SURFACE TRANSPORTATION BOARD

PUBLIC ROUNDTABLE

395 E STREET, SW

WASHINGTON, DC 20423

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10:00 A.M.

PARTICIPANTS LIST

Michael Tretheway, InterVISTAS Consulting LLC

Richard Schmalensee, Massachusetts Institute of Technology

Wesley W. Wilson, University of Oregon

John Mayo, Georgetown University

Mark Cooper, Consumer Federation of America

Russell Pittman, Director of Economic Research in the Economic Analysis Group, Antitrust Division, U.S. Department of Justice

William Huneke, Chief Economist, Surface Transportation Board Office of Economics

William Brennan, Deputy Director, Surface Transportation Board Office of Economics

Jose (Tony) Gomez-Ibanez, Harvard University

MODERATOR

Ann Brach, Transportation Research Board, National Academies of Sciences

HOST

Daniel R. Elliott, III, Chairman, Surface Transportation Board

P R O C E E D I N G S

MODERATOR BRACH: Thank you very much Dan [STB Chairman Elliott] and good morning to everyone and to the audience. We also have audience streaming by webcast so everyone knows that. So I am just going to tell you a little bit what the overview is of today and then give a very, very quick introduction to our panelists. So after that introduction Mike Tretheway is going to give us a summary of the report -- the InterVISTAS report and then we will go around to the expert panel and each person will have just a couple of minutes to give their sort of high level reactions to the report and issues that they think need to be part of the discussion.

And then once we have gone through all 10 people here then we will go into more of an actual discussion of the issues and we will end with some ideas about next steps. So starting at my left we have Jeffrey Macher, he's Professor of Strategy, Economics and Public Policy at Georgetown University.

And then next to him we have Wesley Wilson and he is from -- he's the Professor of Economics at the University of Oregon. And we have John Mayo who is also a Georgetown Professor of Economics, Business and Public Policy and then we have Mark Cooper. Mark is a Research Director at the Consumer Federation of America.

Then we have Mike Tretheway from InterVISTAS, Chief Economist and Chief Strategy Officer. Next we have Richard Schmalensee and Richard is the Howard W. Johnson Professor of Economics and Management Emeritus and the Dean Emeritus of the MIT Sloan School of Management.

And the next table we have Jose Gomez-Ibanez and you go by Tony right? Okay and he is the Derek C. Bok Professor of Urban Planning and Public Policy at Harvard University's JFK School of Government.

And next to Tony we have Russ Pittman and Russ is the Director of Economic Research and Director of International Technical Systems in the Economic Analysis Group of the Antitrust Division at the U.S. Department of Justice.

And last but not least at the table to my right we have two staff from the Board and that is Bill Huneke, he is Director and Chief Economist in the Office of Economics here at the Surface Transportation Board and Bill Brennan, Deputy Director Office of Economics at the Surface Transportation Board.

And Mike I think you are on now.

MR. TRETHEWAY: Thank you. Can I have the presentation put up? Thank you. Good morning to everyone. Our report was commissioned by the STB but the views in the report are those of InterVISTAS they are not necessarily the views of the Surface Transportation Board. Our study as indicated was titled an Examination of the STB's Approach to Freight Rail Regulation and Options for Simplification.

Now I would like to start out by describing the general research questions we were asked. The first is what methodologies do other national regulatory agencies apply to examine the reasonableness of rates levied by railroads, utilities, natural monopolies or other network industries?

And second is the stand-alone cost still a valid instrument to determine the reasonableness of rates and then third is can that procedure be simplified.

Now my remarks today -- this is a complex report with some very complex issues.

I have been asked to confine my remarks to about 10 -- sorry 15 minutes roughly and it is really difficult to do that. So I am going to focus on the high-level. I will make some statements that there is a lot of technical qualifications in what I say and I am happy to get into that later but just for the purpose of keeping focused on the high-level it will seem like glossing over some fairly substantive issues at times but we will have an opportunity to dialogue to deal with it.

I think it is important to point out the context for our report. Our research was conducted in the context of the existing Staggers Rail Act of 1980 so our mandate from the Board in doing this research was what's possible within the existing Act and it is not one where we were asked to -- or even wouldn't have been appropriate for us to look at a broader context of things that could be changed by changing legislation.

The Staggers Rail Act has got a number of different objectives but I wanted to highlight three of them. First to the maximum extent possible competition and demand for rail service is to be used to establish reasonable rates. And I think this is very important competition essentially meaning the STB mandate as I understand from Congress is not to regulate every single rail rate as was done in the past or as is done in some other industries.

Regulation is by exception and by a complaint action. Demand for rail service of course is a very important factor. Demand can be high and that can result in rates being high and vice-versa.

Second is to minimize the need for federal regulatory control and require a fair and expeditious regulatory decision -- and third is to promote safety -- it's always job one in efficient rail transport by allowing rail carriers to earn adequate revenues.

Now in addition to safety there are two important aspects of this from our point of view. The first is efficient rail transport and so as economists we will talk about economic efficiency and the other aspect of course is the need to earn adequate revenues. At the time Staggers was passed many of the railroads had come out of bankruptcy and a number of railroads were essentially liquidated, revenue adequacy was a major concern at the time.

Now in this context I want to point out -- because this does constrain to some extent the scope of what we looked at. First is the 180% market dominance exemption. Any rate that has a revenue to variable cost ratio under 180% is exempted from application for a rate this is very important. This is based on a measure called the Uniform Rail Costing System which I know a number of people have justifiable concerns with but nevertheless is embodied in the legislation and our report is based on that.

The second I already mentioned -- the revenue adequacy intention of Congress -- that is a core element in the Act it appears many times in the Act and it does affect the way we looked at some of the options.

Third is very important as well -- the ability to discontinue service on lines which is actually in the predecessor legislation before our Act and it is just as important because as I will indicate in a moment enterprise level revenue adequacy is not sufficient. It has to be looked at a line level.

And then the fourth is the goal of efficiency in part reflecting economic efficiency. Now we made a few further assumptions -- first is that we were dealing with vertically integrated railways. A report did not look -- we have some comments but we did not look as a policy option at the separation of railways into track companies and above the rail operators such as we have in part in Australia we have that, in Sweden and in the United

Kingdom and so forth.

The second assumption is no direct subsidy to the infrastructure or to its operation, unlike many other jurisdictions where there is fairly heavy subsidies that the railways, especially to the track. And third that any access regime allowing one railway access to the track of another railway would need to conform with the Staggers Rail Act, that's what SRA stands for and the STB would adjudicate access rate disputes.

I have already covered the first point that regulation is on complaints that the STB is not regulating every rate and that's one of our assumptions and I have already mentioned the line specific points as well.

Now this is a diagram -- unfortunately it is not particularly legible for those of you in the audience perhaps. It is on page 31 of our report and what we are trying to do here is convey the range of rail rates so going from left to right -- left we would have a rail rate that is free or zero. As you move to the right the rail rate increases.

And what we wanted to do is to clarify a few concepts that we economists use. At the very far left there is a vertical line called LRVC that stands for long run variable cost. In economics a price to be economic efficient must at least cover the marginal cost. In the rail industry that is typically approximated by a concept called long run variable cost.

And I have a lower left black bar that says any rate less than long-run variable costs an economist would generally consider that to be an unreasonably low rate. Reasonable and unreasonable are terms in the jurisprudence and so I've got on one side an unreasonably low rate.

Now the next vertical line is at 180% of the uniform rail costing system. 180% of long-run variable cost -- that is deemed by law to be a reasonable rate. Any rate above 180% could potentially be reasonable but the law here in the United States precludes shippers complaining about a rate, if the rate is under 180%. Now some economists may dispute whether 180% if the right number. That number is very complicated genealogy and that ultimately Congress simply set a number but under the 4R Act there was an ICC determination about 150%.

So we have got this law that actually confined us to looking at reasonableness of rates. It starts at the 180%. Anything above long-run variable cost would be considered economically inefficient in the sense that economists would say that an economically efficient rate is one that is at marginal cost or long-run variable cost.

So what we are doing in looking at regulation of rates is choosing how economically inefficient the rate would be when the STB judges reasonableness. There's also a line here for a concept called Ramsey Pricing. I will not go into that in detail but in general I think economists would be of the view that any rate above the Ramsey price would be an unreasonably high rate.

Computing Ramsey prices is difficult and the Supreme Court has been reticent to allow Ramsey prices to be computed directly. Then we have some bars here for the stand-alone costs. And I have three variants which I don't want to get into because there are subtleties in a limited amount of time.

The idea of stand-alone costs is that it would roughly approximate the Ramsey price but we don't know. The stand-alone cost rate might actually be a bit below the Ramsey price or as I drew on the diagram it might be a bit above. But the idea here is that there is a spectrum of rail rates and we will not look at any rail rates by statute below the 180% RVC ratio.

Any rate above the stand-alone cost in approximation to the Ramsey price would be viewed as unreasonably high here.

Now part of our research was to look at freight rail regulation in other countries. We started out with Canada -- Canada and the U.S. share a rail industry. Canadian carriers operate in the U.S. and vice-versa. Canada has three primary remedies for shippers for potential unreasonably high rates.

The first is Final Offer Arbitration. There has been about 65 to 70 Final Offer Arbitrations since 1987. So in round numbers it is about two per year but this is a confidential process and therefore it is opaque. The arbitrators simply make a decision which itself is confidential. The agency knows what the decision is but that decision is not made public.

I have been involved in some of these and some others have been but it is an opaque process and so therefore we concluded for purposes of our report there are no real lessons to be learned here because it would simply be anecdotal evidence. And it also has an inter-switching regime. It is a little bit different than reciprocal switching in the United States.

Essentially this actually dates back to I think it is 1903 to prevent overbuilding of track in urban regions but if a shipper wants access to a rail line that is up to 18 miles away from their premises the carrier that actually serves them is required to pick up the car and bring it to an interchange for the other rail carrier to pick up.

There is a subtlety here about in three provinces for the moment for a limited period of time -- there’s a special offer of 100 miles on the prairies. These rates are distance based. In the past the ICC has to be indicated a reticence to adopt a distance based pricing. The STB has a separate proceeding on reciprocal switching so perhaps the dialogue run inter-switching is best left there.

The third is competitive line rates and this has been rarely used but allows if you are on one railway and the next railway is some distance away -- several hundred miles potentially the agency in Canada will make an Order that will establish a rate and I will talk a little bit about this later when I talk about ESRP-M and I will explain that momentarily.

There are very few rate cases in Canada and the decisions that have been made have used very different methodologies. There is one case actually of shipment of methanol there have been four decisions -- it is one of the few cases actually and essentially there appears to be up to four but certainly at least two methodologies and we really don't see a lot of guidance from that.

United Kingdom has a fundamentally different rail regime. They have a nationalized track company. They have had two of them -- one actually failed and then the government picked it up and there might be a third iteration on this. Rate regulation is confined to track access charges, shippers do not have recourse to the regulatory agency to complain about the rate. If you don't like the rate you go and find a competing railway to provide the service.

The job of the regulator is to establish the access charge that the above the rail operators pay the track operator. In that determination the regulator in the United Kingdom actually used a methodology similar to stand alone cost. They did not use it because in the end the stand alone cost rate was fairly high and they were subsidizing the track system so it was a concept that was not particularly meaningful.

Australia also has a similar regime to that of the U.K. It is much more complicated in Australia. They do have a subsidized national track company so in both the U.K.

and Australia rail transport is subsidized through subsidies to the track operator. In Australia the shipper has no recourse to rate regulation. If you don't like your rate then what you do is you find a competing railway to provide the service. That competing railway will pay an access charge for the use of the track and that access charge is regulated upon complaint to the A Triple C [Australian Competition and Consumer Commission]. ACCC does not set access charges and say these are the access charge -- that's the way it is done to some extent in the U.K.

Instead in Australia the above the rail operator and the below the track company negotiate an access charge but if the above the rail operator is unhappy with it they can complain and get a rate. They also have a very, very complicated state regime there. In our view this is a very different regime. The regulatory issues are about track access charges, not rates paid by shippers and we don't see a lot of insight for the STB from the Australian example.

We were then asked to look at some other regulated industries in the United States and we looked at a few of them utilities, electric transmission and natural gas -- these are industries that have the federal level -- electric transmission for example have a rate base rate of return methodology used by the FERC and that covers all rates. In our view this is not consistent with the Staggers Act which basically says that the market will determine the rates and competition will determine the rates except on exception.

In the telecom sector they use a methodology called TELRIC [Total Element Long Run Incremental Cost] -- this is not regulating the rate that you would pay for our own cell phone service so you the owner of a cell phone buying services from a telecom company would be the equivalent to the shipper in rail transport. Instead the regulation is the rate that one telecom company pays for access to the infrastructure of another telecom company.

So again we don't see a lot of guidance to the STB from that because it's access rate regulation as opposed to regulation of the final rates by consumers. Particularly for TELRIC there's a lot of the ambiguity about exactly how they will determine the access rate. In some cases it could be simply average cost and there is differential or even Ramsey pricing rates.

The interesting thing though about TELRIC is it is a forward looking regulation like stand-alone cost. It looks at replacement cost and looks for the most efficient technology to be deployed. Another methodology that has been suggested is Efficient Components Pricing Rule, ECRP. This is a little bit complicated but essentially it is also an access rate regime.

The idea is if you are served by one railway and another railway wants to provide the service then we get a price to get access to a competing railway that is not serving the shipper directly. The original concept of the ECPR was one that said well we can't make the original railway -- the host railway worse off financially and so what we will do is we will reverse engineer the contribution that the host railway needs to be their fixed and common costs.

Our view is that this is not useful guidance for rate reasonableness because it simply embodies whatever contribution is already present in the incumbent's rate and if that rate embodies any form of market power then the ECPR rate will simply embody that market power into the ECPR rate and so we feel that this is the methodology that -- I'm running out of time here -- okay I'll see if I can go a little bit faster.

But the methodology that itself then requires a maximum rate reasonableness methodology. And here is the diagram to kind of look at the concepts. You have shipment going from A to C. One railway provides the dotted blue line at the bottom. The entire service is competing railway with the dotted red line up at the top and the issue is what rate can we make from B to C and with the ECPR that rate will be set to allow railroad 1 the blue railway at the bottom to continue to make the contribution it makes right now.

And our view is that that could still embody unreasonable rates. Our conclusions thus far then are that other freight rail jurisdictions have no insight for potential regulatory rate simplifications for the STB in the context of the Staggers Rail Act. There could be different methods like breaking up the rail system into track and above the rail operators but that was not part of our mandate.

Our view is that ECPR is not acceptable. In the interest of time I am not going to go through this but there is a modified or a market based ECPR that we actually think has some potential. We identified that in our report as one of the questions -- again it is indicated as issues for further research and we think MECPR has potential there.

Now let me get to the STB procedures and then I will be done. So the stand-alone cost is the original method put in place in the 1980's under something called constrained market prices. It is an attempt to approximate the maximum rate that would be charged to a shipper in a competitive environment. This concept is straight forward and intuitive in concept -- well at least to economists it is, but it evolved into an expensive and time consuming method.

The key complexities are the finding the route -- and this was relevant in the 1980's when we still had an overbuilt rail system before all the mergers. And so a railway might actually use this circuitous route to get from origin to destination and the stand-alone cross concept is no the shipper does not have to pay for circuitous routing so let's define a hypothetical direct line there.

Then because that line can service other traffic it can cover some of the costs of that line -- there's issues around other traffic that can bear, that can pay for rail services and bear some of those costs with only the residual being picked up then by the complaining railway. And there's some other -- there's a lot of subtleties around it but these are the two issues that end up creating much of the time involved in these rate disputes.

It's a complex system but the complexity was there to allow the shipper the opportunity to put forth the best possible case to get to the lowest possible rate for the shipper by saying look if I bent the line this way I could pick up some gypsum traffic that could make a contribution. In allowing the shipper to do that is very beneficial in a lot of ways, it added a lot of complexity.

The STB adopted a simplified stand-alone cost method and what it is trying to do is to remove some of the complexity, especially in defining the network and in defining the contribution from what is often called the cross-over traffic or the other traffic that could actually use that rail line.

My understanding is that to date there has been no simplified stand-alone cost. It has actually been completed and decided by the STB. There have been some applications but they were all reached in agreement between the parties. There is an even simple methodology -- the three benchmark methodology.

This is a comparative rates methodology somewhat different than what the TRB was proposing but there are some similarities in concept at least but this has to work in the context of the Congressional mandate of the 180% revenue variable cost rule. So then all of a sudden when you start looking at comparable traffic you start to confine yourself to that traffic above that 180% threshold.

This also considers the revenue adequacy of the carrier. I won't go through the details on this. The rate relief that is available here is 4 million. A shipper here can apply with the simplified stand alone cost at the full stand alone cost if they choose. It is also the case that a big shipper could apply for a three benchmark test although the rate relief at the moment that the STB would give would be limited to 4 million dollars.

Now what we did is we took two cases that were full stand-alone cost cases and we attempted to rough in what the STB decisions might have been if they heard the case under the simplified stand-alone cost or the three benchmark method.

Now it is not a fair process in that it is not adjudicated, we don't have all of the subtleties that can come into this but nevertheless in these cases there is a lot of information in the submissions under full stand-alone costs that we think if we can get a reasonably rough idea of what those decisions would have been.

The cases are Otter Tail vs. BNSF where the rates were found to be not unreasonable by the STB with the full stand-alone cost. And then there is the Western Fuels and Basin case versus BNSF where the rates were found to be unreasonable. In the case of Western Fuels our experiment shall we say determined that in all three methods would have led the STB likely to the same decision.

So in this case the shipper instead of using the expense of full stand-alone cost, if they had opted for the three benchmark method and if the three benchmark method allowed the same level of relief because this was above 4 million dollars in rate relief, this simplified method would have led likely to the same decision.

In the case of Otter Tail the case record was a little bit different in part because the STB changed some aspects of its methodology but in the Otter Tail case the three benchmark method we believe would have led to the same decision as full stand-alone cost and in the case of the simplified stand alone cost it wasn't quite enough information for us to make that determination. But if we made some reasonable assumptions from the information that was available in the case record we believe that the simplified stand-alone cost might have led to the same decision as full stand-alone cost.

So our conclusion on the STB procedures is that the stand alone cost is a well-intentioned method. Our view -- I know there are differences but our view is that it is well based in methodology but it became complex in part because of giving the shipper every opportunity to get to the lowest possible rate.

The simplified methods exist plus they are very attractive. We suspect that they will lead in many, but not all cases, the same decision as full stand alone cost but they are not widely used at present. Perhaps if we get more use, shippers would become more confident in using them.

The stand alone cost in our view is still a valid test of rate reasonableness the complexity perhaps is not needed today. That complexity was put in in an era when the rail system geographically looked different. We had overbuilt railways -- indirect routings were being used. Now in the post-merger world and we could debate about that, but in the post-merger world a lot of the complexity of the case perhaps can be simplified.

STB does already have simpler methodology, simplified stand-alone cost and three benchmarks. If you confine yourself to the Staggers Act and not revise the legislation these are simpler methods. These methods do have good credentials associated with them and I will stop at this point thank you for your indulgence.

MODERATOR BRACH: Thank you very much Mike. Okay we are going to go through now for each of the panelists to give a few minutes of their high-level reactions to the report and the issues that they think we should be discussing in the remainder of the session. I do have an Order here and there is a method to my madness so bear with me. I am going to start with the STB staff. I want to make sure also to make this disclaimer that they do not speak for the Board and they cannot comment on existing Board proceedings or speculate on future Board actions -- so Bill Huneke why don't you start.

MR. HUNEKE: Thank you. Broader application of SAC and the increasing complexity of SAC prompts a need for a reassessment of this regulatory tool. At end the Board contracted with InterVISTAS to do three things as Mike said -- evaluate possible alternatives to SAC from within the U.S. and from other countries.

Two -- determine if SAC was still a valid regulatory tool, suggest ways to simplify SAC. These were limited or report objectives. That remains an important regulatory tool for the Board. My opinion again, not speaking for the Board, InterVISTAS achieved these coals. InterVISTAS reviewed many alternatives from other countries and other U.S. entities and found that SAC is still valid for large cases.

InterVISTAS also found that the Board's other two rate methodologies -- three benchmark and simplified SAC largely replicated SAC results. There is another key finding. There is a real need to simplify SAC. InterVISTAS shows that SAC has not lost support in theory or in the literature but rather that SAC has become too complex.

Here are two measures that strongly suggest how complex the SAC case has become. Decision-length and size of the parties supporting work papers. In TMPA vs. BNSF a case decided in March 2003 the Board's decision was 162 pages and the traffic group could be displayed in a single spreadsheet, 162 pages in a single spreadsheet.

In contrast DuPont versus Norfolk Southern decided in March 2014 at a decision-length of 334 pages and the traffic group required a sequel database. The decision was more than twice as long and required a sequel database instead of a single spreadsheet. This dramatic increase in complexity has strained the STB's SAC process to the point that Congress has directly STB to expedite SAC cases and impose a significantly shortened schedule.

InterVISTAS has offered two suggestions for simplifying SAC. Number one -- because there has been three decades of industry rationalization and I quote, "Expensive and time consuming aspect of the stand-alone costing of determining the optimal route is perhaps no longer required. It is already done and simplified SAC."

Number two and I quote again, "STB could consider simplifying the contribution of the crossover traffic." InterVISTAS's two recommendations perhaps propose interesting avenues for simplification. Could STB return to a simpler crossover traffic revenue allocation method with the detailed analysis that currently goes into validating the configuration and rogue property investment be simplified?

Those are my initial thoughts -- I look forward to the discussion.

MODERATOR BRACH: Thank you very much Bill. Bill Brennan?

MR. BRENNAN: I associate myself with all of those remarks and not just because he is my boss. Mike I wanted to thank you for the report. I thought it was very well done as well, very interesting. It is always useful I think to benchmark ourselves against peer

OECD type countries and see how they are regulating their network industries.

We receive delegations from other countries here all the time asking us how we do things in our real network. I had the Brazilian delegation in just last week. I don't think people appreciate how much history plays into where we are. We are here because our society, through its elected representatives made certain choices a long time ago in some cases and we are working within those frameworks so I like the TRB report because it looked outside of those frameworks and we imagine what you know, we could be doing.

But as practitioners -- where we are you know we have to sort of play the ball where it lies. And I agree that SAC is complex and costly and time consuming and I think we all feel like it should be quicker and less costly to get to an acceptable outcome. The revolution in information technology is definitely asserting itself as in the complexity of these cases and I wonder if there is just too much complexity and too great a sense of false precision within SAC as it is evolving and we need to somehow cut it back.

I also wonder just if we aren't asking too much of the SAC. It is only one of the four methodologies in constraint market pricing and I've always thought that SAC worked reasonably well when you were looking at a small piece of the network. And the point was to determine whether that small piece of a network was earning super normal economic profits.

In some of our recent cases complainants have effectively replicated 75 to 85% of their existing carrier's network. And at that point I fear -- I wonder if SAC isn't really morphing into a revenue adequacy test -- a revenue adequacy test that is using replacement costs new as its standard. So I am not you know -- whatever problems we have with SAC it is a tool and we have to sort of shape the tool. But we also have to apply the tool to the right task and I am not sure that in some of the recent cases SAC was really the right tool to have used to get there.

MODERATOR BRACH: Alright thank you very much Bill. I would like to move over to you Mark.

MR. COOPER: The claim that increasing economic efficiency under the STB's extreme form of inverse elasticity pricing – those with the lowest elasticity of demand pay the higher price – rests on three strong conditions that have not obtained in the rail sector for one second since the Staggers Rail Act was passed.

First, there must be a reasonable budget constraint to prevent excess profits and inefficient carrying of capital assets. This results in inefficiency and presents an unnecessary transfer of wealth from consumers to producers.

Second, services with high elasticities must cover their costs. They must not be subsidized. This prevents the inefficient allocation of resources and the unnecessary transfer of wealth between classes of customers.

Third, the railroads must be efficient and there must be no artificial barriers to entry so that the railroads face the pressure of the threat of entry where competition might be viable.

The problem of the inverse elasticity rule does not stop there. The underlying assumptions have also been challenged on equity grounds. The rule assumes that all society cares about is total social surplus not the distribution of surplus between consumers and producers.

The rule assumes that society believes that every dollar spent on every product has equal value when in fact it can be argued that the money is spent by the 99% on their lower elasticity, modern income demand products deserves a bigger share of the economies of scale and scope than the toys of the rich with the high income elasticity and high price elasticity.

Now I know the STB cannot mess around with the assumptions of market fundamentalist economists albeit they are on their way out. If you look at the Nobel Prizes awarded in the last 25 years, 20 have been awarded to people who have criticized the fundamental assumptions of market fundamentalism but it is not for the STB to change that kind of thinking.

The STB can deal with the -- and has the legal power to deal with the conditions and it has not. Once the three conditions are actually in place then stand-alone costs can be restored to its proper role in a grand regulatory scheme. We might have an equal benefit rule where rates are set by uniform markdown from stand-alone costs. We might have an equal burden rule where rates are set by uniform markup from variable cost of course constrained by the stand-alone costs.

We could even have a rule that worries about social pricing which allocates the cost and benefits on the basis of perceived social values. The alternatives that the report considers and rejects are conceptually superior to the STB's application of stand-alone cost because they emphasize the importance of competition. They are morally preferable because they endeavor to deal with the gross inequities of extreme Ramsey pricing.

They are summarily and incorrectly rejected I believe because the authors say they might not replicate the STB's outcome which under the bold assumption that that is correct or they might violate the law. And frankly, having worked on the Long-Cannon factors of the Staggers Rail Act we thought we had some equity and balancing consideration in those conditions.

So law dictates practice but practice can also redefine law. In the last four years for example you are reading in newspapers today that the Obama Administration radically transformed the view of mergers in the communications sector. After 24 mergers were accepted without any opposition 7 have been whacked in the last 4 years. The law didn't change, the practice changed so the STB can always consider to change the practice.

One final observation -- it's extremely important to ensure the efficiency conditions. Not only in the removal of artificial barriers but also in the right sizing of the capital plan. As climate policy takes hold and coal shipments decline, track will have to be abandoned and losses will have to be written off and there is absolutely no justification for making the railroads whole.

Because in a competitive marketplace when you are inefficient, when you are caught by technological change or economic change, the capitalist loses money as a fundamental part of the marketplace so we must avoid the continuous misallocation of stand-alone costs because the burden in the next 25 years as the electricity industry migrates from coal to something else, the railroad industry is going to have to migrate from coal to something else and the rate payer should not be held captive by an inappropriate cost methodology, thank you.

MODERATOR BRACH: Thank you very much Mark. Okay now I would like to switch to Richard Schmalensee.

MR. SCHMALENSEE: Thank you. I was the Chair of the Committee that produced the TRB report. There's my visual aid. And we had a rather broader mandate than InterVISTAS. We were not constrained to assume no change in statutory authority. We did accept the Staggers objectives and the notion of regulation by exception.

The success under the Act in terms of transforming the rail sector seemed to us more than adequate reason to do that. We didn't assume that a separation of rail operation from track operation was ruled out -- we concluded it should be ruled out. Tony studied that extensively -- it hasn't worked that brilliantly elsewhere.

We questioned strongly URCS the Uniform Rail Costing System specified in the statute, 180% specified in the statute, plucked presumably from the air. And that notion that "gee" we need to have some kind of threshold for entry into the regulatory process -- where will we get it in 1980 was a really tough question because what could you look at other than -- plus you had maybe adjusted for inefficiencies.

It has been 36 years. The industry has been transformed. It is plain that URCS is conceptually inadequate. The average variable cost of a shipment is not economically defined. I mean forget hard to measure -- not defined in the presence of joint and common costs. So URCS is trying to measure an undefined quantity by moving accounting numbers around.

In the course of our proceedings I asked a representative of the railroads was URCS used for anything but regulation and he laughed. Who would use that for decision making? A costing system that says 20% of traffic or 25% of traffic is carried at less than cost is clearly flawed.

But there are alternatives Wes may talk more about this but we did a fair amount of work on the question of could you use rates under competitive conditions as a benchmark for rates under market dominance to see if they were unreasonably high and we concluded on the basis of evidence and statistical work that that procedure is not only conceptually sounder but mechanically feasible, rolled out by the statute, but clearly a superior alternative.

Let me then go to if you get through the 180% test, the current regime -- threshold point -- SAC has nothing to do with Ramsey pricing. Let's just be real clear this is confused a lot -- Ramsey pricing is pricing according to elasticity of demand. SAC is entirely based on costs, they are separate and distinct. It is easy to find examples of prices that are Ramsey prices that fail the SAC test and vice-versa. They are distinct entities.

The argument for SAC is a fairness argument. The argument against SAC of course is that it is enormously complicated and very hard to use for small shippers. The simplified procedures make more use of URCS. Now if that is a fundamentally flawed system to say we will use more of it to simplify the SAC test, seemed to us the wrong direction.

Though we did sort of accept the lessons from the Canadian system, not lessons of outcome but lessons of process -- for simplification the STB has excluded evidence on product and geographic substitution for market dominance inquiries to simplify the proceeding. But that evidence is potentially very important.

The Canadian system you close the door, you have an arbitration and I am going to talk very fast because I am over three minutes -- you close the door you have an arbitration you don't know what happens in the arbitration, you don't know what that record looked like but it had a time limit, complicated evidence could be introduced if done so efficiently -- that's the process lesson. Not the rule lesson the process lesson is you can handle complex cases efficiently in that setting.

You could imagine tweaking the Canadian procedures so that STB does retain final authority over the outcome, it reviews the record, it decides whether the arbitrator reached a reasonable conclusion, I'm not a lawyer -- but the key message I think we have two, three maybe -- the regulation by exception really is the only route to go in this country.

Second, unfortunately STB's hands are tied to URCS by statute but that really is unfortunate and probably it is going to be hard to walk away from the SAC test to the kind of system that the Canadians have but it would certainly be advantageous for a variety of reasons and I can say more but I have run over my time, thank you.

MODERATOR BRACH: Thank you very much Richard. Okay now we are going to move to Wes.

MR. WILSON: Thank you very much I enjoyed the report Michael, pardon me. I really enjoyed the discussion of rates in other countries and industries and I liked the conclusion that they really don't work here, okay. And indeed if I read correctly SAC withstood the test of time. Of course we think differently.

At the outset costs -- rates, network size have fallen under Staggers, railroads are no longer on financial collapse -- I don't think there are any other industries where we have seen such success in deregulation. But here's the thing -- the deregulation and the way that we regulate railroads today is largely based on the Staggers Act.

Well that was designed for a different industry. This industry has evolved it is completely different from what it was in 1980 and we think it's time -- I think from our perspective, that we modernize regulation and we have a way of doing it that may or may not pass the legislative process.

But so it is from that perspective I think is really a fine report. There are however a large number of movements and I'll talk about this in a minute where rates are quite high, far in excess of 180% and the sailing question is how do you regulate an industry so that firms are viable but that rates are not excessive -- I mean that's the age old question.

Rate setting is very complicated in that there are a large number of movements and these movements share costs and the problem with shared costs is that you can't allocate them to a specific movement without some sort of an arbitrary assumption. You know any allocation mechanism of a joint or common cost is arbitrary and that's what Dick meant by the fact that average variable costs are not well defined.

It is important to note that rates that are subject to -- the rates that are subject to the regulatory rules or tariff rates -- most traffic, however it is exempt for a contract -- in fact I was astounded when we ran these numbers at 94% of shipments, 89% of car loads, 83% of ton miles and 82% of revenues are exempt of contract.

You know these tell us that we need to have -- these tell us that we need to have some sort of a mechanism for limiting unreasonable rates. Frank Wolack is co-author of this report along with the two of us and others. He wanted me to make sure to point this out. Even if we had access to the perfect measure -- even if we had the perfect variable forced measure -- it still does not help us to identify how to set a reasonable markup.

It doesn't help us. So a few minutes on market dominance of course rate reasonableness requires for a rate to be reasonableness to be considered it is going to -- the revenues -- the variable costs have to exceed 180%. That requires that you calculate variable costs and we will talk about that in a second.

There also has to be a lack of competition intermodel, intramodel are the current standards until 1999 we had product and geographic but those are hard to measure so we don't do that anymore but we put large fractions of the traffic -- you know in 2013 my version of the date -- 31% of farm products, 62% of chemicals, 67 of coal, 44 of petroleum have rates that exceed 180% but yet we don't see a lot of rate cases.

Now Russ I'm sure is going to pick up a little bit on the regulatory barrier to the barrier to the regulatory process that shippers face, or at least I hope you will. But effective competition doesn't include product and geographic -- it can. The threshold requires that the variable cost of movement be calculated and you know over about a 15 year period, URCS was put together.

And it is a legislative mandate that there is a cost model, right and how much -- I'm done? I still have a lot to do here. Alright so let me just conclude with a few comments alright. So URCS is just simply a flawed system, lots of untenable assumptions in it. The primary one is the allocation of common costs. I'll just skip all of that.

We recommend that it be abandoned and we look for other ways and our way is benchmarking and we have used the exempt and contract rates that help us identify a competitive benchmark that we can compare tariff rates too and if they are way out of line then we think that they ought to enter this arbitration process and with that I will stop. I didn't quite -- I mean I have lots more here. Are you sure we did three minutes? I was talking fast too.

MODERATOR BRACH: Yes, that's not -- there will be time to talk but I do want to turn to Tony.

MR. GOMEZ-IBANEZ: Now there is a time pressure.

MODERATOR BRACH: You have to make up for all of this, no I'm kidding.

MR. GOMEZ-IBANEZ: He just told you that our mandate was much broader than -- has tried to tell you how flawed URCS was so what we are recommending is fairly radical change -- essentially the replacement URCS is a benchmark competitive estimation that was done and then the replacement of both SAC and market dominance with the final arbitration described.

So I want to make two points -- one is that URCS is the cause of a lot of problems that we need to deal with. My simplified understanding of how this whole system works is because we don't really trust URCS the 180% revenue to variable cost rate is not a very good screening for whether the rates are unreasonable or not, there is a lot of traffic that moves above and below that without complaint.

Because we don't have a good screen then that puts a lot of pressure on the next two steps -- on the market dominance and the SAC steps and the rate reasonableness process to be more thorough and careful. But then the more thorough and careful market dominance becomes such a burden that we throw out locational and product competition which are important in the real world.

And the SAC becomes such a burden that we replace it with a simplified SAC which to at least an outside doesn't sound very simplified or three benchmark test which to an outsider seems to rely too heavily on URCS, two of the three benchmarks. URCS is not a small problem I think replacing it would be a fundamental.

The second point I want to make is that I think the flaws in our system are causing pressures from small shippers that are very understandable but that may lead to other poor regulatory outcomes. In particular, thinking of an industry proposal to compel switching -- inter-switching which the Board is considering a version of proposing a version of.

I think mandatory inter-switching is essentially a form of open access. And as such it has the benefit of introducing competition but it has the cost of increasing coordination a lot, both extra switching movements, disputes over access priorities and investment priorities and most of the issues.

And the problem with the access as you have seen in Europe and Australia the rate is very controversial but the problem that the STB's version of it makes matters worse in that the criteria for whether you are going to allow or force inter-switching are kind of both vague and to be decided on a case-by-case basis.

The vagueness is going to cause a lot of uncertainty on the railroads and shippers coming in. And test number one is that you have to show that there isn't or can be a workable interchange within a reasonable distance. Without a reasonable distance or workable defined left to a case-by-case basis. I worry that that case-by-case basis is going to lead quite a lot of uncertainty and to pressure to expand compelled switching, pressures we already see in Canada with the four province extension of the switching distance.

In many ways compelled switching would be -- looks like an attractive way because you get another competitor with only 30 miles or less of movement on another railroad, but I think it is going to not be good enough relief to many shippers particularly in the rural areas. I mean this is going to help shippers in industrial areas where there are two railroads that are reasonably close together but not be much of a help in a lot of rural areas where you have to go hundreds of miles to find another railroad to switch with.

So getting rid of URCS and moving to and getting rid of SAC and market dominance moving instead to this arbitration sounds like a radical change. But I think the others things are sort of like putting band aids on a wound right -- without having some drugs or something to stop the infection. What you really need to do is face up to the fundamental problems of cross rates.

MODERATOR BRANCH: Okay thank you Tony, where's Johnny, why don't you go next?

MR. MAYO: Thank you. Good morning and thanks very much to the Board for the opportunity to participate in today's roundtable. Before we dive maybe too deeply into the InterVISTAS report let me first compliment the Board on initiating this inquiry. I recently wrote a paper in which I looked at the evolution of regulation over the last 50 years.

The idea of the paper is with the benefits of hindsight at least to be able to identify what changes to the regulatory process and policies that were put in place have been successful, what were our successes over the last 50 years in either turning up or down the regulatory dial. And then again with the benefit of hindsight being able to draw out from those successes what threads, what common threads exist -- what principals might exist from which we can move forward with changes to regulatory policy to have smart regulatory policy for the 21st Century.

And among a set of principles that I identified that emerged from this study I found that some of the very best changes to regulation were driven by exactly the sort of benchmarking exercise that the Board has commissioned here, so again my kudos for initiating the report.

Let me applaud the Board also for having the wisdom to look in this particular effort to look beyond the specific regulatory model that it has adopted here to see if there is any low hanging fruit whether it is from other industries, from other countries, from other regulatory agencies that might substantially and readily advance the statutory goals that have been set out for the Board by the Staggers Act.

I also want to compliment the authors of the report. It is very thorough and it is well written and indeed I think much of it is rooted in sound economics and economic research that has been developed over the last 50 years. I also want to compliment the authors for doing something that is not so common, that is taking off let's call it the rose-colored glasses that are so often part of consulting reports that look longingly at alternatives that look very, very attractive relative to the status quo.

I think in particular I found the InterVISTAS report to be judicious and a mature annunciation of those alternatives but one which recognizes that there are no perfect or costless alternatives to the current portfolio of regulatory protections offered by the Board. So again thank you for the opportunity to participate and I look forward to the discussion this morning.

MODERATOR BRACH: Thank you very much John, Jeff?

MR. MACHER: I am going to time myself. First I want to apologize for my voice I don't know what happened, I don't have any idea. In any event I also want to thank the STB for allowing me to participate and if this is an all-star cast of freight rail economists then I surely must be filling in for an economist that was injured.

I also want to give kudos to the Board for taking a proactive approach. My colleague John Mayo and co-author has a paper on results based regulation that suggests regulators need to be vigilant in the possibility of improving regulatory or deregulatory designs and certainly I think this is an effort toward that.

I want to compliment the authors for a very well written comprehensive and generally thorough report. It is a wonderful review of the legislative and regulatory context and when it is combined with Dick Schmalensee and Wes Wilson's report I think you have sort of the state of the art right now that exists in thinking in the rail industry. It provides -- the report provides an adequate if incomplete discussion of country-level alternatives and industry-level differences in regulatory platforms.

And it even makes an effort in applying the three tests to two actual cases to see if outcomes would differ and that's commendable. The recommendations are very sensible in that as my colleague John Mayo indicated. There is relatively low hanging fruit and really not much to learn from other countries and other industries -- that the three tests still play a very important role as determined by the authors and any simplification is unwarranted because of the loss of economic efficiency which I generally agree with as well.

If I was to quibble with the report a sample size of two cases is reviewed as not the basis for strong conclusions but the authors were up front in acknowledging that by their own admission more data is needed. It is not adjudicated and it is missing some of the subtleties that come from a more comprehensive review.

So now I am going to take a step back and go to 20,000 feet and provide some thoughts overall. First, I think in doing this you need to agree on what the problem actually exists -- I think we need to find, formulate and frame the problem that STB is trying to solve. As my data indicates there are 53 odd cases since 1996, most of them SAC, very few simplified SAC and even fewer 3B -- there's been no simplified SACS since 2010 and no 3B since 2012.

A lack of STB cases is not de facto evidence that a problem even exists. So first we have to decide if there is a problem in the limits of STB cases being brought forth. Second, if there is a problem what is the problem? Is it a lack of shipper rate filings? Is that was STB is trying to solve? Is it a lack of shipper complaints? Is it a belief that rate reasonableness processes are too cumbersome and too costly?

By the InterVISTAS report it suggests that the rate review cost by the 3B are in fact not that costly and not that simple. In fact two of the 3B cases are done by the STB every year, they are relatively straight forward and if we sort of consider some of the larger shippers is 3 to 5 million a large amount of money to pay for a rate review when the amount of product they are shipping, the amount of revenue that they are making is orders of magnitude larger?

So the complexity -- if the complexity is not needed according to the Trethway report then why aren't we seeing more compliance? Why aren't we seeing more rate filings? So I will leave that as an open-ended question and I don't know I'm at 3:40:50 so I'll stop there.

MODERATOR BRACH: Thank you, Russ last but not least.

MR. PITTMAN: Thanks very much to the Board for the honor to be a part of this very high level and distinguished group. The views expressed are not necessarily those of the U.S. Department of Justice. Why do we have SAC? Why do we have constrained market pricing? As I understand it we have it simply as a limit to Ramsey pricing.

It's ICC, STB policy that Ramsey pricing is an efficient way for railways to cover their fixed costs but there was a fear, at least going back to 1985 in the co-rate guidelines that unconstrained Ramsey pricing would yield very, very high prices to captive shippers and that was somehow wrong or unfair.

So Ramsey -- so the constrained market pricing methodology including stand-alone costs was imposed as a ceiling on Ramsey pricing. Since I take the liberty of disagreeing with this excellent report which says more than once that SAC is an approximation to the un-computable Ramsey price I think that’s simply incorrect. SAC is a ceiling on the Ramsey pricing that might otherwise be imposed.

But why SAC -- why SAC as a ceiling in railways? The father of SAC, Gerald Faulhaber has testified twice recently or filed testimony twice recently at the STB that SAC remains a fundamentally sound concept but is not applied well to railways, the conditions simply are not there.

He makes a number of arguments for this but then we say if you want to see the definitive analysis check the paper by Pittman. So like Professor Schmalensee I have a visual aid, it’s my paper on this topic and I brought a few extra copies if anybody happens to need one. So in that sense I take the liberty of disagreement -- my friend Bill Huneke who says that the economic literature still supports SAC -- at least some of it doesn’t.

So then why -- why does Professor Faulhaber say that SAC is inappropriate to railway regulation? Well let’s look at the rationales that are listed for using SAC. The first one has been mentioned here already this morning is fairness. Professor Faulhaber initially in his article very strongly said SAC has nothing to do with fairness. Whatever society decides about who should pay for the fixed costs of railways, how much of that should go to coal company shareholders, coal labor, electric utilities, electric utility rate payers, how much it costs to build a thousand mile railway through Wyoming and the western U.S. doesn’t really say much about that question.

So SAC from its beginning has not been about fairness. SAC in fact, in its early application in telecoms was more about the prevention of inefficient entry by new entrants. Both

Faulhaber and Professor Baumol said that that was the proper use of SAC. In fact Professor Baumol said that the SAC test might better have been called the entry inducing rate level test. But I don't think anybody in this room is worried about excessive or wasteful entry by 500 mile freight railways so that doesn't seem to be a good reason to stick with SAC.

Another reason put forward in this report and by Baumol, Panzar and Willig and by the FCB decision has been that SAC simulates a competitive market. I have to say I don't know what that means. And I have to say with all due respect to Professors Baumol and Willig who are friends of mine I don't really think that concept has much analytical content or if it has it hasn't been explored, I haven't seen it.

The final justification that I have seen for SAC and one that runs throughout again this excellent report is to prevent cross subsidization. The term appears frequently in the report but that term has a technical definition and the report -- I may have missed it but I don't think the report defines what cross subsidization is.

After all many businesses, all businesses perhaps that can use some kind of differential pricing, some kind of differential markups over variable costs -- that's what Ramsey pricing is of course. The technical definition that economists use of cross subsidization goes back to Falhaber and that is charging a price below incremental cost.

So one of the focuses -- perhaps the main focus of Faulhaber's original paper was prices should not be below incremental costs for any users and indeed according to Faulhaber and to Baumol, Panzar and Willig a main value of the stand-alone cost test is that if some users are paying more than stand-alone cost, other users are necessarily -- necessarily paying less than incremental costs. It follows from the model -- it follows from the derivation of the stand-alone cost test.

Well why would U.S. freight railways be charging some users less than true incremental costs? Forget URCS we know the limitations of URCS -- again we don't think, I don't think anybody thinks that is a real problem so that to me takes care of the fourth and final reason why people have justified -- why people have justified SAC as a tool to prevent cross subsidization.

Again maybe in other situations when the Faulhaber model is better applied it may make perfect sense. It doesn't seem to apply well to railways. I will just finish by saying it seems to me that the next big question is okay fine -- what's better than SAC and obviously that is a difficult question.

There is some good discussion in the Transport Board report with the work of Wes and Frank Wallick on one possibility. I suggested that even with the problems with URCS the STB is trying, working hard to improve it -- there could be worse things than a revenue to variable cost ceiling as a limit on how much the railways can Ramsey price -- after all several times now the STB has used revenue variable cost ceilings as a remedy in a SAC case. I'll close with that thank you.

MODERATOR BRACH: Thank you very much Russ. Before we get into the discussion Mike is there anything very quickly that you would like to clarify with respect to the report based on the things people have said?

MR. TRETHEWAY: Very quickly.

MODERATOR BRACH: Very quickly.

MR. TRETHEWAY: I would like to comment on one area and that is TRB's interest in an arbitration -- sorry I myself participated in half the arbitrations in Canada. Let me just say that it would be naïve to think that URCS would not become part of the arbitration process even if URCS ceases to exist there will always be a son of URCS and there will always be a revenue variable cost argument being put forth.

MODERATOR BRACH: Thank you that's good. Okay so now we get to have fun. Not that that wasn't fun -- that was very fun. But each of you have had a chance to say what you think about certain things and so now it is time to actually interact with each other a little bit more. And just to kind of get the ball rolling we have heard a number of different things about SAC and I wonder maybe if we can have a little bit more conversation about -- first I thought that there was agreement that it was overly complex and expensive but then I am not so sure that that's what everyone thinks and maybe it is not just a question of complexity maybe it's a question about culpability.

So can we talk a little bit more about first of all is there an agreement that SAC should be replaced and if there is or at least if most people think so is the problem really the nature of SAC or the complexity of SAC or maybe they are connected.

MR. SCHMALENSEE: I think they are both problems. As Russ has emphasized the conceptual foundation for SAC is weak and you know 5.8 million dollars a case kind of rules the use of SAC out for small shippers and then the use of URCS to simplify SAC brings in error -- so once you start with SAC and try to move from it you are starting from a relatively unsung conceptual foundation and simplifying using the flawed system so it is both.

MODERATOR BRACH: Other comments or response -- John?

MR. MAYO: Let me suggest an answer to a slightly different question than the one you asked and that is not is SAC worth retaining but is the portfolio of regulatory options that are available in the public's complaint process suitable to the industry? That is -- shippers have the opportunity with that portfolio of regulatory options access and get further adjudication of what is a reasonable rate and I think that might be a better question. SAC is part of that process but of course there's a whole portfolio that is available and the question then is can they have access and do they have access in a way that isn't clearly biased in the sense of producing false negatives or false positives in the regulatory process. It is not obvious that's the case.

MR. MACHER: Yes I would like to just add one thing on this since I kind of brought it up in the first place. But would changes to the rate process realize or generate more economic efficiency than what's currently in place?

And it is hard at least for me to see a new system would be more advanced, improved thinking and understanding or improve outcomes with respect to economic efficiency without data and evidence.

MR. COOPER: As I said stand-alone cost to me is an interesting tool and it has a role to play in a regulatory regime and it is can be used to evaluate other rules for cost recovery. So the march I would like to see is to get the three conditions in place to make sure that there are not significant amounts of traffic moving below variable costs.

You can believe that's an artifact of the accounting system, you could also recognize that management frequently hasn't got a clue about what it's costs are and they keep doing what they think they need to do to keep the traffic going. I think it is important to recognize that we need to get the revenue requirement right -- particularly with the forthcoming pressure that is about to hit the railroads with respect to the decline of coal traffic if that takes place.

And third, I do believe that there was a co-competitive issue. I think you can call it an open access regime and say they tend to be pretty efficient in some industries. You can call it a FRAND regime, fair, reasonable and non-discriminatory access to bottleneck facilities but I do think that the agency is moving in that direction.

The irony is that we let the industry eliminate the potential by consolidation and so the possibility of finding someone to put together an alternative railroad if you can escape the bottleneck was erased by this massive consolidation. As that went on there should have been an obligation to figure out what was going to replace the possibility of competition. Do those three things -- you can do stand-alone costs because it tells me what the range of rates is. It should not have been a mechanism for setting rates that extracted the maximum contribution from captives.

MR. THETHEWAY: SAC is complex definitely. At the same time in some of the large cases what is at stake is huge. We are talking about transportation revenues that could be a billion dollars a year with a determination for 10 years so the cost and complexity of SAC in the context of let’s say 10 billion in transportation revenues being at stake is something to think about.

Such large magnitude cases may justify such a complex procedure. Does SAC have to be as complicated as it is? My view and I think it came up in the report is most cases no. I think it was put in place for a different industry and that complexity was appropriate but that complexity like on choosing routes and potentially the cross-over traffic probably isn’t present any longer and so some of the simplifications I think can go a long way.

But there is still maybe times where the amount at stake for the shipper is so large that having a complex well-thought out process to make the determination is important. One other comment for Mark I really appreciate a lot of the comments you made but on the one about will there be a downsizing of the industry in the future -- that could very well be but SAC is one because it is forward looking, the efficiency constraint will say the stand-alone railway will not be today's railway.

You the shipper will not have to pay the sum costs of today's railway. It constructs the hypothetical railway for carrying this traffic to the future. And if that is carrying a third of the coal traffic than in the past the shipper will not be charged with paying for the past over investment.

MODERATOR BRACH: Russ?

MR. PITTMAN: I want to give it a little more attention than we have given so far to the Canadian system which I think has worked pretty well and I apologize if I make any mistakes. I'm not an expert on it. But Mike and the others have mentioned the difficulty of the arbitration system but that is only one part of the Canadian system. As Mike mentioned earlier Canada for shorter distances has an automatic inter-switching arrangement where you can -- as I understand it, if you are a shipper you can automatically get your traffic shipped to that other railroad if it close by -- a certain distance, I think its 30 miles.

And I think importantly here because the distances are relatively short as I understand it there is a standard non-disputed way of calculating the costs that will be paid. It is a short distance and it is made fairly easy. It is a small amount of money compared to the whole transaction so that makes it a fairly easy process in Canada as I understand it when they use this inter-switching rule.

Now the down side of that actually it is an upside and a downside. The downside is that of course there are only two major railways in Canada, Canadian National and Canadian Pacific and speaking not for the U.S. government but as a competition economist, I think many people think that when you have a duopoly you don't expect a lot of competition so you don't expect that second railway to be real active in looking for the switching traffic.

Of course the same thing is true now in the U.S. with basically duopolies for many of our shippers in both the west and the east. So the disadvantage of something like inter-switching is that if you are a UP shipper -- and meaning no disrespect to my friends at the UP and you want your traffic switched to the BN and meaning no disrespect to my friends at the BN -- as I understand it the BN has to be willing to take it and has to be willing to make you an offer and you take that offer to the STB.

Well a lot of shippers think those duopolists aren't real eager to take each other's business these days so whether an inter-switching regime works when you have mostly duopolies situations is the real question, thank you.

MODERATOR BRACH: Bill?

MR. HUNEKE: Yeah I'd like to also comment -- make a couple of comments on the Canadians. The first one is would the TRB report really advocated going to final offer arbitration and Mike Tretheway mentioned one issue and we probably still need a version of URCS.

Another thing that we really need to focus on is because there's no record we don't know the results of those arbitrations and there has been work done by James Nolan at the University of Saskatchewan who suggests that because the railroads tend to be the repeat players and have much more invested in the overall structure of the game they tend to hire and put more into the game and get more out of it so it may not be as unbiased as people might suspect going in.

The other thing regarding the inter-switching -- if you look at the configurations of the national networks Canada is really as Russ said it is two railroads -- it is also a parallel situation and there may be significant differences in what happens particularly with rail operations in the United States if we were to move more to the Canadian style switching.

MODERATOR BRACH: Tony you haven’t said anything yet so?

MR. GOMEZ-IBANEZ: Thank you. Just to make it clear to Mark that I wasn’t advocating the spread of compelled switching, rather the reverse -- the notion is that if you had a better screen that wasn’t baked on earth would be better, but if you had final arbitration that you -- and I haven’t thought about the duopoly issue but I think it is a very real issue and another strike against switching.

I think the distance once is something that I really -- *** (this is inaudible and off record). It doesn’t look so bad if it is over -- all the politics I think compel you to switching it.

MR. SCHMALENSEE: Just a couple of points Jeff asked if the current system is biased and that is an interesting question. I can see a couple of biases on small shippers who ship irregularly to different locations as the cost of getting into the system makes it difficult for them to get rate relief.

On the other hand the exclusion of product and geographic competition is a bias against the railroads and then URCS sort of puts a random variable on top of those things so yeah the system works but it could work better. Mike makes the point that there would be a son of

URCS -- I think that's probably wrong but there would be cost evidence in arbitration and that's appropriate.

I think we may have pushed too hard on the Canadian example at least in my own thinking it is less oh gosh the Canadians have it right -- it's the question of a process more than rules. I mean I participated in very complex pact litigation where each side has a certain number of hours to present whatever evidence they want to present and the case gets done in reasonable time.

I've observed a merger analysis at the anti-trust agencies where tons of complicated stuff comes in -- a decision is reached in finite time. If you had -- when you litigate those things with all of that complexity it takes a long time but in terms of limits on time, in terms of behind closed doors, rules of evidence I think the Canadian experience suggests process, not something to be followed to the letter.

The STB I think needs to retain ultimate authority probably can't in our system -- pluck an arbitrator out of the woodwork and give them the STB's authority on rate reasonableness but the notion of changing process so that not trying to change the statutory requirement but change the process -- any kind of evidence you want 30 hours. Any kind of evidence you want 30 hours.

Make an offer the STB will make a decision. It is not clear to me why you can't do that. It is clear to me that by itself you can't spend -- you can spend 5 million dollars preparing for a proceeding like that but you are probably wasting your money. So the question is if you have to have specific -- the other advantage of the Canadian system is you don't have to build an alternative railroad.

You have to go in and make arguments about why this isn't a reasonable rate considering our costs, considering what the guy across the street is paying, considering any evidence we can find as in labor arbitration -- what's the evidence as opposed to building a hypothetical railroad to perform a test that as Russ points out has weak conceptual foundations.

MR. MACHER: So I was going to make a quick comment on Russ's point about inter-switching in Canada. A USDA 2013 study found that 37% of the traffic was eligible for inter-switching but only 4% was actually inter-switched. Now this could be read as either inter-switching would have no impact on the status quo or -- and I think where Russ you would agree, it is not going to affect competition.

That un-bundling is going to work if and only if firms are actually going to compete and in Canada they didn't compete and I think the same based upon what you indicated would be true in the United States.

MR. MAYO: So I wanted to respond to Dick who I thought offered a really interesting set of observations that there may be biases in the system against small shippers, against large shippers and random elements of that. And what collectively that says is that it is an imperfect system. I think we can all agree to that. It is an imperfect system but again everybody who is waving around papers so I have to wave around my paper -- here's the paper that talks about results based regulation.

I mentioned earlier on the principles of benchmarking. The other principle I want to point to is the principle that says, "All market governance mechanisms -- all market governance mechanisms are imperfect." They are all imperfect so this is an imperfect system. Dick suggested this works, this system works but it could work better. But I think what I want to do is just pause us right there and say do we have clear and compelling evidence that something is going to work better?

What has been discussed and it may be worthy of additional discussion this notion of arbitration -- final offer arbitration which was both discussed in the InterVISTAS report and was discussed in the TRB report. And I have to say that there is a compelling attraction to the notion of arbitration just simply as was mentioned here that it seems to be relatively simple.

But as was pointed out in the InterVISTAS report it is non-transparent, there is no standard and it is not clear what the expertise is that was making it and who's making those decisions. So if you try and say okay can we bridge the gap -- can we somehow bridge the gap and get from there to a system that is more transparent, that does have standards and that does have expertise -- it sounds a lot like the system we have today that you have standards in place, that it is transparent and we have an expert regulatory body to make the decision.

So again I would just go back to the question of -- the observation that all the systems that we are going to talk about today are imperfect and the question is -- is there clear and compelling evidence that something can beat the current system.

MODERATOR BRACH: Can I just ask a follow-up question to that. What would actually constitute clear evidence if for example you are trying to think about doing something completely new or do you really -- can you only move forward with things that are basically what we already do?

MR. MAYO: Well I think I would do two things. First I would ask the question how are we doing -- how are we doing. And if you look at the retail metrics in this industry -- metrics that consumers and the general public care a lot about -- prices, output, investment, innovation -- by all of those metrics we are doing pretty well in terms of public policy. Prices are down, investments really strong with the private sector as opposed to the public sector, innovation has been good and so on.

So that raises the bar to your question and then I think the answer is there could be compelling evidence. If you look back for instance, just as an example -- if you look back to the airline industry and the compelling evidence that emerged in the pre-deregulation era of the airline industry we benchmarked and looked at intrastate deregulation or intrastate deregulated airlines that were performing massively better than regulated interstate airlines. It was clear and compelling.

It is not clear that there is going to be or not be -- it's going to be an empirical inquiry on your part.

MODERATOR BRACH: Thank you let's see Bill?

MR. BRENNAN: Yes I just want to -- I rise not in defense of URCS either to praise nor bury URCS but I have a couple of comments on URCS that I would like to circle to but brought up to a slightly higher level. And I think all the economists have been very careful about this -- when economists talk about a rate being too high implicitly in our minds is this notion of too high compared to something else.

And so I think it is really interesting when you ask what is that something else that we are comparing to. If you are comparing it to other similar and competitive rates you are in the benchmarking world and that is a world that we are familiar with because we have something like that in our 3B processes although we limit the relief there.

If you ask are the rates too high relative to the revenue needs that are carried on the system basis that's revenue adequacy. We haven't talked a whole lot about that but it is in our tool kit. When you talk about a rate being too high relative to the cost of providing a particular service, you are moving into SAC world. The problem in SAC world is this problem that economists have known about since the 19th Century which is there is no economically rational way to allocate joint and common costs.

So I would like to defend URCS here for just a minute by saying that it is not -- it is a general purpose regulatory costing system. I would be amazed if anybody in the world uses it to do business decisions. The railroads have their own costing systems which are just as flawed as URCS is in many ways. I have heard people welding together cars so they can trick out their internal systems so they can you know get certain benefits.

But when we are talking about URCS as just a general purpose costing system it is a political costing decision inherently. It's about what's equitable, what's plausible, what's fair, defensible and that's what URCS is. If you ask me what URCS is as an economist I would say it is certainly not marginal costs, it is something like system average variable costs with this dollop of fixed costs put in, with some recognition of scales economy. It is neither fish nor fowl it is what it is but it is in the law, it is what we have and it is not the worst thing that you can imagine for this purpose.

I have heard people complain that URCS has too many movements that kick out below 100%. I would just remind everybody that is movements which are kicking off revenues that are lower than the system average. Why would we think that there are back haul movements on intermodal containers that wouldn't be below 100% of URCS as we measure and apply it? It doesn't strike me as weird or implausible or suggestive that the whole thing is just rotten to the core.

It is just ours -- it is our quirky part of the world and that’s all that it is. It is a regulatory costing system because regulators sometimes need to allocate joint and common costs. They certainly do so if the comparison is cost relative to the cost of providing services.

MODERATOR BRACH: Thank you Bill. Before I get to the others who have put their tent cards up Wes you had so many things to tell us.

MR. WILSON: Most of it being -- I could go on. Look URCS is definitely flawed we all agree, everybody agrees, everybody -- it is called marked variable cost in the legislation but you are not mandated to have URCS you are mandated to have a cost model as I understand it.

It is just URCS is what and yes there are sizable portions of traffic that operate with less than 100% threshold. In fact I think Christensen and also our own study points up to a quarter to a third of the traffic in some years it is less than that. Now the refinements that I think you folks have made of the improvements -- but if there is an option out there it has a better conceptually defined basis and is easier to do and more defensible why not use it?

I guess that’s my perspective and that’s what the benchmarks are. Now admittedly the benchmarks -- you know you take the cost characteristics that go into URCS, you control for differences across commodities, you control for differences in competitive variables and there is more work that can be done there of course to fine tune it but here’s a defensible measure that essentially says, “Hey look I have a movement that’s identical to your movement. You are moving as an example or as under a contract and I am moving under a tariff rate and I am paying 2 and ½ or 3 times more than you are”, probably folks want to look at that.

I mean that's the way our system works and we like the arbitration mechanism and you know we don't have to do the Canadian system per se but what we can do is look at different forms of arbitration and information and the like that mitigates some of the down side of the arbitration.

So I don't know you wanted me to say something there it is.

MODERATOR BRACH: That was great. Bill did you just want to clarify exactly what's in the law with respect to URCS? I'm hoping that that can be done.

MR. HUNEKE: The background to the law.

MODERATOR BRACH: What does it actually say? Do you have to use URCS or is it just some kind of cost analysis?

MR. HUNEKE: It doesn't say it has to use URCS -- it has to use a regulatory costing system. And the Staggers Act put in place the railroad accounting principles for the development of URCS and the point I wanted to make in response to Russ was just that 100 -- and also to Dick Schmalensee was that the 180% wasn't completely pulled out of the air it was a political bargain that became part of the Act because what they are trying to do is create a zone of pricing freedom for the railroads that they could achieve revenue adequacy.

So if we start thinking about the costing system underlying the 180 we have to also be worried about the revenue adequacy ramifications of that.

MODERATOR BRACH: Mike?

MR. TRETHEWAY: Just a few comments about an arbitration that I hope will be useful. First Russ it is not 30 miles it is 30 kilometers so -- I would encourage people to be careful about assuming what you think takes place at Canadian arbitrations. So I have heard you know well we get rid of URCS and then I have heard well you don't have to define the stand-alone railway, maybe those things take place in a Canadian arbitration.

I have also heard that maybe the railways get a lot invested in the arbitration process that does not necessarily mean that shippers in a Council that might be used by many shippers don't make similar investments in expertise methodologies and approaches.

The issue of arbitration -- a critical issue -- I'm not sure if I would call it Constitutional or not but you it can be a different Constitution, very different in some aspects. If the requirements are that the rates have gone through due process arbitration could be problematic for that.

Now Australia uses an arbitration process -- it is not for shipper rates, it is for the access charges but it is a final offer arbitration process. But that is actually done by a regulatory agency so in Canada the shipper applies to the agency for an arbitration, the agency appoints an arbitrator the process is usually one where both sides suggest a potential arbitrator and the arbitrator -- the agency keeps a list of potential arbitrators but the agency appoints an arbitrator and then the agency is usually just done until the decision is reported and the agency tallies it up but doesn't reveal the decision.

In Australia it is a full process. So in Australia it is the regulators that actually will do the arbitration and once you do that there is full due process. There is giving of evidence in very formal ways and there's precedent. So a decision is given along with reasons for the decision and those reasons become a basis for future ones and the risk is if you get it wrong the first time it is hard to go back and fix that because there is precedent and when courts review a decision then there are issues there.

And I think part of the reason Canada did what it did is by not having it as a transparent process they wanted everything to be done separately each time which in turn says that each arbitration might actually be different.

MODERATOR BRACH: Great I think I have Russ, Mark and then Richard now.

MR. PITTMAN: Thank you. Three quick points -- John in response to what you said I think probably everybody on this panel agrees that the world is a much better place because of Staggers. There have been so many good outcomes -- you mentioned prices are down they certainly are since 1980 but let's keep in mind, let's keep in mind facts are facts, prices are up now since about 2002 or 2003 and have been rising as our railroad profits.

Now the railroads will tell us that shippers will complain at any time but they have some reason to be complaining in the last 10 years or so that they didn't have before. Second, with regard to benchmarking I really liked the idea in the National Academy report -- I want to raise one issue that I don't remember if you guys raised which is that if I am a railroad -- and Wes you mentioned this that one railroad maybe a captive shipper but he wants to compare with somebody who has a contract.

If I am a railroad and I know that is going to happen I may not be willing to give such good contracts in the future because those contracts are going to be the basis for what the STB is going to tell me I can charge by captive shippers. So there is an ingenuity there -- there's a process there that I think maybe should be kept in mind.

And the final thing I want to mention inexplicably nobody has taken me up on my offer of revenue to variable cost ceilings, commodity based as a possible way to answer as the least bad alternative to how much you want to make captive shippers pay.

It seems to me that with all the reasons we know of price ceilings being bad and inefficient that is one possible less bad than other -- less expensive remedies thank you.

MR. COOPER: Again a quick follow-up responding to Bill. There is actually an economically rational way to allocate joint common costs -- very clear. It's called the inverse elasticity rule. That will maximize a certain sense the output of the agency or the sector as long as the strong conditions hold which was my first point.

Second of all that is correct as an economically efficient thing to do as long as you accept the assumptions about the distribution of surplus, that is you don't care. Your political point is actually exactly correct and I agree with you. Staggers was the political deal about the allocation of surplus. It identified a category of shippers who were going to get whacked, they knew it and they fought hard to get some conditions and everybody else knew they were going to make out pretty well -- and that's political.

I want people to wear their politics on their sleeve. In 1985 the deal was made -- it's a long way out and I want to see who's winning and who's losing today because the railroads have become quasi-monopolies and they are doing pretty good and maybe it is time to re-examine the distribution of surplus.

And so in response to John you have suggested prices have been going up -- I want to go back one step. Wes has laid on the table this amazing picture in which between a tenth and a sixth of the traffic is paying above 180 and a quarter and it doesn't even traffic playing below 100.

That distribution bothers me. It's a political question -- absolutely. But it is a question that motivated people in the '80's and maybe it should motivate people in the 21st

Century.

MR. SCHMALENSEE: A couple of points -- John's assertion that we are doing pretty well rests on as he described it on aggregate performance statistics which are indeed quite extraordinary but they I would argue reflect the success of regulation by exception in this industry and that's something that nobody here I think wants to walk away from.

The real question -- the reasonableness part of Staggers has to do with protecting captive shippers. I don't know that we are doing well there. I don't know how you would assess that. Certainly again you think about the difficulty of small shippers coming up with 5 million dollars to do a SAC test you would say -- "Gee if I'm a small shipper shipping a car load how am I protected again by this process, how does that work."

But you know it would be an interesting thing to check. Of course if you would ask shippers you would learn that it is all terrible but I think you can't conclude from the aggregate that all is well. The California airlines is a wonderful example and it really did -- the fact that intrastate airlines in California were performing so much better than regulated interstate really did more to get deregulation done and all the fancy academic arguments that everybody came up with.

But sometimes you are not that lucky and you don't have that evidence and you have to make a case based on what you have and what theory and judgment tell you and I think the notion that you always want to be biased towards the status quo unless you get California airline-like evidence is probably not a good policy stance.

Bill said as well URCS less than 100% is not really a problem because URCS is a system average but I mean it is just a half a step to say that URC is above -- sorry that revenue to variable costs above 180% is not a problem either because that is a system average and there's a lot of variation around the average so I don't think you can have that both ways. The fact that there is a lot of traffic moving below 100% says there is a lot of error in those estimates for the kinds of things that they are being used for.

Mike raises a good question about the value of transparency or not. I think you were attracted to the Canadian system's lack of transparency for a variety of reasons in part because it encourages settlement and most of their cases settle and in part to avoid the kind of thing that the problem that Mike indicated which is if you get the first one wrong and you have a precedent then you go down that road.

I mean we have been down the SAC road for a long time. Russ's point on endogeneity is a good point the question is however -- when you have multiple railroads that said it was weakened a bit so how strong it would be is hard to say. Revenue to variable cost ceilings would be attractive if you could actually measure the thing with reasonable accuracy.

We favor competitive rates -- benchmarks as a threshold to be eligible for rate relief. I don't think Wes even on his good days would argue that the benchmark is accurate enough to self-serve as a ceiling. Maybe you would -- I don't know.

MR. WILSON: You have to zero in.

MR. SCHMALENSEE: Okay its brilliant econometrics.

MR. MAYO: So I wanted to just go back to a thread that is just sort of subtly coming into the discussion. Russ mentioned that profits are up and Mark mentioned that he thinks it's time to re-examine the distribution of surplus and I want to just put a cautionary note on the table here is that I think we moved very smartly away from profit regulation in the rail industry as we did in other industries as highlighted in InterVISTAS report and the body of economic literature that has documented a litany of economic maladies that come with profit regulation.

There's just been a wealth of material on that. So I want to make sure that the Board doesn't sort of too quickly go that path. It's not part of the SAC process but it can creep into the discussions pretty quickly and I think I just want to suggest caution there.

MR. BRENNAN: Yeah I just wanted to respond to Dick. We could revise URCS we are trying to revise URCS and you know if we revised URCS in such a way that we have a better distribution and fewer of our movements were kicking off below 100 I would think that based on my reading of your report you would still be skeptical of URCS even if that problem was fixed -- which we could presumably do.

But I would point out that in the benchmarking approach using URCS once you constrain it to the same commodity, the same carrier, the same distance -- all that stuff gets you know, cancelled out and it becomes a rate comparison at the end of the day. So at best we have a benchmarking approach here it is for small shippers, it can provide them meaningful relief. They have not yet, you know, too often engaged with it -- maybe I don't know why but it is there.

MR. WILSON: Just on the endogeneity part of the benchmarks at least we did in the report based on markets where competitive pressures were present and if the competitive pressures may mitigate -- sorry the reason I wanted to raise that is just I wanted the argument to be against benchmarking because of the endogeneity I just wanted to clarify that.

MR. THETHEWAY: We are hearing discussion about URCS and its challenges and also discussion about the potential National Academy of Science recommendation but looking at comparative rates -- as an econometrician the first thing I did is I went and looked at the appendices and the work that Wesley did and to me it looked a lot like URCS -- the equations looked like a little bit better version of URCS but you have got issues about data you are going to have issues about the econometric method which I like, by the way, the core tile regressions which variables go into the regressions if they are not significant do they come in or out and so forth.

And just an observation is that to an econometrician it looks like in 20-30 years it might have the same problem URCS has.

MR. WILSON: Well let me take issue with that. Let me just -- the procedure that Wes and Frank did tried to predict rates -- actual data under competitive conditions. The URCS process is completely different. It makes assumptions about how much of the different categories is fixed, it allocates it in various ways and then you get an answer. There's no validity test of the report that happens here.

An econometric exercise is inevitably imperfect and you can have arguments there are techniques, there are tests, this is pretty straight-forward routine stuff. Going into allocating costs, making judgments about how much is fixed and how much is variable and what goes here and what goes there and using system averages instead of data on individual movements that's just a different universe.

MR. WILSON: Well said.

MODERATOR BRACH: Okay did you have something to respond?

MR. TRETHEWAY: I think we are going to have to agree to differ. In URCS the fixed versus variable cost and many if not most of the cost accounts is an empirical issue driven by statistical costing. And you have an econometric approach to determine what drives prices. I did not see a derivation. I'm assuming it is a reduced form equation for price but it actually looks -- I didn't see that and to me it looks a little bit ad hoc. I would like to see that formal derivation but in the end it is going to be judgment of the research -- do I put this variable in or not and so forth.

And I can tell you a different econometric method is going to give you different coefficients for some of those variables that you have got in on the right-hand side of the equation.

MR. WILSON: I fully agree. If you use the different approach a different regression technique or whatever, you would get a different set of coefficients, there's no doubt about that.

MR. SCHMALENSEE: And I like this by the way.

MR. WILSON: But that's true of any kind of metric modeling.

MODERATOR BRACH: Here I am going to interrupt. Are we going to have a discussion about regression and analysis? Maybe not.

MR. SCHMALENSEE: Let's talk about process. I mean we didn't suggest Wes and Frank have the answer, STB use their answer -- we said STB has a process if the law lets you explore this. Invite submissions, invite competing models, make a judgment about which model works best use your experts. We didn't say here's the answer we said this is the kind of debate you can have.

What's a sensible model? What fits the data? What's the right technique? This is -- you know we do this in seminars all the time, this is doable. URCS is kind of a mystery.

MR. TRETHEWAY: And I just want to be clear that I actually like a comparable rate method. For our study we are confined by the Act and the 180 and it becomes complicated but if you started with a clean slate a comparable rate method has a lot of attraction to it.

MR. SCHMALENSEE: You couldn't have started with a clean slate in 1980 sorry.

MR. WILSON: Indeed but you might be able to.

MODERATOR BRACH: Tony did you want to say something?

MR. GOMEZ-IBANEZ: No just that these coefficients are estimated statistically instead of assumed and at variables for competition which are part of the URCS I would guess.

MR. WILSON: And controls for products and --

MODERATOR BRACH: Okay Jeff?

MR. MACHER: I also like the thought of it but one of the issues I think is what Michael brought up omitted variables that aren't in the equation. How do you capture unique idiosyncratic shipment movements like how do you handle congestion? How do you handle substantial changes in demand that might not be part of the statistical exercise?

MR. SCHMALENSEE: It was a rhetorical question. No I have a rhetorical answer -- no I mean that's why we didn't recommend the benchmark be the last word. You go into arbitration and you say, "Guys the benchmark left out the congestion, left out this particular risk, left out that," -- that's what you have to have and you can't.

And that's an issue with Russ's notion that you just set a ceiling. If you could actually get all the costs very precisely estimated maybe but I think you need to have an exchange of evidence because the statistical work -- despite Wes's best efforts will have error.

MODERATOR BRACH: Okay great, that was a good discussion. I'm now going to turn the aircraft carrier a little bit so that we can come to a conclusion at 12:30. And what we are supposed to talk about next are next steps -- what happens next and of course that does depend upon where you think everything should go -- keep SAC the way it is, change things a little bit, make a radical change, keep within the current legislative statutory authorities or change them.

And I think for these comments with the exception of the two Bills you can make whatever assumptions you want in that regard. So I would just like to go around again and give everyone two minutes to say what you think the next pull of steps need to be -- where do you think you should go and what the next step should be. Jeff why don't you start?

MR. MACHER: I'm starting?

MODERATOR BRACH: Yes.

MR. MACHER: Again I struggle to see if a new system would be more enhanced improved thinking or improve outcomes in terms of economic efficiency without data and evidence. While what we have discussed in terms of arbitration, throwing out URCS, moving to a new mechanism is I think good exercises.

Without data and evidence I am worried that what is put in place is more difficult or more burdensome for both shippers and the railroad carriers. So to me I would err on the status quo for now without undue changes. The three tests that are available for rate reviews according to the InterVISTAS report each play a role in terms of their use, their cost and their complexity.

While the industry has fundamentally changed from 1980 -- so too has the availability of costs for shippers to bring rate reviews and with that I guess I will end there and I can come back.

MR. WILSON: My turn? Sure I have 10 minutes here -- Mike made a really nice point is that it looks kind of like URCS-type stuff. And yeah -- a lot of the variables are inputs into the URCS costing model and they should be alright -- but there are a lot of variables that aren't okay.

And any econometric model is going to have an error as Dick pointed out. I like what Bill pointed out -- Bill Brennan pointed out is that these benchmarks -- we already have a benchmarking system in place. It is not a huge step to use the 3 benchmark is I think what you were talking about approach with refinement so that the -- with refinements from the benchmark in models that we have developed in the short run.

And in the longer run -- I guess in the short run I guess my immediate reaction is to go slow -- refine, make better, do test runs. Under the new legislation I don't know exactly where this is you folks have the ability to open your own investigations. Maybe that's a role for the short run and in the longer run look at refining it and making it better and then using it, so that's my thoughts.

MR. MAYO: So before we look forward let me just pause and maybe celebrate where we are right at this moment. I think this is delightful to be part of a panel and I want to compliment again InterVISTAS report and the TRB report for promoting really healthy discussions on these issues so I think it is very important as I tried to indicate earlier.

I think that said I think the standard here is going forward what's the low-hanging fruit, what might we do to smartly move policy forward in a way that improves upon the current system? I think that's something that is worth a lot of reflection on your part because I think from my perspective there has been a fair amount of evolution of regulation in this industry from an original standard that just had SAC to one that involves now a portfolio of regulatory options for shippers and railroads to resolve disputes.

And so I think that that's something worth reflecting on. You surely will want to continue to benchmark going forward. From what I have heard today I think we will have different opinions on this but I haven't heard a compelling case that there is that low-hanging fruit. I heard discussions of other imperfect alternatives.

When Russ suggested that we adopt the least bad alternative among the various proposals on the table I thought that was sort of a telling statement about where we are. I think Russ offers that in the very best spirit of trying to be very helpful and I understand that. But I do think it speaks to the issue of whether we can move forward to clearly improve upon the system we have today.

MODERATOR BRACH: Mark?

MR. COOPER: Speaking on behalf of the fruit that has been hung for 30 years I would suggest it is a good moment for the agency to change direction, to lay the basis for doing so. We never believed what we got was dictated by the statute. It was chosen by the agency and upheld by the courts. And something else could have been chosen by the agency and do you know what it would have been upheld by the courts, just look at network neutrality and open internet.

So I would encourage the agency to just take this moment and say look we have this tremendous success, we have a variety of complaints and reorient the way you are going to think about the future along the lines of the reconditions and then the two assumptions. At least show people what the outcome of your allocation rule is. You have heard these numbers. You can change the practice -- you don't have to wait for the law to change. You have the justification for doing so because you are at a moment where the industry is extremely healthy. So that's what I would argue for you to do. It has happened in other agencies at the FCC and the DOJ within the last 6 or 7 years, it can happen here at the STB.

MODERATOR BRACH: Mike?

MR. TRETHEWAY: Thanks for the opportunity. I really love forums like this. First I think it is important to recognize that this policy has worked. The legislation was brilliant it just resurrected an industry that was literally dying -- most of you are too young to remember what the 1970's, '60's and '50's were like but this was a really, really sad industry and that got fixed.

It was fixed by the legislation but it was also fixed by the STB's decisions and the processes they put in place. I caution about throwing the baby out with the bath water. Maybe things beyond Staggers are appropriate to think about but Staggers does exist for the time being and the agency can make some changes and we have tried to provide guidance around a very complex stand-alone cost system which was appropriate for the time, likely can be simplified in the post-merger, post-low density line discontinuance world that we have.

We tried to point to what we call the MECPR it's essentially an access rate. It might be something worth looking at in some cases might be an alternative to SAC where the distances are relatively short.

Long-term investigate some of the options that the TRB brought. As I indicated I like the economics around the comparable rates methodology within the context of the Act you have right now I think you have done well. I think it has stood the test of time evidenced by shippers paying dramatically lower rates in real terms. Carrier is making dramatic investments that resurrected a morbid industry let's go forward thank you.

MODERATOR BRACH: Thank you, Rick?

MR. SCHMALENSEE: I find myself in violent agreement with Mike. And I think it is important to recognize just how miraculous Staggers was and I have been remiss in not adequately thanking -- commending the STB for holding this proceeding and InterVISTAS for doing a careful job.

I think there really are two questions. One is what is the low-hanging fruit and the InterVISTAS report proposes some things that need a close look? We didn't propose low-hanging fruit on the TRB report, we proposed fundamental exchange and also said I think throughout these are things that need to be looked at.

As I said you know Frank and Wes we didn't intend that you take the appendix for this report and make rates based on it -- no. You take the notion of rate benchmarking and work on it, have debates about the right method -- get it right. Think about variance on the Canadian theme and how they reconcile or don't reconcile with the U.S. administrative law and Constitutional law.

Think about whether there are ways to dramatically simplify the process for getting and processing evidence out. Maybe the answer is no. And any case that takes into account all complexity has got to take five years. You know I just don't think so -- I've seen speed in other settings and I just can't believe it is not attainable here.

Not necessarily by copying the Canadian model but by thinking about what that achieves.

MODERATOR BRACH: Tony?

MR. GOMEZ-IBANEZ: I want to add my thanks to the STB for holding this meeting. I think it is to their credit that they are willing to think about broader alternatives, entertain academics like some of us on the panel. My concern -- and let me also say that I do most of my work on railroads in Australia, Britain and developing countries so from that perspective this is just an incredible railroad.

I mean it is one railroad -- freight railroad in the world that is profitable and held up as a model for everybody and you should remember that and celebrate that as well. My concern is that if railroad profits continue to be high and small shippers continue to feel they have no access that we may make some blunder or maybe pushed into making some blunder that threatens some of what has been achieved.

And in that spirit I think you should pay attention to the TRB report as well as InterVISTAS report and you should at the very least hire Wes or all of his graduates to do more econometrics with you and maybe experiment with some kinds of arbitration as an alternative to 3 benchmark or whatever and see how those work.

MODERATOR BRACH: Thank you Tony, Russ?

MR. PITTMAN: Well it seems to me that the only real justification for the stand-alone costs that we have left is that we are doing it now. And you know speaking to Jeff and John that’s not a bad justification. Things are pretty good -- we have had a lot of great success but the apparent precision and scientific content of the stand-alone cost estimates seems to me to be completely imaginary.

And I want to take a step we haven't taken yet to remind especially my dear friend John that if you like the status quo -- John has written, I believe he waved it a very persuasive argument -- a very persuasive paper on the dangers of profit regulation. Well John I would remind you that in the original coal rate guidelines and the constrained market pricing stand-alone costs is only one of the measures, and another one is revenue adequacy.

And as especially the Christensen report demonstrated the railroads are achieving revenue adequacy. So if we stick with the status quo the next question may be okay the next shipper rate cases are going to have something to do with profit regulation. So I think building on what Tony said, building on what Dick said -- that's a pretty good argument for thinking about other ways to do things that might be simpler, cheaper and I would argue have real scientific justification.

You know we have been over the alternatives -- my personal view is that the Canadian way -- especially the inter-switching and my own special view of commodity-based margin ceilings may be the least bad way to go. But I am not sure how sustainable the status quo is going to be going forward.

MODERATOR BRACH: Thank you, Bill?

MR. HUNEKE: I won't speculate on what the Board might or might not do but I would like to thank all of the panelists for joining us because I think this was a very good discussion and I really enjoyed being part of it.

MODERATOR BRACH: Thank you, Bill?

MR. BRENNAN: I won't speculate on what the Board may or may not do but would like to thank the panelists. I will say that it has been a very useful conversation and I hope that the stakeholders who are here today and those who are listening and watch this later use this to inform their comments to the Boards on a variety of proceedings that are pending. You know I think the words "Wisdom of the Ages is this too shall pass", so I would think every regulatory system has a half-life of about 40 years and it has been since the 1980's and the Staggers Act so it wouldn't be surprising if something changed politically at some point because that's just the nature of the way the world works.

And so we have to think about how we preserve what we have gotten here because I can assure you that there are people here at the STB and our colleagues at the ICC when they look for the person who murdered the railroad industry they look in the mirror every morning and they think that they did it.

So we prefer not to do that again if we didn't have to.

MODERATOR BRACH: I would like to thank all of the panelists and thank STB for putting on this event and for allowing me to be part of it. It was really very, very interesting and an honor to moderate a session of such excellent economists. I believe that we have some closing comments, yes.

STB CHAIRMAN ELLIOTT: Yes that was fantastic. Thank you all of the audience for attending, thank you to the economists group you guys were absolutely fantastic. I really enjoyed this discussion and got a lot out of it so I really appreciate that.

Ann, thank you very much, you had a very difficult job and you did it tremendously. I would also like to thank my fellow Board members who are both here in attendance for their efforts making this come about and also I saw in the room some of the staff from Senate Commerce and I would like to thank them and Congress for Section 15 of the Act which asks for a report -- for this report and caused such great discussion to occur. That was really fantastic.

The next step aside from what was just discussed here -- we will have a public hearing at some point in the near future so keep your eyes open for that and we do encourage all of our stakeholders to come, attend and take what you heard today and hopefully we can grow better and stronger as we do so.

So thank you once again for attending and I look forward to talking to people afterwards.

(Whereupon, at 12:22 p.m., the Roundtable was adjourned.)