FAS Senate

AN ELECTED BODY OF THE FACULTY OF ARTS AND SCIENCES
YALE UNIVERSITY

Faculty of Arts and Sciences Senate Meeting
Thursday, February 20, 2020
4 PM – 6 PM
CT Hall, Rm. 201, 1071 Chapel Street
APPROVED

<u>In attendance:</u>
Senators: John Geanakoplos, Chair; Jennifer Klein, Deputy Chair, , Jill Campbell, Emily Erikson, Joseph Fischel, Alessandro Gomez, Shiri Goren, Valerie Horsley, Ruth Koizim, Rajit Manohar, Nikhil Padmanabhan, William Nordhaus, Theresa Schenker, Ian Shapiro, Paul Van Tassel

FASS Program Coordinator, Rose Rita Riccitelli

Absent: Senators: Sybil Alexandrov, Arielle Baskin-Sommers, R. Howard Bloch, Ruzica Piskac, Hélène Landemore-Jelaca, Charles Schmuttenmaer

Guests: Hector Acre, Julia Adams, David Bercovici, James Berger, David Bromwich, Richard Cohn, Marvin Chun, Michael Denning, Michael Donoghue, Michael Dove, David Evans, Ray Fair, Debra Fischer, Mike Fotos, Bryan Garsten, Tamar Gendler, Alan Gerber, John Grimm, Maria Kaliambou, Alvin Klevorick, Samuel Kortum, Jonathan Kramnick, Nancy Levene, Tina Lu, John McKay, Pilar Montalvo, Bill Rankin, John Roemer, Doug Rogers, Kalyanakrishnan Sivaramakrishnan, Ron Smith, Mary Evelyn Tucker, Steve Sterns, Steve Wilkinson, Zoltán Szabó (and other guests who did not sign in)

John Geanakoplos, chair of the Faculty of Arts and Sciences Senate (FASS), called the meeting to order at 4:03 PM, welcoming senators and the large group of guests present to the meeting. Mr. Geanakoplos deferred the FASS committee reports until the March 2020 FASS meeting and moved to present presentations on meetings that the FASS Executive Council (EC) had in the past month.

Report on December 13 Meeting with Yale Corporation
Mr. Geanakoplos reported that the seven members of the EC (John Geanakoplos, Jennifer Klein, Jill Campbell, Emily Erikson, Alessandro Gomez, Shiri Goren, Valerie Horsley) met with two members of the Yale Corporation (Cappy Hill and David Sze). The EC explained the role of the FASS in the University, how it was formed, and its emphasis on improving the University administration interaction with faculty. Each of the Senate's activities have been informed by an overall commitment to FAS excellence, including scholarship, teaching, and mentoring. The EC further explained that the Senate emerged from a concern among faculty that there was not enough faculty governance and that the strong tradition of such self-governance had been

diminished over the last two decades. The EC also discussed in detail the FASS's Excellence Report, highlighting data showing that Faculty of Arts and Sciences (FAS) salaries have been allowed to fall significantly behind those of our peers and as had that the size of the FAS. Consequently, administrative responsibilities carried by FAS faculty have increased significantly. **Mr. Geanakoplos** indicated that the Trustees responded gracefully and with great interest, and said that it is a terrible thing to have our faculty fall behind our peers. They promised to look into it.

Report on meeting with Medical School Senate Chair

Jennifer Klein reported on the meeting she and **Mr. Geanakoplos** had with the chair of the Medical School Faculty Advisory Council Chris Pettinger. They learned of the massive growth at the Medical School, which adds 80 – 100 faculty per year. Most of them are clinical faculty, but they are interested in being there because of the researcher-scholars. The Yale Medical School has a $30 million surplus and that the hospital, with its expansion, has a significant surplus. It is this funding that has been used to support parental leave and child care support. The Faculty Advisory Council is now pushing for salary equity and faculty diversity. In addition, there is significant frustration among the junior faculty who remain at the status of Assistant Professors for too long. Both **Mr. Geanakoplos** and **Ms. Klein** felt that the FASS has much to gain from sharing experiences and demystifying some of our issues, including the funding relationships among different divisions of the University. **Mr. Geanakoplos** noted that the Faculty Council Chair agreed they are able to recruit top candidates because of the broader standing of "Yale"— i.e. Yale College and Graduate School of Arts and Science. - it's the Yale name that partly makes the Yale Medical School so strong.

Report on Mission Statement Ad-Hoc Committee

Mr. Geanakoplos reported on the Ad-Hoc Mission Statement Committee. He explained that recently Yale's mission statement was changed; subsequently, many of the professional schools mission statements had also changed. The FAS, however, has never had a mission statement (a fact discussed at the previous Senate meeting), and so an ad-hoc committee was appointed to create a mission statement for FAS. **Mr. Geanakoplos** announced that the members of that committee (Howard Bloch, Nicholas Christakis, and Katie Trumpener, and David Swensen as the FAS Alum Consultant) will meet and propose a FAS mission statement for FASS consideration prior to the March meeting. It will then be presented for approval by the FASS at its March meeting. After that stage, FASS will circulate to all FAS faculty to invite their comments.

Report on FAS Senate Get-Together

Emily Erikson reported that on February 13, 2020 the FASS held a reception for FAS faculty, attended by 36 guests who signed in (more were there who did not sign in) and 18 senators. She noted that a good time was had by all and that our current Chair **Mr. Geanakoplos** and former FASS chairs **Emily Greenwood** and **Matthew Jacobson** spoke to the group about the effectiveness of the FASS, and **Charles Schmuttenmaer** spoke on the upcoming election and how important it is for faculty to consider running for a senate seat.

Report on Elections Committee

Michael Fischer, a non-senator member of the Elections Committee**,** reported on the committee's charge in running the upcoming elections. He began his work on the committee by finding out how the previous elections were conducted. He noted that the process is a very complicated process, is guided by the FASS By-laws but the By-laws are incomplete in describing each step as it takes place and the people who were working the elections are the only ones who know the complete process. He said, after understanding some of the issues, the Committee has come up with six recommendations. He explained that the first two have to do with the provisions in the By-laws to ensure that the FASS is represented by divisions across the University and also across ranks. There are four restricted seats to be filled with non-tenured and non-ladder faculty; there are restrictions on the number of seats elected by the divisions so each of the three divisions has a number of seats allocated to it. He said the election occurs in two parts – the person votes in their own division and also in the at-large slate which consists of all the candidates in all of the divisions. This leaves the problem of how do you count votes to ensure that all of these seat reservations and distribution requirements are satisfied. The recommendation is that they proceed in order. The first one takes the seat reservations in each of those divisions and the at-large and fills them. Then you remove those people from the divisional ballots and you count the divisions. Then you remove them from the at-large seats and you fill the at-large seats. Recommendation three has to do with how to deal with vacated seats before the end of the term and the current By-laws say to go back to the previous election and try to rank the losers to see which is the least loser to fill the slot, which does not fit well with the single transferable voting system. The recommendation is to have a slot filled by members nominated by the Executive Council from among the FAS faculty subject to approval of the FASS and that appointed member remain in that position for the remainder of the term. The next recommendation, and for sustainability into the future, to simplify it as much as we can, is to use a commercial election site for carrying on as much of the election as possible. This helps because, he said, they maintain the systems and the software and the web sites and there would be a significant cost for Yale to maintain a system for just one election a year. This, he said, will take time to accomplish. The next, he said, is the recommendation that the <u>Elections Committee</u> consider an alternative elimination rule for the ballot tabulation process and there are many variations of the single transferable vote to consider. He noted that if we go to a commercial site, we will need to be flexible to accommodate what the site offers. He said that the By-laws states that every five years, the <u>Elections Committee</u> look at the composition of the FASS and see if it represents the composition of the current ladder faculty or if it should be adjusted. He noted that the committee has done this and he reports that of the 687 FTE ladder faculty – 244.5 in the Humanities, 174 in the Social Sciences, 268.5 in the Sciences - and he asked what are the percentages in the FAS. In the Humanities it is 36%, in the Social Sciences it is 25%, and in the Sciences it is 39%. Then he asked what is the fair share number of seats – in the Humanities it is 5.69, in the Social Sciences it is 4.05 and in the Sciences it is 6.25, and if you round the figures you get 6, 4 and 6, which is what we have presently and the recommendation is that no change be made at this time.

Mr. Geanakoplos said another question is how to change the voting for the future and said he is thinking of appointing a blue ribbon committee to work on the voting system for Yale's FASS and make it a model for Senate voting systems around the country. He noted that the father of voting theory, Ken Arrow, was a member of the committee that established the faculty Senate at Stanford and had served as chair of the Stanford Senate. Geanakoplos then asked for comments from the floor – **Valerie Horsley** commented that she served on the implementation committee for the FASS. Although they looked at the option of using a commercial vendor, the committee ultimately concluded it would not provide the level of trust in the results that doing it internally would give us. She also asked if in the By-laws, gender equity was considered and if this is part of the new process. There was a comment from the floor suggesting having a “waiting list” in the event a senator leaves office before his/her term is completed. **Mr. Geanakoplos** said that this sounds like it may pose more complications.

Mr. Geanakoplos presented the minutes from the January 16, 2020 FASS meeting for review, consideration and approval. No changes were proposed and a vote was taken and minutes to the January 16, 2020 FASS Senate meeting were unanimously approved.

Conversation on Divestment
Mr. Geanakoplos introduced the guest speakers for the rest of the meeting who would provide a conversation on whether Yale should reevaluate its ethical standard for investments. Invited Speakers are:

- David Swensen, Yale Chief Investment Officer
- Jonathan Macey, Sam Harris Professor of Corporate Law, Corporate Finance, and Securities Law; Chair of Yale's Advisory Committee on Investor Responsibility
- Robert Dubrow, Professor of Epidemiology (Environmental Health Sciences), Yale School of Public Health; Faculty Director, Yale Center on Climate Change and Health
- Paul Sabin, Professor of History and American Studies; Director, Yale Environmental Humanities Program
- William Nordhaus, Sterling Professor of Economics and Professor of Forestry and Environmental Studies
- Student Divestment Representatives from Endowment Justice Coalition: Alex Cohen, Ezra Stiles, 2021; Elea Hewitt, Branford, 2021; Ben Levin, Silliman, 2020; Rachel Calcott, Branford, 2022

Mr. Geanakoplos offered an opening statement. Given that climate change is one of the most pressing problems of the day, what is the best way for an individual or a university to help ameliorate climate change - should Yale divest from fossil fuel companies – should it take other actions? The Senate has invited Yale’s chief investment officer and faculty experts on responsible investing, environmental policy and the politics of environmental activism, the health effects of environmental degradation, and the economics of climate change. For the first time, the FASS also has allowed four undergraduate students to speak to the Senate. In addition, the whole faculty has been invited and many are attending, along with three deans. He said that we are here to learn, to reason together, to persuade and to be persuaded, and clarified that there will be no resolution offered or voted on in this meeting.
He mentioned two facts to be aware of: The question of responsible investing has been considered before by Yale, for example about South African Apartheid. He noted that Yale policy on responsible investing has for many years been guided by Law Professor John Simon’s book, *The Ethical Investor: Universities and Corporate Responsibility*, written during the Vietnam war era (1972). The book emerged from an interdisciplinary committee of faculty and students that met together and taught together for over a year. Secondly, there is the theory of harm, which economists call an externality. According to this concept, a harm is caused because a producer uses something like clean air without paying for it. The economic remedy would be to force the producer to pay the price that the market would have set – as a tax. – Though one might think it is the producer who has committed theft, and therefore he who should solely bear the penalty, when the market re-equilibrates at a higher price, the burden of the tax ends up divided between

the producer and the consumer. Only by making both pay can we end up with less production and less consumption (Of course in practice it is hard to find what the right tax should be because it involves damages to clean air from next year and even 200 years from now. But we can make reasonable guesses). In the case of fossil fuels and climate change, however, the political system has failed: there is not a high-enough tax, or any tax at all. Thus we are faced with a situation in which a penalty or steep price should be paid and the political system has failed to impose it. Is there something Yale can or should do?

Mr. Geanakoplos outlined the procedure for the discussion. **Mr. Swensen** would speak first to explain what Yale does insofar as investing in fossil fuels. Then each speaker will comment on what he believes Yale should be doing. Following these presentations, we will ask for comments and questions from senators and then the audience (no more than a minute for each). With some points, he might turn the floor back to the speakers so they can answer questions or offer comments on what the senators and audience have said.

Mr. Geanakoplos introduced David Swensen to speak first.

David Swensen began by acknowledging the seriousness of climate change as a major issue. Nonetheless, he insisted that today we need fossil fuels to meet basic human needs –food and shelter – and most of the comforts and services we have built our lives around. This will continue to be the case for the next fifty years. He argued that the only path to long-term survival is through government action that forces consumers to recognize the social costs of burning fossil fuels – for example, a carbon tax that makes consuming fossil fuels more expensive. He said in 2014 Yale adopted an investment policy that reduces climate change risks to the endowment. That policy recognizes the short-term need to consume fossil fuels with the intermediate term need to substitute transition sources of energy. Yale's policy requires the University's outside investment managers to incorporate a company's carbon footprint into investment decisions. Dirty companies pay a penalty – clean companies do not. As a consequence of figuring out the true cost of greenhouse gas emissions, capital flows away from companies with a large carbon footprint and towards companies with a smaller carbon footprints. Yale's policy applies to all companies, not just fossil fuel producers. If a company's profits relies on cheap, dirty energy, that company will be disadvantaged or disqualified in our external managers' underwriting analysis. Yale's managers have embraced the policy. As he reported today in a letter to the Yale community, the policy led to sales of thermal coalminers and oil sands producers, two of the most carbon intensive sources of energy. The policy influenced manager behavior broadly. In the letter, he included examples of how the University's external managers incorporated the policy in their day-to-day decision making – the examples ranging from big-picture discussions and carbon footprints of various sources of power, to granular discussions of individual investment decisions. Yale's managers have described the policy as a "touchstone that we measure our actions against, a source of inspiration, liberating, thoughtful and sophisticated." Yale's policy, he claimed, changed the lens from which outside managers view investment decisions. Because Yale's managers control assets for clients other than Yale, the impact of our policy extends beyond the endowment to all assets managed by our external partners. The NY Times recognized Yale's policy as pathbreaking with articles in 2014 and in 2016.

Mr. Swensen then referred to divestment saying that Fossil Free, the national organization, defines divestment as getting rid of stocks, bonds or investment funds that are unethical or morally ambiguous. Yale divests only from companies that commit grave social injury. Both Yale and Fossil Free agree that divestment is a tool for public shaming of companies that are bad actors. He criticized Fossil Free, however, claiming that the organization continually shifted the target and objectives. Activists' strategy of public shaming did not so easily work: companies pushback against public shaming, since after all, they produce what is, for the time being, essential for life on earth, products that each and every one of us in this room consume. As a result, the rationale for divesting from fossil fuel producers shifted to target those companies that continue to explore for new reserves or developing existing reserves. For example, the Harvard faculty white paper calls for divesting and thereby shaming fossil fuel producers that continue to "explore for or develop further reserves of fossil fuels." This white paper nowhere examines the consequences of ceasing exploration and development. Similarly, Fossil Free's national web site lists the demand to "stop and ban all oil, coal and gas projects." The web site nowhere examines the consequences of stopping all projects. Mr. Swensen said he feels that treating oil, gas and coal identically makes no sense. As we transition from fossil fuels to green energy, we need to emphasize natural gas as the cleanest fossil fuel, and deemphasize, coal the dirtiest. He said in considering the situation for coal, oil and gas in the United States, for coal, recoverable reserves from producing mines would last about 20 years at the 2018's rate of consumption. For oil, 2018 rate of consumption in the United States production of existing wells declined at a rate of 31%, and he noted that he thought this was a staggering high number. For natural gas in 2018 the production of existing wells declined at a rate of 25% - again, a massive decline. Without further exploration and development, Mr. Swensen contended, these facts point to rapid declines in the supply of oil and natural gas which in turns leads us to greater dependence on coal. He asked, is that what the divestment movement really wants – more dirty power?

He mentioned that first, the United States might not be representative of the rest of the world, and second, the markets for oil and coal are global, which has important implications for supply. He said regional factors heavily influence the market for natural gas which is critically important for the best transition from fossil fuels to green energy. Right now there are limited opportunities to import natural gas into the United States. It seems highly likely to him, that stopping exploration and development of all fossil fuels would disadvantage natural gas disproportionally. In fact, cheap natural gas in recent years has led to the conversion of coal-fired power plants to natural gas which has reduced the nations greenhouse gas footprint – one of the few bright spots in the fight against climate change. In the interim, we should encourage and not discourage natural gas production. The implications of ceasing exploration of development of oil and gas resources deserves serious and thoughtful study – something that is nowhere to be seen in the Harvard Faculty White Paper or the Fossil Free web site.

He noted that Yale is an academic institution where ideas matter, facts matter, analysis matters, truth matters. If we take a position on fossil fuels, let it be thoughtful. Where generally he believes the divestment movement is choosing the wrong target, the lack of climate change action in Washington is the issue, not the portfolio holdings of investors. Pressure on our elected officials is critical to addressing climate change. Fossil Free Yale should take a train to Washington and lobby for a carbon tax. His final comments on the Fossil Free Movement: Locally the protestors have disseminated misinformation about Yale's endowment and played fast and loose with facts regarding a number of issues – example – information that the University of California divested from fossil fuels. This is not true. California explicitly sold, for economic reasons, and said that they were not divested. He also pointed to misinformation that is reported on the Fossil Free web site lists $14 trillion of divestment commitments and on the list of divesting institutions and he checked three names – Norway $1 trillion, U Cal $80 billion, Yale $30 billion – in each case the institution announced sales driven by economic reasons and not sales driven by divestment. The National Fossil Free web site fails to tell the truth. In summation, he urges to reject calls for the one tool of divestment and to support Yale's constructive, intellectually honest and effective policy.

Jonathan Macy, chair of the advisory committee on investor responsibility, was introduced by Mr. Geanakoplos. He explained that his job is to advise the relevant committee of the Yale Corporation on investor responsibility about ethical investing issues. He poses the questions one should think seriously about before coming to a determination about investment. Having looked at the NRDC's plan on how the United States could best deal with climate change, he claimed the best thinking he came up with is to cut energy use to about half through conservation, greater use of fossil fuel and electric vehicles, appliances, and the best we can hope for is by 2050, renewable energy as a whole should account for about 80% of our energy (not 100%). He said there are certain uses for fossil fuels that no one has figured out how to avoid (steel manufacturing, trucking and airplanes). His committee is obligated to follow the norms and prescriptions in the 1972 book by John Simon and other colleagues called *The Ethical Investor*. What this requires is that Yale act in the case of grave social injury (and climate change clearly represents grave social injury) and at the same time the book recognizes that there are some types of social injury that can only be addressed through government action on a national and or international scale. Basically, he said, dealing with the matter of energy resources should be focused on policy and administration in Washington rather than divestment here at Yale. Recently, he said, some divesting decisions have been made that have been translated into policy. For example, in the case of particular retailers who are continuing to sell military-style assault weapons to consumers, Yale made a determination to divest from those companies. In addition, we, on an ongoing basis for the past several years, identify certain public companies that are cooperating and contributing to genocidal activities in Sudan and divest from those companies. He explained that divesting from an entire industry is something that is new to us. Thus we are taking the position that as a preliminary step to a plenary divestment decision, we examine fossil fuel companies on a company by company basis and determine if they are all the same. Are there some that we should particularly focus our attention on? Another question, he said, is should we disregard the book *The Ethical Investor*. Do we need to jettison that as a guide and if so, what should if any, our new guide be? From his perspective, the strongest argument in favor of divesting is to serve the salutary function of shaming fossil fuel companies but he questions the degree to which that really changes business practices. While Yale certainly carries significant weight as a social institution and investor, he has doubts as to whether Yale can effectively shame in this current climate of a Trumpian world where we ourselves have been isolated as a member of the far left elite.

Mr. Geanakoplos introduced the next speaker, **Robert Dubrow**. Mr. Dubrow noted that he is Professor of Epidemiology at the School of Public Health and directs the Center on Climate Change and Health. He noted that he has agreement on certain things and sharp disagreements in other places. He said he is proud to be a faculty member of Yale University, one of the premier institutions of higher learning in the world. By divesting from the fossil fuel industry, Yale would exert moral leadership on climate change which is not just one among the laundry list of issues but rather is the most crucial challenge faced by humanity. Earlier this month, Georgetown announced its decision to divest, and that was real divestment. The Harvard faculty voted overwhelmingly in favor of divestment. He would like to see Yale do the same thing and be a leader and not a laggard in this existential issue. To mitigate climate change, we all recognize the need for transition of fuels toward renewable energy. This transition will also prevent several million deaths each year due to air pollution from fossil fuel combustion, which is not inconsequential. But he stressed the urgency.

The Paris Climate Agreement set an aspirational goal of limiting the increase in global mean temperature to no more than 1.5 degrees Celsius and a firm goal of well below 2 degrees Celsius. The implications of even 1.5 degrees of global warming are profound. In the past year, with only the 1 degree of warming we've seen so far, we've endured catastrophic tropical cyclones in southeast Africa, wild fires in the Artic, California and Australia and record heatwaves in Europe, to name a few. According to the authoritative intergovernmental panel on climate change, to limit warming to 1.5 degrees, Co2 emissions need to decline by 45% from 2010 levels by 2030 and to reach net zero by 2050. This will "require rapid and far-reaching transitions in energy, land, urban and infrastructure including transport and buildings and industrial systems." This transition is possible, but business as usual is not an option to make this transition.

What is the role of the fossil fuel industry? Of course, until this transition is fully accomplished, the world will continue to need fossil fuels in decreasing amounts. Unfortunately, the fossil fuel industry is not simply a neutral party intent on producing the needed fossil fuels during this transition. Rather, they work tirelessly to block this transition and to push the world into ever-increasing fossil fuel exploration, production and consumption. Current fossil fuel reserves represent at least three times the amount we can afford to burn to limit warming to 1.5 degrees. Yet the industry is absolutely determined to continue with business as usual. The industry continues to explore for and develop new reserves using extreme methods including hydraulic fracturing, drilling in the oceans and the Artic, extraction of dirty tar sands oil. The industry is urgently building out natural gas infrastructure through an ever more elaborate network of pipelines, compressor stations and liquified natural gas export facilities. The industry has obscured public discourse by generously funding climate change denial, and through lobbying, campaign contributions and dark money has established a stranglehold on congress and the executive branch. Through these actions, the fossil fuel industry is committing grave social injury. Shareholder engagement and engagement with Yale's external investment managers cannot turn the fossil fuel industry around. At best, the industry might be able to reduce greenhouse gas emissions at the margins through measures such as reducing methane leakage and making operations more efficient.

But reducing greenhouse gas emissions in the context of the industry's current business model of constant expansion does not represent the bold action that the world needs. To his credit, David Swensen has encouraged Yale's external managers to avoid companies that refuse to acknowledge the social and financial cost of climate change. His arguments, however, focus on the financial risks and not on the moral imperative. We need to go further and divestment represents a key strategy of putting the fossil fuel industry on notice -- a moral statement in the context of a burgeoning movement led by young people whose futures are placed most at risk by climate change. Divestment seeks to remove the social license of the fossil fuel industry, to call out its moral bankruptcy, and ideally to force it to redirect its vast wealth toward development of renewable energy, which is a possible path. Some issues are so urgent that even usually reluctant academics and their institutions need to take a stand. It is time for Yale to exert its moral leadership and its considerable influence by divesting from fossil fuels.

Paul Sabin was introduced. As Professor of History and environmental studies, he teaches environmental history and energy policy and has written about the oil industry. He said that he hopes this meeting is the start of a conversation and not the totality of what is said here today in 5 minute snippets. Pointing to the recent vote by Harvard faculty in favor of divestment, he acknowledged that it is a credit to Harvard's faculty that they clearly indicated that investing the University's financial resources in fossil fuels is inconsistent with their vision of a great academic research institution. He intends his statement to the FASS in a similar vein and as part of facilitating a process whereby Yale faculty or the FASS itself as FAS elective representatives might also vote on divestment. In making the case for fossil fuel divestment, he said that in 1979 the National Academy of Science review of climate change research confirmed the basic attributes of global warming. The report declared that "we have tried but have been unable to find any overlooked or underestimated physical effects that might reduce estimates of future global warming." Yet 40 years after this clear statement on the science, the United States has no effective mechanisms to cut fossil fuel emissions – there is no carbon tax, no cap and trade, no effective regulation of the power industry.

So, he said, the question is "why?" The University's explanation for the climate problem laid out in the 2014 and the 2016 communications is that our climate crisis is caused by our consumption of fossil fuels. Yale has argued since consumers are the problem, "targeting fossil fuel suppliers for divestment is misdirected." As a historian of American energy policy, however, I believe that these public statements inaccurately characterize the situation and badly need to be updated. Fossil fuel producers are among the most powerful companies in the world and have engaged in a decades long political struggle to prevent the kinds of government regulations that might address the climate problem. In Washington State, the fossil fuel lobby including leading companies such as BP recently buried a proposed state carbon tax measure in a $30 million advertising campaign and in Colorado, oil companies including market leaders such as Exxon waged multi-million dollar campaigns against a ballot measure to regulate oil drilling and against legislation to strengthen environmental and health oversight of the industry. In Washington, DC, fossil fuel companies have pressed the Trump administration with a wish list that includes the destruction of the clean power plan, the weakening of the clean air act, and the elimination of regulations of mercury and methane pollution associated with energy production. And, the administration has withdrawn its support of the Paris Climate Agreement. An important part of the fossil fuel political campaign has been the well-documented and successful effort to undermine the public faith in climate science research. This disinformation campaign, funded significantly by fossil fuel companies and their executives and investors, has directly undercut Yale's academic values and diminished the work of our faculty and our students. Efforts to establish effective regulations have been blocked by fossil fuel producers for decades. The producers are literally fighting to save their industries and their investments and to wring every last dollar out before the fossil fuel spigot gets turned off. As a result of their continuing grip on American politics, there are no meaningful regulatory measures on the horizon. While we might wish for the political solutions, it is clear that the fossil fuel lobbyists are standing in the way.

Crucially, because of the way in which coal and oil companies have corrupted our political system, focus solely on consumers will never be enough. Regarding Yale's endowment, Sabin contends that Yale should make a strong and ethical statement, a statement that is couched not in terms of investors internalizing pollution costs, which is the current mode, but instead in terms of Yale's commitment to help create a more sustainable and just future. Climate change is a world historical event – the greatest threat to humanity's future. Making clear that the University stands in opposition to those who are perpetuating and exacerbating our climate crisis, is a moral imperative.

In short, Sabin recommends that Yale should divest from fossil fuel companies for three reasons: 1) to withdraw Yale's public support from fossil fuel companies that are preventing effective climate regulation; 2) to disassociate Yale from a decades long disinformation campaign that has directly undermined the type of research and teaching that we do here on campus; 3) to separate Yale's endowment from fossil fuel companies' ongoing push to expand the supply of fossil fuels and thereby deepen our dependence on them. He said that there is a global moral consensus on the urgency of reducing carbon dioxide emissions and acting collectively to ensure humanity's future. Yale's current statement on fossil fuel investments does not adequately reflect this consensus. It primarily expresses an economic stance towards risks and costs and not an ethical position. He feels that Yale should make a clear statement that we disavow the practices of these corporations and that our endowment is aligned with our research and teaching and with our forward-looking University-wide commitment to climate change and sustainability. He said that he hopes that the FASS can find a way to facilitate a process whereby the faculty may be heard on this important issue. 1:09:31

William Nordhaus was next to speak and noted that his focus would be on the investment guidelines, the application of those to fossil fuels, and the need for revisiting those guidelines and some issues of transparency. He said that Yale's policy on investment responsibility was developed in 1972 and the issues were at that time about an unpopular war, environmental matters pertinent to that time, racial issues and a corrupt president in the White House. Then as now, he said, there was faculty-activated request for an active investment policy. The major policy that was recommended was with respect to South Africa and the movement from the late60's to 1990 and was to have investment in light of apartheid. A team of Yale faculty and students studied the issue for several years and wrote the book *The Ethical Investor* that was co-authored by John Simon of Yale Law School. Mr. Nordhaus noted that it is one of the finest books on the subject and has not been equaled in terms of an exposition of the issues involved, and said as John Macey remarked, it can be used to be the underlying basis for Yale's policy. He then reviewed the guidelines from the Simon's report that continue to be used today: Maximum economic return will be the exclusive criterium for the University's endowment holding. This has served Yale well with an average annual inflation corrective return of 9% a year over the last 20 years. However, there are some reservations on this, and it has been mentioned that the University will take other steps when a firm's activity causes social injury (social injury is the injurious impact of a company, particularly those which violate or frustrate the enforcement of the rules of domestic or international law and particularly those needed to protect individuals health, safety or basic freedoms.) He went on to say that the test for divestment adds a further complication because the social injury test correlates to working with companies, communicating with companies, voting on shareholder initiatives, but divestments necessitates a further set of tests if the harm is generalized or the target is a whole industry or sector. Additionally, there might be a public policy that puts a company at a competitive disadvantage (e.g. the Simon report specifically mentions the issue of pollution abatement where divestment might put a company at a competitive advantage. He said in cases such as pollution, the report points out that government action is necessary, and in those cases the University would limit its activities and to communicate with managers that need to seek action from appropriate government agencies.

Regarding the current case of fossil fuel divestment before us now, Simon's guidelines indicate that the role of the University in managing its endowment is to ask companies to work for necessary action with government agencies. Yet as Paul Sabin pointed out earlier companies have not done this. It also notes that divestment and other activities are not to be used for symbolic purposes or to make a statement. We ask how to apply this to global warming issues and particularly to fossil fuels, and it's hard to see how these rules - how the activities of the companies violate the rules of domestic or international law. It seems clear that if there is social injury, the remedy is to urge companies to seek government action. Mr. Nordhaus does not feel we have gone far enough in working with companies to seek government action or to make clear statements that are necessary.

Many at Yale believe that a much more aggressive action is necessary. While Simon's guidelines were in the vanguard in 1972, thinking in this area has evolved. Although activism in investment was seen as dangerous the 1970s, it is seen as less so now. Thus we may need to revisit the 1972 guidelines to determine if they fit in with our current way of thinking because they are extremely narrow in terms of the kinds of issues we are facing today. He recommends that Yale undertake a necessary review of our policies on investment responsibility. Another thought on investment policy informed by his experience on the FAS Senate is the need for transparencies of decisions and accountability of the decision-makers—in fact, one of the core concerns of the FASS. In the case of investments and investment policies, Yale is in the deepest and darkest night about the holdings of the Yale endowment. We do not know what our actual holdings are and therefore, asks Mr. Nordhaus, "how can an ethical judgement be made by the community if we don't know what we actually hold?" He said he realizes that disclosure of the contents of our portfolio is a major step for endowments and investment managers, however we cannot intelligently discuss our investment policies unless we know what we own. He recommends that Yale work with other universities to develop a policy for making public the contents of its portfolio. He said that global warming is one of the major challenges facing citizens around the world, perhaps existential perhaps catastrophic, but surely grave. Scholars at Yale and around the world have studied solutions for global warming, and we are doing what we do best, which is develop the knowledge base. But, he said, we must be realistic – the only way to slow this express train is with collective action – with a concerted and energic action of governments. This involves putting a price on carbon, strong government support for research on new energy technologies as well as other things. He noted that attacking climate change with individuals in universities is like attempting to slow an invading army with pitchforks and shotguns. When we at Yale move beyond our primary mission of knowledge – the generation and communication of knowledge - the actions should be judged by their ineffectiveness – to be clear, only governments have the weapons to reduce emissions and slow the pace of warming. 1:19:09

Mr. Geanakoplos introduced the four students invited to speak. **Alex Cohen** is a junior at Ezra Stiles College studying mathematics, hoping to have a career in academia and becoming a faculty member. He said that the issue of climate change and the current crisis is so urgent to him and his generation that he feels he cannot continue business as usual without addressing that issue in the most serious and urgent way possible. **Elea Hewitt**, Branford College noted that we are gathered here on the unseated lands of the Quinnipiack and the Mohegan peoples. She said that she is from Sweet Home, Oregon, and a settler through her mother and Denae born from her father and was happy to be here on behalf of the *Association of Native Americans at Yale* and the *Yale Endowment Injustice Coalition* to bear witness to this discussion on divestment. **Rachel Calcott**, Branford College, said that she is South African and that she will be giving a speech. **Ben Levin** stated he is a senior, from Silliman College, studying Ethnicity, Race and Migration.

Rachel Calcott spoke as a member of the *Yale Endowment Injustice Coalition.* She said that she is from South Africa, an area that is already experiencing the damaging effects of climate change. She is here to discuss the reasons for Yale students' call for divestment, including withdrawing Yale's holdings from the fossil fuel industry and in Puerto Rican debt. The students' demand for Yale to divest has arisen in response to this critical moment in history. We've come to the realization that not only is climate change an immediate threat but our window of opportunity to prevent the dire effects of 2 degrees of warming is closing fast. Our University's own climate scientists say that we only have a decade in which to drastically cut emissions. It is unlikely to be achieved unless the fossil fuel industries' energy monopoly and political power are diminished. She thanked Professors Sabin and Dubrow for outlining so well why the fossil fuel industry is uniquely obstructive to any attempt to slow down the climate crisis. While many acknowledge the necessity for global cooperation in this fight is vital, it is important to note that this crisis will not affect everyone equally. The effects of climate change are already felt by communities that are least equipped to mitigate them such as Puerto Rico. Climate change at base is a political and ethical issue and we believe that Yale has a responsibility to wield its considerable intellectual and moral influence to promote climate justice and act to prevent a catastrophe that will be felt disproportionately by third world countries and island nations.

Yale University is uniquely positioned to make a national difference when it comes to divestment. Mr. Swensen has an unmatched reputation in university endowment investing and his support for this issue would reverberate around the country. Yale's $30 billion endowment and what is done with it will never be apolitical. Yale's current investments actively legitimize the fossil fuel industry. We are asking that our investors use their influence to take a stand on one of the most important issues that we may ever face. She said that when she first considered applying to Yale, her attention was caught by the University's mission statement which asserts that Yale is committed to improving the world for today and for future generations. We are here today to hold Yale to that promise. As members of this institution, we look to University to publicly acknowledge the crisis our generation faces and by taking political and moral action and publicly divesting from the fossil fuel industry. And as students, we look to you, our professors and mentors, to assist us at this crucial time by supporting our demands.

Ben Levin, a senior and a member of the *Yale Endowment Injustice Coalition*, spoke next. He said he is thrilled that the FASS set aside this time to discuss Yale's role in the most pressing crisis facing the world today and he is urging Yale's faculty to follow Harvard's FAS and Medical School faculty by eventually taking a vote calling for divestment. He said that Professors Dubrow and Sabin have made the powerful case that Yale's investments in the fossil fuel industry are morally indefensible. He spoke about the broad support that the coalition's campaign has won at Yale with a massive movement to stop climate change that is driven by young people who will witness its damage in our lifetime if we don't act now. He joined the campaign for fossil fuel divestment at Yale in his first semester in 2016, four years after it started in 2012. He noted in the early years students prepared exhaustive reports detailing every argument for divestment for the Advisory Committee on Investor Responsibility. In a 2013 referendum, 83% of students voted in support frustrated over the years by lack of action by even partial divestment proposals. We found the committee to be a barrier rather than a conduit of student voice and turned to mass mobilization. The addition of our second demand that Yale instruct its fund managers to cancel their holdings in Puerto Rican debt has sharpened our focus on climate justice and further broadened our base. He said on campus there is a virtual consensus on Yale's complicity in the

climate crisis through its investments. And, he said, it is not just students. Over 140 faculty members signed our open letter calling for divestment
and we have met and strategized with many about this issue. Enthusiasm for divestment among alumni is widespread - our pledge not to donate to Yale until it meets our demands has over 1,200 signatures from alumni and students and counting, and prominent alums have supported us. Our movement is winning – Georgetown University divested last week, and in response to John Macy's statement, indicated that by our definition, the University of California divested last semester (although Levin said he is glad to know that their emails are being read).

Young people today are the first generation to wake up to the fact that we are living in a climate emergency and last September's actions, led by high school students were the largest common demonstration in history. Students and youth are so scared by this crisis that we are putting our bodies on the line – thousands engaging in civil disobedience calling for a just transition from the fossil fuel economy. He said until Yale divests, it endorses the industry that is placing the future of our generation and those that will follow us in grave danger. He finished by reading a quote from *The Ethical Investor* – "Because a world in flames is not one in which a university can possibly maintain the ingredients of an academic context, the university should actively and aggressively pursue the amelioration of the social crisis if it is to be true to its own mission. In extraordinary crisis situations, no citizen, individual or institution may limit himself to ordinary minimal responses."

Mr. Geanakoplos asked for questions and comments from senators.
Valerie Horsley said she wants to understand investments better – when you give money to a company and invest in that company, what is that company using it for, how do you determine that the carbon footprint is high, and what percentage of our endowment is going to these high carbon footprint companies? **David Swensen** said if you are talking about the publicly traded companies – companies that are on the New York Stock Exchange and the NASDAQ-- this is considered a secondary market and there is no direct connection in the investment you make in the public securities and the company so this is not a direct relationship. He said that about half of Yale's portfolio is in things like venture capital and leverage buy-outs and these illiquid assets are directly putting the capital into the companies. He said that the capital that Yale's managers put into Uber when it was essentially no more than idea grew many fold because they took that cash and turned it into a business that makes lots of losses on huge amounts of revenue. So there is much more a direct relationship between the capital we're putting in to these private investments and the company and the companies use the capital we put in to grow and hopefully become profitable. He said it is difficult to come up with precise numbers regarding the carbon footprint but there are some examples that are easy to figure out like with the bit coin that has this mining process which is incredibly energy intensive. He said it is one of the things that we are talking to our venture capitalists about and there are other cryptocurrencies where they don't require massive amounts of computing power in order to create their currencies. And so, we're biased towards moving to the greener model instead of one that is energy intensive. But, he said, when you are looking to people who are mining bit coin, some of the bit coin miners actually located in China near coal-fired power plants which is cheap power so that they could mine the coins and so this is not an investment that we want in Yale's portfolio. A lot of other miners are locating near hydro-electric sources of power which are much cleaner than coal, but one should move away from bit coin production because the complication of having to determine which company is best – dirty power for one company and clean power for another and perhaps no power for another. **Shiri Goren** asked Mr. Swensen what it would mean for Yale to divest. **Mr.**

Swensen said from an economic broad perspective divestment reduces the opportunity set and we would have to choose from a smaller opportunity set--with opportunity costs. How large are those opportunity costs – they are something but not enormous. He said that in terms of the actual logistics, we all agree that Georgetown divested. In response to her question about a realistic timeline, he announced it would take 5 years to sell marketable securities positions and 10 years to get out of their illiquid positions. He said if you have that kind of time, the cost of liquidation would be small and if you told me that I had to liquidate by the end of the year, the cost would be tens of millions of dollars. He said that he thought Georgetown's numbers from a fiduciary perspective were sensible. **Joseph Fischel** spoke and noted that he knows that Mr. Swensen cares much about the welfare Yale community. He asked what sort of shift would Mr. Swensen need to see across students and faculty and alumni to divest, what would the threshold be that would demonstrate that the university community does not see continuing investment in fossil fuels as in our best interests? **Mr. Swensen** said in his mind it is not about popular opinion or what the students, faculty or alumni think. He thinks that the policies that we have in place, perhaps modified as **Mr. Nordhaus** suggested, have served the institution well and using the endowment as a political tool and not having a solid rationale for divestment would be a deep mistake. He referred to that as an approach of "we're frustrated with progress on climate change so let's just sell all the fossil fuel companies" – I don't think I would be in favor of that even if it were 99% for and I think I would be part of the .1% against because it doesn't satisfy my fiduciary principles. Regarding the fossil fuel industry, **Mr. Swensen** noted that our existing policy can identify and deal with bad actors and he feels that Mr. Sabin was being broad-brushed in his remarks. He said we can identify the bad actors and divest, but there are lots of companies that he knows directly that do not engage in lobbying and are not part of this climate denier cabal and simply saying that everyone is reprehensible in the industry is simply not correct and we need to be more granular about it. **Paul Sabin** responded that this is an excellent point and given more time and opportunity he thinks it would be worthwhile to craft a divestment statement that could be applied to a variety of companies that could be assessed whether a company that fell on one side or another. Maybe, he said, one approach to divestment would be on a granular approach and think about what would be some frameworks to apply to some of these companies. Mr. Sabin then referred to *The Ethical Investor* and its guidelines, which do place preliminary emphasis on the exercise of shareholder rights to intervene and express the values of the university through proxies and other types of mechanisms; further, it does stipulate that the university might sell the securities in question rather than exercise the shareholder rights if it felt it is unlikely that within a reasonable time that the exercise shareholder rights of the university would succeed in modifying the company's activities. He asked what Yale is doing to exercise its shareholder rights and at what point would we feel that this exercise of shareholder rights has been exhausted in terms of its ability to influence the companies that are being invested in? **Jonathan Macey** responded and said there are small number of issues-- fossil fuel is one and tobacco is another – in which the ACIR aggressively supports shareholder resolutions seeking disclosures of company greenhouse gas emissions, analysis of impact of climate change on the company's business. We vote aggressively in favor of strategies to reduce the company's impact on the environment and the global climate and in favor of company supporting government policies that address the problem of climate change. He said that he thinks Mr. Nordhaus did a good job in summarizing *The Ethical Investor* challenge, and thinks that implicit in what he said is that it is useful to have a guide, and maybe we need to revisit our guide and continue to work with what we have until we have a replacement. And, he said, right now for the reasons that Mr. Nordhaus and he himself observed, in the futility of moving in a construction direction, climate change without government intervention on a broad basis is not a great idea. He noted that there has been a lot in the press and a lot of litigation around fossil fuel companies who have funded climate change denial and the like and an issue that we are struggling with on the ACIR and fossil fuel companies are moving away from that position. **Matthew Jacobson** wanted to amplify one of Professor Sabin's points, he understands that it is the urgency of environmental degradation and the climate crisis itself that brings this to the table, but that does not mean that whether divestment would or would not resolve the climate crisis determines whether we should consider divestment. He said he thinks **Mr. Sabin's** second point was perhaps the more important one for the University to consider – it's not just an issue of the degradation of the environment, it is the degradation of knowledge. Thus he concurs with **Mr. Swensen's** statement when he said that facts matter, analysis matters, ideas matter. But the University's mission is at odds with much of what has gone on in the last 40 years in this particular industry, and it's not just a matter of shaming in the industry – divesting would be a matter of resolving our own shame and putting our own mission in line with our investments. He asked Mr. Swensen: is this moral and ethical dimension something that you have considered deeply, and if so, what is your answer for it, and if not, please do. **Mr. Swensen** answered that if every company in the fossil fuel industry has engaged in decades of behavior that is immoral, or unacceptable, then we should sell the shares and we have a process to do that, but if it is not all companies, then we should commit the resources of identifying bad actors and get rid of them. So, he said, he is 100% in favor of divesting from companies that are committing social harm and we can figure that out and I don't want them in our portfolio. He said that if we're saying that climate change is a problem, fossil fuel makers make fossil fuels, when we consume them that is leading to climate change and because of that we're going to sell fossil fuel producers – that does not resonate with me. In reality, he said, it is more our consumption of fossil fuels that is causing the problem because if they were just produced and not burned we wouldn't have the issue. Yes, he said, let's sell the bad actors. **Mr. Geanakoplos** noted that progress is being made and asked if there were any comments from the floor. **Bill Rankin**, a former FASS senator, noted that we have heard a lot about firm level and industry level behavior and he wonders if the faculty could see precedence or language for what it would look like to craft a resolution that was identifying firm level behavior as opposed to industry level behavior. **Ian Shapiro,** senator and former chair of the ACIR, feels that the criteria listed in *The Ethical Investor* are not criteria that would lead Yale to engage in divestment. He also thinks that **Mr. Nordhaus's** intuition/suggestion is right that *The Ethical Investor* needs to be revisited. In general, he strongly believes that the FASS should not get involved in every single issue that comes up for the University, but there is an issue here concerning faculty governance. As **Mr. Geanakoplos** recounted at the beginning of today's conversation, *The Ethical Investor* was created and then adopted by the Corporation as Yale policy as a result of an extremely involved episode of faculty governance; it seems that if there is an appropriate action for the FASS to do here, it would be for the FASS to appoint a group to re-examine *The Ethical Investor* and perhaps make recommendations to the Corporation about appropriate changes in the policy for deciding about ethical investments. That committee would presumably work with representatives from the Corporation community and the investment office. **Jennifer Klein** noted the investment landscape as understood by *The Ethical Investor* belongs is very different now, owing to emergence of private equity funds and the hedge funds, and further, the magnitude of the ecological issue we're dealing, and its moral and ethical imperatives, are likewise extraordinarily different. She pointed to the example that the 1972 text gives for "ecological concern" is littering and whether an individual reduces litter, whether a company will reduce its litter, and whether a shareholder will vote to keep a company from that,

so it is time to revisit the ideological framework. More, significantly, Ms. Klein asked "What does it mean to make an investment?" And this is a question of essential concern to the FASS – investing in the knowledge we produce, in the scholarship, in the teaching, in the mentoring and it seems that we cannot, on the one hand, continue investing in sources that are undermining what we teach and what we research about, and on the other hand, expect our students and our colleagues to go out and work on those issues. This is not tenable – it cannot be held in balance. These companies draw on capital that they raise—delivered to them through private equity funds and hedge funds--to engage in the economic endeavors of extraction, transport, and refining. But they are also using vast resources to engage in a political project. Energy companies, their trade associations, and lobbyist are actively spending billions of dollars to dismantle environmental regulations and to derail new ones, as we heard from **Paul Sabin's** presentation, as well as to commission politically driven reports and to elect or defeat legislators. Thus we be realistic: when it comes to the fossil fuel industry, energy industry, chemical industry, they are not drawing some pristine, clearly demarcated line between what is economic and what is political – they are quite clear that there is not that line, it's a fiction. And they use their capital to win an ideological contest and to capture political power. So, she said, she thinks it would be naïve of us to act as though that line of separate sphere exists. The science is clear and the economic intentions of fossil fuel companies are clear. We are an institution that is committed to thinking about alternatives, creating expressions of thought, disseminating knowledge, and solving significant problems – that is what we should be invested in.
A speaker from the floor noted that the finance world is rapidly moving in this direction – for example, declining to insure coastal water properties. He feels these moral issues that are coming up are critical. He said the problem is that we don't have an ethics for the environment – we have social injury but not environmental injury so this hasn't caught up and that is the issue that Yale can weigh in on – that there is a moral issue on how the entire earth community is being affected. We have lots of resources among the alumni and lots of resources here with faculty, but one resource might be the Rockefeller Brothers Fund, which after shareholder engagement with Exxon said "we have to divest." Steve Hinds is a Yale graduate and did this even over the objection of his leading officer. It shows they have a plan of how to do proceed with divestment, and there are lots of places that know how to do so as well. We can draw from them on how to carry out this important course of action. He mentioned that there are a number of alums, including Frances Beinecke and Gus Speth and others, who are very much in favor of this move.
Mr. Geanakoplos asked for a vote to extend the meeting by 15 minutes and it was unanimously accepted. **Michael Denning** commented on the distinction between the firm and industry and whether there can be singular bad actor within the industry as it exists. It seems that it is incorrect to call it "the fossil fuel industry." As Professor Sabin suggested, we're talking about an energy industry in which divestment aimed at those parts of the energy industry that focus on fossil fuel might actually turn the industry toward other aspects of it. If we view the "fossil fuel industry" as a singular set entity that will just stay the same, it might mislead us in terms of what the power of divestment could potentially be. **Debra Fischer** appreciates the thoughtfulness that has gone into thinking about investments, but her concern is that she rejects the idea that divestment is an attempt to shame a company. She thinks that by investing in a fossil fuel industry we are investing in our self-destruction and that is not what we want to do and a message that we don't want to teach our students. **John Roemer** spoke and noted that Mr. Swensen began his talk by saying that the Environmental Defense Fund said we will still need to finance 20% of our energy with fossil fuels by 2050. But, he said, the inference Mr. Swensen explicitly drew from that data is that divestment was a bad strategy because divestment was

aiming at killing the fossil fuel industry, and that is not the correct inference. The correct inference is what he came to later when he said, "yes, I am for divesting from firms that we can show are socially irresponsible." And now, if you look at what Paul Sabin said, there is just overwhelming evidence that the big multi-national oil companies are terribly socially irresponsible – they do want to expand exploration and find more oil in the ground, etc. although apparently we already have much more than we should ever mine. He then made an analogy of what happened with cigarettes and the tobacco industry. At first, people thought blame could simply be placed on consumers and we could expect them to change their individual behavior. However, what really changed behavior was going after the tobacco companies and showing how the industry sold a damaging product and corrupt information. Now we're again suggesting there is a problem with consumers – gasoline is too cheap and we should put a hefty tax on it. With cigarettes, we did impose a tax on tobacco and put cancer signs on cigarette packages, but it wasn't until we also imposed economic damages on the tobacco companies and sued them, that things really changed. And, he said, the same thing is true with divestment – the purpose of it is to impose economic damage on the companies that are taking an anti-social position regarding the future of the energy industry.

Mr. Geanakoplos commented that there are two different problems that people have spoken to. One is the relentless search by fossil fuel companies to develop more sources of energy and the damage that that might create. Second is bad actor behavior wherein they lobby and produce disinformation and so on. It seems we have been making some progress: that the pro-divestors were saying that maybe it would be a step forward to specify and name companies that were bad actors; in turn, Mr. Swensen was reaching out to them by saying that if confronted with evidence about bad actors, he would be willing to divest from them. That sounds like a lot of progress. He then asked if the speakers feel that progress is being made here – is there a common ground that you can start with – can progress be made right now? **Mr. Dubrow** responded that he feels it is a step in the right direction, for sure. The point you make – the distinction you make between the bad actors and the inherent activity is really critical because of the urgency stipulated by the IDCC – we have to cut emissions in half by 2030. He hopes everyone realizes that emissions are still rising, so it is a huge task which call for serious proactive measures. For example, we should not be building the Killingly Natural Gas Plant in Connecticut and all these pipeline infrastructures because the intended purpose frankly is not to build them and just use them for a few years. These are long-term investments with a purpose of using natural gas for the next 20 or 30 years, which we just cannot do. In terms of looking at energy companies, if a company seriously redefined itself and said we have this business plan where in 10 years all of our energy is going to be produced by renewable energy, then great-- there is no need to divest from them. But, he said, the ones that continue to expand – it is not just the lobbying, which is not just done by individual companies but also done by trade industry-wide associations……..(time was up). **Mr. Swensen** responded, arguing that he has numbers showing that there was a 25% decline gas production in one year, which is a stunning number. Nonetheless, he still believes we need natural gas as a good transitional fuel and if someone tells him that oil is better, then he would say we need oil. We are transitioning to wind and solar and he wishes that could happen more rapidly and that we had a better way to store the energy and he agrees 100% that this is the ultimate goal. However, to say that we do not want to find new gas or new oil immediately would mean that we would have to go back to thermal coal to power the power plants. **Mr. Dubrow** countered that natural gas should not be viewed as a "transition" energy source or green energy; it is a fossil fuel.

Student Alex Cohen spoke in order to address what he referred to as a really central issue in the debate: whether or not we can just excise a few bad actors and assume that others will be okay, or whether this whole industry is inherently destructive. Students are very clear that the fossil fuel industry as a whole is a predominantly unique bad actor in the climate crisis and we need to divest from the industry as the whole. He also noted that the CCIR report from 2014 claimed that there is no affect from divestment on political or governmental action, and this is in direct disagreement with our whole theory. As a movement, the whole point of divestment is, as part of a global movement, to encourage governmental action. We feel that Yale exercises immense power in the world through its investments and through its position as a moral leader, and by divesting, that would be an extremely powerful way to alienate these companies and encourage governmental action as well as a consciousness shift amongst the population. **Michael Donahue** spoke and said he is all for examining the ethical positions and our policies on this at Yale. What he does not want to see happen is that we go into years' worth of discussion and committee review. It seems really important that we fast-track this and work on it with some haste. Otherwise, he noted, it is quite embarrassing for the University. The moral urgency is now. **Ray Fair** spoke and said if all stocks owned by the endowment would be public knowledge, then we could go down company-by-company and ask if it should be something we should be holding or not, his guess is that there would be less disagreement between David Swensen and some others than suggested now – we would find the companies that Mr. Swensen says are bad and come to some agreement. **Ms. Klein** asked if the investment question is at root about individual companies. If much of Yale's investment is through private equity funds and hedge funds, it seems there is a double political cover because these companies can hide through the private equity fund management. And, whether a single company takes a visible political position or not, the trade association acts politically and does the lobbying so there is a double hidden veil that they can use. **Mr. Sabin** said he realizes the complication of knowing the roles of these companies and is appreciative of the progress made here today and the possibility of reviewing endowment investment company-by-company, with the exclusion of some companies. But it should be accompanied by a public statement of some kind showing where the University stands on this issue. (4:27 most of this audio portion was not clear – speaker could not be completely heard). **Jonathan Macy** spoke and said that he has spent time trying to figure out what's wrong with *The Ethical Investor* and he doesn't think the problem is that we have moved to a new investment model or that we have more intermediaries. He feels that chief among the problems is that in 1972 when *The Ethical Investor* was written, there was a norm or understanding that it was fine for corporations to go out and maximize profit as long as they were abiding by the law within the constraints for environmental laws, etc. We are now in a different place where that is no longer right and we may need a new criteria. What that new criteria is going to be is a challenge and he would be eager to work with the (group) and move that forward. **Mr. Geanakoplos** said that he feels a lot of progress has been made defining what our mission is, further defining what the goals of divestment are, and understanding what divestment means. This foundation could lead to more agreement and some action and he feels this can be done soon. He then adjourned the meeting at 6:15 PM.