAK OUT AT AROUND FOUR 8 PERIOD LAGS. WHAT YOU'RE REFERRING TO IS IN THE, IS IN THE -- IN YOUR REPORT, IT'S, FOR EXAMPLE, IT'S C-8, I THINK. IF YOU LOOK IN 10 THE BACK. 11 WHAT ARE WE LOOKING AT? 12 Α. 13 Q. I THINK IT'S YOUR REPORT. IT'S YOUR REPORT, C-8. OKAY. I'VE JUST GOT TO CATCH UP TO YOU. THAT'S AT TAB 14 Α. 15 ONE. YES. C-10. C-10. C-10. I'M SORRY. IN THE BACK OF HIS 16 Q. 17 REPORT, THAT'S C-10, AND WE'RE ALSO GOING TO PUT IT UP ON THE 18 BOARD. IT'S THE VERY LAST ENTRIES ON THE BOTTOM OF C-10. THAT'S WHAT YOU'RE REFERRING TO, AREN'T YOU, THE POLYNOMIAL 19 CALCULATIONS HERE AT THE BOTTOM OF C-10? 20 Α. JUST GIVE ME A SECOND TO REVIEW THIS. 21 22 ALL RIGHT. YES. AND FOUR OF THE EIGHT RESULTS OF YOUR POLYNOMIAL 23 CALCULATION ARE SHOWING NEGATIVE COEFFICIENTS. 24 A. FOR SOME, YES. 25

YES. AND ARE THESE ORDERED IN TIME FROM TOP TO BOTTOM? 1 2 IS THAT THE WAY THEY'RE ORDERED? LET ME TAKE A LOOK AT THAT AND SEE HOW THIS CAME OUT. 3 Α. 4 SO I HAVE SEPARATE, JUST SO WE'RE CLEAR, SEPARATE 5 POLYNOMIAL DISTRIBUTED LAGS --6 Ο. YES. 7 Α. -- TO THIS RELATIONSHIP BETWEEN THE PRICE OF FISH CAUGHT 8 AND THE PRICE OF FISH IN A CAN. Ο. RIGHT. Α. I HAVE THAT SEPARATELY FOR SKIPJACK AND ALBACORE. 10 11 Q. RIGHT. A. SO THAT EXPLAINS SOME OF THE ROWS, AND THEN IT'S ALSO 12 13 SEPARATED BY CAN AND POUCH. 14 Ο. RIGHT. SO I ALLOW THE EFFECT OF FISH COSTS ON FISH IN A CAN TO BE 15 16 DIFFERENT THAN FISH IN A POUCH. 17 O. OKAY. AND AM I CORRECT THAT AT THE TOP OF THIS CATEGORY, 18 PACKAGE TYPE, TO THE BOTTOM, IS THAT A TIME? IS THAT IN CHRONOLOGICAL ORDER, A PERIOD OF TIME? 19 NO, IT'S NOT. 20 Α. Q. IT'S NOT? 21 22 Α. NO. OKAY. SO DO YOU KNOW WHICH OF THESE IS THE LATER PERIOD 23 Q. AND WHICH IS AN EARLIER PERIOD, OR IS IT NOT TIMED AT ALL? 24 A. NO, IT'S NOT TIMED AT ALL. 25

1 0. I SEE. OKAY. 2 BECAUSE REMEMBER I INTERACTED THE FISH PRICE WITH Α. 3 (PAUSE) --OKAY. I'M SORRY. PLEASE CONTINUE. 5 OH, NO. SURE. I JUST WANTED YOU TO BE ABLE TO HEAR. I INTERACTED THE FISH PRICE WITH THE TYPE OF CONTAINER. IS IT 6 7 CAN OR POUCH? I LOOKED AT SKIPJACK VS. ALBACORE SEPARATELY. 8 SO IT'S NOT, IT'S NOT REFERRING TO TIME AS YOU GO DOWN THE 9 ROWS. 10 Q. OKAY. THEY'RE DIFFERENT INTERACTIONS OF THE LAG STRUCTURE WITH Α. 11 12 PRODUCT TYPES. 13 ALL RIGHT. FOUR OF THE EIGHT SHOW A NEGATIVE COEFFICIENT. YES, FOUR OF THOSE NUMBERS ARE NEGATIVE, BUT I DON'T --14 15 THAT DOESN'T MEAN THAT THE PRICE OF FISH NEGATIVELY IMPACTS THE PRICE OF CANNED TUNA. 16 WELL, SIR, CAN YOU EXPLAIN WHAT IT DOES MEAN? BECAUSE 17 Ο. 18 THAT'S WHAT I THOUGHT THAT'S WHAT THE NEGATIVE COEFFICIENT, THAT'S WHAT WE ALREADY TALKED ABOUT. 19 NO, THAT'S NOT RIGHT. CAN WE GO BACK A SLIDE OR TWO? 20 CAN YOU SHOW ME THE POLYNOMIAL LAG STRUCTURE? 21 22 O. YOU'RE GOING TO HAVE TO TELL ME WHERE YOU WANT TO GO. I MEAN, I'M HAPPY TO GO THERE. I JUST DON'T KNOW WHERE IT IS. 23 OH, SURE. THE SLIDE YOU SHOWED ME A SECOND AGO THAT HAD 24 THE HILL-SHAPED LINES. 25

OH, SURE. IT'S ON PAGE 62. IT'S FIGURE NINE. 1 2 RIGHT. SO WHAT THIS IS LOOKING AT IS THE IMPACT OF RAW Α. FISH PRICES CAUGHT WITH DIFFERENT LAGS ON THE PRICE OF FISH 3 4 THAT'S SOLD TODAY. SO I THINK THIS IS MORE INFORMATIVE FOR THE 5 KIND OF INQUIRY THAT YOU'RE TRYING TO DO, IF I COULD MAKE THAT 6 SUGGESTION. 7 Q. ALL RIGHT. LET'S MOVE ON, BECAUSE, HAPPILY, I'M ALMOST 8 DONE. I HAVE ONE SUBJECT MORE. 9 Α. SURE. DID I UNDERSTAND YOU TO TESTIFY THIS MORNING THAT IT WAS 10 11 YOU THAT DID ECONOMIC ANALYSIS AND BROUGHT TO THE LAWYERS THE 12 IDEA OF FOR WHAT THE CLASS PERIOD SHOULD BE AND WHAT THE 13 BENCHMARK PERIODS SHOULD BE, THAT THAT WAS BASED ON ECONOMIC ANALYSIS THAT YOU BROUGHT TO COUNSEL? 14 15 WELL, I THINK WHAT I TESTIFIED TO EXACTLY WAS, THE FINAL 16 DECISION IS THE LAWYER'S, OF COURSE --Ο. YES. 17 18 -- BUT I TOOK A LOOK AT THE DOCUMENTARY EVIDENCE AND OTHER 19 EVIDENCE IN THIS CASE IN THE PROCESS OF BUILDING A SERIES OF STATISTICAL MODELS. 20 OKAY. I HEAR THAT TO SAY THAT -- WELL, LET ME JUST ASK 21 Ο. 22 YOU THIS OUESTION, SIR. ISN'T IT TRUE THAT THE DATES FOR THE CONSPIRACY AND THE DATES FOR THE CLASS PERIOD FOR EACH OF THE 23 24 DEFENDANTS THAT APPEAR IN YOUR REPORT IS INFORMATION THAT YOU WERE PROVIDED BY THE ATTORNEYS? 25

ULTIMATELY, THE ATTORNEYS SIGNED OFF ON IT, YES, BUT I 1 2 REVIEWED THE EVIDENCE IN THE CASE. ISN'T IT TRUE THAT YOU WERE GIVEN INSTRUCTIONS FROM THE 3 0. 4 ATTORNEYS ABOUT WHAT TIME PERIOD TO ASSUME FOR THE CLASS 5 PERIOD? AGAIN, THE FINAL CALL WAS THE ATTORNEYS'. 6 Α. 7 OKAY. ISN'T IT TRUE THAT YOU DID NOT INDEPENDENTLY 8 DETERMINE THE CLASS PERIOD TO USE IN YOUR ANALYSIS? 9 I'LL GIVE YOU THE SAME ANSWER. THE ATTORNEYS MADE THE FINAL CALL --10 11 OKAY. Ο. -- BUT IT'S AN ISSUE THAT I LOOKED AT TO SATISFY MYSELF 12 13 THAT I WAS CONSTRUCTING MY ECONOMETRIC MODELS PROPERLY. OKAY. ISN'T IT TRUE, SIR, THAT YOU WHEN YOU SAT IN YOUR 14 Ο. 15 DEPOSITION YOU BELIEVED WHAT THE CLASS PERIOD WAS WAS NOT EVEN 16 AN ECONOMIC QUESTION; YOU THOUGHT IT WAS PURELY A LEGAL 17 OUESTION? 18 WELL, WHAT I MEANT BY THAT -- I MEAN, WE CAN LOOK AT THE ACTUAL QUOTE, BUT WHAT I MEANT BY THAT WAS, ULTIMATELY, IT'S A 19 DECISION THAT THE ATTORNEYS MAKE. 20 SIR, YOU TESTIFIED AT YOUR DEPOSITION, ISN'T IT TRUE, THAT 21 Ο. 22 YOU INCORPORATED INFORMATION ABOUT THE CLASS PERIOD AND THE CONSPIRACY PERIOD THAT YOU WERE GIVEN BY THE LAWYERS? 23 24 I'M GOING TO KEEP REPEATING THE SAME THING. THE ATTORNEYS MADE THE FINAL CALL. I REVIEWED A LOT OF EVIDENCE THAT MADE ME 25

COMFORTABLE I WAS SPECIFYING MY ECONOMETRIC MODELS CORRECTLY TO 1 2 REFLECT THE REAL-WORLD CONDITIONS. Q. ALL RIGHT. THAT'S FINE. SO THE LAST THING I WANT TO DO, 3 4 THEN, IS JUST TALK ABOUT THOSE PERIODS. IF YOU WOULD PUT UP 5 THE BENCHMARK SLIDES, WHICH I THINK IS NUMBER (PAUSE) -- LET ME 6 SEE THAT MARKED SLIDE. I DON'T HAVE A NUMBER. IT'S NUMBER 7 THREE. NUMBER THREE. THANK YOU. SO WE HAVE DEPICTED HERE, 8 SIR, WHAT I UNDERSTAND TO BE THE BENCHMARK PERIODS YOU ASSUMED, 9 THE HELD-OUT PERIOD YOU ASSUMED, THE CLASS PERIOD, AND THEN ANOTHER HELD-OUT PERIOD, AND THEN ANOTHER BENCHMARK PERIOD. 10 ROUGHLY, 2001 THROUGH 2008 FOR THE FIRST BENCHMARK. DO YOU SEE 11 12 THAT? 13 WELL, I MEAN, I'LL POINT OUT THIS IS NOT, THIS IS NOT THE, THE -- I HAVE ANOTHER GRAPH IN MY REPORT. SO JUST GIVE ME A 14 15 SECOND. IT LOOKS DIFFERENT THAN THIS. SO GIVE ME A SECOND TO 16 REVIEW WHAT'S ON HERE. O. I MAY BE ABLE TO HELP, BECAUSE I HAVE THE EXACT DATES. 17 18 THE EXACT DATES AREN'T TERRIBLY IMPORTANT FOR WHAT I'M ASKING YOU. THE EXACT DATE IS JANUARY 1 THROUGH 2008 FOR -- I'M 19 SORRY. I'M SORRY. STRIKE THAT. YES, FOR -- I'M SORRY. JULY 20 21 THROUGH 2001, THROUGH 2008, FOR STARKIST, SEPTEMBER FOR BUMBLE 22 BEE AND COSI. DOES THAT SOUND RIGHT? 23 Α. YES. YES. OKAY. 24 Q. SORRY. IT JUST TOOK ME A SECOND TO CATCH UP BECAUSE, 25 Α.

AGAIN, THIS LOOKS A LITTLE DIFFERENT THAN THE WAY I PRESENTED

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3 Ο. WE TRIED TO MAKE IT JUST MORE SIMPLE. THAT'S ALL. 4 Α. RIGHT. 5 THEN YOU HAVE THE LATE BENCHMARK PERIOD, WHICH IS AFTER Q. 6 JANUARY OF 2016, OVER ON THE RIGHT. CORRECT? 7 YES. IT'S NOT LABELED, BUT IT'S THE GRAY SHADING ON THE Α. 8 VERY FAR RIGHT. RIGHT. AND THEN YOU HAD TWO HOLD-OUT PERIODS. 9 FOR THE SO-CALLED CANNERY-SIZE PERIOD. CORRECT? 10 11 Α. YES. 12 AND THAT RAN FROM MID- TO LATE 2008 THROUGH TWO THOUSAND, 13 THROUGH MID-2011. DOES THAT SOUNDS ABOUT RIGHT TO YOU? 14 Α. YES, IT DOES. 15 YES. AND THEN YOU HAD A SECOND HOLD-OUT PERIOD IN 2015, 16 AUGUST TO DECEMBER. DO YOU REMEMBER THAT? 17 I DO, YES. Α. 18 YEAH. AND YOU EXPLAIN IN YOUR REPORTS THAT YOU HELD OUT THE CANNERY-SIZE PERIOD, QUOTE, BECAUSE IT'S NOT SUITABLE AS A 19 COMPETITIVE BENCHMARK BECAUSE THERE WAS EVIDENCE THAT SOME PART 20 OF THE TIME THE PERIOD IS CHARACTERIZED BY COLLUSIVE BEHAVIOR. 21 22 DO YOU RECALL THAT? THAT'S RIGHT. I TESTIFIED THAT THERE WAS MIXED EVIDENCE 23 24 OF COLLUSION AND COOPERATION DURING THAT PERIOD. O. RIGHT. AND WITH RESPECT TO THE OTHER HOLD-OUT PERIOD IN 25

2015, YOU SAID THERE WAS ALSO SOME EVIDENCE OF COLLUSIVE 1 2 BEHAVIOR THERE, SO IT WAS APPROPRIATE TO HOLD IT OUT. CORRECT? YES. TO BE SPECIFIC, IT WAS WHAT I REFERRED TO AS THE 3 COOL-DOWN PERIOD. 5 YES. Q. 6 Α. THE SIX MONTHS FOLLOWING THE PUBLIC ANNOUNCEMENT OF THE 7 INVESTIGATION. 8 Q. RIGHT. AND YOU DIDN'T SAY ANYTHING ABOUT IT BEING, THERE BEING -- NO, THAT'S FINE. SO, WITH RESPECT TO YOUR BENCHMARK 9 PERIOD, THE BIG BENCHMARK PERIOD ON THE LEFT, YOU DIDN'T SAY 10 THAT THAT WAS CHARACTERIZED BY COLLUSIVE BEHAVIOR. YOU SAID 11 THE OPPOSITE, RIGHT? IT WAS A COMPETITIVE PERIOD. 12 13 THAT'S RIGHT, ALTHOUGH THERE IS SOME EVIDENCE AND SOME ALLEGATIONS THAT HAVE BEEN MADE ABOUT SOME COLLUSION HAPPENING 14 15 DURING THAT PERIOD AS WELL. Q. AND WHEN YOU HELD OUT THE TWO HOLD-OUT PERIODS BECAUSE 16 17 THEY HAD COLLUSIVE BEHAVIOR, YOU DIDN'T SAY, YOU KNOW, I'M JUST 18 BEING CONSERVATIVE. IT WOULD BE APPROPRIATE TO PUT IT IN THE BENCHMARK. IT'S JUST A CONSERVATIVE ASSUMPTION. YOU DIDN'T 19 SAY WORDS TO THAT EFFECT, DID YOU? 20 NO. I JUST -- I WROTE DOWN THE RESULTS FOR THE BEST MODEL 21 Α. 22 AND CHOICES I MADE AT THE TIME. RIGHT. DR. MANGUM'S REPORT IS IN YOUR BINDER AT, IN 23 BINDER TWO, AT THE LAST TAB, TAB TEN, AND I WANTED YOU TO LOOK 24 AT SOME LANGUAGE IN THIS REPORT, WHICH APPEARS AT PARAGRAPH 36, 25

1 WHICH IS PAGE 17. DO I NEED TO PULL IT OUT, OR ARE YOU GOING TO SHOW ME? 2 YOU KNOW, IT'S ON THE SCREEN. I WANT YOU TO HAVE IT, IF 3 4 YOU WANT TO SEE IT. I THINK IT'S ON THE SCREEN IN FRONT OF 5 YOU, AND I JUST WANTED TO REFER YOU TO WHAT DR. MANGUM SAID 6 ABOUT A BENCHMARK PERIOD. HE SAID, TREATING TAINTED PERIODS AS 7 BENCHMARK WOULD RESULT IN A DISTORTION OF ALL OTHER ESTIMATED 8 COEFFICIENTS, INCLUDING THE OVERCHARGE VARIABLE CLOVER. DO YOU 9 SEE THAT? 10 Α. I DO. WHAT DO YOU TAKE IT TO MEAN WHEN IT SAYS A DISTORTION OF 11 Ο. ALL OTHER ESTIMATED COEFFICIENTS? WHAT DO YOU TAKE THAT TO 12 13 MEAN? A. YOU KNOW, I'M NOT SURE. I DIDN'T SPEND A LOT OF TIME 14 15 REVIEWING DR. MANGUM'S WORK. HE WOULD HAVE TO EXPLAIN WHAT HE 16 MEANS BY THIS. 17 OKAY. DOES IT MEAN -- DOES IT SEEM TO YOU TO MEAN THAT 0. 18 IT'S REFERRING TO DISTORTING THE EXPLANATORY VARIABLES, AND WHEN IT SAYS ALL OTHER COEFFICIENTS, IT WOULD INCLUDE THE 19 EXPLANATORY VARIABLES? 20 AGAIN, I CAN'T -- IT SAYS WHAT IT SAYS. 21 Α. 22 BUT WHAT ABOUT YOU? WOULD YOU BE CONCERNED THAT IF YOU USED THE TAINTED PERIOD AS A BENCHMARK, IT WOULD DISTORT YOUR 23 24 EXPLANATORY VARIABLES? IT WOULD CERTAINLY, IT WOULD CERTAINLY CHANGE THE 25 Α.

COEFFICIENT ESTIMATES. THAT'S A MATHEMATICAL CERTAINTY. 1 2 Q. OKAY. AND, SIR, ISN'T IT TRUE YOU CAN'T JUST ASSUME, AS A HIGHLY-TRAINED ECONOMIST LIKE YOU AT BERKELEY, YOU CANNOT JUST 3 4 ASSUME THAT IF YOU USED A TAINTED PERIOD AS YOUR BENCHMARK, 5 THAT IT IS GOING TO SIMPLY PRODUCE A MORE CONSERVATIVE RESULT? 6 Α. NO. IT DOES MORE THAN THAT, AS WE HEARD YESTERDAY. 7 RIGHT. AND, IN FACT, YOU CANNOT RELIABLY ASSUME THAT A 8 BENCHMARK PERIOD THAT IS TAINTED BY COLLUSION WILL RESULT IN A 9 MORE CONSERVATIVE RESULT. NO, I CAN'T SAY THAT. ISOLATING THAT ONE FACTOR, IT'S 10 LOGICAL THAT THAT WOULD, IF YOU TREAT A TAINTED PERIOD AS A 11 COMPETITIVE BENCHMARK, THERE'S SOME OVERCHARGE IN THE WHOLESALE 12 13 PRICE. THAT WOULD LEAD TO AN UNDERESTIMATE OF THE CARTEL BEHAVIOR. IT IS ALSO TRUE THAT ALL OF THE COEFFICIENTS WOULD 14 15 BE RE-ESTIMATED. 16 Q. OVER AN EXTENDED PERIOD OF TIME. CORRECT? 17 Α. YES. 18 AND YOU COULD COME OUT WITH A NEGATIVE OVERCHARGE. YES, AND I TESTIFIED TO SOME OF THE PITFALLS OF DR. 19 Α. JOHNSON'S APPROACH ALONG THOSE LINES EARLIER TODAY. 20 OKAY. THANK YOU. AND IF YOU LOOK AT TAB FOUR, I WILL 21 Ο. 22 REPRESENT TO YOU THAT IT IS THE FOURTH AMENDED COMPLAINT, WHICH IS THE COMPLAINT THAT WAS ON FILE ON THE DATE THAT YOUR REPORT 23 24 WAS FILED. YOU'RE PROBABLY FAMILIAR WITH THAT DOCUMENT, AREN'T 25 YOU?

1 I'M GENERALLY FAMILIAR WITH IT, YES. 2 Q. OKAY. AND YOU KNOW THAT THAT DOCUMENT WAS ON FILE WHEN YOU FILED YOUR REPORT ALLEGED IN PARAGRAPH ONE THAT THE CLASS 3 4 PERIOD -- I'M SORRY. I'M TALKING ABOUT THE WRONG TAB NUMBER. 5 TAB FIVE. SORRY. IT SAID THAT THE CLASS PERIOD BEGAN ON JULY 1, 2004, RIGHT? 6 7 A. I BELIEVE SO. 8 AND IT SAID, IN PARAGRAPH TWO, THE EXACT DATE OF THE CONSPIRACY IS UNCERTAIN, BUT IT BEGAN NO LATER THAN JULY, THAN 9 2004 AND CONTINUED IN FORCE THROUGH AT LEAST JULY 15, 2015. IT 10 SAID THAT, AND IT SAID THE EFFECTS OF THE CONSPIRACY CONTINUE 11 TO THE DATE OF THE FILING OF THIS COMPLAINT AS EVIDENCED BY THE 12 13 CLASS PERIOD. RIGHT? IT REFERRED BACK TO THE CLASS PERIOD. DO YOU RECALL THAT? 14 IF WE'RE GOING TO KEEP GOING WITH THIS, IT WOULD HELP ME 15 16 TO HAVE THE DOCUMENT. 17 Q. IT'S RIGHT THERE. I'M SORRY. IT'S TAB FIVE IN YOUR 18 BINDER. IT'S TAB FIVE IN THE BINDER. I HAVE ONE MORE QUESTION 19 ON THIS DOCUMENT. ALL RIGHT. SURE. WHAT PAGE ARE YOU AT? 20 Α. I'M AT THE VERY BEGINNING, PARAGRAPH TWO, WHICH IS, I 21 0. 22 GUESS, PAGE TWO, AND THEN I'M GOING TO REFER YOU TO JUST ONE OTHER PARAGRAPH AND I HAVE ONE OTHER DOCUMENT AND WE'RE DONE. 23 SO PARAGRAPH TWO, IT SAYS THAT THERE'S AN EFFECT OF THE -- IT 24 SAYS, THE EFFECTS OF THE CONSPIRACY CONTINUED WITH THE FILING 25

1 OF THE COMPLAINT AS EVIDENCED BY THE CLASS PERIOD. RIGHT? 2 I SEE THAT. YES. Α. OKAY. AND THEN IF YOU LOOK OVER AT PAGE 59, PARAGRAPH 3 Ο. 4 186, IT EXPRESSLY -- IT ALLEGES THERE THAT PRICES FOR PACKAGED 5 TUNA SINCE AT LEAST JULY 1, 2004, WERE AS A DIRECT RESULT OF THE DEFENDANTS' CONSPIRACY -- CAN YOU CALL IT UP, PLEASE? 6 7 PARAGRAPH 186, TAB FIVE -- AS A DIRECT RESULT OF DEFENDANTS' 8 CONSPIRACY TO DIMINISH CAN SIZE AND COLLUSIVELY SET AND RAISE 9 PRICES TO POLICE DISCOUNTS AND REFRAIN FROM OFFERING PRODUCTS AND SUSTAINABILITY FEATURES. SO IT SAYS THERE WAS A PRICE 10 EFFECT SINCE JULY, 2004. CORRECT? 11 12 Α. I SEE IT SAYS THAT. 13 YES. THAT'S IN YOUR -- AND IT SAYS IN THE NEXT SENTENCE, AS A RESULT, THE PLAINTIFFS IN THE CLASS PAID ARTIFICIAL 14 PRICES. THAT'S IN YOUR BENCHMARK PERIOD. 15 16 Α. YES, IT IS. 17 OKAY. THE LAST POINT. IF YOU GO TO TAB SEVEN, YOU'LL Ο. 18 FIND A SIXTH AMENDED COMPLAINT, WHICH I'LL REPRESENT TO YOU IS 19 THE COMPLAINT ACTIVE IN THIS CASE TODAY, AND I'LL ASK YOU TO LOOK AT, FIRST, AT PARAGRAPH 229 OF THE COMPLAINT THAT'S ON 20 FILE IN THIS CASE TODAY, WHICH IS ON PAGE 74, AND THAT 21 COMPLAINT ALLEGES THAT DEFENDANTS' 2004 COLLUSIVE PRICE 22 INCREASES WERE INTENDED TO AND DID INCREASE U. S. PACKAGED TUNA 23 24 PRICES, AND THESE PRICES REMAIN SUPER-COMPETITIVE THROUGHOUT THE CLASS PERIOD. SO IT ALLEGES THAT THE PRICES WERE INCREASED 25

AS A RESULT OF DEFENDANTS' 2004 PRICE INCREASES DURING YOUR 1 2 BENCHMARK PERIOD, RIGHT? YES, THAT'S WHAT IT SAYS. 3 Α. Q. AND IF YOU LOOK AT PARAGRAPH 241, IT REFERS EXPRESSLY TO 5 CERTAIN PRICE INCREASES THAT OCCURRED AT THE BEGINNING OF 2004, LATE 2004, AUGUST, 2005, AND THEN IN 2006. ALL OF THOSE 6 7 INCREASES WOULD HAVE BEEN COLLUSIVE PRICE INCREASES DURING YOUR 8 BENCHMARK PERIOD, RIGHT? 9 YES, I SEE THAT'S WHAT IT SAYS. OKAY. SO ISN'T IT TRUE, SIR, YOUR BENCHMARK PERIOD AND 10 11 YOUR CLASS PERIOD IS -- I HAVE ONE OTHER QUESTION. YOU ACTUALLY KNOW THAT DR. HAIDER RE-RAN YOUR REGRESSION, TAKING 12 13 THE CLASS PERIOD IN THE FOURTH AMENDED COMPLAINT, AND GOT ZERO, NO STATISTICALLY SIGNIFICANT OVERCHARGE, RIGHT? 14 15 I SAW SHE REPORTED THAT, YES. AND THE REASON YOU HAVE DESIGNED THIS BENCHMARK AND THIS 16 Q. 17 CLASS PERIOD THE WAY YOU HAVE IS BECAUSE IT GETS YOU, UNDER 18 YOUR REGRESSION, AN INDICATION OF A COMMON OVERCHARGE, RIGHT? 19 Α. OF COURSE NOT. MR. GALLO: THANK YOU. 20 THE COURT: OKAY. 21 22 MR. BURT. MR. BURT: YES, YOUR HONOR. 23 FIRST OF ALL, JUST FOR THE RECORD, MR. GALLO CAME OVER 24 TO ME BEFORE WE RESUMED, BEFORE HE WAS QUESTIONING, AND 25

1	REMINDED ME WE SENT THEM AN ERRATA TO A FOOTNOTE, BUT IT'S IN
2	IN THE RECORD, AND SO I TOLD HIM, INSTEAD OF TAKING HIS TIME
3	CROSSING THE WITNESS ON IT, I WOULD READ IT INTO THE RECORD.
4	MR. GALLO: MAY I? I COULD HAND IT UP, IF THAT'S
5	EASIER.
6	THE COURT: I'M SORRY?
7	MR. GALLO: I COULD HAND IT UP, IF IT'S EASIER, YOUR
8	HONOR. IT'S AN ERRATA IN THE REPORT THAT ISN'T IN THE REPORT
9	IN YOUR BOOK. THAT'S WHY I THOUGHT IT WAS IMPORTANT TO GET IT
10	INTO THE RECORD.
11	THE COURT: OKAY. THAT'S FINE.
12	MR. BURT: IT'S JUST RECORD HOUSEKEEPING.
13	THE COURT: THAT'S FINE. EITHER WAY. PASS IT FORWARD,
14	COUNSEL.
15	MR. GALLO: MAY I HAND IT UP?
16	THE COURT: OF COURSE, COUNSEL.
17	MR. GALLO: I HAPPEN TO DISAGREE WITH IT.
18	I'LL TRY TO GIVE ONE TO YOUR CLERK AS WELL.
19	REDIRECT EXAMINATION
20	BY MR. BURT:
21	Q. PROFESSOR, SO, DO YOU REMEMBER BEFORE LUNCH SPEAKING
22	WITH
23	THE COURT: YOU KNOW, COUNSEL, I DON'T KNOW WHY. THOSE
24	MIKES ARE NOT PICKING YOU UP WELL, SO.
25	MR. BURT: IS THIS BETTER, YOUR HONOR?

1	THE COURT: NOT TERRIBLY.
2	MR. BURT: IS THIS BETTER?
3	THE COURT: I DON'T KNOW. MAYBE I'M MAYBE IT'S
4	GETTING LATE IN THE DAY, BUT WE'RE GOING TO TURN THIS UP A
5	LITTLE FOR YOU.
6	MR. BURT: IS THIS BETTER, YOUR HONOR?
7	THE COURT: THAT IS.
8	MR. BURT: OKAY. LET'S SEE IF WE CAN MAKE THIS WORK.
9	THE COURT: THANK YOU.
10	BY MR. BURT:
11	Q. PROFESSOR, DO YOU REMEMBER SPEAKING WITH MR. GALLO BEFORE
12	LUNCH ABOUT THESE NEGATIVE RESULTS WHEN YOU RAN THE TYPE OF
13	WAL-MART, THE TYPE OF SENSITIVITY ANALYSIS THAT YOU RAN FOR
14	WAL-MART WITH SOME OF THE OTHER PURCHASERS?
15	A. I DO REMEMBER THAT, YES.
16	Q. OKAY. AND DO YOU REMEMBER HIM ASKING YOU ABOUT SOME
17	NEGATIVE RESULTS IN INITIAL RUNS?
18	A. YES.
19	Q. AND ARE THOSE ATTRIBUTABLE TO DATA-CLEANING ISSUES?
20	A. EXACTLY. YES.
21	Q. WHEN YOU WROTE YOUR ORIGINAL REPORT, DID YOU THINK THAT
22	YOU NEEDED TO SEPARATELY EXAMINE EACH WHOLESALE CUSTOMER'S
23	OVERCHARGE TO DRAW A CONCLUSION ABOUT WHOLESALE OVERCHARGE
24	ACROSS MARKET?
25	A. NO, I DIDN'T.

OKAY. HAS YOUR VIEW OF THE VALIDITY OF DR. HAIDER'S 1 2 CUSTOMER-BY-CUSTOMER APPROACH CHANGED AFTER YOU DID ADDITIONAL SENSITIVITY TESTING? 3 4 Α. NO, IT HAS NOT. 5 OKAY. AND DOES THAT MEAN YOU'RE STILL AGAINST IT, IT STILL DOESN'T WORK? 6 7 Α. YES. 8 AND NOW HAVING RUN SOME MORE SENSITIVITIES, DO YOU THINK THAT YOU WERE WRONG THE FIRST TIME AND THAT YOU ACTUALLY NEED 9 TO CALCULATE EVERY WHOLESALE CUSTOMER'S SENSITIVITY SEPARATELY? 10 I'M EVEN MORE CONFIDENT THAT MY DEFENDANT-SPECIFIC 11 Δ 12 OVERCHARGE RESULTS ARE RELIABLE. 13 DO YOU STILL THINK THAT YOUR OVERCHARGE MODELS ALLOW YOU TO CALCULATE DAMAGES ACROSS THE CLASS? 14 15 Α. YES. 16 Q. NOW, WE -- IF I UNDERSTAND WHAT DR. HAIDER SAID IN HER 17 REPORT, IT'S THAT SHE USED A CHOW TEST TO REJECT THE IDEA THAT 18 YOU COULD RUN A MODEL ACROSS THE GROUP OF PURCHASERS AND COME 19 UP WITH AN OVERCHARGE, AND THAT INSTEAD YOU HAD TO DO EVERY PURCHASER SEPARATELY AND THAT THERE WAS NO IN BETWEEN, THERE 20 WAS NO WAY TO, NO WAY TO FIND A SUBGROUP THAT WAS WORKABLE, 21 22 THAT ONCE THE CHOW TEST REJECTED THE APPROACH OF CALCULATING ALL CUSTOMERS TOGETHER, THAT YOU'RE DONE TRYING TO FIND 23 24 SEPARATES. DO YOU AGREE WITH THAT ANALYSIS? WELL, FIRST OF ALL, HAVE I CHARACTERIZED HER POSITION CORRECTLY? 25

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YOU DID. THAT TEST AND THAT CONCLUSION SHE DREW IS CONTAINED IN HER FIRST REPORT. I WILL CONFESS THAT, HAVING HEARD THE WORD CHOW TEST MENTIONED ABOUT 15 TIMES IN THE LAST TWO DAYS, I'M STILL A LITTLE AT SEA. WHAT DOES THE CHOW TEST ACTUALLY DO? THE CHOW TEST IS A TEST FOR OUALITY OF COEFFICIENTS ACROSS SUBPOPULATIONS OF THE DATA. SO, TO SAY IT SIMPLY, WHAT SHE'S TESTING IS WHETHER OR NOT THE EFFECT OF THE CARTEL ON THE OVERCHARGE EXPERIENCE FOR PURCHASERS WAS EXACTLY THE SAME FOR EVERY SINGLE PURCHASER, WHEN I NEVER SAID THAT IN MY FIRST REPORT, BUT THAT'S WHAT SHE'S TESTING. Q. OKAY. IF YOU USE A CHOW TEST AND YOU FIND THAT SOMETHING'S NOT EXACTLY THE SAME ACROSS SUBPOPULATIONS, IS THERE THEN SOME REASON WHY YOU'RE BARRED FROM FINDING ANOTHER ECONOMICALLY SENSIBLE PLACE TO FORM A SUBGROUP TEST? A. NO. I THINK DOING THAT -- SO IF YOU, IF YOU VIOLATE THE RESULTS OF A CHOW TEST, OR REJECT A CHOW TEST, THEN I THINK YOU CAN LOOK AT SEGMENTS OF THE MARKET OR SUBPOPULATIONS OF THE DATA IN THE WAY THAT I DID THROUGH MY SENSITIVITY ANALYSES. DR. HAIDER MAKES A REALLY EXTREME LEAP FROM NOT PASSING THE CHOW TEST TO, THEREFORE, I HAVE TO RUN 600 SEPARATE REGRESSIONS. THAT IS TOTALLY NOT JUSTIFIABLE. MR. BURR: YOUR HONOR, AT THIS TIME, I EXPECT THE COURT MAY HAVE SOME QUESTIONS, AND UNLESS THE COURT DOES HAVE QUESTIONS, I DON'T HAVE FURTHER QUESTIONS FOR DOCTOR, PROFESSOR

1	SUNDING UNLESS WE NEED TO RECALL HIM.
2	THE COURT: WELL, PROFESSOR SUNDING IS GOING TO STAY
3	WITH US FOR THE BALANCE OF THE DAY.
4	ARE YOU NOT, SIR?
5	THE WITNESS: I WILL, YOUR HONOR.
6	THE COURT: SO WHAT I WOULD LIKE TO DO IS HEAR FROM THE
7	NEXT WITNESS, AND WE MAY RECALL HIM, WHICH IS SOMETHING WE DID
8	YESTERDAY. I THINK THAT MIGHT BE HELPFUL.
9	MR. BURT: THANK YOU, YOUR HONOR.
10	THE COURT: IT'S DEFINITELY BETTER TO HEAR FROM THE
11	EXPERTS RATHER THAN THE COUNSEL AT THE END OF THE DAY. SO
12	LET'S PROCEED WITH THE NEXT WITNESS.
13	THANK YOU VERY MUCH.
14	THE WITNESS: YOU'RE WELCOME.
15	(THE WITNESS STOOD ASIDE.)
16	THE COURT: THANK YOU.
17	MR. MICHAEL: GOOD AFTERNOON, YOUR HONOR. WILLIAM
18	MICHAEL OF PAUL WEISS. I REPRESENT BUMBLE BEE, AND AT THIS
19	TIME, WITH THE COURT'S PERMISSION, DEFENDANTS CALL DR. LAILA
20	HAIDER TO TESTIFY.
21	THE COURT: THANK YOU.
22	THE DEPUTY CLERK: PLEASE RAISE YOUR RIGHT HAND.
23	(WITNESS SWORN.)
24	THE WITNESS: I DO.
25	THE DEPUTY CLERK: THANK YOU. PLEASE HAVE A SEAT OVER

1	HERE.
2	STATE YOUR FULL NAME FOR THE RECORD AND SPELL YOUR LAST
3	NAME SLOWLY.
4	THE WITNESS: MY FULL NAME IS LAILA HAIDER. LAILA IS
5	SPELLED L-A-I-L-A, AND MY LAST NAME, HAIDER, IS SPELLED
6	H-A-I-D-E-R.
7	GOOD AFTERNOON, YOUR HONOR.
8	THE COURT: GOOD AFTERNOON.
9	DR. LAILA HAIDER, SWORN WITNESS, TESTIFIES:
10	DIRECT EXAMINATION
11	BY MR. MICHAEL:
12	Q. AND GOOD AFTERNOON, DR. HAIDER.
13	A. GOOD AFTERNOON.
14	Q. CAN YOU TELL US, WHAT IS YOUR PROFESSION?
15	A. I'M AN ECONOMIST, AND I'M ALSO A PARTNER AT THE ECONOMIC
16	CONSULTING FIRM EDGEWORTH ECONOMICS.
17	Q. AND DO YOU HAVE A DEGREE IN ECONOMICS, DR. HAIDER?
18	A. I DO. I HAVE A PH.D. IN ECONOMICS FROM COLUMBIA
19	UNIVERSITY.
20	Q. NOW, HAVE YOU PREPARED SOME DEMONSTRATIVE EXHIBITS TO HELP
21	WITH YOUR TESTIMONY TODAY?
22	A. I HAVE, YES.
23	MR. MICHAEL: MR. SHAW, CAN WE PUT UP SLIDE TWO,
24	PLEASE?
25	AND WE'LL BE PUTTING THESE UP ON THE SCREEN. YOUR

HONOR ALSO HAS A PAPER COPY IN THE BINDER, AND I BELIEVE 1 2 THERE'S ONE ON THE WITNESS STAND AS WELL. BY MR. MICHAEL: 3 4 Q. DR. HAIDER, IS THIS AN ACCURATE SUMMARY OF YOUR BACKGROUND 5 AND QUALIFICATIONS? IT IS. THIS HIGHLIGHTS PARTICULAR RELEVANT INFORMATION. 6 Α. 7 AND CAN YOU TELL US, BEFORE TODAY, HAVE YOU EVER TESTIFIED 8 IN COURT? 9 TODAY IS MY FIRST TIME, YOUR HONOR. WELL, WELCOME. NOW, JUDGE SAMMARTINO SAID THIS MORNING 10 THAT SHE WANTED TO CUT TO THE CHASE, AND WE'LL ENDEAVOR TO DO 11 12 JUST THAT. 13 MR. MICHAEL: MR. SHAW, CAN YOU PUT UP SLIDE THREE, 14 PLEASE? (CONTINUING) AND, DR. HAIDER, CAN YOU PLEASE SUMMARIZE 15 16 FOR THE COURT THE MAIN CONCLUSIONS THAT YOU HAVE REACHED BASED ON ALL THE WORK THAT YOU HAVE DONE IN THIS CASE? 17 18 SURE. I HAVE REVIEWED THE PROPOSED METHODOLOGY THAT DR. 19 SUNDING PUT FORWARD FOR THE ASSESSMENT OF ECONOMIC INJURY AND DAMAGES. BASED ON MY REVIEW OF HIS PROPOSED METHODS AND ALSO 20 21 INVESTIGATION INTO THE SALES AND PRICING DATA OF THESE 22 CUSTOMERS AT DIFFERENT LEVELS OF THE DISTRIBUTION CHAIN, I HAVE REACHED THE FOLLOWING CONCLUSIONS. THE FIRST ONE IS THAT DR. 23 24 SUNDING'S PROPOSED OVERCHARGE MODELS ASSUME IMPACT RATHER THAN SHOWING THAT ALL OR VIRTUALLY ALL DIRECT PURCHASERS IN FACT 25

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SUSTAINED OVERCHARGES. SECOND, THE TESTING THAT I DID OF DR. SUNDING'S MODELS IN FACT SHOW NO STATISTICAL PROOF OF OVERCHARGE FOR NUMEROUS DIRECT PURCHASERS, INCLUDING MANY LARGE PURCHASERS. AND FINALLY, DR. SUNDING'S PROPOSED METHODS FAIL TO ESTABLISH PASS-THROUGH OF AN ALLEGED OVERCHARGE TO END PURCHASERS. Ο. OKAY. AND WE'LL TALK ABOUT EACH OF THESE IN SOME MORE DETAIL, BUT IN YOUR FIRST MAIN CONCLUSION YOU REFER TO DR. SUNDING'S OVERCHARGED MODELS AS POOLED MODELS, AND CAN YOU JUST EXPLAIN TO THE COURT, WHAT DO YOU MEAN WHEN YOU SAY THAT THEY ARE A POOLED MODEL? SURE. DR. SUNDING POOLS TOGETHER THE EXPERIENCES OF THE DIFFERENT DIRECT PURCHASERS FOR EACH DEFENDANT. SO JUST TO BE VERY CLEAR, DR. SUNDING'S PROPOSED APPROACH IS TO HAVE THREE SEPARATE REGRESSION MODELS FOR EACH DEFENDANT IN THIS CASE, AND WE'RE TALKING ABOUT THE ESTIMATION OF OVERCHARGES, AND SO HE HAS THREE REGRESSION MODELS FROM THE GET-GO. IN EACH OF THOSE REGRESSION MODELS, HE PUTS TOGETHER OR COMBINES THE EXPERIENCES OF ALL THE DIRECT PURCHASERS THAT THAT PARTICULAR DEFENDANT SOLD TO, AND BASED ON THAT HE DERIVES THE EFFECT OF THE ALLEGED CONDUCT AND OF THE SUPPLY-AND-DEMAND FACTORS INCLUDED IN HIS MODEL AND JUST TO BE CLEAR, DOES DR. SUNDING'S MODEL CALCULATE FOR EACH INDIVIDUAL DIRECT PURCHASER FROM THE DEFENDANTS HOW MUCH OF AN OVERCHARGE THAT INDIVIDUAL PURCHASER ALLEGEDLY PAID?

1 NO, HE DOES NOT. BASED ON YOUR ANALYSIS, DR. HAIDER, IS THERE ANY VALID 2 Q. ECONOMIC BASIS TO ASSUME IN THIS CASE WITHOUT TESTING THAT A 3 4 POOLED OVERCHARGE MODEL OF THE KIND DR. SUNDING RAN IS 5 APPROPRIATE? THERE IS NO VALID BASIS GIVEN WHAT DR. SUNDING HAS PUT 6 Α. 7 FORWARD AND ALSO WHAT THE UNDERLYING PRICING DATA SHOW ABOUT 8 THE NATURE OF PRICING TO THE DIFFERENT DIRECT PURCHASERS IN THIS CASE. 10 Q. OKAY. MR. MICHAEL: AND, MR. SHAW, CAN YOU PUT UP SLIDE 11 NUMBER FIVE, PLEASE? 12 13 BY MR. MICHAEL: THIS WAS A SLIDE THAT WE SAW A LITTLE BIT EARLIER WHEN DR. 14 Ο. SUNDING WAS TESTIFYING, AND CAN YOU JUST DESCRIBE BRIEFLY WHAT 15 16 THIS IS SHOWING? 17 SURE. SO THIS IS, IN FACT, SHOWING PRICES PAID FOR A Α. 18 PARTICULAR PRODUCT SOLD BY STARKIST, SO STARKIST CHUNK LIGHT FIVE-OUNCE CAN, DURING THE YEAR 2014 TO ALL CUSTOMERS IN THE 19 STATE OF CALIFORNIA, AND SO YOU SEE VARIOUS COLORED DOTS ON 20 THIS PAGE. EACH COLOR DOT REPRESENTS THE PRICE PAID BY A 21 PARTICULAR CUSTOMER. SO THERE ARE ACTUALLY FIVE CUSTOMERS THAT 22 ARE CALLED OUT WITH PARTICULAR COLORATION. SO YOU'LL SEE 23 SAFEWAY IN TURQUOISE, YOU'LL SEE RALPH'S IN THE BROWN, AND SO 24 ON, AND THEN FOR THE REMAINING CUSTOMERS, BECAUSE WE DON'T HAVE 25

DOTS FOR EVERY SINGLE DIRECT PURCHASER, THE GREEN DOTS 1 REPRESENT THE PRICES PAID BY THEM. BUT WHAT THIS ILLUSTRATION 2 IS, IN FACT, SHOWING YOU IS WHAT YOU SEE IN THE DATA IN TERMS 3 4 OF WHAT IS GOING ON WITH PRICES PAID BY DIRECT PURCHASERS. SO 5 FOR THIS PARTICULAR PRODUCT SOLD BY STARKIST TO DIRECT PURCHASERS, YOU SEE EVEN AT A GIVEN POINT IN TIME --6 7 THE COURT: WAIT. 8 EXCUSE ME, MA'AM. 9 MS. LAVERY: CATRIONA LAVERY FOR THE WALMART 10 PLAINTIFFS. THE COURT: IT'S HARD TO HEAR YOU, MA'AM, SO JUST COME 11 12 FORWARD. 13 THERE'S GOING TO BE AN OBJECTION TO THE DATA. MR. MICHAEL: WE CAN TAKE IT OFF THE SCREEN. THAT'S 14 15 FINE, YOUR HONOR. 16 THE COURT: WELL, WE'RE ALSO ON THE SPOKEN RECORD, 17 BECAUSE THIS IS AN OPEN COURTROOM. 18 MR. MICHAEL: APOLOGIES, YOUR HONOR. THE COURT: THAT'S OKAY. THANK YOU. THANK YOU. I 19 THINK WE'VE DISCUSSED THIS BEFORE, BUT WITHOUT OBJECTION. 20 MR. MICHAEL: YES. YOUR HONOR, I'M SORRY. I DON'T 21 22 WANT TO TAKE TOO MUCH TIME AWAY FROM THE EXAMINATION. IT WAS FIVE-YEAR-OLD DATA. THESE WERE AGGREGATES ON A MONTHLY BASIS. 23 I DID NOT THINK THERE WAS GOING TO BE AN ISSUE. NOW THAT AN 24 OBJECTION HAS BEEN RAISED, WE'RE HAPPY TO DO THIS, TO DISCUSS 25

1 IT IN A MORE GENERAL WAY. 2 THE COURT: THANK YOU. THANK YOU. 3 BY MR. MICHAEL: 4 NOW, DR. HAIDER, IF I CAN JUST ASK YOU, WITHOUT 5 REFERENCING SPECIFIC CUSTOMERS OR SPECIFIC PRICES, IN SLIDE 6 NUMBER FIVE, WHICH IS IN YOUR BINDER, CAN YOU EXPLAIN TO US 7 WHAT THESE DATA TELL YOU, IF ANYTHING, ABOUT THE NEED TO TEST 8 FOR WHETHER A POOLED MODEL IS APPROPRIATE? SURE. SO WHAT THE PRICING DATA SHOW YOU FOR EACH OF THE DEFENDANTS IS THAT IN FACT, EVEN FOR A GIVEN PRODUCT AT A 10 11 PARTICULAR POINT IN TIME SOLD IN A PARTICULAR GEOGRAPHY, YOU IN 12 FACT SEE DIRECT PURCHASERS PAYING A RANGE OF DIFFERENT PRICES. 13 IT IS NOT THE CASE THAT THEY'RE ALL PAYING THE SAME PRICE, AND WE'RE TALKING ABOUT FOR A PARTICULAR PRODUCT. 14 SO GIVEN THAT 15 YOU SEE CUSTOMERS PAYING A RANGE OF DIFFERENT PRICES, WHAT THAT 16 TELLS YOU AS AN ECONOMIST, THAT MEANS THAT THE 17 SUPPLY-AND-DEMAND FACTORS FACING THAT PARTICULAR CUSTOMER IN 18 TERMS OF WHEN THEY INTERACT WITH THE BUYER, THE DEFENDANT, TO 19 BUY THIS PRODUCT, THAT THAT VARIES ACROSS PURCHASERS. IT CAN VARY FOR A NUMBER OF REASONS, AND SO, GIVEN THAT, IT TELLS YOU 20 THAT IT'S INAPPROPRIATE TO RELY ON AN AVERAGE WITHOUT TESTING 21 WHETHER IT'S APPROPRIATE IN TERMS OF CAPTURING THE EXPERIENCES 22 OF THE UNDERLYING DIRECT PURCHASERS. 23 24 HAVE YOU FORMED ANY OTHER OPINIONS ABOUT WHY TESTING IN THIS CASE IS NECESSARY OF THE PROPOSITION THAT A POOLED MODEL 25

CAN BE USED FOR AN OVERCHARGE?

A. YES. SO THE FIRST STEP IN THIS EXERCISE WAS TO LOOK AT
THE PROPOSED METHOD THAT DR. SUNDING HAD PUT FORWARD, AND SO
DR. SUNDING, AS I JUST DESCRIBED A MOMENT AGO, PUT FORWARD
THREE DIFFERENT REGRESSION MODELS, ONE FOR EACH DEFENDANT. IN
EACH ONE, WHAT I NOTICED WAS THAT THE EFFECTS OF SOME OF THE
SAME SUPPLY-AND-DEMAND FACTORS THAT HE HAD IN THOSE THREE
MODELS, THE EFFECTS IN FACT VARIED ACROSS THE THREE.

SO, IN OTHER WORDS, WHEN I LOOKED AT, FOR EXAMPLE, HIS

DEMAND FACTORS, UNEMPLOYMENT WAS ONE. I SAW THAT'S HAD A

NEGATIVE EFFECT IN ONE, FOR ONE DEFENDANT, BUT FOR THE OTHER

TWO DEFENDANTS IT HAD A POSITIVE EFFECT. SIMILARLY FOR SOME OF

THE OTHER VARIABLES THAT HE INCLUDED IN HIS MODEL, I NOTICED

THE SAME THING WITH RESPECT TO CHICKEN PRICE. I NOTICED THIS

WITH RESPECT TO SOME OF THE COST FACTORS, INCLUDING LABOR

COSTS.

SO WHEN I SEE THAT, WHAT IT TELLS ME IS THAT, IN FACT,
WHEN DR. SUNDING ENGAGES IN THIS EXERCISE, WHAT THE MODEL IS
TELLING YOU IS THAT THE PURCHASERS OF THESE THREE DEFENDANTS
ARE NOT RESPONDING IN THE SAME WAY TO CHANGES IN
SUPPLY-AND-DEMAND FACTORS. YOU SEE DIFFERENT RESPONSES IN JUST
HIS THREE REGRESSION MODELS. SO, GIVEN THAT, THERE IS NO BASIS
TO NECESSARILY ASSUME THAT THERE WOULD NOT BE DIFFERENCES
WITHIN DIRECT PURCHASERS THAT A PARTICULAR DEFENDANT WAS
SELLING TO.

O. OKAY. SO YOU'VE TALKED ABOUT WHY YOU NEED TO TEST. WHAT, 1 2 IF ANY, STANDARD STATISTICAL TESTS ARE AVAILABLE TO YOU AS AN 3 ECONOMIST TO DETERMINE WHETHER POOLING ALL CUSTOMERS TOGETHER IS APPROPRIATE? 5 THE VERY STANDARD STATISTICAL TEST WHICH I'VE APPLIED IN Α. 6 MY WORK, AND IT'S WIDELY ACCEPTED IN THE ECONOMICS PROFESSION, 7 IS THE CHOW TEST, AND I APPLIED IT HERE. 8 I THINK WE'VE HEARD ABOUT THAT ONCE OR TWICE IN THIS 9 HEARING. LET ME JUST ASK YOU, WHEN AND WHERE DID YOU PERSONALLY FIRST LEARN ABOUT THE CHOW TEST? 10 A. SO ME, LIKE ALL OTHER UNDERGRADUATE ECONOMIC STUDENTS, 11 12 LEARN ABOUT THE CHOW TEST IN THEIR UNDERGRADUATE STUDIES. IT'S 13 IN ALL, OR SHOULD BE IN ALL, UNDERGRADUATE TEXTBOOKS OF 14 ECONOMETRICS. 15 DID DR. SUNDING RUN A CHOW TEST ON HIS OVERCHARGE 16 REGRESSION MODELS IN THIS CASE? 17 A. HE DID NOT. 18 DID YOU RUN A CHOW TEST ON DR. SUNDING'S OVERCHARGE 19 REGRESSION MODELS? I DID. I RAN A CHOW TEST ON EACH OF THOSE THREE 20 REGRESSION MODELS THAT DR. SUNDING HAS PUT FORWARD. 21 22 Ο. AND WHAT WERE THE RESULTS OF THAT TEST? THE RESULTS OF THE CHOW TEST TELL US THAT HIS HYPOTHESIS, 23 24 THAT THE SAME REGRESSION MODEL CAN BE USED FOR EACH OF THE INDIRECT -- EXCUSE ME -- EACH OF THE DIRECT PURCHASERS IN THE 25

1 MODEL IS STRONGLY REJECTED. SO LET ME JUST MAKE SURE I REPEAT 2 THAT. THE TEST THAT I CONDUCTED STRONGLY REJECTS THE 3 HYPOTHESIS THAT THE SAME REGRESSION MODEL IS SUITABLE FOR ALL 4 DIRECT PURCHASERS OF A GIVEN DEFENDANT, AND THAT TEST STRONGLY 5 REJECTED FOR EACH OF THE THREE REGRESSION MODELS. 6 AND WHAT DOES IT MEAN AS A MATTER OF ECONOMICS TO STRONGLY Ο. 7 REJECT AN ASSUMPTION, AS YOU JUST DESCRIBED? 8 Δ YES. SO WHEN I USE THE WORD STRONGLY, THAT ALSO IS COMING 9 FROM HOW IT'S USED IN THE PROFESSION, THAT TERM. SO THERE'S A LEVEL OF STATISTICAL SIGNIFICANCE WHICH YOU CAN LOOK AT TO 10 DETERMINE WHETHER A HYPOTHESIS IS REJECTED WEAKLY OR STRONGLY. 11 12 IN THIS CASE, WITH RESPECT TO THE RESULTS OF THE CHOW TEST, THE 13 STATISTICAL SIGNIFICANCE LEVEL IS EXTREMELY HIGH AT WHICH YOU REJECT THE CHOW TEST. SO IT'S ACTUALLY LESS THAN .01 PERCENT, 14 15 THE SIGNIFICANCE LEVEL, AND SO THAT'S WHY I SAY THAT THE 16 HYPOTHESIS IS STRONGLY REJECTED. AND WHAT, IF ANY, CONCLUSIONS DO YOU DRAW FROM THE RESULTS 17 Ο. 18 OF THE CHOW TEST THAT YOU RAN? SO THE RESULTS OF THE CHOW TEST TELL US THAT AN APPROACH 19 LIKE DR. SUNDING'S WHERE HE POOLS TOGETHER ALL THE DIFFERENT 20 21 DIRECT PURCHASERS FOR A GIVEN DEFENDANT IS INVALID. INSTEAD, 22 IT MUST BE THE CASE THAT HE NEEDS TO ALLOW FOR DIFFERENT REGRESSION MODELS FOR THE UNDERLYING DIRECT PURCHASERS. 23 24 AND I WANT TO SHOW YOU AN EXCERPT FROM DR. SUNDING'S REPLY 25 REPORT.

1 MR. MICHAEL: CAN I HAVE SLIDE NUMBER SEVEN, PLEASE, 2 MR. SHAW? (CONTINUING) NOW, DR. SUNDING WRITES AT FOOTNOTE 17 TO 3 4 HIS REPLY REPORT THAT THIS TEST, REFERRING TO THE CHOW TEST, HE 5 DOES NOT TEST WHETHER OR NOT SOME BUYERS HAVE NO OVERCHARGES, 6 WHICH IS THE RELEVANT ISSUE FOR CLASS CERTIFICATION. DO YOU 7 RECALL SEEING THAT IN DR. SUNDING'S REPORT? 8 Α. I DO. AND JUST AS A MATTER OF ECONOMETRICS, WOULD IT BE THEORETICALLY POSSIBLE FOR THE CHOW TEST TO REJECT POOLING EVEN 10 IF ALL THE BUYERS IN THE PROPOSED CLASS IN FACT DID HAVE SOME 11 12 LEVEL OF OVERCHARGE? 13 YES, IT IS THEORETICALLY POSSIBLE, ABSOLUTELY, THAT THE CHOW TEST WOULD REJECT POOLING OF THE DIRECT PURCHASERS INTO A 14 15 SINGLE MODEL EVEN IF ALL OR MOST OR ALL OF THE DIRECT 16 PURCHASERS IN FACT HAD OVERCHARGES. THAT'S CORRECT. O. AND WE'LL GET TO THIS IN JUST A MINUTE IN SOME MORE 17 18 DETAIL, BUT TO BE CLEAR, IS THAT YOUR UNDERSTANDING OF WHAT'S 19 GOING ON HERE? A. NO. THAT IS NOT WHAT'S GOING ON HERE, BECAUSE YOU DON'T 20 JUST DO THE TEST AND STOP. THE NEXT STEP WAS TO LOOK AT THE 21 22 RESULTS OF WHAT THE CHOW TEST TELLS YOU. AND IN YOUR OPINION AS AN ECONOMIST, DOES THAT THEORETICAL 23 24 POSSIBILITY MAKE THE APPLICATION OF THE CHOW TEST IRRELEVANT IN THIS CASE? 25

1 NO, IT DOES NOT. THE CHOW TEST IS TESTING THAT PARTICULAR 2 PROPOSITION, WHETHER IT'S APPROPRIATE TO COMBINE THE EXPERIENCES OF THE DIFFERENT DIRECT PURCHASERS AND IN FACT THEN 3 4 RELY ON A SINGLE AVERAGE EFFECT AND HOLD THAT OUT AS SOMETHING 5 THAT IN FACT APPLIES TO ALL OR VIRTUALLY ALL DIRECT PURCHASERS, AND THAT IS THE HYPOTHESIS THAT'S BEING TESTED. ONCE THE CHOW 6 7 TEST REJECTS AND SAYS IT'S INAPPROPRIATE TO POOL THEIR EXPERIENCES, THAT TELLS YOU THAT THERE IS NO VALID STATISTICAL 8 9 BASIS TO COMBINE THEM INTO A SINGLE MODEL. NOW, DID YOU GO ON TO DO ANY OTHER TESTS TO ADDRESS WHAT 10 DR. SUNDING SAYS IS THE RELEVANT ISSUE HERE FOR CLASS 11 CERTIFICATION, NAMELY, WHETHER OR NOT SOME BUYERS HAD NO 12 13 OVERCHARGES? YES, I DID. I LOOKED AT THE RESULTS WHICH COME OUT OF THE 14 15 CHOW TEST, AND THESE ARE THE RESULTS OF THE INDIVIDUAL REGRESSIONS. 16 17 Q. LET'S GO TO SLIDE EIGHT, PLEASE. AND THAT'S WHAT YOU 18 REFER TO HERE AS THE RESULTS OF DR. SUNDING'S OVERCHARGE REGRESSIONS APPLIED TO INDIVIDUAL BUYERS? 19 YES, AND I JUST WANT TO MAKE SURE THAT WE'RE CLEAR ABOUT 20 WHAT THIS IS. SO WHEN THE CHOW TEST IS CONDUCTED, IT'S TESTING 21 22 WHETHER DR. SUNDING'S MODEL, WHICH IS THE SINGLE MODEL POOLED ACROSS ALL DIRECT PURCHASERS, WHETHER THAT IS THE APPROPRIATE 23 24 APPROACH, WHICH YIELDS AVERAGE EFFECTS, OR WHETHER INSTEAD A DIFFERENT REGRESSION MODEL IS REQUIRED FOR THE UNDERLYING 25

PURCHASERS. THAT IS THE TEST THAT IS BEING -- THAT'S THE 1 HYPOTHESIS THAT'S BEING TESTED. ONCE YOU'VE CONDUCTED THAT 2 TEST, YOU HAVE THE RESULTS OF ALL THE INDIVIDUAL BUYER 3 4 REGRESSIONS, WHICH THEN YOU CAN TURN TO LOOK AT TO SEE WHAT THE 5 RESULTS WERE LIKE. AND DID YOU INCLUDE YOUR FINDINGS FROM THAT EXAMINATION OF 6 Ο. 7 THE INDIVIDUAL RESULTS IN YOUR EXPERT REPORT? 8 Α. I DID, YES. MR. MICHAEL: SLIDE NINE, PLEASE, MR. SHAW. ARE THESE THE RESULTS OF YOUR TESTS? 10 YES, THEY ARE. THIS IS ACTUALLY A SUMMARY OF THE 11 Α. OVERCHARGE VARIABLE. 12 13 OKAY. AND THERE ARE A LOT OF NUMBERS ON THIS SLIDE, SO I WANT TO TRY TO BREAK THIS DOWN AND HIGHLIGHT WHAT YOU BELIEVE 14 15 TO BE MOST IMPORTANT FOR THE COURT. SO WHY DON'T WE WALK 16 THROUGH THIS DEFENDANT BY DEFENDANT? 17 MR. MICHAEL: NEXT SLIDE, PLEASE, MR. SHAW. 18 (CONTINUING) NOW, WHAT DID YOU FIND WHEN YOU EXAMINED THE 19 INDIVIDUAL REGRESSION RESULTS FOR BUMBLE BEE? SO WHAT I FOUND WAS THAT, WHEN I LOOK AT THE RESULTS FOR 20 BUMBLE BEE, IT SHOWS ME THAT THERE IS NO STATISTICAL PROOF OF 21 22 INJURY TO NUMEROUS DIRECT PURCHASERS. SPECIFICALLY WHAT I FOUND WAS THAT, FOR 35.5 PERCENT OF DIRECT PURCHASERS BUYING 23 24 FROM BUMBLE BEE, THERE WAS NO POSITIVE AND STATISTICALLY SIGNIFICANT OVERCHARGE. 25

1 OKAY. AND I NOTICE YOU HAVE THIS PINK SLIVER OF THE PIE 2 AT 12 PERCENT THAT SAYS NOT ESTIMATED. CAN YOU EXPLAIN WHAT 3 THAT MEANS? 4 SURE. WHEN THIS IS APPLIED TO THESE INDIVIDUAL 5 PURCHASERS, THERE ARE SOME FOR WHICH THE REGRESSION MODEL CANNOT ESTIMATE. I THINK THIS HAD COME UP BRIEFLY YESTERDAY AS 6 7 WELL. ONE REASON WHY THIS COMES UP, AND THAT'S THE PRIMARY 8 REASON, IS WHEN THE DIRECT PURCHASER IN QUESTION HAS NO SALES TRANSACTIONS IN THE COMPETITIVE BENCHMARK. SO TO BE CLEAR, DID YOU MAKE A CHOICE NOT TO ESTIMATE 10 RESULTS FOR THOSE 12 PERCENT OF DIRECT PURCHASERS? 11 A. NO. THIS IS THE -- REMEMBER, THIS ENTIRE EXERCISE IS 12 13 ABOUT, AND BY THAT I MEAN THE REGRESSION MODEL THAT IS DR. SUNDING'S THAT'S BEEN PUT FORWARD, THIS IS THE BEFORE, DURING 14 15 AND AFTER APPROACH, AND SO WHEN THAT PARTICULAR APPROACH IS 16 TESTED FOR THESE DIRECT PURCHASERS, TO THE EXTENT A PARTICULAR 17 DIRECT PURCHASER DOES NOT HAVE ANY TRANSACTIONS OR DOES NOT BUY 18 FROM THE DEFENDANT IN THE BENCHMARK PERIOD, THEN THERE ARE NO 19 SALES OR NO TRANSACTIONS TO COMPARE THE PROPOSED CLASS PERIOD PURCHASES WITH. 20 21 Ο. SLIDE 11, PLEASE. WHAT DID YOU FIND WERE THE RESULTS FOR 22 CHICKEN OF THE SEA FROM THIS TEST? SO CHICKEN OF THE SEA, SIMILARLY, THE RESULTS SHOW THAT 23 24 31.1 PERCENT OF DIRECT PURCHASERS SHOW NO POSITIVE AND STATISTICALLY SIGNIFICANT OVERCHARGE. 25

1 SLIDE 12, PLEASE. AND HOW ABOUT FOR STARKIST? WHAT WERE 2 THE RESULTS THERE? FOR STARKIST, THIS TESTING SHOWED THAT 27.1 PERCENT OF 3 4 DIRECT PURCHASERS FROM STARKIST SHOWED NO POSITIVE AND 5 STATISTICALLY SIGNIFICANT OVERCHARGE. NOW, THESE RESULTS ARE ALL PERCENTAGES OF DIRECT 6 Ο. 7 PURCHASERS FOR WHOM YOU FOUND NO POSITIVE AND STATISTICALLY 8 SIGNIFICANT OVERCHARGE. CAN YOU EXPLAIN HOW, IF AT ALL, THOSE 9 RESULTS RELATE TO THE INDIRECT PURCHASES, THE END-PAYER PLAINTIFFS, WHO ARE THE PLAINTIFFS IN THIS CASE? 10 11 Α. SURE. GIVEN THAT I FIND THAT THE TESTING SHOWS A 12 SUBSTANTIAL PROPORTION OF DIRECT PURCHASERS WITH NO POSITIVE 13 AND STATISTICALLY SIGNIFICANT OVERCHARGE WHEN DR. SUNDING'S REGRESSION MODEL IS APPLIED TO THEM, WHAT THAT TELLS YOU IS 14 15 THAT THERE IS NO PROOF OF AN OVERCHARGE FOR THEM. IF THERE'S 16 NO OVERCHARGE FOR A DIRECT PURCHASER, THEN THERE IS NO 17 OVERCHARGE TO PASS THROUGH DOWN THE DISTRIBUTION CHAIN TO THE 18 INDIRECT PURCHASERS. 19 Ο. NOW, YOU WERE IN THE COURTROOM WHEN DR. SUNDING TESTIFIED EARLIER TODAY? 20 Α. 21 YES. 22 AND I'D LIKE TO ASK YOU, IS IT THE CASE THAT THESE RESULTS THAT YOU'VE JUST FINISHED DISCUSSING CAN BE ATTRIBUTED TO THE 23 24 FACT, TO CUSTOMERS WITH WHAT DR. SUNDING REFERRED TO AS HAVING HARDLY ANY DATA? IS THAT WHAT IS DRIVING THE RESULTS OF THIS 25

1 TEST THAT YOU JUST DESCRIBED? 2 NO, AND I'M GLAD YOU ASKED ME THAT, BECAUSE I THINK THAT'S A VERY IMPORTANT ISSUE THAT I WANT TO MAKE SURE IS CLEAR. WHEN 3 4 THE -- AND BY NO MEANS DO THE RESULTS THAT WE'RE LOOKING AT 5 HERE, ARE THEY IN FACT DRIVEN BY THE SMALL PURCHASERS WHO DID NOT BUY VERY MUCH DURING THE PROPOSED CLASS PERIOD. SO WHAT I 6 7 FOUND WITH THE TESTING IS THAT THERE WERE NUMEROUS LARGE 8 PURCHASERS. SO WE'RE TALKING ABOUT PURCHASERS WITH, YOU KNOW, THOUSANDS OF SALES TRANSACTIONS, AND FOR THOSE PURCHASERS THIS TESTING SHOWS FOR MANY OF THEM THAT THERE WAS NO POSITIVE AND 10 STATISTICALLY SIGNIFICANT OVERCHARGE WHEN I TESTED HIS MODEL. 11 SO WHAT THAT TELLS YOU IS THAT THIS CONCERN THAT'S BEEN 12 13 DISCUSSED ABOUT SAMPLE SIZE, THAT THAT IS NOT WHAT'S DRIVING THIS. WHEN I LOOK AT THE TOP CUSTOMERS, OR EVEN IF I LOOK AT 14 CUSTOMERS WHO HAD AT LEAST, SAY, 25 PURCHASES, EVEN THEN THE 15 16 RESULTS ARE VERY SIMILAR IN THAT, HOWEVER I CUT IT AND I LOOK AT THE RESULTS, IT SHOWS ME THAT THERE ARE SUBSTANTIAL 17 18 PROPORTIONS EVEN AMONGST THE TOP 100 WHERE THERE WAS NO POSITIVE AND STATISTICALLY SIGNIFICANT OVERCHARGE. 19 DR. SUNDING ALSO SAID AS PART OF HIS CRITICISM THAT YOU 20 RAN MORE THAN ONE REGRESSION PER CUSTOMER FOR SOME CUSTOMERS. 21 22 CAN YOU EXPLAIN WHY YOU DID THAT? YES. I HEARD DR. SUNDING SAY THAT. I WANT TO MAKE SURE 23 24 AGAIN ON THAT POINT, TOO, THAT WE'RE VERY CLEAR. SO, AS WE DISCUSSED A LITTLE BIT AGO, FROM THE GET-GO, DR. SUNDING HAS 25

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THREE REGRESSION MODELS. SO, TO THE EXTENT THERE IS A DIRECT PURCHASER THAT IS BUYING FROM ALL THREE DEFENDANTS, DR. SUNDING HAS THREE SEPARATE REGRESSION MODELS FOR THAT PURCHASER. IT'S NOT THE CASE THAT I HAVE THREE SEPARATE REGRESSION MODELS FOR EACH DIRECT PURCHASER. THAT'S THE METHOD THAT HE HAS PUT FORWARD. I AM THEN TESTING WHETHER THE AVERAGE EFFECTS OF THE POOLED MODEL, WHETHER THOSE HOLD FOR THE DIRECT PURCHASERS THAT ARE CONTAINED WITHIN THE POOLED MODEL, AND SO TO THE EXTENT THAT A DIRECT PURCHASER WILL SHOW UP IN THREE REGRESSION MODELS IS A FUNCTION OF HIS SETUP IN THE FIRST PLACE, BECAUSE HE HAS THREE MODELS FOR THEM TO BEGIN WITH. OKAY. NOW, YOU REFERENCED SEVERAL LARGE CUSTOMERS THAT YOU FOUND IN THESE RESULTS. HAVE YOU COLLECTED SOME EXAMPLES OF THOSE? Α. I HAVE. Q. SLIDE 13, PLEASE. NOW, JUST TO BE CLEAR, ARE THESE ALL OF THE LARGE PURCHASERS FOR WHICH YOU FOUND NO STATISTICAL PROOF OF OVERCHARGE? NO. THESE ARE JUST SOME EXAMPLES BASED ON THE TESTING. OF COURSE, WE CAN RECOGNIZE MANY NAMES HERE, HOUSEHOLD NAMES THAT WE ALL TURN TO FREQUENTLY. SO AMAZON, TRADER JOE'S, CVS. THERE ARE SEVERAL OTHER CUSTOMERS LISTED HERE. BUT THIS IS JUST AN EXAMPLE OF SOME OF THE LARGE PURCHASERS WHICH APPEARED WITH NO STATISTICALLY SIGNIFICANT OVERCHARGE WHEN I TESTED DR. SUNDING'S APPROACH.

1 AND WERE THERE ANY LARGE PURCHASERS FOR WHICH YOU FOUND 2 NEGATIVE OVERCHARGES WHEN YOU RAN YOUR TEST? I DID. 3 Α. LET'S GO TO SLIDE 14, PLEASE. NOW, CAN YOU EXPLAIN WHAT 5 IT MEANS TO HAVE A NEGATIVE OVERCHARGE? YES. SO, GENERALLY SPEAKING, A NEGATIVE OVERCHARGE MEANS 6 Α. 7 THAT THE REGRESSION MODEL IS TELLING YOU THAT THE PRICE THE 8 CUSTOMER PAID DURING THE PROPOSED CLASS PERIOD IS IN FACT LOWER 9 THAN THE PRICE THE CUSTOMER WOULD HAVE PAID ABSENT THE ALLEGED CONDUCT. THAT'S THE GENERAL INTERPRETATION OF A NEGATIVE WHEN 10 YOU SEE ONE IN THIS TESTING. 11 12 AND DID ANY OF THE NEGATIVES THAT YOU FOUND, WERE THE 13 RESULTS FOR ANY OF THOSE BOTH NEGATIVELY AND STATISTICALLY 14 SIGNIFICANT? 15 YES. SO THE CUSTOMERS THAT ARE HIGHLIGHTED IN YELLOW, AND AGAIN THESE ARE JUST SOME EXAMPLES. THE CUSTOMERS HIGHLIGHTED 16 17 IN YELLOW SHOW OVERCHARGES THAT WERE NEGATIVE AND STATISTICALLY 18 SIGNIFICANT BASED ON THE TEST THAT WE'VE BEEN DISCUSSING. 19 YOU HEARD DR. SUNDING REFER EARLIER TO PURCHASERS WITH SMALL NUMBERS OF OBSERVATIONS. FIRST OF ALL, CAN YOU EXPLAIN 20 WHAT IT MEANS TO HAVE A SMALL NUMBER OF OBSERVATIONS IN A DATA 21 SET LIKE THIS? 22 YES. SO I HEARD DR. SUNDING TALK ABOUT VERY FEW DATA 23 POINTS AND HOW, YOU KNOW, HOW THAT'S -- I FORGET THE EXACT 24 WORDS THAT HE'S USED, BUT THE CONCERNS THAT THAT WILL RAISE 25

WHEN ONE'S CONDUCTING REGRESSION ANALYSIS. AND SO JUST GOING
BACK TO WHAT I SAID OR TRIED TO EXPLAIN A FEW MOMENTS AGO, I
THINK WITH RESPECT TO ANY REGRESSION ANALYSIS, THE KEY QUESTION
IS, WHAT ARE THE ASSUMPTIONS BUILT IN THE REGRESSION MODEL?
ALL REGRESSION MODELS WILL HAVE SOME ASSUMPTIONS BUILT IN THEM.
DR. SUNDING'S REGRESSION MODEL ASSUMES THAT THE AVERAGE EFFECT
HOLDS FOR THE UNDERLYING DIRECT PURCHASERS, AND THAT'S WHAT WE
ARE TESTING.

NOW, WHEN I DO THE TESTING AND I FIND THAT YOU SEE A RANGE
OF DIFFERENT EXPERIENCES IN TERMS OF HOW THE CUSTOMERS
RESPONDED DURING THE ALLEGED CONDUCT, USING HIS REGRESSION
MODEL, I FIND SOME WITH NEGATIVES FROM THAT TESTING. I FIND
SOME WITH NO POSITIVE AND STATISTICALLY SIGNIFICANT OVERCHARGE.
AND WHEN I LOOK AT THE SAMPLE SIZES, IT'S NOT THE CASE THAT
THIS IS BEING DRIVEN BY THOSE PURCHASES, PURCHASERS -- EXCUSE
ME -- THAT HAD VERY FEW SALES.

I ALSO WANT TO MAKE A POINT ABOUT, JUST GENERALLY, THIS

NOTION OF FEW PURCHASES. IF A DIRECT PURCHASER DOES NOT BUY

VERY MUCH FROM THE DEFENDANTS, SO, YOU KNOW, YOU SAY THIS

PURCHASER DIDN'T BUY TUNA VERY MUCH FROM THEM, THEN THAT'S WHY

THERE ARE FEW DATA POINTS. IT'S NOT THE CASE THAT THERE ARE

RESTRICTIONS BEING MADE SUCH THAT THE SAMPLE SIZE BECOMES

SMALL. THE SAMPLE SIZE PURELY JUST REFLECTS THE SALE, HOW MANY

TIMES OR HOW OFTEN A DIRECT PURCHASER BOUGHT FROM ONE OF THE

DEFENDANTS.

SO THESE NEGATIVES THAT YOU FOUND, WERE THOSE ALL MADE UP 1 2 OF PURCHASERS WITH SMALL SAMPLE SIZES OR SMALL NUMBERS OF OBSERVATIONS? 3 4 NO. IN FACT, FOOD LION IS IN THE YELLOW HIGHLIGHTS. FOOD 5 LION, DOLLAR GENERAL. THESE ARE ALL LARGE CUSTOMERS WITH PLENTY OF PURCHASES, AND YET THE TESTING SHOWS THAT HIS MODEL 6 7 YIELDS A NEGATIVE EFFECT FOR THEM. 8 AND AGAIN THE PURCHASERS THAT YOU'VE LISTED ON THESE 9 SLIDES, ARE THESE ALL OF THE NEGATIVES THAT YOU FOUND OR JUST EXAMPLES? 10 Α. THESE ARE JUST EXAMPLES. 11 NOW, DR. SUNDING DESCRIBED WHAT HE CALLED SOME SENSITIVITY 12 13 ANALYSIS THAT HE RAN FOR WAL-MART. DID YOU CONSIDER THAT ANALYSIS AS PART OF YOUR WORK IN THIS CASE? 14 15 Α. I DID. 16 DID DR. SUNDING, WHEN HE PRODUCED HIS INITIAL EXPERT 17 REPORT OR HIS REPLY REPORT, DID HE RUN THE SAME KIND OF 18 SENSITIVITY ANALYSIS FOR ANY CUSTOMER BESIDES WAL-MART? IN HIS REPORT, NO, HE DID NOT. 19 Α. DID YOU DO THAT? 20 0. I DID. I SAW DR. SUNDING'S SENSITIVITY ANALYSIS, AND I 21 Α. 22 SAW THAT WHAT HE DID IN THAT WAS THAT HE SAID THAT HE WILL TAKE HIS POOLED MODEL AND BREAK OUT THE EFFECT OF THE, OR ALLOW THE 23 24 OVERCHARGE TO BE DIFFERENT FROM WAL-MART, FOR WAL-MART AS COMPARED TO ALL OTHER CUSTOMERS, BUT HE'S KEPT ALL THE OTHER 25

1 CUSTOMERS COMBINED. I LOOKED AT THOSE RESULTS. THE FIRST 2 THING I SEE IS THAT IN FACT HE DOES FOR STARKIST. WAL-MART HAS 3 A MUCH SMALLER ESTIMATED OVERCHARGE, JUST LOOKING AT HIS 4 RESULTS, THAN IS THE CASE FOR, THAN THE AVERAGE THAT HE HAD 5 HELD OUT FOR ALL OF THEM AND FOR ALL OTHER CUSTOMERS COMBINED. 6 AND SO WHAT I DID WAS, I SAID, OKAY, I CAN IN FACT TEST HOW THE 7 OVERCHARGE VARIES, IF IT DOES, FOR ALL THE OTHER DIRECT 8 PURCHASERS OF A GIVEN DEFENDANT. 9 OKAY. AND LET'S PUT UP SLIDE 15, PLEASE. THIS IS WHAT YOU'RE REFERRING TO AS TEST NUMBER THREE HERE? 10 Α. THAT'S CORRECT. 11 AND I WANT TO BE CLEAR. YOU SAID YOU CAN TEST HOW THE 12 13 OVERCHARGE VARIES FOR ALL OTHER CUSTOMERS. WHY DID YOU DO THIS 14 TEST? 15 I DID THIS TEST BECAUSE DR. SUNDING SAID THAT IF HE SEES 16 THAT WAL-MART SHOWS UP WITH AN OVERCHARGE, THEN THAT IS 17 SUFFICIENT TO TELL HIM THAT, OR IT HELPS HIM CONCLUDE THAT ALL 18 OR VIRTUALLY ALL DIRECT PURCHASERS SUSTAINED OVERCHARGES, BUT THERE'S NO, THERE'S NO SCIENTIFIC BASIS TO SAY YOU WILL TEST 19 FOR WAL-MART, BUT YOU WILL NOT TEST IT FOR ALL OTHER CUSTOMERS. 20 SO IT'S A NATURAL PROCESS IN TESTING THAT YOU WILL PUT THAT 21 22 HYPOTHESIS TEST UP AND SEE WHAT THE RESULTS WOULD BE. DID YOU INCLUDE THOSE RESULTS IN YOUR EXPERT REPORT? 23 Q. I DID. 24 Α. SLIDE 16, PLEASE. HOW SIMILAR OR DIFFERENT ARE THESE 25 Ο.

RESULTS FROM THE ONES YOU GOT WHEN YOU LOOKED AT THE INDIVIDUAL 1 2 REGRESSIONS THAT YOU TALKED ABOUT IN TEST NUMBER TWO? 3 SO, GENERALLY, THE RESULTS ARE SIMILAR. THEY YIELD THE 4 SAME CONCLUSION. SO IN THIS CASE, EXTENDING DR. SUNDING'S 5 ANALYSIS, HIS SENSITIVITY ANALYSIS FOR WAL-MART AND ALLOWING 6 FOR THE POSSIBILITY THAT OTHER DIRECT PURCHASERS COULD ALSO 7 HAVE OVERCHARGES THAT ARE DIFFERENT FROM THE AVERAGE THAT HE 8 HAD CALCULATED AND DIFFERENT FROM THE ONES HE'S COMBINED, THE RESULTS IN FACT COME OUT VERY CONSISTENT WITH WHAT I SAW EARLIER WHERE YOU SEE IN FACT FOR EACH DEFENDANT THAT THERE IS 10 SUBSTANTIAL PROPORTION WITH NO POSITIVE AND STATISTICALLY 11 12 SIGNIFICANT OVERCHARGES. 13 AND DID YOU CONSIDER WHETHER THESE RESULTS OF EXTENDING 14 DR. SUNDING'S WAL-MART ANALYSIS ARE BEING DRIVEN BY SMALL 15 CUSTOMERS OR CUSTOMERS WITH LIMITED DATA? 16 Α. I DID LOOK AT THAT, AND HERE AS WELL I FOUND THAT IT IS 17 THE CASE THAT THERE ARE NUMEROUS LARGE PURCHASERS WITH MANY 18 TRANSACTIONS WHERE YOU SEE NO POSITIVE AND STATISTICALLY 19 SIGNIFICANT OVERCHARGE. SO IT'S NOT -- THIS AGAIN IS NOT RESTRICTED TO SMALL PURCHASERS. 20 21 SLIDE 17, PLEASE. AND ARE THESE SOME EXAMPLES OF LARGE PURCHASERS THAT YOU FOUND IN YOUR, IN THE RESULTS FROM YOUR 22 EXTENSION OF DR. SUNDING'S WAL-MART ANALYSIS? 23 24 YES, THAT'S CORRECT. SO THE CUSTOMERS LISTED HERE, AGAIN, YOU KNOW, WE RECOGNIZE THESE CUSTOMERS BY NAME. THEY'RE LARGE 25

1 CUSTOMERS OF COSTCO. KROGER AND GIANT EAGLE ARE ALSO IN FACT 2 HIGHLIGHTED IN YELLOW. THOSE IN FACT SHOWED NEGATIVE AND STATISTICALLY SIGNIFICANT OVERCHARGE ESTIMATES WHEN I DID THIS 3 4 TESTING. 5 NOW, I WANT TO ASK YOU ABOUT COSTCO SPECIFICALLY. DO YOU RECALL HEARING DR. SUNDING TALK ABOUT COSTCO HAVING ONLY FOUR 6 7 OBSERVATIONS FOR STARKIST DURING THE CLASS PERIOD? 8 Α. YES, I DID HEAR HIM. 9 AND ARE THESE NEGATIVE RESULTS THAT YOU ARE REPORTING HERE LIMITED TO STARKIST? 10 NO, NOT AT ALL. IN FACT, COSTCO IS BUMBLE BEE'S SECOND 11 Α. TOP CUSTOMER, AND THIS RESULT THAT I'VE NOTED HERE, I SEE IT 12 13 FOR STARKIST, AS THE FOOTNOTE INDICATES, BUT I SEE THAT RESULT FOR BUMBLE BEE WHERE COSTCO IS BUYING, ESSENTIALLY BUYING A LOT 14 15 FROM THEM. 16 Q. NOW, IN RESPONSE TO DR. SUNDING'S REPLY REPORT, DID YOU DO 17 ANY FURTHER TESTING TO ADDRESS WHAT HE HAD SAID WAS THE 18 RELEVANT ISSUE OF WHETHER OR NOT SOME BUYERS HAVE NO 19 OVERCHARGE? YES, I DID. I DID SOME ADDITIONAL TESTING, AND I THINK 20 DR. SUNDING REFERRED TO IT THIS MORNING. 21 22 LET'S GO TO SLIDE 18, PLEASE. AND DESCRIBE WHAT YOU DID Q. FOR TEST NUMBER FOUR, PLEASE, DR. HAIDER. 23 YES. SO, UNLIKE TEST NUMBER THREE, WHERE TEST NUMBER 24 THREE TAKES DR. SUNDING'S SENSITIVITY ANALYSIS, WHERE HE ONLY 25

BREAKS OUT WAL-MART, AND AS I DESCRIBED, I BREAK OUT ALL THE 1 2 OTHER DIRECT PURCHASERS AS WELL TO SEE IF THERE IS IN FACT, IF THERE ARE IN FACT DIFFERENT RESULTS FOR THEM. TEST NUMBER 3 4 FOUR, WHAT IT DOES IS IT SAYS, OKAY, I WILL TAKE WHAT DR. 5 SUNDING DID, AND I PROVIDED AN ILLUSTRATION WITH THREE CUSTOMERS, AND SO WHAT I DO IS I DO EXACTLY WHAT HE DID FOR 6 7 WAL-MART WHERE HE ONLY BREAKS OUT THE ONE CUSTOMER AND KEEPS 8 EVERYBODY ELSE COMBINED. I DID THAT FOR THREE CUSTOMERS AS AN ILLUSTRATION. LET'S GO TO SLIDE 19, PLEASE. AND ARE THESE THE THREE 10 11 CUSTOMERS THAT YOU WERE REFERRING TO? A. YES. THESE ARE THREE EXAMPLES, AND THESE ARE THE THREE 12 13 THAT I THINK DR. SUNDING TALKED ABOUT EARLIER TODAY. AND YOU GOT NEGATIVES FOR ALL THREE OF THESE? 14 0. 15 YES. FOR THESE THREE, WHEN THAT PARTICULAR TEST IS 16 CONDUCTED IN THE SAME STYLE AS DR. SUNDING, IT YIELDS NEGATIVE 17 EFFECTS. THAT'S CORRECT. AND AGAIN FOR COSTCO HERE, JUST TO BE CLEAR, ARE THESE 18 RESULTS FOR COSTCO LIMITED TO STARKIST? 19 NO. THESE RESULTS ARE IN FACT COSTCO'S PURCHASES FROM 20 BUMBLE BEE, SO THAT'S WHERE COSTCO BUYS A LOT OF THEIR PRODUCT. 21 OKAY. AND OTHER THAN RUNNING THE TESTS FOR THESE THREE 22 Ο. CUSTOMERS INSTEAD OF JUST FOR WAL-MART, WERE THERE ANY OTHER 23 CHANGES THAT YOU MADE TO DR. SUNDING'S WAL-MART SENSITIVITY 24 ANALYSIS WHEN YOU DID THIS TEST? 25

NO, I MADE NO OTHER CHANGES. ALL THIS IS DOING IS, IT'S 1 2 ILLUSTRATING THAT, HAD DR. SUNDING LOOKED AT ADDITIONAL CUSTOMERS, NOT JUST WAL-MART, THAT TESTING IN FACT SHOWS YOU 3 4 THAT THERE ARE IN FACT INSTANCES HERE WHERE THAT SAME APPROACH 5 OF HIS WOULD YIELD A NEGATIVE ESTIMATE. NOW, DID YOU HEAR DR. SUNDING EARLIER TODAY DESCRIBE SOME 6 0. 7 NEW ANALYSIS THAT HE DID IN RESPONSE TO YOUR TEST NUMBER FOUR? 8 Α. YES, I DID. WHEN DID YOU RECEIVE THAT ANALYSIS? Ο. Α. I BELIEVE IT WAS TWO DAYS AGO. 10 OKAY. SO SUNDAY NIGHT? 11 Q. YES, THAT'S CORRECT. 12 Α. 13 Q. SO YOU HAVE NOT HAD A LOT OF TIME, BUT HAVE YOU HAD A CHANCE TO REVIEW THAT ANALYSIS? 14 15 Α. I HAVE. OKAY. NOW, BEFORE WE GET INTO THAT, HAS DR. SUNDING DONE 16 Q. 17 OR SAID ANYTHING TO SUGGEST THAT WHEN YOU JUST REPLICATED HIS 18 WAL-MART ANALYSIS AND APPLIED IT TO THESE THREE OTHER CUSTOMERS, DOES HE CONTEST THAT YOU COME UP WITH NEGATIVES? 19 Α. HE DOES NOT. 20 OKAY. SO, WITH THAT, CAN YOU PLEASE DESCRIBE YOUR 21 22 UNDERSTANDING OF WHAT DR. SUNDING'S NEW ANALYSIS DID? YES. SO MY UNDERSTANDING FROM LOOKING AT THE WORK THAT 23 DR. SUNDING PUT FORWARD TWO DAYS AGO IS THAT HE CONDUCTS THIS 24 TEST, HIS WAL-MART-STYLE TEST, FOR THE TOP TEN CUSTOMERS OF 25

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EACH DEFENDANT, AND SO THAT'S 30 DIFFERENT TESTS, AND WHAT HE FINDS WHEN HE DOES THAT IS THAT THERE ARE -- OF COURSE, HE FINDS COSTCO, AND HE FINDS SOME OTHERS, RALPH'S, WAKEFERN, PIGEON. HE FINDS FOR SOME OF THOSE CUSTOMERS THAT THAT METHOD YIELDS A NEGATIVE EFFECT, MUCH LIKE WE'RE SEEING HERE. OKAY. SO, HAVING FOUND THAT REPLICATING THAT WAL-MART Ο. ANALYSIS YIELDS A NEGATIVE EFFECT FOR THE CUSTOMERS THAT YOU JUST MENTIONED, WHAT'S YOUR UNDERSTANDING OF WHAT DR. SUNDING DID NEXT IN THAT NEW ANALYSIS? SO WHAT DR. SUNDING DID NEXT WAS, HE MADE A CHANGE TO HIS REGRESSION MODEL FOR THOSE INSTANCES WHERE HE SAW A NEGATIVE. SO HE LOOKS AT THE TOP TEN CUSTOMERS. WHEN HE FINDS A NEGATIVE ESTIMATE, HE MAKES A CHANGE TO HIS REGRESSION MODEL. AND WHAT HAPPENED WHEN HE MADE THAT CHANGE TO HIS MODEL? 0. SO HE MADE A PARTICULAR CHANGE FOR SOME OF THE CUSTOMERS. HE DID NOT MAKE THAT SAME CHANGE TO TARGET. SO FOR TARGET HE MADE A DIFFERENT CHANGE. BUT FOR FOUR OF THEM, WHAT HE DID --RALPH'S, WAKEFERN, PIGEON, AND ALSO COSTCO -- WHAT HE DID WAS, HE SAID, HE ALLOWED THE EFFECT OF PACKAGE SIZE, THAT HE PREVIOUSLY HAD THAT VARIABLE IN HIS REGRESSION MODEL. HE ALSO HAD PACKAGE TYPE IN HIS REGRESSION MODEL. HE ALLOWED FOR THE EFFECT OF PACKET SIZE AND PACKAGE TYPE TO HAVE A DIFFERENT EFFECT WHEN IT COMES TO THE PRICES COSTCO PAYS AS COMPARED TO ALL OTHER CUSTOMERS. SO LET ME SLOW DOWN AND EXPLAIN IT AGAIN. SO WHAT DR.

SUNDING DID WAS -- LET'S JUST TAKE COSTCO AS AN EXAMPLE. 1 2 TOOK THE COSTCO REGRESSION. HE SEES A NEGATIVE EFFECT. THEN HE MAKES A CHANGE TO HIS REGRESSION MODEL. WHAT HE SAYS IS, HE 3 4 GOES TO HIS EXPLANATORY VARIABLES, PARTICULARLY THAT ARE 5 PACKAGE TYPE AND PACKET SIZE, AND HE SAYS, I'M GOING TO ALLOW PACKET SIZE AND PACKAGE TYPE TO HAVE A DIFFERENT EFFECT ON THE 6 7 PRICES THAT COSTCO PAID THE DEFENDANT FROM THE EFFECT OF PACKET 8 SIZE AND PACKAGE TYPE FOR THE OTHER CUSTOMERS. SO LET ME MAKE SURE I UNDERSTAND. HE MAKES THIS CHANGE ON THE PACKAGE-SIZE AND PACKAGE-TYPE VARIABLES. HE DOES THAT FOR 10 CERTAIN OF THE NEGATIVES --11 12 Α. THAT'S CORRECT. 13 -- HE FOUND, RIGHT? YOU SAID HE DID NOT DO THAT FOR TARGET? 14 15 NO. SO FOR TARGET HE DOES NOT MAKE THAT PARTICULAR CHANGE. I DON'T KNOW WHY, BUT HE DOES NOT. 16 17 WHAT DID HE DO FOR TARGET? Ο. 18 FOR TARGET, AS HE DESCRIBED EARLIER TODAY, HE, HE CHANGED THE CLASSIFICATION OF THE CUSTOMER. SO PREVIOUSLY WHEN I 19 LOOKED AT HIS WORK, HE HAD CLASSIFIED TARGET AS RETAIL AND 20 SPECIAL MARKET. THAT'S WHAT YOU SAW IN HIS, IN HIS DATA THAT 21 22 HE WAS USING. IN THIS WORK, WHAT HE DID WAS HE, I THINK, CLASSIFIES TARGET AS A RETAILER. 23 24 OKAY. SO FOR TARGET HE MAKES THIS DIFFERENT CHANGE, AND WHAT RESULT DOES HE GET AS A RESULT OF THAT? 25

1 SO WITH TARGET HE GETS -- THE RESULT FLIPS FROM NEGATIVE 2 TO POSITIVE. 3 AND IF HE HAD MADE THE SAME CHANGE FOR TARGET AS HE MADE 4 FOR THE OTHER CUSTOMERS, CONTROLLING FOR PACKAGE SIZE AND 5 PACKAGE TYPE, DO YOU HAVE AN UNDERSTANDING OF WHAT RESULT HE 6 WOULD HAVE GOTTEN THEN? 7 Α. YES. SO, GIVEN THAT HE MAKES THIS OTHER CHANGE WHICH I 8 DESCRIBED WITH RESPECT TO PACKET SIZE AND PACKAGE TYPE FOR THE 9 OTHER CUSTOMERS, FOR TARGET HE DID NOT MAKE THAT CHANGE, AND IN FACT IF YOU MAKE THAT CHANGE, THE RESULT FLIPS BACK FROM 10 POSITIVE TO NEGATIVE. 11 SO, DR. HAIDER, CAN YOU JUST SUMMARIZE, WHAT CONCLUSION DO 12 13 YOU DRAW FROM ALL OF THIS NEW ANALYSIS THAT DR. SUNDING DID? 14 SO WHAT THIS TELLS ME IS THAT, FIRST, DR. SUNDING HAD PUT 15 FORWARD WHAT HE CALLS A COMMON MODEL FOR THESE DIFFERENT 16 DEFENDANTS. WHEN HE DOES THIS ADDITIONAL TESTING FOR PARTICULAR CUSTOMERS AND HE MAKES A FIX BASED ON WHAT HE SEES 17 18 HE NEEDS TO DO, WHAT THAT TELLS YOU IS THAT THAT ORIGINAL 19 COMMON MODEL THAT HE STARTED OUT WITH, THAT THAT IN FACT DOES NOT APPLY TO EACH OF THESE CUSTOMERS. SO, IN OTHER WORDS, WHEN 20 21 HE IS LOOKING CUSTOMER BY CUSTOMER, HE THINKS HE NEEDS TO MAKE 22 SOME OTHER FIX OR SOME OTHER ADJUSTMENT. THAT'S THE FIRST CONCLUSION. SO, IN OTHER WORDS, HIS COMMON METHOD THAT HE SET 23 24 OUT WITH HE THINKS NEEDS TO BE ADAPTED. THE SECOND CONCLUSION IS THAT THE FACT THAT DR. SUNDING IS 25

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SAYING HE NOW -- WHEN HE LOOKS AT THESE PARTICULAR CUSTOMERS, HE IN FACT NEEDS TO ALLOW FOR DIFFERENTIAL PRICE EFFECT FOR THAT CUSTOMER COMPARED TO OTHER CUSTOMERS. WHAT THAT TELLS YOU IS THAT HE IS IN FACT RECOGNIZING THAT HE THINKS THAT THERE'S SOMETHING GOING ON WITH THE PRICING FOR THAT CUSTOMER WHEN IT COMES TO, SAY, PACKET SIZE OR PACKAGE TYPE, AS HE CLAIMS, THAT IS DIFFERENT. AND SO, GIVEN THAT, THERE'S NO VALID BASIS TO ASSUME THAT WHEN IT COMES TO THE OTHER FACTORS HE'S INCLUDED IN HIS MODEL, NOT JUST PACKET SIZE AND PACKAGE TYPE, THAT THOSE CAN ALSO VARY FOR THOSE PARTICULAR CUSTOMERS. AND, IN FACT, THAT IS EXACTLY WHAT I'VE DONE IN THE TESTING THAT WE HAD TALKED ABOUT BEFORE WE GOT TO THIS TEST, BECAUSE I TESTED BASED ON WHAT THE CHOW TEST TELLS YOU, THAT IF THE SAME MODEL DOESN'T HOLD, YOU GET BACK TO THAT POINT. IF YOU THINK THAT THERE ARE DIFFERENTIAL EFFECTS OR YOU ALLOW FOR DIFFERENTIAL EFFECT FOR THE CUSTOMERS AND YOU GET BACK TO WHERE WE, THE RESULTS WE WERE PREVIOUSLY DISCUSSING, WHERE ABOUT A THIRD OF THOSE PURCHASERS DID NOT SHOW A SIGNIFICANTLY SIGNIFICANT OVERCHARGE. SO, TO BE CLEAR, DOES IT MAKE SENSE TO YOU AS AN ECONOMIST TO CONTROL FOR CERTAIN INDIVIDUAL EFFECTS AS DR. SUNDING DID, BUT NOT TO CONTROL FOR OTHERS AS YOU DID IN YOUR TEST NUMBER TWO? SO NOT ONLY DOES IT NOT MAKE SENSE, THERE'S ALSO NO VALID BASIS FOR DOING SO GIVEN THE STATISTICAL TESTING. STATISTICAL TESTING WE DID WHEN I TALKED ABOUT THE CHOW TEST

1 HAS ALREADY ESTABLISHED THAT THESE EFFECTS, THE PRICE EFFECTS 2 VARY NOT JUST IN TERMS OF THE ALLEGED CONDUCT, BUT ALSO IN TERMS OF THE EFFECTS OF THE SUPPLY-AND-DEMAND FACTORS AND THE 3 4 OTHER FACTORS. SO IT DOES NOT MAKE SENSE. 5 NOW, DR. SUNDING CRITICIZED YOUR RESULTS OF YOUR 6 INDIVIDUAL REGRESSIONS FOR FAILING WHAT HE REFERRED TO AS A 7 FALSIFIABILITY TEST. DO YOU RECALL THAT? 8 Α. I DO. 9 AND THAT IS THE TEST WHERE HE ADDED TEN PERCENT ARTIFICIALLY TO EACH CUSTOMER'S PRICES? 10 Α. THAT IS CORRECT. 11 OKAY. NOW, HOW DID THE RESULTS THAT DR. SUNDING GOT FROM 12 13 THAT TEST COMPARE TO WHAT YOU FOUND WHEN YOU RAN YOUR 14 INDIVIDUAL REGRESSION? 15 SO DR. SUNDING FOUND WHEN HE CONDUCTS WHAT HE REFERS TO AS 16 THIS FALSIFIABILITY TEST, WHAT HE FINDS IS THAT WHEN HE IMPOSES AN ARTIFICIAL TEN-PERCENT PRICE INCREASE -- IT'S A MADE-UP 17 18 PRICE INCREASE. WHEN HE IMPOSES THAT ON EACH DIRECT PURCHASER 19 DURING THE PROPOSED CLASS PERIOD, HE SAYS THAT HE FINDS THAT THE INDIVIDUAL REGRESSIONS WILL YIELD LOWER, A SMALLER 20 21 PERCENTAGE WITH NO STATISTICALLY SIGNIFICANT OVERCHARGE, OR 22 EXCUSE ME. LET ME REPEAT THAT. A LARGER PERCENTAGE WITH A 23 POSITIVE AND STATISTICALLY SIGNIFICANT OVERCHARGE, WHICH I 24 ABSOLUTELY WOULD EXPECT. O. OKAY. DOES HE ALSO STILL GET SOME NEGATIVES IN HIS 25

1 RESULTS?

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- A. HE DOES. SO EVEN WITH THIS MADE-UP TEN-PERCENT INCREASE,

  THERE IS, THERE'S STILL A PROPORTION OF CUSTOMERS WITH NO

  POSITIVE AND STATISTICALLY SIGNIFICANT OVERCHARGE OR WITH A

  NEGATIVE OVERCHARGE.
- Q. AND CAN YOU EXPLAIN HOW IT COULD BE THAT, WHEN YOU ADD TEN PERCENT ARTIFICIALLY TO EACH PURCHASER'S PRICES AND THEN RE-RUN THE REGRESSION, YOU COULD STILL GET A NEGATIVE RESULT? AND LET'S GO TO SLIDE 20, PLEASE.
- SO THIS IS A HYPOTHETICAL EXAMPLE. SO LET'S SAY FOR A RETAILER THE ACTUAL PRICE THAT THE CUSTOMER PAID WAS 85 CENTS. FOR THIS PARTICULAR CUSTOMER, THE REGRESSION MODEL, LET'S SAY, TELLS YOU THAT THE PRICE THE CUSTOMER WOULD HAVE PAID ABSENT THE ALLEGED CONDUCT IS A DOLLAR. IN THAT SITUATION, BECAUSE THE ACTUAL PRICE IS LOWER DURING THE PROPOSED CLASS PERIOD AS COMPARED TO THE EXPECTED PRICE, THE ESTIMATED OVERCHARGE IS NEGATIVE. NOW, ON THE RIGHT-HAND SIDE, YOU SEE A PANEL WITH THAT MADE-UP, ARTIFICIAL, TEN-PERCENT PRICE INCREASE. SO NOW THE PRICE FOR THAT CUSTOMER IS 94 CENTS. IT'S TEN-PERCENT HIGHER. THE BUT-FOR PRICE THAT THE MODEL PREDICTS, MEANING THE CUSTOMER WOULD HAVE MADE ABSENT THAT CONDUCT, IS A DOLLAR. SO THAT ESTIMATED OVERCHARGE IS STILL NEGATIVE. IT'S SMALLER NEGATIVE WITH THE TEN-PERCENT INCREASE, BUT IT'S STILL NEGATIVE.
- Q. OKAY. SO THIS IS A HYPOTHETICAL. HAVE YOU DONE ANYTHING

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TO EXAMINE WHETHER THIS IS WHAT IS ACTUALLY GOING ON IN THE DATA BEHIND DR. SUNDING'S FALSIFIABILITY TEST? YES, I HAVE. I SEE EXAMPLES THAT ARE VERY MUCH IN LINE WITH THIS PATTERN. OKAY. AND I DON'T WANT TO PUT THESE ON THE SCREEN, BUT I'LL JUST ASK YOU TO LOOK AT SLIDES 21 AND 22 IN YOUR BINDER AND SUMMARIZE, WITHOUT REFERENCE TO PARTICULAR CUSTOMERS OR PARTICULAR PRICES, WHAT YOU FOUND WHEN YOU LOOKED AT THE ACTUAL REGRESSION RESULTS. MR. STEWART: EXCUSE ME, YOUR HONOR. CAN I INQUIRE WHETHER THE WORK THAT UNDERLIES THESE SLIDES HAS BEEN TURNED OVER TO THE PLAINTIFFS? MR. MICHAEL: ALL OF THIS WORK HAS BEEN TURNED OVER. THERE ARE SOURCES, DETAILED SOURCES ON THE FOLLOWING SLIDES. THIS ONE IS JUST A HYPOTHETICAL. THERE'S ALL SORTS OF BACKUP THAT WAS PRODUCED WITH THE BACKUP REPORTS. MR. STEWART: NO, THE WORK. I UNDERSTAND WHAT THE DATA IS. THE WORK THAT DR. HAIDER DID IN MAKING THESE CALCULATIONS, WHICH APPEAR TO BE ACTUAL CALCULATIONS. WAS THAT WORK TURNED OVER? MR. MICHAEL: THESE ARE JUST RESULTS STRAIGHT OUT OF THE DATA. DR. HAIDER CAN EXPLAIN IT, IF YOU WOULD LIKE. THE COURT: SO YOU HAVEN'T TURNED IT OVER. THAT'S THE ANSWER. MR. MICHAEL: NO, YOUR HONOR. THIS IS ALL DATA THAT

HAS BEEN TURNED OVER WITH THE EXPERT REPORTS, AND AGAIN DR. 1 2 HAIDER, I'D BE HAPPY FOR HER TO EXPLAIN IT. MR. STEWART: I UNDERSTAND THAT WE HAVE THE DATA, YOUR 3 HONOR, BUT THERE'S A CALCULATION THAT APPEARS TO BE DONE ON THE 5 DATA THAT WE DO NOT HAVE. THE COURT: SO IT'S NOT THAT HARD A QUESTION, I DON'T 6 7 THINK. DID YOU TURN OVER THE CALCULATIONS THAT SUPPORT THIS 8 SLIDE AND THIS DATA? MR. MICHAEL: YOUR HONOR, MY UNDERSTANDING IS THAT THIS IS JUST DR. HAIDER READING THE DATA THAT WAS IN THE BACKUP. 10 AGAIN, SHE COULD EXPLAIN WHAT SHE DID. I DON'T THINK THERE ARE 11 ANY NEW -- THERE ARE CERTAINLY NO NEW REGRESSIONS OR NEW 12 13 CORRELATIONS THAT WERE REQUIRED TO BE TURNED OVER WITH THIS. 14 THE COURT: CONTINUE. GO AHEAD. 15 MR. STEWART: LET HIM CONTINUE. I'LL JUST RESERVE THE 16 OBJECTION. I'M A LITTLE UNCLEAR ABOUT WHAT HE'S SAYING, BUT I 17 DON'T WANT TO HOLD THINGS UP. 18 THE COURT: I'M UNCLEAR, TOO. BUT GO AHEAD. 19 MR. MICHAEL: OKAY. BY MR. MICHAEL: 20 WELL, DR. HAIDER, MAYBE YOU COULD HELP TO CLEAR IT UP. 21 0. 22 WERE THESE ALSO CALCULATIONS THAT YOU DID AND DATA THAT YOU CAME UP WITH, OR WHERE DID YOU FIND THIS DATA THAT IS BEING 23 24 SHOWN IN SLIDES 22 AND 23? A. SO THESE NEXT TWO SLIDES THAT WE'RE DISCUSSING HERE, I 25

THINK 21 AND 22, THESE ARE THE RESULTS THAT COME OUT OF THE 1 2 INDIVIDUAL REGRESSIONS THAT FORMED DR. SUNDING'S, WHAT HE 3 REFERRED TO AS THE FALSIFIABILITY TEST. I DON'T THINK IT'S A 4 FALSIFIABILITY TEST. BUT PUTTING THAT ASIDE, THE RESULTS ARE 5 FROM HIS TESTING. O. AND THE ACTUAL PRICE PAID, IS THAT SOMETHING THAT YOU 6 7 CALCULATED, OR WAS THAT SOMETHING THAT YOU FOUND IN THE DATA? 8 THOSE NUMBERS ARE FROM THE UNDERLYING DATA THAT FORM DR. 9 SUNDING'S WORK. AND THE PREDICTED BUT-FOR PRICES, ARE THOSE YOUR PREDICTED 10 BUT-FOR PRICES OR DR. SUNDING'S? 11 THOSE WILL ALSO BE PART OF, YOU KNOW, THAT WORK THAT DR. 12 13 SUNDING DID. 14 Ο. OKAY. MR. MICHAEL: LET'S GO TO SLIDE 23, PLEASE, MR. SHAW. 15 16 Q. (CONTINUING) NOW, IN RESPONSE TO DR. SUNDING'S REPLY REPORT, DR. HAIDER, WHAT, IF ANYTHING, DID YOU DO TO TEST 17 18 WHETHER HIS OWN REGRESSION RESULTS ARE FALSIFIABLE AS TO WHAT 19 HE SAID WAS THE RELEVANT QUESTION OF WHETHER OR NOT SOME BUYERS HAVE NO OVERCHARGES? 20 SO WHAT I DID WAS, I CONDUCTED AN ADDITIONAL TEST, AND THE 21 22 OUESTION THAT THAT TEST IS TRYING TO ANSWER IS, DOES DR. SUNDING'S MODEL SHOW COMMON IMPACT WHEN A LARGE NUMBER OF 23 24 PURCHASERS WERE NOT OVERCHARGED? SO JUST TO MAKE SURE THAT THIS IS CONNECTED TO THE SO-CALLED FALSIFIABILITY TEST OF DR. 25

SUNDING'S, WHAT HE HAD DONE WAS, HE SAID, I'M GOING TO ADD A
TEN-PERCENT PRICE INCREASE FOR ALL THE PURCHASERS DURING THE
PROPOSED CLASS PERIOD, AND BASED ON THAT HE MADE CERTAIN
CLAIMS. THE HYPOTHESIS THAT I AM TESTING IS WHETHER DR.
SUNDING'S OWN MODELS, THE MODELS THAT HE PUT FORWARD IN THE
FIRST PLACE, WHETHER THEY CAN TELL YOU WHETHER, FROM THOSE
AVERAGE EFFECTS THAT THEY CONTAIN, WHETHER THOSE TELL YOU THAT
ALL OR VIRTUALLY ALL DIRECT PURCHASERS IN FACT SUSTAINED AN
OVERCHARGE OR NOT.

AND SO WHAT I DID WAS, I TOOK THAT, DR. SUNDING'S
REGRESSION MODELS, HIS ORIGINAL ONES, AND FOR EVERY THIRD
PURCHASER I REMOVED HIS ESTIMATED OVERCHARGE. SO WHATEVER IS,
YOU KNOW, THE AVERAGE ESTIMATED OVERCHARGE IS, I REMOVED THAT
FOR EVERY THIRD PURCHASER. WHEN I DO THAT, I FIND THAT HIS
APPROACH WILL STILL YIELD AN AVERAGE, POSITIVE, STATISTICALLY
SIGNIFICANT OVERCHARGE FOR EACH DEFENDANT, WHICH, AS WE KNOW
FROM, AS A STARTING POINT FOR DR. SUNDING, WAS WHAT WAS HIS
BASIS FOR CONCLUDING THAT ALL OR VIRTUALLY ALL DIRECT
PURCHASERS SUSTAINED AN OVERCHARGE.

SO WHAT THIS TEST AND THE RESULTS ARE TELLING YOU IS THAT,
EVEN WHEN, BY CONSTRUCTION, FOR A THIRD OF PURCHASERS THERE IS
NO OVERCHARGE, EVEN THEN THE CONCLUSION THAT DR. SUNDING WOULD
DERIVE IS THAT ALL OR VIRTUALLY ALL DIRECT PURCHASERS SUSTAINED
AN OVERCHARGE.

Q. NOW, I HEARD DR. SUNDING SAY WORDS TO THE EFFECT, AND I'M

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NOT GOING TO TRY TO QUOTE HIM, BUT HE CRITICIZED THIS TEST AND SAID, AFTER YOU GET THESE RESULTS, YOU DID NOT GO BACK AND LOOK AT EACH INDIVIDUAL CUSTOMER SEPARATELY. DO YOU RECALL HEARING THAT? Α. I DO RECALL HE SAID THAT. IS IT TRUE, DR. HAIDER, THAT YOU DID NOT LOOK AT EACH Ο. INDIVIDUAL CUSTOMER SEPARATELY TO SEE WHETHER DR. SUNDING'S REGRESSION MODEL WAS ESTIMATING AN OVERCHARGE? I DID -- I, I -- OF COURSE, I HAVE GONE BACK, AND IN FACT I THINK, I FOUND THAT VERY CURIOUS, BECAUSE THAT IS EXACTLY THE TESTING THAT WE WERE TALKING ABOUT EARLIER, WHICH IS THAT I AM TESTING WHETHER THE AVERAGES, THE AVERAGE EFFECTS THAT HE HAS CALCULATED, WHETHER THEY HOLD FOR THE UNDERLYING DIRECT PURCHASERS IN HIS POOLED MODEL. SO THE ENTIRE APPROACH HAS BEEN TO MAKE SURE THAT WE'RE TESTING WHETHER THAT AVERAGE EFFECT HOLDS FOR THEM OR NOT. SO, OF COURSE, THE INQUIRY HAS, REOUIRES YOU TO GO BACK AND LOOK AT THE INDIVIDUAL PURCHASERS. LET'S GO TO SLIDE 24, PLEASE. DR. HAIDER, DO YOU RECALL THE DISCUSSION A LITTLE BIT EARLIER TODAY ABOUT WHAT DR. SUNDING'S MODEL PREDICTS WHAT HAPPENED TO PRICE WHEN THE FISH COST GOES UP? Α. YES. AND DID YOU EXAMINE THAT ISSUE? Q. I DID. Α. WHAT DID YOU FIND? Ο.

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SO I FIND THAT DR. SUNDING'S MODEL IN FACT PRODUCES SOME NONSENSICAL RESULTS, AND NOW WE'RE, JUST TO BE CLEAR, WE'RE BACK -- YOU KNOW, WE'RE TALKING ABOUT THE THREE REGRESSION MODELS HE HAS, ONE FOR EACH DEFENDANT. SO WHAT THIS IS SHOWING IS THAT -- THE BLUE PANEL AT THE TOP IS SHOWING FISH COSTS, AND IT'S SHOWING WHAT HAPPENED TO FISH COSTS OVER TIME. THIS IS DOCTOR -- THIS IS THE DATA THAT DR. SUNDING RELIED UPON. BOTTOM PANEL, THE RED, SHOWS THE PREDICTED PRICE, MEANING WHAT THE MODEL TELLS YOU HAPPENS TO PRICE AS FISH COST CHANGES, AND WHAT YOU CAN SEE IS THAT THERE IS A NEGATIVE RELATIONSHIP BETWEEN THOSE TWO VARIABLES. SO, IN OTHER WORDS, AS YOU CAN GENERALLY SEE, THAT AS FISH COST IS INCREASING, THE PRICE THAT HIS REGRESSION MODEL TELLS YOU OR THE EFFECT HIS REGRESSION MODEL TELLS YOU WOULD HAPPEN FOR PRICES, IN THIS CASE BUMBLE BEE ALBACORE POUCHES, IS IN FACT GOING IN THE OPPOSITE DIRECTION.

- Q. AND WHY DO THESE RESULTS MATTER, IF AT ALL, FOR EVALUATING DR. SUNDING'S OVERCHARGE REGRESSION?
- A. THEY MATTER BECAUSE, FIRST, WHEN YOU SEE THIS TYPE OF RESULT, WHAT IT TELLS YOU IS THAT NONSENSICAL RESULTS ARE A SIGN THAT THE MODEL IS MIS-SPECIFIED. IN OTHER WORDS, IT IS NOT CONSTRUCTED APPROPRIATELY. NOW, WHEN YOU SEE THIS TYPE OF RELATIONSHIP WITH FISH COSTS, WHICH WE TALKED ABOUT BEING ONE OF THE MOST IMPORTANT FACTORS THAT GO INTO EXPLAINING THE PRICE OF PACKAGED TUNA, WHAT THAT TELLS YOU IS THAT BECAUSE THE

1 RELATIONSHIP WITH FISH COST IS NOT BEING MEASURED 2 APPROPRIATELY, THAT IT WILL ATTRIBUTE INSTEAD TO THE OVERCHARGE 3 EFFECT THAT WOULD HAVE BEEN OTHERWISE EXPLAINED BY CHANGES IN 4 COST. MR. STEWART: YOUR HONOR, I'M SORRY TO INTERRUPT AGAIN. 5 6 SLIDES 24 AND 25, I'M INFORMED, WE HAVE NOT SEEN BEFORE, NOR DO 7 WE HAVE THE BACKUP FOR. SO I'M GOING TO LODGE AN OBJECTION TO 8 THIS LINE OF QUESTIONING AND MOVE TO STRIKE CONDITIONALLY. 9 THANK YOU. MR. MICHAEL: YOUR HONOR, AGAIN, I THINK THAT'S JUST 10 NOT CORRECT. THESE ARE DEMONSTRATIVE EXHIBITS IDENTIFYING 11 12 ISSUES THAT DR. HAIDER HAS ADDRESSED IN HER EXPERT REPORT AND THAT CAME STRAIGHT OUT OF THE DATA THAT WAS PRODUCED WITH THE 13 14 EXPERT REPORTS MONTHS AGO. 15 THE COURT: APPARENTLY NOT. 16 MR. STEWART: THE FACT THAT IT COMES OUT OF DATA THAT BOTH EXPERTS HAVE DOESN'T MEAN THAT THE WORK THAT WAS DONE AND 17 18 THE DEMONSTRATIVE, THE EXHIBIT ITSELF, WAS TURNED OVER. MR. MICHAEL: AGAIN, YOUR HONOR, THESE ARE NOT TRUE 19 OPINIONS. THIS IS NOT NEW WORK PRODUCT. THESE ARE ISSUES THAT 20 21 WERE FULLY VETTED IN EXPERT REPORTS THAT WERE ADDRESSED IN THE 22 DEPOSITIONS, BUT WE CAN MOVE ON TO FINISH IT. THE COURT: WELL, I'M GOING TO GRANT HIS REQUEST AND 23 24 CONDITIONALLY SAY THAT WE CAN'T GO INTO THIS ABSENT SOME SHOWING THAT THIS HAS BEEN TURNED OVER, BECAUSE YOU'RE 25

1 EXPLORING NEW AREAS THAT HAVE NOT BEEN PRODUCED. 2 MR. MICHAEL: AND AGAIN --THE COURT: AND WE'RE GOING TO BE CALLING DR. SUNDING 3 4 AGAIN. WHEN YOU'RE FINISHED WITH THIS WITNESS, I WANT TO HEAR 5 DR. SUNDING AGAIN. THAT'S THE MOST PRODUCTIVE TIME WE'LL EVER SPEND, AND SO KEEP MOVING HERE. BUT I DON'T LIKE HAVING THINGS 6 7 PRODUCED FOR THE FIRST TIME, SIR, BECAUSE IT'S NOT FAIR. 8 MR. MICHAEL: THAT'S FINE, YOUR HONOR. WE WERE RELYING 9 ON YOUR ORDER, DOCKET NUMBER 1747, WHICH SPECIFIED NEW REGRESSIONS OR NEW CORRELATIONS. NONE OF WHAT WE HAVE 10 PRESENTED ARE NEW REGRESSIONS OR NEW CORRELATIONS OTHER THAN 11 12 WHAT WAS TURNED OVER A WEEK AGO TO THE PLAINTIFFS. 13 SLIDE 26, PLEASE. BY MR. MICHAEL: 14 15 I WANT TO TURN TO TIME PERIODS NOW, DR. HAIDER. NOW, WAS 16 IT THE CASE WHEN YOU EXAMINED DR. SUNDING'S OVERCHARGE 17 REGRESSION THAT THE CLASS PERIOD THAT HE RAN HIS REGRESSION ON, 18 WAS THAT THE SAME OR DIFFERENT FROM THE CLASS PERIOD THAT WAS 19 ALLEGED IN THE EPP'S COMPLAINT AT THE TIME? A. AT THE TIME, THE OPERATIVE CLAIM HAD A LONGER PROPOSED 20 CLASS PERIOD THAN WHAT DR. SUNDING HAD ANALYZED IN HIS EXPERT 21 22 REPORT. AND DID YOU DO ANYTHING TO TEST WHAT WOULD HAPPEN IF YOU 23 24 RAN HIS REGRESSION USING THE CLASS PERIOD THAT HAS BEEN ALLEGED IN THE COMPLAINT? 25

1 YES, I DID. 2 AND WHAT DO THE BLUE BARS IN THE SLIDE SHOW? THE BLUE BARS SHOW DR. SUNDING'S ESTIMATED OVERCHARGE FROM 3 Α. HIS THREE MODELS. 5 SLIDE 27, PLEASE. AND WHAT DID YOU FIND WHEN YOU USED THE CLASS PERIOD ALLEGED IN THE EPP'S COMPLAINT? 6 7 SO WHEN I USED THE CLASS PERIOD THAT WAS IN THE OPERATIVE 8 COMPLAINT AT THE TIME, THAT APPROACH IN FACT YIELDS NOT 9 POSITIVE, WHICH ARE THE BLUE BARS THAT WE WERE LOOKING AT, BUT IN FACT NEGATIVE OVERCHARGES FOR EACH OF THE DEFENDANTS AS 10 SHOWN BY THE RED BARS THERE. 11 12 NOW, DR. SUNDING SAID IN REFERENCE TO DIFFERENT TESTS THAT 13 DR. JOHNSON HAD DONE WITH TIME PERIODS THAT IT WAS A -- I BELIEVE THE WORD HE USED WAS A WEIRD MODEL TO RUN. I'M NOT 14 15 SURE IF THAT'S AN ECONOMIC TERM OF ART. BUT DID YOU CONSIDER 16 IT TO BE WEIRD TO RUN A REGRESSION USING THE CLASS PERIOD ALLEGED IN THE COMPLAINT IN THIS CASE? 17 18 NO, I DID NOT THINK THIS WAS WEIRD. SO WHAT I DID WAS, I TESTED DR. SUNDING'S CHOICES WITH RESPECT TO THE TREATMENT OF 19 TIME PERIOD, AND THIS WAS ONE OF THOSE TESTS. SO IT'S IN FACT 20 TAKING DR. SUNDING'S APPROACH AND CHANGING THE CLASS PERIOD TO 21 22 WHAT WAS IN THE OPERATIVE COMPLAINT, LOOKING AT, YOU KNOW, THE BENCHMARK DATA THAT HE HAS OUTSIDE OF IT. SO IT'S HIS APPROACH 23 24 APPLIED TO THAT LONG A PERIOD. Q. OKAY. AND CAN I ASK YOU, AS A MATTER OF ECONOMICS, IS IT 25

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YOUR UNDERSTANDING THAT USING A TAINTED BENCHMARK PERIOD, A BENCHMARK PERIOD WHERE YOU HAVE SOME EFFECT FROM ANTICOMPETITIVE CONDUCT, WILL NECESSARILY HAVE A CONSERVATIVE IMPACT ON THE OVERCHARGE BEING ESTIMATED? Α. SO IT'S NOT NECESSARILY THE CASE THAT THAT WOULD HAPPEN. 0. AND WHY IS THAT, DR. HAIDER? Α. YES. SO IF IT WERE THE CASE THAT A MODEL IS WELL-CONSTRUCTED, IT'S WELL, APPROPRIATELY SPECIFIED, HAS ALL THE RIGHT SUPPLY-AND-DEMAND FACTORS IN IT, THEY BEHAVE IN A SIMILAR FASHION OVER TIME AND, YOU KNOW, SOME OF THE ISSUES THAT I'VE POINTED OUT IN MY REPORT ABOUT THEM NOT HAVING THE WRONG SIZE, IF THERE ARE NO ISSUES WITH THE MODEL, THEN THE INTUITIVE RESULT WOULD BE THAT YOU EXPECT THAT IT COULD BE CONSERVATIVE TO DO THAT. THE REASON I SAY IT'S NOT NECESSARILY THE CASE THAT IT'S CONSERVATIVE IS NOT JUST BECAUSE OF, YOU KNOW, THE RESULTS THAT SHOW YOU THAT IT'S NOT IN FACT CONSERVATIVE, BUT WHAT'S HAPPENING IS THAT THERE IS A LONG PERIOD OF TIME HERE WHERE THE SUPPLY-AND-DEMAND FACTORS ARE ASSUMED TO HAVE THIS SAME EFFECT OVER TIME. IF IT WERE THE CASE THAT THE EFFECTS OF THE SUPPLY-AND-DEMAND FACTORS VARIED OVER TIME, THEN -- WHICH ONE CAN EXPECT. THERE WAS A RECESSION. THERE WAS SOME BIG INCREASES IN FISH COSTS. SO IF YOU THINK THE EFFECTS OF THE SUPPLY-AND-DEMAND FACTORS WOULD VARY OVER TIME, THEN IT'S NOT AS SIMPLE THAT IF WE TREAT CERTAIN TIME PERIODS IN DIFFERENT

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WAYS, THAT YOU WOULD NECESSARILY SEE THAT THE RESULTS WOULD GO IN THE DIRECTION THAT, YOU KNOW, ONE THINKS COULD BE INTUITIVE, BECAUSE IT'S NOT JUST A DIRECT COMPARISON OF CONDUCT PERIOD AND A BENCHMARK. IT'S ALSO ABOUT THE RELATIONSHIP BETWEEN THE SUPPLY-AND-DEMAND FACTORS AND PRICE IN THOSE PERIODS. THE COURT: BECAUSE THERE ARE TOO MANY FACTORS THAT ARE VARIABLES DURING THAT LENGTHY PERIOD OF TIME. THE WITNESS: YES. EXACTLY. SO YOU CAN DEFINE YOUR WINDOWS DIFFERENTLY, BUT IT WILL NOT GIVE YOU THE RESULT THAT YOU NECESSARILY THINK, BECAUSE THE OTHER FACTORS ARE ALSO CHANGING AT THE SAME TIME. THE COURT: ALL RIGHT. BY MR. MICHAEL: AND IN YOUR OPINION, DR. HAIDER, WAS DR. SUNDING BEING CONSERVATIVE IN THE TIME PERIODS THAT HE SELECTED TO RUN HIS MODEL IN THIS CASE? NO. I DID A COUPLE OF TESTS OF DR. SUNDING'S TREATMENT OF Α. TIME PERIODS, AND ONE IS ILLUSTRATED HERE. THERE'S ANOTHER ONE I DESCRIBED IN MY REPORT. EACH OF THOSE TESTS SHOWED THAT HIS ESTIMATES WERE, IN FACT, INFLATED BASED ON THE CHOICES THAT HE MADE WITH RESPECT TO TIME PERIOD. O. OKAY. I WANT TO TURN NOW --MR. MICHAEL: I'M SORRY, YOUR HONOR. DID YOU HAVE A QUESTION? THE COURT: I WAS JUST WONDERING, WHAT DID YOU

SPECIFICALLY FIND?

THE WITNESS: SO THIS WAS ONE TEST. THE OTHER TEST I

DID, I THINK -- I DON'T KNOW IF YOU'LL REMEMBER FROM THE

CROSS-EXAMINATION OF DR. SUNDING. THEY WERE -- THE TIME PERIOD

WAS BROKEN OUT INTO DIFFERENT PERIODS. THERE WAS AN EARLY

EXAMINED PERIOD AND A FEW OTHER PERIODS BROKEN OUT. SO THE

SECOND TEST THAT I DID WAS, I SAW THAT DR. SUNDING SAID HE

NEEDS TO BREAK OUT HIS CANNERY SIZE PERIOD AND SUCH THAT IT

SHOULDN'T BE IN THE BENCHMARK, NOR IN THE PROPOSED CLASS

PERIOD.

THERE WAS ALSO, THERE'S ALSO AN EARLY EXAMINED PERIOD,
WHICH IS THE PERIOD FROM 2004 TO 2008. FOR THAT PARTICULAR
PERIOD, DR. SUNDING HAD STATED IN HIS REPORT THAT HE TESTED
THAT PERIOD WHERE THERE WERE ALLEGATIONS OF CONDUCT AND HE
FOUND THAT THE OVERCHARGES WERE DE MINIMIS, AND BASED ON THAT
HE THOUGHT IT WAS APPROPRIATE TO INCLUDE IT IN THE BENCHMARK.
THAT'S NOT HIS, WHAT HE SAID WAS HIS JUSTIFICATION FOR BREAKING
OUT THE CANNERY SIZE AS IN THERE WAS AN INCONSISTENCY IN HIS
TREATMENT. SO WHAT I DID WAS, I SAID, OKAY, IF WE ALSO BREAK
OUT THE EARLY EXAMINED PERIOD, BECAUSE HE BROKE OFF CANNERY
SIZE, IF YOU ALSO BREAK OUT CANNERY SIZE -- EXCUSE ME -- EARLY
EXAMINED, BECAUSE THAT WOULD BE CONSISTENT WITH WHAT HE WAS
STATING WAS HIS APPROACH, IF YOU BREAK THAT OUT AS WELL, EVEN
THEN I FOUND THAT IN EACH CASE THE OVERCHARGE, THE ESTIMATED
OVERCHARGES FROM HIS MODEL DECLINE FOR EACH DEFENDANT.

1 THE COURT: THANK YOU. 2 GO AHEAD. BY MR. MICHAEL: 3 THANK YOU, DR. HAIDER. SO I WANT TO TURN NOW TO 5 PASS-THROUGH, AND LET ME ASK YOU. WHEN DR. SUNDING RAN HIS PASS-THROUGH REGRESSIONS, DID HE DO ANYTHING IN THE INITIAL 6 7 REGRESSIONS THAT HE REPORTED FOR PASS-THROUGH TO ACCOUNT FOR 8 DIFFERENCES BETWEEN PRODUCTS? HE DID NOT. IN HIS OPENING REPORT, HE DID NOT ACCOUNT FOR PRODUCT DIFFERENCES IN HIS PASS-THROUGH ANALYSIS. 10 11 AND DID YOU DO ANYTHING TO TEST WHETHER OR NOT YOU NEEDED Ο. TO ACCOUNT FOR PRODUCT DIFFERENCES IN THIS CONTEXT? 12 13 I DID. I CONDUCTED A STATISTICAL TEST TO DETERMINE WHETHER THE PRODUCTS THAT, THE PRODUCT DIFFERENCES THAT HE DOES 14 15 NOT ACCOUNT FOR, WHETHER THOSE DO, IN FACT, BELONG IN HIS PASS-THROUGH REGRESSION MODELS, AND THE TEST SHOWED THAT THEY 16 17 IN FACT DO. 18 OKAY. AND WE HAVE SOME SLIDES ON THAT. I THINK WE'RE 19 RUNNING SHORT ON TIME, SO I'LL JUST ASK YOU TO SUMMARIZE BRIEFLY WHAT YOU FOUND WHEN YOU DID THAT TEST. 20 SO WHEN I DID THAT PARTICULAR TEST, WHAT I FOUND WAS THAT 21 Α. 22 DR. SUNDING'S PASS-THROUGH ESTIMATES ARE, IN FACT, OVERSTATED. IN OTHER WORDS, THEY ARE BIASED BECAUSE HE DID NOT ACCOUNT FOR 23 24 PRODUCT DIFFERENCES. AND WHEN I SAY BIASED, I MEAN THAT AS AN ECONOMIC TERM. BUT WHAT THAT TELLS US IS THAT THE APPROACH IS 25

1 UNRELIABLE. 2 Q. OKAY. AND DID -- WE TALKED ABOUT, WHEN DR. SUNDING DID HIS OVERCHARGE REGRESSIONS, HE RAN THREE SEPARATE MODELS, ONE 3 FOR EACH DEFENDANT. IS THAT CORRECT? 5 Α. THAT'S CORRECT. 6 0. DID HE DO THE SAME THING WHEN HE DID HIS PASS-THROUGH 7 REGRESSIONS? NO. FOR HIS PASS-THROUGH REGRESSIONS, HE DOES NOT BREAK 8 9 OUT THE MODELS BY DEFENDANT, ALTHOUGH HE DOES THAT ON THE OVERCHARGE SIDE. IN FACT, THE SAME THING WITH PRODUCT 10 DIFFERENCES. HE ALLOWS FOR PRODUCT DIFFERENCES IN HIS 11 12 OVERCHARGE APPROACH, BUT NOT IN HIS PASS-THROUGH APPROACH. 13 AND WHAT DID YOU FIND WHEN YOU BROKE OUT HIS PASS-THROUGH REGRESSIONS BY DEFENDANT THE WAY HE HAD DONE WITH HIS 14 15 OVERCHARGE REGRESSIONS? 16 A. SO WHAT I FOUND WAS THAT, ONCE WE ACCOUNT FOR PRODUCT DIFFERENCES, THERE WAS ALSO ANOTHER METHODOLOGICAL ERROR IN HIS 17 18 WORK WITH RESPECT TO ACCOUNTING FOR LOCATION AND BREAKING OUT BY DEFENDANT. I ACTUALLY FIND THAT FOR HIS PASS-THROUGH 19 STUDIES FOR SOME OF THE RETAILERS AND THE CONVENIENCE STORE 20 21 CHANNEL THAT HE TALKED ABOUT EARLIER TODAY, THERE WAS ACTUALLY 22 NO POSITIVE AND STATISTICALLY SIGNIFICANT PASS-THROUGH FROM SOME STATES OR STORES. 23 OKAY. DR. HAIDER, WE'VE COVERED A LOT OF GROUND TODAY, 24 AND WE'VE HAD TO DO SO RELATIVELY QUICKLY. I WANT TO END HERE 25

BY JUST ASKING YOU IF THERE'S ONE THING THAT YOU COULD 1 2 HIGHLIGHT FOR THE COURT ABOUT THE WORK THAT YOU'VE DONE AND THE CONCLUSIONS THAT YOU'VE REACHED IN THE CASE, IF YOU COULD 3 4 DESCRIBE THAT. 5 SURE. SO I HAVE ASSESSED DR. SUNDING'S METHODOLOGY, AND Α. SPECIFICALLY WHAT I WANT TO MAKE SURE IS CLEAR IS THAT 6 7 REGRESSION MODELS ARE BASED ON CERTAIN ASSUMPTIONS. WHAT'S 8 CRUCIAL IS TO DO A RIGOROUS TESTING OF THOSE ASSUMPTIONS TO DETERMINE WHETHER THEY IN FACT MATTER FOR THE ANSWER THAT IS BEING DERIVED OR THE CONCLUSION THAT IS ULTIMATELY BEING 10 11 DERIVED. WHEN I CONDUCT THAT TESTING OF HIS APPROACH, I FIND THAT HIS CONCLUSIONS DO NOT HOLD, AND I'VE DESCRIBED THAT 12 13 TODAY. MR. MICHAEL: THANK YOU, DR. HAIDER. 14 THANK YOU, YOUR HONOR. 15 16 THE COURT: THANK YOU, DR. HAIDER. I APPRECIATE IT. 17 WHO'S DOING CROSS-EXAMINATION? 18 AH. MR. STEWART. 19 MR. STEWART: I AM. THE COURT: GOOD AFTERNOON. 20 MR. STEWART: GOOD AFTERNOON, YOUR HONOR. 21 22 YOUR HONOR, I'VE INSTRUCTED THEM TO TACKLE ME WHEN I HAVE TEN MINUTES LEFT, BECAUSE I WANT TO MAKE SURE THAT DR. 23 SUNDING HAS AN OPPORTUNITY, AND IT MIGHT NOT BE THAT LONG. 24 THE COURT: OKAY. VERY WELL. 25

1	MR. STEWART: HE CAN PROBABLY EXPLAIN THINGS A LOT
2	BETTER THAN I CAN, SO WE'RE GOING TO LEAVE THAT TIME FOR HIM.
3	THE COURT: OKAY.
4	CROSS-EXAMINATION
5	BY MR. STEWART:
6	Q. DR. HAIDER, HOW ARE YOU?
7	A. GOOD. THANK YOU.
8	Q. NICE TO MEET YOU.
9	A. NICE TO MEET YOU, TOO.
10	Q. THERE'S SOMETHING I WANT TO TRY AND IRON OUT AT THE
11	OUTSET. SO DID YOU DO INDIVIDUAL REGRESSION EQUATIONS FOR EACH
12	BUYER OF TUNA?
13	A. I DID THE INDIVIDUAL BUYER-SPECIFIC REGRESSIONS THAT WE
14	HAD TALKED ABOUT?
15	Q. YES.
16	A. YES, I DID THOSE. THOSE COME OUT OF THE CHOW TEST THAT I
17	DESCRIBED EARLIER TODAY.
18	Q. OKAY, AND WE'RE GOING TO GET INTO THAT. I JUST WANT TO
19	MAKE SURE WE'RE ON THE SAME PAGE HERE. THIS MORNING, MISS LEE
20	PUT A SLIDE UP THAT SAID IN PART IT'S SLIDE 44 DR. HAIDER
21	DID NOT RUN SEPARATE REGRESSIONS FOR EACH CUSTOMER. IS THAT
22	INACCURATE?
23	A. I THINK YOU WOULD HAVE TO SHOW ME HER SLIDE. I THINK SHE
24	WAS REFERRING TO THE TEST WHICH IS THE WAL-MART SENSITIVITY
25	EXTENSION. SO, AS I'VE DISCUSSED TODAY, THERE ARE SEVERAL

1 TESTS IN MY EXPERT REPORT. ONE OF THEM IS THAT WAL-MART 2 SENSITIVITY THAT WAS EXTENDED. THAT ONE -- THOSE ARE NOT INDIVIDUAL REGRESSIONS FOR EACH DIRECT PURCHASER. SO I THINK 3 4 THAT'S THE TEST SHE WAS REFERRING TO, IF I RECALL CORRECTLY. 5 OKAY. BUT THE FIRST TEST THAT YOU DID, THE TEST WHICH, IN 6 WHICH THE RESULTS ARE REPRESENTED, I THINK, IN EXHIBIT 3 OF 7 YOUR REPORT, THOSE WERE INDIVIDUAL REGRESSIONS RUN FOR EACH 8 DEFENDANT. CORRECT? YES, AND I WANT TO MAKE SURE IT'S CLEAR THAT THOSE 9 PARTICULAR RESULTS COME OUT OF THE CHOW TEST. SO THE FIRST 10 11 STATISTICAL TEST WAS THE CHOW TEST. ONCE THAT TEST REJECTS, IT 12 TELLS YOU THAT THERE'S NO VALID BASIS TO POOL, AND THE 13 INDIVIDUAL REGRESSIONS ARE PART OF THAT CHOW TEST, AND THAT'S WHAT I ILLUSTRATED IN EXHIBIT 3. 14 15 OKAY. DOCTOR, THIS IS YOUR FIRST TIME, THIS IS MY FIRST 16 TIME, AND WE'RE IN A LIMITED TIME. SO I DON'T WANT TO BE RUDE, 17 BUT I WOULD LIKE YOU TO TRY AND LIMIT YOUR ANSWERS TO THE 18 OUESTIONS THAT I ASK YOU. OKAY? 19 Α. I WILL CERTAINLY TRY TO DO THAT. I'M NOT SAYING YOU DID IT IN THAT SENSE, BUT IF YOU WOULD 20 DO THAT, I WOULD REALLY APPRECIATE IT. 21 22 Α. OKAY. SO I WANT TO MAKE SURE I HAVE AN UNDERSTANDING OF TEST ONE 23 AND TEST THREE, I THINK IT IS, THE WAL-MART TEST, AND WHAT 24 DROVE YOU TO DO THOSE TESTS, AND I MAY BE OVERSIMPLIFYING, BUT 25

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AS I UNDERSTAND IT, YOU RAN A CHOW TEST. OKAY. AND BASED ON THE RESULTS OF THE CHOW TEST, YOU DETERMINED AND CONCLUDED THAT A SUBREGRESSION FOR EACH INDIVIDUAL CUSTOMER WOULD NEED TO BE RUN. IS THAT CORRECT? THAT IS CORRECT. IT IS TESTING DR. SUNDING'S MODEL, WHICH Α. IS SAYING THAT THE AVERAGE EFFECT HOLDS FOR EVERYONE. THE TEST IS GOING TO TELL YOU WHETHER THAT IS AN APPROPRIATE APPROACH OR NOT. OKAY. SO, BASED ON THE CHOW TEST AND THE CHOW TEST ALONE, YOU CONCLUDED THAT A SUBREGRESSION TEST FOR EACH CUSTOMER WOULD NEED TO BE RUN. IS THAT CORRECT? Α. THAT IS NOT CORRECT. OKAY. HOW IS IT INCORRECT? IT'S INCORRECT FOR THE REASON I DESCRIBED EARLIER TODAY WHEN MR. MICHAEL WAS ASKING ME QUESTIONS. THE FIRST STEP WAS TO LOOK AT THE RESULTS OF DR. SUNDING'S OWN APPROACH, AND I KNOW YOU SAID YOU DIDN'T WANT ME TO TAKE TOO MUCH TIME, BUT THE RESULTS OF HIS OWN APPROACH, THE THREE MODELS THAT HE HAD FOR EACH DEFENDANT, SHOW YOU THAT THE CUSTOMERS, THE DIRECT PURCHASERS, HAVE DIFFERENT RESPONSES TO DEMAND-AND-SUPPLY FACTORS. THEY HAVE DIFFERENT RESPONSES EVEN DURING THE CANNERY-SIZE WINDOW. THEY HAVE DIFFERENT RESPONSES EVEN DURING SO THAT WAS THE STARTING POINT. THE ALLEGED CONDUCT. I ALSO -- WE HAD TALKED BRIEFLY ABOUT A SLIDE WHICH SHOWED YOU VERY DIFFERENT PRICES PAID BY DIRECT PURCHASERS, EVEN AT

THE SAME POINT IN TIME, AT THE SAME LOCATION, FOR THE SAME
PRODUCT, AND SO THAT ALSO TELLS YOU THAT RELYING ON AN AVERAGE
EFFECT WITHOUT FURTHER TESTING WHETHER THAT AVERAGE HOLDS OR
NOT IS SOMETHING THAT NEEDS TO BE SUBJECTED TO TESTING.

SO IT'S NOT THE CHOW TEST ALONE. THE CHOW TEST FORMS THE STATISTICAL BASIS FOR THE INDIVIDUAL REGRESSIONS.

- Q. WHAT WAS YOUR HYPOTHESIS BASED ON THE FACTS OF THE CASE AND INDUSTRY REALITIES WHICH LED YOU TO BELIEVE, ALONG WITH THE RESULTS OF THE CHOW TEST, THAT YOU NEEDED TO DO INDIVIDUAL CUSTOMER REGRESSIONS? WHAT BASIS IN THE FACTS OF THE CASE AND IN INDUSTRY REALITIES DROVE YOU TO THAT DECISION? AND AFTER YOU ANSWER THE QUESTION, I'M GOING TO TELL YOU THE NEXT QUESTION. I'M GOING TO POINT ME TO THE PLACE IN YOUR REPORT WHERE YOU DISCUSS IT.
- A. SURE. SO I THINK PARTIALLY THE ANSWER IS THE SAME AS BEFORE, BECAUSE WE SEE -- THE PRICING DATA SHOW YOU THAT DIRECT PURCHASERS ARE PAYING DIFFERENT PRICES EVEN FOR THE SAME PRODUCT AT THE SAME POINT IN TIME. MY REPORT TALKS ABOUT HOW CUSTOMERS FACE DIFFERENT ECONOMIC CIRCUMSTANCES, AND THAT'S SOMETHING THAT I -- THE FIRST OPINION THAT I FORMED WAS FROM LOOKING AT DR. SUNDING'S OWN RESULTS THAT ESSENTIALLY INDICATE THAT. DR. SUNDING ALSO SAID WHY HE THOUGHT HE NEEDED DIFFERENT APPROACHES, BECAUSE CONSUMER PERCEPTIONS VARIED ACROSS THE DEFENDANTS' PRODUCTS AND MARKET FUNDAMENTALS WILL VARY ACROSS THE DEFENDANTS, AND SO THAT (PAUSE) -- I HAVE A SECTION IN MY

1 REPORT WHERE I HAVE LAID OUT THAT RATIONALE. 2 OKAY. YOUR REPORT IS IN THE TAB AS, AS TAB SEVEN. WOULD Q. 3 YOU OPEN THAT, PLEASE? 4 Α. IN WHICH BINDER, SIR? 5 BINDER ONE, I BELIEVE. Q. AND WHICH TAB? Α. 6 7 WHAT DID I SAY? TAB SEVEN. 8 Α. I'M AT TAB SEVEN. DID YOU WANT ME TO POINT TO, TO (PAUSE) --YES. IS IT CORRECT THAT YOU BEGIN THIS DISCUSSION IN 10 11 PARAGRAPH 25? YOU GO THROUGH PARAGRAPH 38, AND THAT'S THE SECTION OF YOUR REPORT WHERE YOU DESCRIBE YOUR RATIONALE FOR 12 13 CONCLUDING THAT DR. SUNDING SHOULD HAVE RUN INDIVIDUAL REGRESSIONS FOR EACH CUSTOMER. IS THAT CORRECT? 14 15 THAT PARTICULAR SECTION IS -- THOSE PARAGRAPHS THAT YOU 16 STATE, THAT'S WHERE I DESCRIBED THE RESULTS FROM, YOU KNOW, 17 JUST LOOKING AT DR. SUNDING'S PROPOSED METHODOLOGY. THERE ARE 18 ALSO -- LET'S SEE. THAT IS JUST GOING A LITTLE FURTHER BACK. 19 I WOULD SAY IF YOU GO BACK TO EXHIBIT 2, WHICH SHOWS DR. SUNDING'S OWN RESULTS, IT'S JUST A SUMMARY OF HIS RESULTS. 20 THAT PARTICULAR EXHIBIT IS, IS ALSO PART OF THAT. I THINK 21 22 IT'S, YOU KNOW, REFERRED TO IT. BUT BASICALLY WHAT THAT EXHIBIT IS SHOWING IS THAT WHEN DR. SUNDING -- HE TALKED ABOUT 23 THESE SENSITIVITY RESULTS. YOU SEE VERY DIFFERENT RESULTS FOR 24 A PARTICULAR FISH TYPE OR A PARTICULAR PACKAGE TYPE FROM 25

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DEFENDANTS. SO THAT ALSO FORMS THE BASIS FOR THINKING THAT THESE AVERAGE EFFECTS THAT HE HAS CALCULATED LIKELY VARY ACROSS DIRECT PURCHASERS. BUT YOU DIDN'T SAY THAT IN THE EARLIER PART OF YOUR REPORT WHERE YOU LAID OUT THE REASON WHY YOU BELIEVED DR. SUNDING SHOULD HAVE RUN A SEPARATE REGRESSION REPORT. IN PARAGRAPH 36, AFTER HAVING DESCRIBED THAT YOU RAN THE CHOW TEST, YOU STATE, QUOTE, THE TEST RESULTS DEMONSTRATE THAT IT IS INAPPROPRIATE TO POOL SALES TRANSACTIONS FOR ALL DIRECT PURCHASERS OF A DEFENDANT INTO A SINGLE REGRESSION MODEL AS DR. SUNDING HAS 10 DONE. THEY SHOW, REFERRING TO THE CHOW TEST RESULTS, THAT A SEPARATE REGRESSION MODEL IS REQUIRED FOR EACH CUSTOMER. AND I DIDN'T SEE ANYTHING IN PARAGRAPHS 25 TO 36, WITH THE EXCEPTION 13 OF ONE THING, THAT DESCRIBE A FACT OF THE CASE OR AN INDUSTRY REALITY THAT YOU HAD LEARNED WHICH LED YOU TO BELIEVE THAT DR. SUNDING SHOULD HAVE JUMPED DIRECTLY FROM THE CHOW TEST TO A SEPARATE REGRESSION FOR EACH CUSTOMER. SO CAN YOU HELP ME AND FIND IN PARAGRAPHS 25 TO 37 WHERE YOU CITED ANY INDUSTRY FACTS OR, OR INDUSTRY REALITIES OR FACTS IN THE CASE? SO I CAN, OF COURSE, READ AND SEE IF IT'S IN HERE. I KNOW I HAVE TALKED ABOUT CUSTOMERS FACING, YOU KNOW, CUSTOMERS NEGOTIATING DIFFERENT PRICES. SO I THINK IT'S IN PARAGRAPH 25. IT TALKS ABOUT DIFFERENCES IN NEGOTIATING ABILITIES. WE'VE JUST TALKED ABOUT EXHIBIT 2, WHICH IS IN FACT PRIOR TO THAT, WHERE AGAIN HERE I'M, WHAT I'M DOING IS I'M ASSESSING HIS 25

PROPOSED METHOD. I OBVIOUSLY -- YOU CAN SEE FROM THE PRICING

DATA THAT THE PRICES THAT CUSTOMERS PAID WERE DIFFERENT, AND SO

THAT PARTICULAR SENTENCE YOU READ WHICH SAYS THE CHOW TEST

SHOWS THIS, WHAT I MEAN BY THAT IS THAT IS A STATISTICAL BASIS

FOR SAYING THAT DIFFERENT REGRESSION MODELS ARE REQUIRED,

BECAUSE THAT'S A HYPOTHESIS, THAT'S A STATISTICAL HYPOTHESIS

THAT HAS BEEN REJECTED. SO THAT'S WHAT I MEAN BY THEY SHOW.

THAT DOESN'T MEAN THAT I HAVE NO OTHER RATIONALE FOR CONDUCTING

THAT TESTING.

Q. OKAY. SO YOU CITED IN PARAGRAPH 25 -- I'LL READ THE

SENTENCE YOU'VE ALLUDED TO. FOR EXAMPLE, HE DOES NOT ACCOUNT FOR DIFFERENCES IN NEGOTIATING ABILITIES OVER TIME AMONG DIRECT PURCHASERS OF THE DEFENDANT. I READ PARAGRAPHS 25 THROUGH 38 VERY CAREFULLY. OTHER THAN THE CHOW TEST AND YOUR STATEMENT, WHICH HAS NO CITATION, THAT THERE MIGHT BE DIFFERENCES IN NEGOTIATING ABILITIES OVER TIME, I SAW NO EXPLANATION OF WHY YOU CONCLUDE THAT BASED ON THE RESULTS OF THE CHOW TEST, THAT AUTOMATICALLY MEANS HE'S GOT TO GO TO INDIVIDUAL REGRESSIONS. IS THERE ANY OTHER FACTS STATED IN THIS SECTION OF THE REPORT?

A. SO THE REFERENCE, DIFFERENT NEGOTIATING ABILITIES OVER TIME, IS CRUCIAL, BECAUSE I KNOW FROM THE DATA THAT DIRECT PURCHASERS NEGOTIATE DIFFERENT PRICES. THE RESULTS OF THE TESTING, OF COURSE, ALSO SHOW YOU THAT THIS OBVIOUSLY IS VARYING OVER TIME, BECAUSE THE TESTING DOES NOT SHOW YOU THAT THESE CUSTOMERS COME OUT IN THE SAME PLACE. HAVING SAID THAT,

1 I HAVE READ DEPOSITION TESTIMONY AND I HAVE SEEN OTHER FACTS 2 THAT ARE RELEVANT. I CAN DEFINITELY GIVE YOU REASONS FOR WHY I THINK DIFFERENT DIRECT PURCHASERS ARE IN DIFFERENT SITUATIONS. 3 4 SO, FOR EXAMPLE, WE KNOW THAT COSTCO, IN 2014, TURNED TO 5 TRI MARINE, WHICH IS AN OUTSIDE SUPPLIER, TO BUY PACKAGED TUNA -- IT USED TO BUY FROM COSI BEFORE THAT -- AND THAT IS 6 7 GOING TO, THAT, AS AN ECONOMIST, THAT AFFECTS THEIR NEGOTIATING 8 ABILITY. I'VE SEEN IN THE DATA THAT COSI HAD A GROWTH INCENTIVE ALLOWANCE THAT IT GAVE COSTCO THAT IT GAVE NO OTHER CUSTOMER. SO I'VE SPENT A GREAT DEAL OF TIME UNDERSTANDING THE 10 DATA, LOOKING AT DIFFERENCES ACROSS THESE CUSTOMERS, AND 11 BECAUSE THEY PAY DIFFERENT PRICES, THAT IS, THAT'S WHAT YOU SEE 12 13 IN THE DATA. THAT'S -- YOU KNOW, THE PROOF IS IN THE PUDDING. THEY ARE PAYING DIFFERENT PRICES. THEREFORE, IT'S 14 15 INAPPROPRIATE TO ASSUME THAT AN AVERAGE EFFECT CAN CAPTURE THE 16 EXPERIENCES OF THE DIFFERENT DIRECT PURCHASERS, AND THEN I TEST 17 THAT PROPOSITION. 18 SO, DR. HAIDER, THIS IS WHAT I'VE HEARD SO FAR: CHOW 19 TEST, PLUS THE FACT THAT THEY WERE PAYING DIFFERENT PRICES, PLUS THE POSSIBILITY THAT THERE ARE DIFFERENT NEGOTIATING 20 21 ABILITIES LEADS YOU TO CONCLUDE THAT DR. SUNDING HAD TO RUN AN 22 INDIVIDUAL PURCHASER REGRESSION MODEL. IF THERE'S -- YES OR DID YOU STATE IN YOUR REPORT ANY MORE THAN THOSE THREE 23 24 FACTORS AS LEADING YOU TO THE CONCLUSION YOU REACHED ON, IN PARAGRAPH 37 THAT HE SHOULD HAVE RUN INDIVIDUAL REGRESSIONS? 25

IS THERE SOMETHING I'M MISSING OR NOT? YES OR NO. 1 2 YOU ARE MISSING SOMETHING. YOUR QUESTION WAS LONG, SO I Α. DON'T KNOW IF IT'S A YES OR NO, BUT YOU ARE MISSING SOMETHING. 3 4 Q. OKAY. AND HAVE YOU ALREADY TOLD ME WHAT I'M MISSING? 5 Α. I'M HAPPY TO TELL YOU. NO. I ASKED YOU IF YOU ALREADY TOLD ME, BECAUSE I DON'T 6 Ο. 7 WANT TO HEAR IT AGAIN. 8 SO I GUESS I HAVEN'T TOLD YOU THIS, BECAUSE YOU SAID THEY MIGHT VARY IN THEIR NEGOTIATING ABILITY. THAT'S NOT THE CASE. 9 THEY VARY IN THEIR NEGOTIATING ABILITY BECAUSE THEY PAY 10 DIFFERENT PRICES. THAT'S WHAT THE DATA SHOWS, SIR. 11 Q. OKAY. SO YOU DIDN'T CITE ANYTHING IN YOUR REPORT FOR 12 13 THAT. YOU'RE ASKING US NOW TO CONCLUDE FROM THE FACT THAT THEY PAID DIFFERENT PRICES THAT THEY HAD DIFFERENT NEGOTIATING 14 15 ABILITIES. OKAY? RIGHT? 16 Α. I DON'T AGREE WITH THAT. 17 Ο. OKAY. 18 Α. IT DOES NOT SAY MIGHT HERE. YOU WROTE AN ARTICLE CALLED SUBREGRESSION, A RIGOROUS TEST 19 Ο. FOR CLASS CERTIFICATION. IS THAT CORRECT? 20 Α. 21 YES. 22 AND YOU CO-WROTE THAT ARTICLE WITH SOMEBODY. CORRECT? Ο. YES. THIS WAS ONE OF MY COLLEAGUES. SHE HAD JUST COME 23 24 OUT OF GRADUATE SCHOOL. O. OKAY. AND SHE WAS A COLLEAGUE AT THE, AT THE FIRM WHERE

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1 YOU WORK. CORRECT? 2 Α. THAT'S CORRECT. Q. AS A MATTER OF FACT, IF WE LOOK AT YOUR PUBLICATIONS, 3 4 ALMOST ALL OF YOUR PUBLICATIONS ARE CO-WRITTEN WITH COLLEAGUES 5 AT THE ECONOMICS CONSULTING FIRMS WHERE YOU WORKED. CORRECT? 6 Α. THAT IS CORRECT, YES. 7 Ο. OKAY. AND A NUMBER OF THEM ARE CO-WRITTEN WITH DR. 8 JOHNSON, WHO TESTIFIED YESTERDAY. CORRECT? 9 THAT'S CORRECT. AND THE OTHER -- OTHERS ARE CO-WRITTEN WITH DR. LEONARD, 10 WHO'S ANOTHER ONE OF YOUR PARTNERS AT EDGEWORTH. CORRECT? 11 YES, DR. LEONARD IS ANOTHER ONE OF MY COLLEAGUES. YES. 12 Q. 13 OKAY. AND YOU HAVE -- OTHER THAN YOUR DOCTORAL THESIS, WHICH WAS PUBLISHED IN PART, YOU HAVE NEVER PUBLISHED AN 14 15 ARTICLE IN AN ACADEMIC PEER-REVIEWED JOURNAL. IS THAT CORRECT? 16 Α. MY ACADEMIC PEER-REVIEWED JOURNAL IS THE, IS ONE OF THE --17 THE WORKING PAPERS WAS IN MY DISSERTATION, AND THEN I WORKED ON 18 IT MORE AND THAT WAS PUBLISHED. YES. I EXCLUDED THAT FROM THE QUESTION. I EXCLUDED THAT 19 FROM THE QUESTION, IF YOU WERE LISTENING. 20 Α. 21 OKAY. 22 OTHER THAN THAT, YOU HAVE NEVER PUBLISHED AN ARTICLE IN AN ACADEMIC PEER-REVIEWED JOURNAL. CORRECT? 23 24 Α. THAT IS CORRECT, YES. O. OKAY. AND YOU HAVE, FOR THE ENTIRETY OF YOUR CAREER, 25

WORKED AT ECONOMICS CONSULTING FIRMS AS YOUR FULL-TIME JOB. 1 2 CORRECT? AFTER GETTING MY PH.D., YES, BUT I'VE ALSO WORKED AT THE 3 4 WORLD BANK IN THE PAST. 5 THAT WAS BEFORE YOU GOT YOUR PH.D. CORRECT? Q. Α. BEFORE COMPLETION OF IT, YES. 6 7 HOW LONG DID YOU WORK THERE? 8 Α. I WORKED AT THE WORLD BANK A FEW -- I HAD A FEW DIFFERENT SUMMERS THAT I SPENT THERE. SO THESE WERE SUMMER JOBS WHILE YOU WERE IN GRADUATE 10 11 SCHOOL? IN GRADUATE SCHOOL, AND ALSO IN, DURING MY UNDERGRADUATE. 12 13 Q. OKAY. AND YOU'VE, YOU'VE NEVER BEEN A PROFESSOR AT A DEGREE-GRANTING UNIVERSITY. CORRECT? 14 NO. I WENT INTO THE PRIVATE SECTOR AFTER GRADUATE SCHOOL. 15 Α. Q. AND YOU'VE NEVER WORKED FOR A GOVERNMENT AGENCY IN 16 17 ECONOMICS. IS THAT CORRECT? 18 Α. THAT'S CORRECT. Q. SO GETTING BACK TO YOUR ARTICLE, I'D LIKE TO READ YOU --19 I'LL GIVE YOU A COPY OF IT, IF YOU WOULD LIKE. WOULD YOU LIKE 20 TO HAVE A COPY OF IT? 21 22 A. I WOULD. MR. STEWART: MAY I APPROACH, YOUR HONOR? 23 THE COURT: OF COURSE. 24 BY MR. STEWART: 25

SO, DR. HAIDER, DO YOU RECOGNIZE THIS AS A COPY OF AN 1 2 ARTICLE THAT YOU WROTE? I DO. 3 Α. 4 0. DO YOU STAND BY EVERYTHING THAT YOU SAID IN THAT ARTICLE? 5 Α. I BELIEVE SO. OKAY. NOW, IN THE ARTICLE, YOU MAKE A STATEMENT, DO YOU 6 Ο. 7 NOT, THAT SUBREGRESSION ANALYSIS IS A TYPE OF SENSITIVITY 8 ANALYSIS? IS THAT RIGHT? WOULD YOU DESCRIBE IT THAT WAY? 9 THAT'S CORRECT. OKAY. AND YOU HAVE SAID THAT BY CONDUCTING A 10 SUBREGRESSION OR SENSITIVITY ANALYSIS, THE ECONOMIC RESEARCHER 11 CAN DEMONSTRATE THAT THE ASSUMED AVERAGE EFFECTS DO NOT HOLD 12 13 FOR DIFFERENT MEMBERS OF THE CLASS, AND THAT'S YOUR POSITION TODAY. CORRECT? 14 15 Α. THAT'S CORRECT, YES. 16 Q. OKAY. AND YOU SAY HOW THESE SUBSETS OF CUSTOMERS ARE 17 CHOSEN CAN BE ROOTED IN THE FACTS OF THE CASE AND THE REALITIES 18 OF THE INDUSTRY AT ISSUE. CORRECT? 19 Α. THAT'S CORRECT. OKAY. SO -- AND THEN YOU GIVE SOME EXAMPLES IN THE 20 ARTICLE OF SUBGROUPS THAT PERHAPS SHOULD BE TESTED IF THE FACTS 21 22 INDICATE THAT THAT'S THE CASE. CORRECT? THAT'S CORRECT. 23 Α. FOR EXAMPLE, YOU GIVE THE EXAMPLE THAT IF THE FACTS SHOWED 24 THAT THERE ARE REGIONS OF THE COUNTRY WHERE THERE ARE 25

ALTERNATIVE SOURCES OF SUPPLY, THEN MAYBE THERE SHOULD BE A 1 2 SUBREGRESSION RUN FOR THAT REGION. CORRECT? 3 Α. THAT'S CORRECT, YES. 4 Q. AND ANOTHER EXAMPLE YOU GIVE IS, IF THERE'S A LARGE 5 CUSTOMER WHO MIGHT BE ABLE TO NEGOTIATE BULK DISCOUNTS SO THAT 6 THEY COULD AVOID AN ALLEGED OVERCHARGE, YOU MIGHT WANT TO TEST 7 THAT CUSTOMER. CORRECT? 8 Α. I THINK THAT'S CORRECT. I DON'T SEE EXACTLY WHERE THAT 9 IS, BUT THAT SOUNDS -- I'LL TAKE YOUR WORD FOR IT. THAT SOUNDS 10 RIGHT. DOES THAT SOUND LIKE SOMETHING YOU WROTE? 11 Ο. I DON'T REMEMBER THE BULK DISCOUNT TERM, BUT IF YOU WANT 12 13 TO POINT ME TO THE PARAGRAPH, I'M HAPPY TO TAKE A LOOK. OKAY. IF YOU'D TAKE A LOOK AT THE FIFTH PAGE OF THE 14 0. 15 ARTICLE. THEY'RE NOT NUMBERED. 16 Α. OKAY. WHICH PARAGRAPH? 17 I'M SORRY. IT'S ON THE FOURTH PAGE, THE LAST PARAGRAPH Ο. 18 THAT STARTS, FOR EXAMPLE, IF EVIDENCE SUGGESTS. 19 Α. YES, I SEE THAT. AND DO YOU SEE IN THE MIDDLE PARAGRAPH IT SAYS, SIMILARLY, 20 IF EVIDENCE SUGGESTS THAT LARGER CUSTOMERS ARE ABLE TO 21 22 NEGOTIATE BULK DISCOUNTS SUCH THAT THEY COULD AVOID AN ALLEGED OVERCHARGE, THEN POOLING SALES TRANSACTIONS ACROSS ALL 23 24 CUSTOMERS AND ESTIMATING A SINGLE AVERAGE OVERCHARGE WOULD BE MISLEADING. DID I READ THAT CORRECTLY? 25

1 Α. THAT'S CORRECT. 2 Q. OKAY. AND DR. SUNDING DID THAT. CORRECT? HE CHECKED WAL-MART, AND HE RECENTLY CHECKED TEN OTHER CUSTOMERS, THE TOP 3 4 TEN CUSTOMERS, THAT ACCOUNTED FOR ABOUT 60 PERCENT OF THE 5 VOLUME. IS THAT CORRECT? DR. SUNDING -- IT IS CORRECT THAT DR. SUNDING CHECKED 6 7 WAL-MART, AND NOW I UNDERSTAND HE'S ALSO CHECKED THE TOP TEN 8 CUSTOMERS FOR EACH ONE, BUT IT IS ALSO THE CASE THAT THE COMMON 9 METHOD THAT HE SAID HOLDS FOR THESE DIFFERENT DIRECT PURCHASERS IN FACT DOES NOT, BECAUSE IN SOME OF THOSE CASES, AS WE'VE 10 DISCUSSED, WHEN HE FINDS AN EFFECT OF A NEGATIVE, HE ALTERED 11 12 HIS REGRESSION MODEL FOR THOSE CUSTOMERS. 13 OKAY. AND HE EXPLAINED WHY HE DID THAT. I DON'T WANT TO GET INTO THAT WITH YOU. HE EXPLAINED IT, AND HE'S HERE TO 14 15 EXPLAIN IT AGAIN IF JUDGE SAMMARTINO IS INTERESTED. BUT ON MY NARROW QUESTION THAT I ASKED YOU, DR. SUNDING DID DO WHAT YOU 16 17 SUGGESTED IN YOUR ARTICLE MIGHT BE APPROPRIATE, WHICH IS TO 18 CHECK LARGE CUSTOMERS WHO MAY HAVE NEGOTIATING POWER. CORRECT? 19 SO I WANT TO MAKE SURE WE'RE VERY CLEAR ABOUT THIS. TESTING THAT I DID SHOWS NUMEROUS LARGE CUSTOMERS BY DR. 20 SUNDING'S OWN REGRESSION MODEL SHOWING NO POSITIVE AND 21 22 STATISTICALLY SIGNIFICANT OVERCHARGE. I SHOWED NUMEROUS EXAMPLES WHERE HIS MODEL YIELDS A NEGATIVE. THE APPROPRIATE 23 24 TEST IS TO LOOK AT NOT JUST SOME SELECTED CUSTOMERS, BUT IN FACT TO LOOK AT, AND I TALKED ABOUT THE TOP HUNDRED, BUT TO 25

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LOOK AT THE CUSTOMERS, NOT JUST LOOK AT THE TOP TEN IN EACH CASE, AND IN ANY CASE WHEN HE DID LOOK AT THE TOP TEN, HE IN FACT SAID THAT HE, OR BASICALLY WHAT HIS WORK SHOWS IS THAT HE THINKS HE NEEDS TO ACCOUNT FOR SOME OTHER FACTOR IN ORDER TO EXPLAIN THE EXPERIENCES OF THOSE PARTICULAR CUSTOMERS. HAVE DONE THE TESTING THAT HAS BEEN DESCRIBED HERE OF DR. SUNDING'S MODEL. THERE'S NO EXACT REASON TO JUST LOOK AT THE TOP TEN CUSTOMERS AND NOT LOOK FURTHER. THERE'S NO VALID STATISTICAL, SCIENTIFIC BASIS FOR DOING SO. AND WHAT THERE'S NO EX ANTE REASON TO ALSO DO, DR. HAIDER, AND WHAT YOU DID WAS TO GO FROM THE CHOW TEST, SOME SPECULATIVE CONCLUSION ABOUT NEGOTIATING ABILITIES AND RUN RIGHT TO 600-AND-SOME-ODD INDIVIDUAL CUSTOMER REGRESSIONS, AND WHAT I WOULD LIKE TO KNOW FROM YOU IS, OTHER THAN WHAT YOU SAID ABOUT DIFFERENT PRICES BEING PAID AND THE CHOW TEST, WHAT IS YOUR EX ANTE REASON FOUNDED IN SOUND ECONOMIC THEORY, THE FACTS OF THE CASE, AND INDUSTRY REALITIES THAT CAUSES YOU TO RUN FROM THE CHOW TEST TO 600-AND-SOME-ODD INDIVIDUAL EQUATIONS, SOME OF WHICH ARE ON PITIFULLY SMALL SETS OF DATA? WHAT IS IT? SO, AGAIN, LET ME GO BACK TO WHAT I DESCRIBED EARLIER. THOUGHT I HAD ALREADY ANSWERED YOUR OUESTION. I SEE THAT THE DIRECT PURCHASERS NEGOTIATE AND PAY DIFFERENT PRICES. I ASSESS DR. SUNDING'S PROPOSED METHODOLOGY. IT SHOWS THAT THERE ARE IN FACT -- THE SAME SUPPLY-AND-COMMAND FACTORS HAVE DIFFERENT EFFECTS FOR DIFFERENT DIRECT PURCHASERS BY HIS OWN METHOD THAT

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HE IS PUTTING FORWARD. WHEN YOU DO SEE THAT TESTING AND YOU SEE THESE WIDELY VARYING ESTIMATES THAT HE HIMSELF HAS, WHAT THAT TELLS YOU IS THAT THERE IS NO BASIS TO ASSUME THAT THERE ARE NO OTHER DIFFERENCES AMONGST THE DIRECT PURCHASERS GIVEN THAT WE SEE THAT THEY PAID VERY DIFFERENT PRICES, AND I GAVE YOU SOME REASONS EARLIER AS TO WHY YOU NEED TO ACCOUNT FOR DIFFERENT NEGOTIATING ABILITIES IN TERMS OF THE POSSIBILITY THAT A CUSTOMER WOULD BE ABLE TO AVOID AN OVERCHARGE.

I THEN DID THE CHOW TEST, AS YOU DESCRIBED. THE USE OF AN AVERAGE, BECAUSE IT SAYS THAT THAT DOES NOT, IN FACT, CAPTURE THE UNDERLYING HETEROGENOUS EXPERIENCES OF THE UNDERLYING PURCHASERS, AND SO THAT TEST TELLS YOU THAT A SINGLE MODEL DOES NOT WORK FOR ALL THE PURCHASERS, AND THEN I LOOKED AT THE RESULTS OF THE TESTS, AND ONE -- I THINK YOU'RE SAYING 600-PLUS REGRESSIONS. ONE, THAT IS NOT CORRECT, BUT LET ME PUT THAT ASIDE FOR A MOMENT. YOU SAID SOMETHING ALSO ABOUT PITIFULLY SMALL DATA. WE HAVE ALREADY DISCUSSED AND I EXPLAINED TO MR. MICHAEL IN MY DIRECT EXAMINATION THAT WE CAN JUST LOOK AT THE TOP HUNDRED CUSTOMERS. IF YOU DON'T WANT TO LOOK AT THE SMALL PURCHASERS, THOUGH HIS COMMON MODEL DOES NOT, CLEARLY DOES NOT EXPLAIN PRICES PAID FOR THEM, WE CAN PUT THEM ASIDE. BUT EVEN FOR THE TOP HUNDRED PURCHASERS YOU GET -- THE TESTING TELLS YOU THE SAME ANSWER, THAT HIS COMMON MODEL IS NOT, IN FACT, YIELDING AN OVERCHARGE FOR EACH ONE OF THEM.

AND GOING BACK FINALLY TO YOUR EX ANTE REASON, THE

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PROPOSITION THAT DR. SUNDING IS ESSENTIALLY SAYING HIS MODEL IS TESTING IS, WERE ALL OR NEARLY ALL DIRECT PURCHASERS AFFECTED BY THE ALLEGED CONDUCT. THAT'S THE STARTING POINT. HE'S SAYING THAT HIS MODEL WITH THOSE AVERAGE EFFECTS ESTABLISHES THAT, BUT WHAT'S IN THERE IS ALL OR NEARLY ALL DIRECT PURCHASERS. SO, OF COURSE, THERE'S AN EX ANTE REASON TO LOOK AT WHAT'S HAPPENING WITH THE INDIVIDUAL DIRECT PURCHASERS, WHETHER THE DATA TELL YOU THAT THERE ARE DIFFERENCES, DOES IT LOOK LIKE THERE ARE DIFFERENT SUPPLY-AND-DEMAND FACTORS, AND THEN PUT IT TO THE TEST. THE TEST IS AGNOSTIC. IF THESE DIFFERENCES DIDN'T MATTER, YOU WOULD NOT EXPECT TO SEE THE RESULTS THAT I FOUND. THE REASON YOU SEE THEM IS BECAUSE HIS AVERAGE EFFECTS DON'T HOLD FOR THE UNDERLYING PURCHASERS. OKAY. WE'RE NOT GETTING ANYWHERE ON THIS, SO LET ME CHANGE GEARS FOR A SECOND. SO YOU WENT TO WORK AT EDGEWORTH IN 2012. CORRECT? Α. THAT'S CORRECT. OKAY. AND FROM THE TIME THAT YOU JOINED EDGEWORTH, YOU HAVE MARKETED YOURSELF AS AN ECONOMIST WHO COULD USE YOUR EXPERTISE TO HELP COMPANIES DEFEAT CLASS CERTIFICATION. THAT CORRECT? Α. I DON'T BELIEVE THAT IS CORRECT. WE DO A GREAT DEAL OF CLASS-CERTIFICATION WORK, BUT I, I DON'T AGREE WITH THAT CHARACTERIZATION. Q. WOULD YOU OPEN TO TAB 11 IN THE BINDER, PLEASE? IS TAB 11

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IN THE BINDER, WHICH IS A PRESS RELEASE ENTITLED LAILA HAIDER JOINS EDGEWORTH ECONOMICS, A COPY OF THE PRESS RELEASE THAT WAS ISSUED WHEN YOU JOINED EDGEWORTH? Α. YES, THIS IS. OKAY. AND DOES THAT PRESS RELEASE INCLUDE A QUOTE THAT Q. YOU GAVE IN THE COURSE OF THE PRESS RELEASE? Α. YES, IT DOES. THIS WAS A QUOTE THAT WAS INCLUDED IN THE PRESS RELEASE AND ATTRIBUTED TO ME, BUT ALSO I REMEMBER, I REMEMBERED WRITING THIS WITH THE MARKETING PERSON AT EDGEWORTH. OKAY. I BELIEVE IT'S TAB 11. OKAY. AND IN THE SECOND PARAGRAPH, I'M GOING TO READ IT INTO THE RECORD BECAUSE IT'S IN QUOTES. I AM HONORED AND EXCITED TO JOIN THE VERY TALENTED TEAM OF ECONOMISTS AT EDGEWORTH, SAID DR. HAIDER. CLIENTS FACING CLASS ACTIONS, ANTITRUST AND LABOR AND EMPLOYMENT ISSUES ARE INCREASINGLY WINNING LITIGATION BASED ON DEMONSTRATED ECONOMIC ANALYSES AND EXPERT TESTIMONY. EDGEWORTH HAS PROVEN THIS VALUE TO ITS CLIENTS ACROSS NUMEROUS INDUSTRIES, AND I --AND THE "I" THERE REFERS TO YOU, DR. HAIDER. CORRECT? Α. IT REFERS TO ME. I LOOK FORWARD TO BRINGING MY ECONOMIC EXPERTISE TO ADD TO THIS POSITIVE RECORD. AND THE POSITIVE RECORD YOU'RE REFERRING TO IS THE RECORD OF GETTING SUCCESSFUL RESULTS FOR CLIENTS WHO ARE BEING SUED IN CLASS ACTIONS. IS THAT CORRECT? THE SENTENCE SAYS WHAT IT DOES. IT SAYS CLASS ACTION, ANTITRUST AND LABOR AND EMPLOYMENT ISSUES. I WAS TALKING ABOUT

ALL OF THAT CASE WORK. THAT'S CORRECT. 1 Q. ALL OF YOUR WORK IN CLASS-CERTIFICATION MATTERS SINCE 2 JOINING EDGEWORTH HAS BEEN ON BEHALF OF DEFENDANTS OPPOSING 3 4 CLASS CERTIFICATION. CORRECT? 5 Α. THAT'S CORRECT. YOU HAVE NEVER SUBMITTED A REPORT OR TESTIFIED IN SUPPORT 6 Ο. 7 OF A PLAINTIFF SEEKING TO CERTIFY A CLASS. CORRECT? 8 Α. THAT'S CORRECT. YOU HAVE NEVER CONSTRUCTED A MODEL DESIGNED TO SHOW COMMON 9 IMPACT SUCH AS, OR TO INVESTIGATE AFFIRMATIVELY WHETHER COMMON 10 IMPACT EXISTS SUCH AS DR. MANGUM AND DR. SUNDING HAVE DONE HERE 11 12 IN COURT. CORRECT? 13 Α. THAT'S CORRECT. Q. NOW -- AND YOU DIDN'T BUILD ONE IN THIS CASE, EITHER. 14 CORRECT? 15 16 Α. I'M SORRY. I DIDN'T DO WHAT? 17 O. YOU DID NOT CONSTRUCT SUCH A MODEL IN THIS CASE, EITHER. 18 CORRECT? A. NO. THAT WAS NOT MY ROLE IN THIS CASE. 19 O. YOU WERE RETAINED TO CRITICIZE DR. SUNDING'S ANALYSIS. 20 21 CORRECT? 22 Α. THAT'S NOT CORRECT. DR. JOHNSON, WHO TESTIFIED YESTERDAY, DOES HE OWN 23 24 EDGEWORTH? A. HE DOES, YES. HE'S THE SOLE OWNER. 25

1 AND ARE YOU PAID BY SALARY AND BONUS? 2 Α. I AM. AND IS YOUR BONUS DETERMINED BY DR. JOHNSON? 3 Ο. 4 A. BY -- THERE'S A COMPENSATION COMMITTEE. DR. JOHNSON, I'M 5 SURE, GETS TO WEIGH IN. I DON'T KNOW HOW INVOLVED HE IS IN 6 THAT. 7 Q. YOU CITE AN ARTICLE IN YOUR REPORT AT FOOTNOTE 110 TURNING 8 DAUBERT ON ITS HEAD, IGNORING THE RESULTS OF THE CHOW TEST. DO YOU RECALL THAT? 9 Α. I DO. 10 Q. AND YOU WROTE THAT ARTICLE, AND YOUR CO-AUTHORS ON THAT 11 ARTICLE ARE DR. JOHNSON, WHO TESTIFIED YESTERDAY, AND DR. 12 13 LEONARD, WHO'S YOUR PARTNER. CORRECT? A. THAT'S CORRECT. 14 Q. THIS APPROACH TO COMMON IMPACT, THIS SUBREGRESSION 15 16 APPROACH TO COMMON IMPACT, THIS IS A METHODOLOGY THAT YOUR 17 FIRM, EDGEWORTH, AND THE ECONOMISTS ARE OUT SHOPPING TO DEFENSE 18 LAWYERS FACING CLASS-ACTION LITIGATION. IS THAT CORRECT? 19 A. I, I DON'T AGREE WITH THAT CHARACTERIZATION. THE ARTICLE THAT YOU'RE REFERRING TO IS, WAS PUBLISHED IN ANTITRUST 20 MAGAZINE, AND ANYBODY THAT WANTS TO READ IT IS WELCOME TO. 21 ANTITRUST MAGAZINE IS A PRACTITIONER PERIODICAL, IS IT 22 Ο. NOT? THE PEOPLE WHO READ THAT ARE PEOPLE WHO WORK ON ANTITRUST 23 24 CASES TO A LARGE PART. CORRECT? A. YES. OF COURSE. 25

1 AND THOSE ARTICLES HAVE A MARKETING PURPOSE, DO THEY NOT, 2 FOR YOUR FIRM? THEY CAN. THAT WAS NOT THE GOAL IN TERMS OF WRITING THAT 3 Α. PAPER, BUT, OF COURSE, THEY CAN HAVE A MARKETING IMPACT. 5 YOU TESTIFIED AT YOUR DEPOSITION THAT (PAUSE), YOU 6 TESTIFIED AT YOUR DEPOSITION THAT THERE WERE, YOU'VE LOOKED AT 7 NUMEROUS COURT DECISIONS IN WHICH THE COURT SAID THAT CLASS 8 CERTIFICATION WAS SUCCESSFULLY DEMONSTRATED. DO YOU RECALL THAT? I'M SORRY. WOULD YOU REPEAT YOUR QUESTION? 10 Α. YES. YOU HAVE LOOKED, YOU SAID, AT YOUR DEPOSITION, THAT 11 Q. 12 YOU HAVE LOOKED AT NUMEROUS COURT DECISIONS IN WHICH THE COURT 13 SAID THAT CLASS CERTIFICATION WAS SUCCESSFULLY DEMONSTRATED. IS THAT RIGHT? 14 YES, I RECALL SAYING THAT. I HAVE LOOKED AT VARIOUS COURT 15 CASES. 16 17 AND YOU SAID THAT IN SOME OF THE CASES THAT YOU LOOKED AT Ο. 18 YOU THOUGHT THAT THE PROPOSED METHODOLOGY THAT WAS PROFFERED IN 19 SUPPORT OF CLASS CERTIFICATION AND ACCEPTED BY THE COURT WAS CORRECT AND YOU DID NOT DISAGREE WITH IT. DO YOU RECALL THAT? 20 I RECALL IN MY DEPOSITION TESTIMONY I WAS ASKED, I THINK 21 Α. BY MR. BURT HERE, WHETHER I AGREED AND DISAGREED WITH CERTAIN 22 COURT DECISIONS THAT CAME OUT, AND WHAT I SAID TO HIM IS I 23 24 DON'T NECESSARILY AGREE OR DISAGREE. I'VE READ SOME OF THEM. I'M NOT A LAWYER. AS AN ECONOMIST, I'VE READ SOME, AND I LOOK 25

TO SEE -- I'VE READ IN THOSE INSTANCES HOW THE ECONOMIC 1 ANALYSIS WAS PORTRAYED. I THINK THAT'S THE DISCUSSION I 2 RECALL, BUT IF YOU HAVE A PARTICULAR (PAUSE). 3 4 Q. YES. I'LL READ YOU A SPECIFIC ANSWER. TELL ME IF IT 5 SOUNDS FAMILIAR. I DON'T KNOW THE DETAILS OF THOSE CASES. I'VE LOOKED AT COURT DECISIONS WHERE JUDGES HAVE LAID OUT WHY 6 7 THEY THOUGHT THE PROPOSED METHODOLOGY WAS APPROPRIATE AND WHY 8 CLASS CERTIFICATION WAS APPROPRIATE, AND I'VE CERTAINLY LOOKED 9 AT SEVERAL AND IT SOUNDED FINE TO ME. OKAY? IS THERE ANY DOUBT THAT YOU SAID THAT? 10 A. OH, NO, ABSOLUTELY NO DOUBT, AND I'M JUST SAYING IT WAS IN 11 12 RESPONSE TO HIM ASKING ME WHETHER I AGREED OR DISAGREED WITH 13 COURT DECISIONS, AND I SAID, OF COURSE, I SEE MANY AND I HAVE NO CAUSE FOR TAKING ISSUE WITH THEM. 14 15 WOULD YOU TELL US ALL WHAT CLASS-CERTIFICATION DECISIONS THAT YOU WERE REFERRING TO, THAT YOU HAVE IN MIND, WHERE YOU 16 17 THOUGHT THE METHODOLOGY WAS FINE? 18 I DON'T REMEMBER A, A -- I CAN'T TELL YOU A PARTICULAR 19 ONE. I THINK I WAS JUST SAYING IN GENERAL I DON'T, YOU KNOW, I DON'T HAVE ANY PARTICULAR AGREEMENT OR DISAGREEMENT. I'VE SEEN 20 21 A VARIETY OVER TIME. 22 WELL, NO. HERE, YOU SAID YOU HAD AGREEMENT WITH THE CASE Ο. THAT YOU HAD READ, AND IN ORDER TO ASSESS WHAT YOUR VIEWS ARE 23 24 IN METHODOLOGY, I WOULD LIKE TO KNOW WHAT CASES YOU WERE REFERRING TO WHERE YOU SAID YOU READ THE METHODOLOGY AND YOU 25

1 THOUGHT IT WAS APPROPRIATE. 2 A. I WAS JUST SPEAKING IN GENERAL TERMS, SIR. I'VE SEEN -- I THINK I WAS BEING ASKED IF I ALWAYS DISAGREED. I THINK THAT 3 4 WAS THE GENERAL SENSE IN THE TRANSCRIPT OF THE QUESTIONS, AND I 5 WAS SAYING I DON'T HAVE ANY BASIS TO DISAGREE OR AGREE. I'M 6 NOT, I'M NOT DETERMINING WHETHER CLASS CERTIFICATION IS 7 APPROPRIATE. I'VE DONE HERE WHAT I'VE BEEN ASKED TO DO, WHICH 8 WAS ASSESS DR. SUNDING'S METHODOLOGY. 9 DOCTOR, IF I ASKED YOU TO IDENTIFY SOME CASES WHERE YOU DISAGREED WITH THE GRANTING OF CLASS CERTIFICATION, I BET YOU 10 COULD TELL ME SOME. TRUE? 11 12 A. AGAIN, I DON'T -- MY UNDERSTANDING AS AN ECONOMIST DOING 13 THIS WORK IS THAT THERE ARE, THAT IT IS A LEGAL MATTER, WHETHER CLASS SHOULD BE CERTIFIED OR NOT. I KNOW ECONOMIC ANALYSIS 14 15 PLAYS A ROLE, AND I'VE CERTAINLY TALKED ABOUT THE ROLE OF 16 ECONOMIC ANALYSIS IN CLASS CERTIFICATION, BUT THAT'S ALL I CAN, I CAN SPEAK ABOUT, IS MY ROLE AS AN ECONOMIST. 17 18 Q. OKAY, DOCTOR. IF YOU WOULD GO BACK TO YOUR REPORT, 19 PLEASE, I WANT TO ASK YOU A FEW QUESTIONS. MY TIME IS GROWING SHORT, I THINK. I TOLD THEM TO TACKLE ME. IT MIGHT ACTUALLY 20 HAPPEN. I JUST WANT TO ASK YOU JUST A COUPLE OF FINAL 21 22 OUESTIONS. IF YOU'LL TAKE OUT YOUR REPORT AGAIN. THAT WAS TAB -- DO YOU HAVE IT? TAB SEVEN. 23 24 Α. SEVEN. O. OKAY. AND IF YOU'LL TURN TO THE APPENDIX IN YOUR REPORT 25

ENTITLED MATERIALS RELIED UPON. IT STARTS, I THINK, AT PAGE 82 1 2 OF YOUR REPORT. 3 Α. OKAY. 4 OKAY. SO YOU UNDERSTOOD THAT IN THIS REPORT YOU NEEDED TO 5 EXHAUSTIVELY SET OUT THE MATERIALS THAT YOU RELIED UPON. 6 CORRECT? 7 YES, THAT'S MY UNDERSTANDING. Α. 8 Q. ALL RIGHT. SO, IN TERMS OF INTERVIEWS, YOU INTERVIEWED 9 ONE, TWO, THREE, FOUR, FIVE PEOPLE AT THE VARIOUS TUNA COMPANIES. CORRECT? 10 11 Α. THAT'S CORRECT. OKAY. YOU DIDN'T TAKE ANY NOTES OF THOSE INTERVIEWS. 12 13 CORRECT? A. THAT'S CORRECT. 14 Q. OKAY. AND SO WE DON'T -- WE CAN'T TELL WHAT THOSE PEOPLE 15 16 TOLD YOU BASED ON A WRITTEN RECORD. IS THAT RIGHT? 17 THAT'S CORRECT. MR. BURT ASKED ME OUESTIONS ABOUT THESE Α. 18 INTERVIEWS AT MY DEPOSITION. OKAY. DID YOU INTERVIEW ANYBODY -- BECAUSE THESE NAMES 19 Ο. ARE NOT THE PEOPLE WHO I THINK MEET THIS DESCRIPTION. DID YOU 20 INTERVIEW ANY CEO'S OR ANY SENIOR EXECUTIVES IN THE SALES AND 21 22 MARKETING DEPARTMENTS OF THESE COMPANIES? I INTERVIEWED THE INDIVIDUALS THAT WERE LISTED HERE. 23 WERE NOT CEO'S. THEIR TITLES ARE REPRESENTED. JUST THESE 24 INDIVIDUALS, NO ONE ELSE. 25

1 DID YOU INTERVIEW THE SENIOR EXECUTIVES IN THE SALES AND 2 MARKING DEPARTMENTS AND THE CEO'S WHO ACTUALLY ENGAGED IN THE CARTEL PRICE-FIXING AND SETTING THE PRICES FOR THE COMPANY TO 3 4 DISCUSS WITH THEM WHAT THEIR VIEWS WERE AS TO WHETHER THIS WAS 5 AN EFFECTIVE CONSPIRACY, AS TO WHY THEY DID WHAT THEY DID, OR 6 ANY, OR HOW PRICES WERE SET? DID YOU DISCUSS ANY OF THAT WITH 7 THE PEOPLE WHO ACTUALLY WERE INVOLVED IN SETTING 8 CONSPIRATORIALLY ELEVATED PRICES? 9 I DID NOT CONDUCT THOSE INTERVIEWS. THE ONLY ONES WERE 10 LISTED HERE. O. OKAY. AND I LOOKED AT THE DOCUMENTS THAT YOU RELIED ON 11 12 AND I COUNTED UP -- OF BATES-STAMPED DOCUMENTS, SO DOCUMENTS 13 FROM THE DEFENDANTS THAT HAVE THE, THE INDICATION AT THE BEGINNING THAT THEY WERE PRODUCED BY EITHER BUMBLE BEE, CHICKEN 14 15 OF THE SEA, AND STARKIST, AND I CAME UP WITH 25 DOCUMENTS. 16 OKAY. IS THAT THE SUM AND SUBSTANCE OF THE NUMBER OF DOCUMENTS 17 YOU LOOKED AT IN YOUR INVESTIGATION THAT WERE PRODUCED BY THE 18 DEFENDANTS? I THINK IT SHOULD SAY SOMEWHERE THAT I AM ALSO 19 INCORPORATING, DOES IT NOT, THE DOCUMENTS THAT WERE CITED BY 20 DR. SUNDING? 21 22 I DON'T KNOW IF IT DOES OR NOT, BUT ON THE BATES-STAMPED Ο. DOCUMENTS THAT'S WHAT I FOUND, AND OF THOSE 25 DOCUMENTS WOULD 23 24 IT SURPRISE YOU TO LEARN THAT 17 OF THE 25 DOCUMENTS ARE DATA 25 SETS?

NO, THAT DOESN'T SURPRISE ME, THAT SOME OF THOSE ARE DATA 1 2 SETS. I CAN'T TELL YOU THE NUMBER, BUT ALSO IF YOU LOOK AT PAGE 82, IT SAYS, EXPERT REPORT OF DAVID SUNDING IN SUPPORT OF 3 4 PLAINTIFFS' MOTION FOR CLASS CERTIFICATION AND ALL MATERIALS 5 REFERENCED, AND TURN OVER PRODUCTION THEREIN. IT'S NOT THE CASE THAT I ONLY LOOKED AT 25 DOCUMENTS, ALTHOUGH SOME OF THOSE 6 7 YOU'RE SAYING ARE DATA SETS. I'VE REVIEWED NUMEROUS DOCUMENTS. 8 Ο. SO YOU REVIEWED ALL THE DOCUMENTS THAT DR. SUNDING CITED. 9 I HAVE, AND MY TEAM AS WELL. YOU OR YOUR TEAM? 10 Q. 11 Α. I'VE REVIEWED NUMEROUS DOCUMENTS. MY TEAM HAS ALSO REVIEWED MANY ADDITIONAL DOCUMENTS, I THINK, IN ADDITION TO 12 13 WHAT I DID. ALL RIGHT. THEY'RE TELLING ME THAT I'M OUT OF TIME, BUT I 14 Ο. WANT TO ASK YOU -- I'M GOING TO IGNORE THEM. I'M GOING TO ASK 15 YOU A COUPLE QUESTIONS. OKAY? AND DON'T PLAY THE CLOCK ON ME, 16 17 DOCTOR. OKAY? DON'T GO FOUR CORNERS ON ME IN YOUR ANSWERS. 18 THAT'S A BASKETBALL TERM WHICH MEANS YOU STALL. Α. 19 OH, OKAY. I DON'T PLAY BASKETBALL, SO I WOULDN'T KNOW. SO DR. SUNDING ESSENTIALLY CITES THREE TYPES OF EVIDENCE 20 IN SUPPORT OF ESTIMATES. FIRST, HE SAYS THAT IT'S AN ECONOMIC 21 22 THEORY THAT'S ACCEPTED. DO YOU OUARREL WITH THAT, THAT THE PHENOMENON OF PASS-THROUGH IS RECOGNIZED IN THE ECONOMIC 23 24 LITERATURE AND IT'S OBSERVED IN MANY STUDIES? WOULD YOU OUARREL WITH THAT? 25

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I DO NOT DISAGREE WITH DR. SUNDING THAT PASS-THROUGH IS DISCUSSED IN ECONOMICS. IN FACT, I THINK WHAT'S REALLY IMPORTANT, THOUGH, IS THAT, AS THE ESTIMATION OF PASS-THROUGH, TO DETERMINE WHETHER IT IN FACT TOOK PLACE OR NOT IS A MATTER OF EMPIRICAL INQUIRY. I DON'T THINK DR. SUNDING AND I HAVE DISAGREEMENT THAT IT'S A MATTER OF EMPIRICAL INOUIRY. IN FACT. THE ARTICLE THAT DR. SUNDING LAID OUT AS WHAT HE WANTED TO FOLLOW IS THIS ARTICLE BY BESANKO AND A FEW OTHER RESEARCHERS. THIS IS A PEER-REVIEWED ACADEMIC ARTICLE. DR. SUNDING SAID HE'S FOLLOWING THAT ARTICLE IN TERMS OF HIS APPROACH. YOU TOLD ME NOT TO TAKE TIME, I WON'T EXPLAIN TO YOU ALL THE REASONS WHY DR. SUNDING DID NOT FOLLOW THAT APPROACH, BUT IN FACT THAT ARTICLE ITSELF SHOWS THAT WHEN CANNED TUNA IS SO --WELL, YOU'RE DOING WHAT YOU JUST TOLD ME YOU WOULDN'T DO. 0. WELL, LET ME FINISH. AND SO IN 60 DIFFERENT INSTANCES, FOR 22 OF THEM, THERE WAS NO STATISTICALLY SIGNIFICANT PASS-THROUGH. SO IT'S AN EMPIRICAL INQUIRY. OKAY. SO YOU AGREE WITH ME -- NEVER MIND. I'M GOING TO ASK THE OUESTION AND I'M GOING TO GET THE SAME ANSWER. SECOND SOURCE OF EVIDENCE WERE DOCUMENTS IN THE CASE. DID YOU READ DOCUMENTS IN THE CASE WHERE THE EXECUTIVES OF THE COMPANY WHO OUGHT TO KNOW ARE ACTUALLY SAYING THAT THEY UNDERSTAND THAT THE INCREASES IN THE WHOLESALE PRICE ARE GOING TO BE REFLECTED ON THE SHELVES FOR THE PEOPLE WHO ACTUALLY ARE GOING TO BUY THIS TUNA? DID YOU READ THAT, REFERENCES TO THOSE IN THE

1 DOCUMENTS OF THE DEFENDANTS? 2 I HAVE READ SOME OF THOSE REFERENCES. I'VE ALSO REVIEWED DEPOSITION TESTIMONY FROM RETAILERS, SOME OF WHICH SAYS THAT 3 4 THERE ARE, THERE IS PASS-THROUGH OF COST CHANGES AND SOME SAYS 5 THAT THERE ARE NUMEROUS INSTANCES WHERE THEY DON'T PASS THROUGH 6 A COST CHANGE, AND THIS IS EXACTLY WHY YOU NEED TO DO THE 7 EMPIRICAL TESTING, AND THAT'S IN THE LITERATURE AS WELL. EVEN 8 FOR CANNED TUNA, THERE ARE INSTANCES WHEN THERE'S NO PASS-THROUGH. OKAY. AND THE THIRD BASIS FOR DR. SUNDING'S CONCLUSION 10 THAT THERE WAS PASS-THROUGH ON A GENERALIZED BASIS WAS THE 11 EMPIRICAL WORK THAT HE DID, AND I UNDERSTAND YOU DISAGREE WITH 12 13 HIS EMPIRICAL WORK, AND I AM NOT ASKING YOU WHAT YOUR DISAGREEMENTS ARE, BECAUSE WE'VE HEARD IT. OKAY? SO THOSE ARE 14 15 THE THREE BASES. YOU AGREE WITH HIM ON ECONOMIC THEORY. 16 AGREE THAT THERE'S EVIDENCE IN THE RECORD THAT THE DEFENDANTS 17 RECOGNIZE THE PHENOMENON OF PASS-THROUGH ON THEIR PRODUCTS, AND 18 HE DID EMPIRICAL TESTING. CORRECT? 19 I WOULD NOT CHARACTERIZE THE ANSWER, MY ANSWER TO SAY THAT I AGREE WITH THOSE THREE. I'VE ALREADY ANSWERED TWO OF THEM, 20 21 AND WITH RESPECT TO THE LAST ONE, I HAVE TESTED DR. SUNDING'S 22 PROPOSED METHODOLOGY. DOCTOR, I'M NOT ASKING YOU, PLEASE, I'M NOT ASKING YOU 23 24 WHAT YOUR DISAGREEMENTS ARE. I'M JUST ASKING YOU TO CONCEDE THAT, AND I UNDERSTAND YOU DISAGREE WITH HIS EMPIRICAL 25

ANALYSIS, BUT HE RESTS HIS CONCLUSION ON PASS-THROUGH ON THESE 1 2 THREE TYPES OF EVIDENCE: ECONOMIC THEORY, EVIDENCE IN THE DOCUMENTS WHERE THE DEFENDANTS RECOGNIZE THAT THERE'S 3 4 PASS-THROUGH, AND HIS EMPIRICAL TESTING, AS FLAWED AS YOU MAY 5 BELIEVE IT IS. OKAY? 6 A. OKAY. 7 MR. STEWART: WITH THAT, I'LL LEAVE IT HERE. THANK 8 YOU. 9 MR. MICHAEL: VERY BRIEF REDIRECT, YOUR HONOR? THE COURT: IT HAS TO BE EXTRAORDINARILY BRIEF, BECAUSE 10 I REALLY THINK (PAUSE). 11 MR. MICHAEL: IT WILL BE, YOUR HONOR, AND IT WILL BE A 12 13 COUPLE OF MINUTES. THREE THINGS VERY QUICKLY. REDIRECT EXAMINATION 14 15 BY MR. MICHAEL: 16 Q. FIRST OF ALL, DR. HAIDER, MR. STEWART ASKED YOU SOME 17 OUESTIONS ABOUT WHERE IN YOUR REPORT YOU DISCUSS THE VARIOUS 18 FACTORS THAT LED YOU TO CONCLUDE THAT INDIVIDUALIZED TESTING WAS NEEDED IN THIS CASE. DO YOU RECALL THAT? 19 Α. YES. 20 21 Ο. LET ME REFER YOU TO PARAGRAPH 31 IN YOUR REPORT, PLEASE. 22 Α. OKAY. CAN YOU SUMMARIZE VERY BRIEFLY FOR THE COURT WHAT IT IS 23 Q. 24 YOU ARE SAYING IN PARAGRAPH 31? A. YES. IN PARAGRAPH 31, I'M DESCRIBING THAT WHEN I LOOK AT 25

DR. SUNDING'S OWN RESULTS, WHAT THAT TELLS ME IS THAT HE IS, IN 1 2 FACT, NOT CONSIDERING THE IMPLICATIONS OF THOSE, AND THE FINDING THAT DIRECT PURCHASERS OF THESE DIFFERENT DEFENDANTS 3 4 DID NOT RESPOND IN A COMMON MANNER TO SUPPLY-AND-DEMAND 5 CONDITIONS OR TO INDUSTRY EVENTS TELLS US THAT THEY FACED DIFFERENT ECONOMIC CONDITIONS, AND THEREFORE THE TESTING NEEDS 6 7 TO BE DONE ON THE DIRECT PURCHASERS AS WELL. THERE'S NO 8 ECONOMIC BASIS TO STOP THERE. 9 SECOND, MR. STEWART ASKED YOU ABOUT THE NUMBER OF DEFENDANT DOCUMENTS YOU LOOKED AT, AND HE REFERENCED 17 DATA 10 FILES. CAN YOU JUST GIVE THE COURT SOME SENSE OF HOW MUCH DATA 11 12 IS IN THOSE 17 FILES? 13 THERE IS -- I HAVE REVIEWED AN EXTENSIVE AMOUNT OF DATA IN THIS CASE BECAUSE WE'VE HAD -- AS YOU NOTED EARLIER, YOUR 14 15 HONOR, THERE'S THE DEFENDANTS' DATA FOR OVERCHARGE PURPOSES. 16 THEN THERE'S RETAILER DATA WHEN IT COMES TO LOOKING AT 17 PASS-THROUGH ISSUES. THERE'S THE IRI DATA THAT DR. SUNDING 18 DESCRIBED. SO THERE ARE JUST VOLUMINOUS DATA WITH MILLIONS OF 19 RECORDS. O. AND AS AN ECONOMIST, WHERE DOES YOUR EXPERTISE RELY? 20 THAT READING WHAT PEOPLE SAY IN DOCUMENTS OR IN REVIEWING AND 21 22 EVALUATING DATA? IT IS TESTING WHAT THE DATA TELL YOU. THAT'S HOW YOU 23 24 EVALUATE WHETHER OR NOT STATEMENTS THAT ARE BEING MADE, WHETHER THOSE ARE, THOSE HOLD OR NOT. 25

FINALLY, IN RESPONSE TO A OUESTION MR. STEWART ASKED YOU 1 2 AT THE END REGARDING PASS-THROUGH, HE REFERENCED SOME DEPOSITION TESTIMONY THAT YOU REVIEWED INDICATING THAT 3 4 RETAILERS DO NOT NECESSARILY PASS THROUGH COSTS. 5 MR. STEWART: I'D LIKE TO HAND UP A COUPLE OF EXHIBITS 6 VERY QUICKLY, YOUR HONOR. IF I MAY APPROACH. 7 THE COURT: CERTAINLY. 8 MR. STEWART: THERE ARE FOUR COPIES FOR THE COURT. THESE ARE DEPOSITION DESIGNATIONS THAT WE HAVE TURNED OVER. BY MR. STEWART: 10 DR. HAIDER, I'LL JUST ASK YOU TO REVIEW THOSE BRIEFLY TO 11 Ο. 12 YOURSELF. I DON'T WANT YOU TO REFERENCE THE SPECIFIC CUSTOMERS 13 THAT ARE AT ISSUE OR ANY DETAILS ABOUT THE TESTIMONY. JUST SUMMARIZE VERY BRIEFLY WHAT IS REFLECTED THERE. 14 15 WHAT'S REFLECTED HERE IS DEPOSITION TESTIMONY FOR 16 RETAILERS WHERE THEY ARE SAYING THAT THEY DO NOT NECESSARILY 17 PASS THROUGH A COST CHANGE BECAUSE THEY HAVE TO LOOK AT VARIOUS 18 COMPETITIVE CIRCUMSTANCES IN ORDER TO DETERMINE WHETHER THEY 19 CAN OR NOT. O. AND WHAT CONCLUSION DO YOU DRAW FROM THIS DEPOSITION 20 21 TESTIMONY THAT YOU'VE REVIEWED? 22 A. SO WHAT THIS TELLS ME IS THAT THIS IS EXACTLY WHY PASS-THROUGH IS A MATTER OF EMPIRICAL INQUIRY. IT SAYS HERE 23 24 THAT YOU CANNOT, JUST BASED ON EVEN LOOKING AT THIS, THAT THE PRESUMPTION OF PASS-THROUGH BASED ON THEORY IS INCORRECT. 25

1	TESTING NEEDS TO BE DONE.
2	MR. MICHAEL: THANK YOU, DR. HAIDER.
3	THE COURT: OKAY. THANK YOU VERY MUCH, MA'AM. YOU MAY
4	STEP DOWN.
5	THE WITNESS: THANK YOU.
6	(THE WITNESS STOOD ASIDE.)
7	THE COURT: LET'S JUST TAKE FIVE MINUTES IN PLACE.
8	LET'S STRETCH OUR LEGS. LET ME LOOK AT MY NOTES FOR A MINUTE,
9	AND THEN WE'LL CONTINUE. FIVE MINUTES.
10	(RECESS)
11	(NOTE: DAVID SUNDING IS ON THE WITNESS STAND.)
12	THE COURT: OKAY. WE'RE BACK.
13	OKAY, GO AHEAD, MR. BURT.
14	MR. BURT: YOUR HONOR, I'M COGNIZANT THAT THE MIKE AND
15	I HAVE NOT ALWAYS GOTTEN ALONG. IS THAT ALL RIGHT?
16	THE COURT: VERY GOOD. THANK YOU.
17	MR. BURT: YOUR HONOR, IF YOU ALREADY KNOW WHAT YOU
18	WANT TO ASK (PAUSE).
19	THE COURT: WELL, I HAVE ONE QUESTION THAT I CAN START
20	WITH, AND THEN I'LL TURN IT OVER TO YOU.
21	YOU SAW THE DISCUSSION OF THESE CHARTS THAT I'M LOOKING
22	AT. WHAT AM I LOOKING AT? THESE CHARTS, WHERE ARE THEY? THEY
23	WERE IN SOMEBODY'S BINDERS, AND THEY WERE THE ONES THAT MR.
24	MICHAEL ASKED ABOUT, AND THEN THERE WAS AN OBJECTION BY MR.
25	STEWART, AND IT WASN'T AT ALL CLEAR WHETHER THIS DATA HAD BEEN

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TURNED OVER OR NOT IN THIS CURRENT FORM. MAYBE THE RAW DATA WAS, BUT IT WAS NEVER PRODUCED IN THIS FORM, AND I JUST WONDERED IF WE COULD CLEAR THAT UP, IF THE WITNESS HAS SEEN THESE OR HAD ANY COMMENTS ABOUT THESE. DR. SUNDING: SURE, YOUR HONOR. I HAD NOT SEEN THAT UNTIL SITTING IN COURT THIS AFTERNOON, AND JUST TO BE CLEAR, THAT'S NOT DATA. THAT'S THE RESULT THAT THE DEFENDANTS --EXCUSE ME -- THE ECONOMISTS PRODUCED SOMEHOW, BY SOME METHOD, THAT I DON'T KNOW ABOUT IT, BASED ON MY ANALYSIS. SO IT'S NOT FAIR TO CHARACTERIZE THAT AS DATA. THAT'S SOMETHING THAT THEY CONSTRUCTED. THE COURT: RIGHT, BUT I THINK THE COMMENT WAS THAT THE UNDERLYING DATA THAT'S PRODUCED ON HERE HAS BEEN TURNED OVER, OR AT LEAST THAT'S THE WAY I UNDERSTOOD IT, THAT THEY NEVER SHARED THIS PARTICULAR CHART. I DON'T KNOW IF THAT'S FAIR, A FAIR CHARACTERIZATION OR NOT. DR. SUNDING: WELL, YOUR HONOR, THE UNDERLYING DATA THAT I USED TO ESTIMATE MY REGRESSION MODEL, AND WE ALL HAVE THAT, BUT THERE'S COMPUTER CODE AND OTHER COMPONENTS TO THAT ANALYSIS THAT I HAVE NEVER SEEN. THE COURT: OKAY. FAIR ENOUGH. THANK YOU. GO AHEAD. REDIRECT EXAMINATION BY MR. BURT:

Q. SO, PROFESSOR, ALMOST THE LAST THING THAT HAPPENED BEFORE

WE RECALLED YOU TO THE STAND WAS THIS DISCUSSION OF WHETHER	
THERE WAS SOME TESTIMONY FROM THE DAPS, AND WE'RE, OF COURSE,	
ALL VERY SENSITIVE TO THE CONFIDENTIALITY CONCERNS. I WOULD	
LIKE TO HAVE YOU GRAB THE BIG BINDER AGAIN AND FLIP TO EXHIBIT	
19, IF YOU COULD, FOR ME.	
MR. GALLO: WHICH BINDER ARE YOU REFERRING TO?	
MR. BURT: EPP VOLUME ONE, EXHIBIT 19.	
DR. SUNDING: ALL RIGHT.	
THE COURT: IT'S TWO, BINDER TWO.	
MS. MANIFOLD: ONE.	
THE COURT: THIS IS THE DEPOSITION. IS IT THE	
DEPOSITION?	
MR. BURT: THE COURT IS RIGHT AND I'M WRONG.	
THE COURT: IT'S THE DEPOSITION?	
MR. BURT: YES, YOUR HONOR, IT IS. I MEANT TO REFER TO	
BINDER TWO, TAB 19. I'M SORRY.	
BY MR. BURT:	
Q. AND THESE PAGES ARE NUMBERED SEQUENTIALLY, SO YOU WOULD	
JUST LOOK DOWN AT THE BOTTOM. IT'S EXHIBIT PAGE NUMBERS 14	
THROUGH 15. IF YOU WOULD GET THAT IN FRONT OF YOU.	
A. I'M SORRY. COULD YOU SAY AGAIN WHERE I'M LOOKING?	
Q. 14 THROUGH 15 OF THE EXHIBIT PAGES. THAT'S 126 THROUGH	
127 IN THE TESTIMONY.	
A. THE PAGE NUMBERED E-X DASH 0014?	
Q. YES, AND IF YOU COULD JUST TAKE A LOOK AT THE HIGHLIGHTED	

1 PORTION RIGHT DOWN THERE AT THE BOTTOM OF PAGE 0014 ONTO THE 2 NEXT PAGE. ALL RIGHT, I SEE IT. 3 Α. 4 OKAY. WITHOUT ANYBODY BLURTING OUT THE NAME OF THE 5 DEPONENT OR THE RETAILER THAT EMPLOYS THE DEPONENT, CAN YOU TELL ME, READING THAT TESTIMONY, WHAT IT TELLS YOU ABOUT THE 6 7 CONCERN RAISED WITH DR. HAIDER THAT MAYBE THIS DAP HAD SAID 8 THAT THEY DON'T PASS ON COSTS? AS I READ THIS, THIS EMPLOYEE OF A LARGE RETAILER IS 9 REPRESENTING THAT THEY PASS ON INCREASES IN THE PRICE OF 10 WHOLESALE, WHOLESALE PRICES OF TUNA, THAT THAT'S ONE OF THE 11 FACTORS THEY CONSIDER. 12 13 NOW, THERE WAS -- I DON'T KNOW HOW TO DO THIS SENSIBLY. THERE WAS -- ONE OF THE THREE DEPOSITIONS THAT WAS HANDED UP 14 15 WAS THE NAME OF A VERY LARGE RETAILER THAT YOU HAD AVAILABLE DATA IN ORDER TO TEST WHETHER THEY IN FACT PASS ON THEIR COSTS. 16 17 DO YOU KNOW WHAT I'M TALKING ABOUT WITHOUT SAYING WHAT THEIR 18 NAME IS? CAN YOU TELL ME WHAT THE DATA TELLS YOU IN COMPARISON TO WHAT THE TESTIMONY MIGHT SUGGEST? 19 I DO. THIS OTHER LARGE RETAILER THAT WE TALKED ABOUT 20 EARLIER TODAY, THAT EMPLOYEE ALSO REPRESENTED THAT THEY PASS ON 21 22 WHOLESALE PRICE CHANGES TO THE RETAIL LEVEL. ARE YOU ABLE TO LOOK AT THE DATA AND SEE WHAT ACTUALLY 23 24 HAPPENED? A. I HAVE, YES, FOR A VERY BROAD SWATH OF THE INDUSTRY AT 25

DIFFERENT LEVELS OF AGGREGATION. 1 2 Q. FOR ONE SPECIFIC, VERY LARGE RETAILER THAT WE'RE NOT SAYING THE NAME OF? 3 Α. YES. 5 OKAY. AND WHAT IN FACT HAPPENED WHEN THAT REALLY LARGE Q. 6 RETAILER SAW A COST INCREASE IN PACKAGED TUNA? 7 Α. THAT THERE IS A PASS-THROUGH TO THE RETAIL LEVEL THAT 8 OCCURS WITH AN ELASTICITY OF AROUND ONE. NOW, I WANT TO RETURN TO THIS DATA-CLEANING ISSUE AROUND THE NEW RESULTS FROM THE WORK THAT WAS TURNED OVER TO US ON THE 10 7TH OF JANUARY, THE THREE, THE THREE WHOLESALE PURCHASERS THAT 11 WE WERE DISCUSSING EARLIER TODAY. WHEN YOU, WHEN YOU MADE THE 12 13 ADJUSTMENTS TO ACCOUNT FOR THE STRANGE RESULTS, CAN YOU EXPLAIN TO ME EXACTLY WHAT IT WAS YOU DID? 14 15 SURE. REMEMBER, AND THERE WERE SLIGHTLY DIFFERENT 16 CIRCUMSTANCES IN THOSE THREE PARTICULAR CASES. FOR TWO OF 17 THEM, THE RETAILERS STARTED PURCHASING ENTIRELY -- FOR 18 CERTAINLY ONE INSTANCE, THEY WENT FROM LESS THAN 20 PERCENT 19 SEVEN-OUNCE CANS, THE BUMBLE BEE CANS. SO THEY SWITCHED THE TYPE THAT THEY WERE BUYING, AND SIMILAR CIRCUMSTANCE FOR THE 20 OTHER RETAILER. THAT OCCURRED RIGHT DURING THE CARTEL PERIOD. 21 22 SO, IN DR. HAIDER'S RESULTS, THAT EFFECT WAS CONFOUNDED OR CONFUSED WITH THE EFFECT OF THE CARTEL. 23 SO YOU HAVE TO 24 DISENTANGLE THOSE TWO THINGS TO UNDERSTAND SOMETHING ABOUT THE RELATIONSHIP THAT'S OF INTEREST HERE, WHICH IS, WHAT EFFECT DID 25

THE PRICE-FIXING CONSPIRACY HAVE ON PRICES? 1 2 Q. DOES THE NEED TO CLEAN DATA FOR INDIVIDUAL DATA SETS MEAN THAT YOU USE A DIFFERENT MODEL FOR EVERY DATA SET? 3 Α. NO. 5 DID YOU HEAR DR. HAIDER SAY THAT, WHEN YOU RESPONDED TO Q. THESE RESULTS, SHE SHOWED THAT YOU CHANGED YOUR MODEL? 6 7 Α. (PAUSE) 8 LET ME GET MORE SPECIFIC. IN DISCUSSING THE ONE THAT WAS 9 THE CHANGE IN THE CLASSIFICATION, DID YOU HEAR DR. HAIDER SAY THAT YOU CHANGED YOUR CLASSIFICATION? 10 Α. I DID HEAR HER SAY THAT. 11 12 Q. IS IT YOUR CLASSIFICATION THAT CAUSED THE ISSUE IN THE 13 DATA? NO. I THINK SHE MISSPOKE. THE CLASSIFICATION WAS THE 14 15 DEFENDANTS' CLASSIFICATION. SO THEY HAVE A NUMBERING SCHEME 16 FOR DIFFERENT TYPES OF RETAILERS, AND IN THAT CASE TARGET, THEY 17 SWITCHED THEIR CLASSIFICATION RIGHT IN THE MIDDLE OF THE CLASS 18 PERIOD, AND SO THAT EFFECT WAS CONFOUNDED WITH THE EFFECT OF 19 THE PRICE-FIXING CONSPIRACY. O. DID YOU SEE THE SLIDE THAT DR. HAIDER SPOKE ABOUT ON HER 20 21 DIRECT WHERE SHE SAID THAT MAYBE THERE'S SOME ACTUAL, ACTUAL NEGATIVE OVERCHARGES, SO IN SOME OF THESE BIG CUSTOMERS, SO 22 THAT WHEN YOU, WHEN YOU REDUCE THE OVERCHARGE BY TEN PERCENT TO 23 24 TEST THE MODEL, THAT THERE'S STILL ENOUGH NEGATIVE OVERCHARGE THAT YOU GET NEGATIVE RESULTS? DID YOU SEE THAT? 25

1 YES, I DID SEE THAT. 2 Q. OKAY. CAN THAT EXPLAIN THE PHENOMENON YOU TALKED ABOUT THIS MORNING THAT IF YOU ADD MORE AND MORE AND MORE OVERCHARGE, 3 4 THAT YOU GET UP TO 200 PERCENT BEFORE 95 PERCENT OF THE 5 OBSERVATIONS BY THE OVERCHARGE? YES. IT'S RELATED TO THE SAME UNDERLYING DATA OR 6 Α. 7 MATHEMATICAL ISSUE, WHICH IS THAT HER MODEL HAS A VERY LOW 8 ABILITY TO PREDICT AN OVERCHARGE WHEN ONE EXISTS, AND IN FACT 9 WHAT I SHOW IS THAT, ESSENTIALLY, THE SIGNAL HAS TO BE BOOSTED SO HIGH, THE ACTUAL OVERCHARGE HAS TO BE SO HIGH AS TO COME IN 10 THE NEIGHBORHOOD OF 200 PERCENT BEFORE HER APPROACH WOULD SAY 11 12 THAT MOST PURCHASERS PAID AN OVERCHARGE. 13 DO YOU THINK IT'S POSSIBLE THAT FIVE PERCENT OF THE WHOLESALE CUSTOMERS HAVE SUCH GIANT OVERCHARGES THAT EVEN WHEN 14 15 YOU -- EXCUSE ME -- YOU HAVE SUCH GIANT NEGATIVE RESULTS, THAT 16 WHEN YOU ARTIFICIALLY PUT IN 200 PERCENT OVERCHARGE IN THE MODEL, THEY'RE STILL NEGATIVE? 17 18 Α. NO. 19 OKAY. SO DOES HER EXPLANATION FOR HOW THAT FALSIFIABILITY TEST MIGHT ACTUALLY BE CAUSED BY REAL-WORLD PHENOMENON, DOES 20 THAT HOLD ANY WATER? 21 22 Α. IT DOES NOT. HOW IS YOUR TEN-PERCENT CONSTRUCTED OVERCHARGE TEST 23 24 DIFFERENT FROM DR. HAIDER'S ONE-THIRD TEST? SURE. SO IT'S A DIFFERENT APPROACH. WHAT I DID WAS TOOK 25 Α.

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AND ADDED TEN PERCENT TO THE WHOLESALE PRICE CHARGED BY THE DEFENDANTS TO EVERY CUSTOMER DURING THE CLASS PERIOD, SO IT'S CLEARLY AN OVERCHARGE THAT EXISTS DURING THE CARTEL PERIOD, AND WHAT I FOUND WAS THAT HER MODEL STILL PRODUCES A NUMBER OF NEGATIVE RESULTS, WHICH IS AGAIN ANOTHER WAY OF SAYING THAT IT HAS LOW STATISTICAL POWER. IT LACKS THE ABILITY TO DETECT A RELATIONSHIP THAT IS TRUE. DO THE DATES -- I'M JUST GOING TO ASK THIS IN A COLLECTIVE DO THE DATES THAT YOU USED FOR THE BEGINNING AND END OF YOUR HELD-OUT PERIOD, THE BEGINNING AND END OF THE DAMAGES PERIOD, AND THE BEGINNING AND END OF THE COOL-DOWN PERIOD, DO THE DATES THAT YOU SELECTED CORRESPOND TO REAL-WORLD EVENTS OR ECONOMIC THEORIES ABOUT THE REAL-WORLD EVENTS? THEY DO. I BELIEVE STRONGLY THAT, WHEN BUILDING A MODEL, YOU SHOULD BUILD IT TO REFLECT THINGS THAT ARE HAPPENING IN REALITY. RIGHT? IT SHOULD TELL US SOMETHING ABOUT WHAT'S HAPPENING IN THE MARKETPLACE, AND AS I DESCRIBED IN DETAIL IN MY REPORT, THERE'S A BUNCH OF EVIDENCE THAT SUGGESTS THERE WAS COLLUSION OCCURRING DURING THE 2011-TO-2015 PERIOD. OKAY. IN YOUR PASS-THROUGH ANALYSIS, DID YOU ACCOUNT FOR PRODUCT DIFFERENTIATION? Α. CAN YOU, CAN YOU EXPLAIN WHAT YOU MEAN BY THAT? DR. HAIDER SAYS THAT YOU DIDN'T ACCOUNT FOR PRODUCT DIFFERENTIATION WITHIN THE PASS-THROUGH ANALYSIS. IS THERE ANYTHING IN THE PASS-THROUGH ANALYSIS THAT DEALS WITH THE ISSUE

1	OF PRODUCT DIFFERENTIATION?
2	A. YES. I DID IN MY REPLY REPORT IN RESPONSE TO HER
3	ASSERTION WHICH SHE MADE IN HER REPORT AS WELL, AND WE HEARD IT
4	AGAIN TODAY. I RAN A VERSION OF MY PASS-THROUGH MODEL WHERE I
5	DID INCLUDE PRODUCT CHARACTERISTICS AND STILL FOUND EVIDENCE OF
6	A POSITIVE AND STATISTICALLY SIGNIFICANT PASS-THROUGH.
7	Q. OKAY. AND FOR WHAT DATA SET IS THAT TRUE?
8	A. I'M SORRY?
9	Q. AND FOR WHAT DATA SET?
10	A. OH. CERTAINLY FOR THE IRI DATA. CERTAINLY TRUE.
11	Q. OKAY. AND SO WHEN YOU DID YOUR ORIGINAL REPORT FOR THE
12	IRI DATA, FOR THE MULO DATA SET IT COVERS 27 STATES WHAT
13	RESULT DID YOU RECEIVE?
14	A. IN MY ORIGINAL IRI ANALYSIS FOR THE MULTI-OUTLET CHAIN
15	THAT'S THE MULO ACRONYM I FOUND POSITIVE AND STATISTICALLY
16	SIGNIFICANT PASS-THROUGH WITH AN ELASTICITY OF AROUND ONE IN
17	EVERY STATE THAT I EXAMINED.
18	Q. OKAY. AND WHEN YOU ACCOUNTED FOR THIS PHENOMENON, SHE
19	SAYS THAT YOU NEED TO ACCOUNT FOR PRODUCT DIFFERENTIATION.
20	A. OKAY.
21	Q. DID YOU STILL GET POSITIVE AND STATISTICALLY SIGNIFICANT
22	RESULTS?
23	A. YES.
24	Q. WHERE?
25	A. EVERYWHERE.

AND FOR PASS-THROUGH PURPOSES, I HEARD DR. HAIDER SAY

2 EARLIER THAT YOU SHOULD HAVE DEALT WITH EVERY DEFENDANT SEPARATELY. IS THAT RIGHT? 3 4 OF COURSE, NO, I DON'T AGREE WITH THAT. THE PASS-THROUGH 5 ANALYSIS IS MODELING THE BEHAVIOR OF RETAILERS. IT'S ABOUT HOW 6 SUPERMARKETS AND CONVENIENCE STORES TAKE WHOLESALE PRICES AND 7 TRANSLATE THOSE INTO RETAIL PRICES. IT'S NOT ABOUT DEFENDANTS. 8 IT'S ABOUT THE RETAILER BEHAVIOR. 9 ONE OF THE LAST THINGS I HEARD AS DR. HAIDER WAS ON THE STAND WAS ABOUT THE, ABOUT THIS BESANKO ARTICLE THAT APPEARED 10 SOMEWHERE IN YOUR REPORT. CAN YOU EXPLAIN WHY THERE ARE A LOT 11 12 OF NON-STATISTICALLY SIGNIFICANT RESULTS IN THAT DATA SET? 13 WELL, IN ALL HONESTY, IT'S BEEN A LITTLE WHILE SINCE I READ THE ARTICLE. I WILL SAY THAT WHAT PROFESSOR BESANKO FINDS 14 15 IS A POSITIVE AND STATISTICALLY SIGNIFICANT PASS-THROUGH FOR 16 CANNED TUNA, WHICH IS VERY SIMILAR TO WHAT I FOUND, AND IN FACT 17 THAT RESULT IS EVEN ON THE TABLE THE DEFENDANTS HAVE 18 HIGHLIGHTED IN THEIR EXHIBITS THAT I NOTICED. 19 0. OKAY. AND DO YOU KNOW WHAT TIME PERIOD? I DON'T REMEMBER OFF THE TOP OF MY HEAD. 20 21 0. IS THERE ANYTHING ELSE THAT YOU'VE HEARD SINCE THE LAST 22 TIME WE LET YOU STEP DOWN FROM THE WITNESS STAND THAT YOU THINK YOU NEED TO CLARIFY OR EXPLAIN? 23 THERE'S ONE THING, ONE THING THAT DR. HAIDER TALKED ABOUT 24 THAT I THINK WAS NOT -- IT DIDN'T GET COVERED ON CROSS THAT I 25

1	THINK IS IMPORTANT TO TALK ABOUT.
2	Q. WHAT IS THAT?
3	A. COULD WE GO TO HER SLIDE DECK?
4	Q. YOU CAN. I DON'T KNOW IF I CAN.
5	A. I'M SORRY. MAYBE IT WAS IN A (PAUSE)
6	THE COURT: IT'S IN A BINDER.
7	THE WITNESS: YEAH.
8	THE COURT: IT'S LABELLED DEMONSTRATIVE IN A BINDER
9	LABELED DR. HAIDER'S DIRECT EXAMINATION.
10	THE WITNESS: I COULD PROBABLY DESCRIBE THE ISSUE
11	RATHER THAN (PAUSE)
12	THE COURT: THIS WAS PART OF THE SLIDE DECK, SO IT'S IN
13	HERE.
14	MR. BURT: PROFESSOR, DO YOU HAVE THE SLIDES?
15	THE WITNESS: UH, I, I (PAUSE)
16	THE COURT: IT'S IN THIS BINDER, SIR.
17	THE WITNESS: ALL RIGHT. THANK YOU, YOUR HONOR.
18	THE COURT: CERTAINLY. IT'S THE DEMONSTRATIVES.
19	THE WITNESS: YEAH. I'M SORRY. IN THE OPENING
20	PRESENTATION TODAY, THERE WAS A REPRESENTATION ABOUT SOMETHING
21	DR. HAIDER NOTED THAT I DIDN'T DO.
22	THE COURT: OH. IT'S THIS, SLIDE 44. NO. WAIT.
23	THAT'S NOT IT. THAT'S WHAT SHE DIDN'T DO. I DON'T KNOW IF YOU
24	HAVE A COPY OF THIS UP HERE.
25	COUNSEL, DOES HE HAVE A COPY OF THIS? DO YOU HAVE A

1	COPY?
2	MR. BURT: I DON'T THINK HE DOES, AND I THINK WE ARE
3	VERY CLOSE TO TIME, JUDGE.
4	THE WITNESS: I CAN DESCRIBE THE ISSUE.
5	MR. BURT: IF YOU COULD, PLEASE.
6	THE COURT: GO AHEAD.
7	THE WITNESS: SURE. I'LL DO MY BEST. THERE WAS A
8	REPRESENTATION THAT IN MY PASS-THROUGH ANALYSIS I IGNORED
9	RETAIL GROCERS WHO BUY FROM DISTRIBUTORS. DO YOU REMEMBER THAT
10	ISSUE WHEN WE WERE DISCUSSING CORE-MARK AND THERE WAS A
11	NOTATION, YOU NOW, DR. HAIDER SHOWS THAT DR. SUNDING IGNORED
12	THE EFFECT OF PASS-THROUGH ON RETAILERS THAT BUY FROM
13	DISTRIBUTORS? THAT IS INCORRECT BECAUSE RETAILERS THAT BUY
14	FROM DISTRIBUTORS ARE INCLUDED IN THE IRI DATA SET. SO WHEN I
15	DO MY IRI PASS-THROUGH ANALYSIS, I'M LOOKING AT THE
16	RELATIONSHIP FOR THOSE RETAIL GROCERS WHO BUY FROM DISTRIBUTORS
17	BETWEEN THEIR RETAIL PRICE AND THE WHOLESALE PRICE CHARGED BY
18	THE DEFENDANTS. SO THEY ARE INCLUDED IN MY ANALYSIS.
19	MR. BURT: YOUR HONOR, I THINK I HAVE RUN MY TIME, AND
20	SO WITH THAT I HAVE NO FURTHER QUESTIONS.
21	THE COURT: OKAY.
22	MR. GALLO: MAY I HAVE JUST, LIKE, TWO QUESTIONS?
23	THE COURT: YOU MAY HAVE TWO QUESTIONS. YOU MAY HAVE
24	TWO QUESTIONS.
25	MR. GALLO: I'M TOLD THERE'S FIVE MINUTES REMAINING,

1 BUT YOU'RE THE KEEPER OF THE TIME, NOT US. 2 THE COURT: I HAVE DEFERRED TO MR. BURT, AND I THINK MISS MANIFOLD HAS BEEN KEEPING TIME. GO AHEAD. GO AHEAD. 3 4 MR. GALLO: THANKS A LOT. 5 RECROSS-EXAMINATION 6 BY MR. GALLO: 7 Q. WE ALREADY COVERED THIS ON YOUR CROSS, BUT JUST SO THE 8 RECORD IS CLEAR, YOU TOLD ME ON CROSS-EXAMINATION WHAT YOU'RE NOW CALLING DATA CLEANING IS CHANGING THE EXPLANATORY VARIABLE COEFFICIENTS THAT GO INTO YOUR REGRESSION MODEL, RIGHT? 10 A. YES, TO ADJUST FOR AN EXTRANEOUS FACTOR THAT'S IN THE 11 12 DATA. 13 Ο. WHICH YOU FOUND WHEN YOU RAN -- YOU TOOK YOUR WAL-MART TEST, WHICH YOU HAD DONE AS A SENSITIVITY TEST, AND YOU TOLD 14 15 THE COURT THAT WAS IMPORTANT TO YOUR CONCLUSION THAT THERE WAS COMMON IMPACT, RIGHT? 16 17 A. YES. 18 AND THEN WHEN YOU RAN YOUR WAL-MART TEST ON WAL-MART AND THREE OTHER CUSTOMERS BY MY CALCULATION FROM WHAT YOU SAID, YOU 19 GOT NEGATIVE OVERCHARGES, RIGHT? 20 A. WELL, DR. HAIDER (PAUSE) -- NO, I THINK YOUR QUESTION'S 21 22 WRONG, BUT I DON'T THINK WE'RE DISAGREEING. DR. HAIDER POINTED OUT THREE EXAMPLES WHERE, WHEN SHE APPLIES MY TEST, SHE THINKS 23 24 SHE'S FINDING NEGATIVE AND STATISTICALLY SIGNIFICANT IMPACT OF 25 THE CARTEL.

BUT THEN YOU RAN IT ON THE TEN TOP CUSTOMERS AND YOU GOT 1 2 FIVE NEGATIVES, ONE OF WHICH WAS TARGET, RIGHT? WELL, LET'S BE CLEAR. IT'S TEN OUT OF, OR FIVE OUT OF 30. 3 Α. 4 Q. OKAY. 5 Α. IT'S NOT FIVE OUT OF TEN. IT'S FIVE OUT OF 30. 6 Ο. HOW MANY OF THEM OVERLAP? THE TOP TEN, HOW MANY OF THEM 7 OVERLAP? 8 Α. THERE WERE A FEW. SO IT'S FIVE OUT OF SOMETHING BETWEEN 30 AND TEN? 9 Ο. Α. SURE, BUT IT'S NOT FIVE OUT OF TEN. 10 OKAY. IT'S SOMETHING THAT'S -- YOU TOOK THE TOP TEN. 11 Ο. THERE'S SOME OVERLAP. IT'S SOME NUMBER BETWEEN TEN AND 30. 12 WΕ 13 DON'T KNOW WHAT THE NUMBER IS. Α. 14 RIGHT. ALL RIGHT. AND YOU GOT FIVE NEGATIVE COEFFICIENTS WHEN 15 16 YOU DID THAT, AND THEN ON THE FOUR OF THEM YOU RE-RAN IT AND 17 CHANGED YOUR INPUT COEFFICIENTS AND THEN GOT A POSITIVE. 18 YES. I REMOVED THE EFFECT OF EXTRANEOUS FACTORS THAT DON'T HAVE ANYTHING TO DO WITH THE EFFECT OF THE PRICE-FIXING 19 CARTEL ON PRICE. 20 I UNDERSTAND THAT, BUT IT WAS THE SAME REGRESSION YOU RAN 21 Q. 22 ON WAL-MART, WHICH WAS YOUR SENSITIVITY TEST. CORRECT? 23 Α. YES. OKAY. AND THOSE FOUR CAME UP NEGATIVE, ONE OF WHICH WAS 24 COSTCO, RIGHT? 25

YES, FOR SORT OF ONE OF THE DEFENDANTS. 1 2 Q. IF YOU HAD RUN COSTCO AS YOUR FIRST SENSITIVITY TEST INSTEAD OF WAL-MART, THE SENSITIVITY TEST WOULD HAVE TOLD YOU 3 4 THERE'S SOMETHING -- I'VE GOT TO DO MORE ANALYSIS. IT WOULD 5 HAVE SAID, IT DOESN'T CONFIRM MY CONCLUSION; IT'S INCONSISTENT 6 WITH MY CONCLUSION. RIGHT? 7 I WOULD HAVE DONE EXACTLY WHAT I DID, WHICH IS CHECK TO 8 SEE IF THERE'S A CONFOUNDING FACTOR OTHER THAN THE EFFECT OF 9 THE CARTEL THAT CAN EXPLAIN THE RESULT. AND THE WAY THAT YOU FIGURED THAT YOU COULD DISENTANGLE, 10 IN YOUR WORDS, COLLUSION FROM SOME ORDINARY BUSINESS ISSUE WAS 11 TO GO LOOK AT EACH OF THE INDIVIDUAL CUSTOMERS DATA. 12 13 YES, TO LOOK AT THE, TO LOOK AT THE DATA UNDERNEATH THAT RESULT AND SEE IF THERE WAS SOMETHING THAT WAS CONFOUNDING --14 15 Q. RIGHT, AND THEN CHANGE ---- BY THE CARTEL. 16 Α. 17 AND THEN CHANGE YOUR INPUTS TO YOUR MODEL. 0. 18 Α. SURE. MAKE AN ADJUSTMENT TO BACK OUT THAT CONFOUNDING 19 FACTOR. SO YOUR MODEL THAT YOU'RE PROPOSING TO PROVE COMMON PROOF 20 21 DIDN'T PROVE IT FOR THESE PEOPLE. YOU HAD TO GO IN AND CHANGE 22 IT ON AN INDIVIDUAL-CUSTOMER BASIS. I DON'T THINK YOU'RE CHARACTERIZING IT ACCURATELY. 23 24 WELL, YOU CHANGED YOUR COEFFICIENT INPUT. IT IS WHAT IT

IS. THAT'S WHAT YOU DID.

25

A. I REMOVED THE EFFECT OF EXTRANEOUS FACTORS. THE
CONCLUSION I CAME TO WAS THAT MY ORIGINAL OVERCHARGE REGRESSION
HOLDS. IT IS ACCURATE FOR THE TEN LARGEST CUSTOMERS OF EACH OF
THE THREE DEFENDANTS, COVERING 60 PERCENT OF THE MARKET.
MR. GALLO: I THINK WE'RE JUST ARGUING. I THINK THE
RECORD IS CLEAR, YOUR HONOR. THANK YOU VERY MUCH FOR THE TIME.
THE COURT: YOU'RE WELCOME.
DO YOU FEEL COMPELLED TO ASK ONE MORE QUESTION? THE
PLAINTIFFS HAVE THE BURDEN IN THIS MATTER.
MR. BURT: NO, YOUR HONOR.
THE COURT: WELL, THANK YOU. I APPRECIATE THAT.
DID YOU WANT TO RESPOND?
MR. STEWART: I'M SORRY, YOUR HONOR.
THE COURT: THAT'S FAIR, MR. STEWART. JUST PULL THE
MICROPHONE OVER.
MR. STEWART: YES.
REDIRECT EXAMINATION
BY MR. STEWART:
Q. THE EXCHANGE THAT YOU JUST HAD WITH MR. GALLO AND THE
SITUATION THAT YOU'RE DISCUSSING WITH MR. GALLO, DOES IT CHANGE
YOUR OPINION AT ALL ABOUT THE UNRELIABILITY AND THE PROBLEMS
WITH DR. HAIDER'S APPROACH? AND IF NOT, WHY NOT?
A. IT DOES. I THINK IT ILLUSTRATES WHY SHE'S GETTING SOME OF
THE STRANGE-LOOKING RESULTS THAT SHE'S GETTING. I MEAN, IS SHE
REALLY, ACTUALLY TELLING THIS COURT THAT WAL-MART COULDN'T

NEGOTIATE ITS WAY OUT OF AN OVERCHARGE, BUT PIGGLY-WIGGLY 1 2 MIDWEST COULD? IS THAT WHAT SHE'S SAYING? DOES THAT MAKE ANY SENSE? I DON'T BELIEVE IT DOES. WHEN I LOOKED AT INDIVIDUAL 3 4 PURCHASERS, THE TEN LARGEST ONES WHO HAVE THE MOST BARGAIN 5 POWER INDIVIDUALLY FOR EACH DEFENDANT, I FOUND AN OVERCHARGE EVERYWHERE. SO, TO ME, THAT INDICATES THAT MY ORIGINAL MODEL 6 7 IS RELIABLE. 8 MR. STEWART: THAT'S IT, YOUR HONOR. THANK YOU. THE COURT: OKAY. (THE WITNESS STOOD ASIDE.) 10 11 THE COURT: MISS LEE. YES, MA'AM. MS. LEE: I KNOW WE'VE RUN OUT OF TIME TODAY. WITH 12 13 RESPECT TO CLOSING, I THINK IT'S PROBABLY NON --14 THE COURT: PULL THE MIKE A LITTLE CLOSER, MA'AM. 15 THANK YOU. 16 MS. LEE: I THINK IT'S PROBABLY NON-CONTROVERSIAL TO 17 SAY WE DON'T EXPECT TO USE THE FULL TIME TOMORROW, SO I WAS 18 GOING TO PROPOSE THAT THE PARTIES EACH TAKE FIVE OR TEN MINUTES TOMORROW MORNING AND SUM UP. I KNOW YOU'VE HEARD A LOT OF 19 ECONOMIC TESTIMONY TODAY, AND WE THOUGHT IT MIGHT BE HELPFUL TO 20 21 HAVE THE SUMMARY. THE COURT: LET'S SEE WHERE WE ARE TOMORROW. WE'LL USE 22 THE FULL DAY TOMORROW. IF THERE'S EXTRA TIME, I'M HAPPY TO 23 GIVE SOME TIME, BUT IT WILL BE WITH WHOEVER IS STILL HERE 24 TOMORROW, BUT SOME OF YOU REMAIN THE SAME JUST NOW. 25

BUT, MISS MANIFOLD, WHAT ARE YOUR THOUGHTS? 1 2 MS. MANIFOLD: I ASSUME THAT MEANS THAT I SHOULD COME BACK TOMORROW. I THINK, I THINK THE RECORD'S COMPLETE. 3 4 THE COURT: I DO, TOO. 5 MS. MANIFOLD: I THINK THE GOAL OF THIS HEARING WAS TO HEAR FROM THE EXPERTS, AND I THINK THAT THE EXPERTS HAVE MORE 6 7 THAN SATISFIED THAT GOAL FOR THE COURT. IF THE COURT WANTS TO 8 HEAR FROM THE EXPERTS SOME MORE, WE'RE MORE THAN HAPPY, YOU KNOW, TO BRING OUR EXPERT BACK, BUT I THINK THAT THE PAPERS HAVE BEEN ADEQUATELY BRIEFED. I DON'T KNOW WHAT MORE I COULD 10 11 ADD ON THE LAW. 12 THE COURT: I DON'T THINK MISS LEE WAS TALKING ABOUT 13 HAVING FURTHER INFORMATION FROM THE EXPERTS. I THINK WE'RE AT THE POINT WHERE WE HAVE RESPECTFUL DISAGREEMENTS BETWEEN THE 14 15 EXPERTS, AND THE COURT WILL MAKE THE DECISION AND YOU'LL HEAR FROM ME. IF YOU WANT TO COME BACK TOMORROW, MISS MANIFOLD, 16 17 FINE. I WILL LET PEOPLE -- WHOEVER IS HERE TOMORROW, IF THERE 18 IS EXTRA TIME AND THEY WISH TO BE HEARD -- MISS LEE, YOU KNOW I'M GOING TO LET YOU USE SOME OF THE TIME. 19 MS. LEE: I APPRECIATE THAT. THANK YOU, YOUR HONOR. 20 MS. MANIFOLD: I WILL BE BACK TO SEE YOUR HONOR 21 22 TOMORROW. I LOOK FORWARD TO THE OPPORTUNITY. THE COURT: OKAY, OKAY. MAYBE IT WON'T BE RAINING. 23 24 SO WE'LL RECESS FOR TONIGHT. WE'LL RESUME TOMORROW AT NINE O'CLOCK. 25

THANK YOU ALL. THANK YOU TO THE EXPERTS, WHOEVER IS HERE, WHO'S STILL LEFT. THANK YOU. (PROCEEDINGS ADJOURNED AT 4:30 P.M.) (END OF TRANSCRIPT) I, FRANK J. RANGUS, OFFICIAL COURT REPORTER, DO HEREBY CERTIFY THAT THE FOREGOING TRANSCRIPT IS A TRUE AND ACCURATE TRANSCRIPTION OF MY STENOGRAPHIC NOTES. S/FRANK J. RANGUS FRANK J. RANGUS, OCR