EVALUATING EVEN-AGED AND ALL-AGED TIMBER MANAGEMENT OPTIONS
FOR SOUTHERN FORESTS

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Abstract.—The question of whether to use even-aged or all-aged management is no longer just a silvicultural or an economic question. Viewing the question from a political economy perspective will reveal the influence of broader social and political concerns on the decision. These underlying concerns are often more important and more difficult to resolve than technical concerns.

Even-aged or all-aged timber management: which is best for southern forest lands? That question has been a topic of intense discussion among foresters in the southern pinery for more than 50 years. After all these years and demonstrations, why hasn’t economic analysis provided a definitive answer?

We’re going to spend today and tomorrow reviewing the latest analyses. Our speakers have marshalled the latest growth and yield information. Personal computers have churned out spreadsheets and bar graphs late into the night. But before digging into these papers, we need to take off our green eyeshades for a minute and think more broadly about why a definitive answer has not yet emerged to the question which is better; even-aged or all-aged management?

'Sure we’ve got answers, what’s the question?'

My hypothesis is that the current debate over even-aged versus all-aged management is not about silviculture or the economics of one system compared to the other. Rather, the debate is really about power— who makes the choices about managing forests.

Bertrand Russell once said:

The fundamental concept in social science is power, in the same sense in which energy is the fundamental concept in physics.

The debate over even-aged versus all-aged silviculture is an old-fashioned power struggle; politics is the name of the game. I believe the burning question for economists is, do we have anything meaningful to contribute to the debate?

There was a time when economists were key players in such debates. In the late 1930s right here in the Lower Mississippi River Valley, benefit-cost ratios became the driving force in debates over water resource development priorities. Economists had the tool; it made dispassionate decisions. For the next 30 years, until the late 1960s, economists played key roles in shaping debates over resource allocation questions; first in the water resource arena and after World War II in other resource arenas.

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But by the late 1960s, the influence of rationalists began to wane. After 30 years of rational decisionmaking, choices began to blur. Merit-goods arguments were made with increasing frequency—something was worth doing for moral reasons, even if the economics of the situation suggested otherwise. The 1964 Wilderness Act was a harbinger of this change. By the late 1960s, American society began to realize that the air was dirty and water was unfit for fish or people. Interest groups mobilized and began clamoring for change. Society endorsed the call for legislation. In rapid succession, Congress passed the Clean Air Act in 1968, the National Environmental Policy Act, and the Clean Water Act in 1972. An Environmental Protection Agency was created.

Suddenly, many choices were being made on distinctly non-economic grounds. Goals were set that captured the fascination of society—water would become drinkable and swimmable in a decade. The public began to frame its rights to clean air and clean water in moral terms. Industries screamed that it cost too much, but Congress was persuaded that America was willing to pay. Economic arguments fell by the wayside as these goals captivated Congress and the public.

An interesting thing began to happen. Bouyed by their success in getting the legislation passed, interest groups began speaking out on behalf of all society. They also began making distributional arguments—arguments for which economic efficiency tools like benefit-cost ratios are poorly suited. These were key moves to seize and mobilize the power of choice. The new legislation not only provided powerful far-reaching goals, the new laws also provided three powerful tools to help attain the goals. First, regulatory powers were strengthened and broadened. Second, environmental impact statements (EIS’s) were mandated; prepared in advance of decisions. The role of economics in EIS’s was significantly diminished compared to the decision process of the 1950s and 1960s. Third, citizens were given broad, new rights of access to the courts for enforcement of regulations. These tools could be used to leverage and direct society’s choices and the distribution of benefits arising from choices. It should come as no surprise that segments of the public moved rapidly to use these tools to advance their interests.

By the late 1980s, the power of choice had clearly, perhaps irrevocably, passed from the economists and other technocrats to segments of the public. But resource managers were slow to learn and grasp the full importance of this change. We economists let them down by our failure to provide a tenable adaptation to the new era. I say failure, because many of us had been schooled in the institutionalist or traditionalist schools of economic thought and were not well versed in political economy—an earlier school of economic thought that had fallen into disfavor here in America in the 1930s. Many of the economic luminaries from early this century rightfully recognized that only when politics and economics were merged did economists really have anything useful to say about how choices should or ought to be made. The problem is clearly evident in many economics journals today. Look at all the econometrics performed to explain mathematically, with as little narrative as possible, how some choice is made. Rarely do such articles examine the politics of the choice process or discuss the feasibility or desirability of alternative choices.

The inability of economists to view the shift in power of choice from the political economy perspective led to a major decline in the role of economics in the choice process. National Forest land management planning is a case in point. Early in the planning process, the Forest Service tried to use the rational economic paradigm from the 1950s and 1960s. Economists were hired. Planning teams were created. Huge linear programming models were cranked up. Myriad alternatives were spun out, all with shadow prices and all with benefit-cost ratios exceeding unity. Every alternative was guaranteed to be economically efficient. The implied choice was implement the alternative maximizing present net value. That paradigm did not function well in the 1980s for the Forest Service, nor did it function well elsewhere it was applied, both inside and outside of government.

Careful examination of the many appeals and the few forest plans not appealed points to a key finding: planning was more successful when the public land planners and managers first listened to the various publics and then determined which management actions were technically feasible within the sphere of choices preferred by the publics. Only after planners clearly understood the public’s desires could economically efficient plans be developed to provide the desired outcome.

The message is clear—the public or segments of the public are making resource management choices today. The technocrats’ era of making choices for the public ended in the early 1970s. The
pendulum swung—publics are making the resource management choices today on public lands. Economic efficiency is still a useful measure of relative merit, but no longer the only measure of merit. So the real question for economists today is to determine the role of economic analysis in this new setting for making choices.

WHO'S MAKING THE CHOICES BETWEEN EVEN-AGED AND ALL-AGED MANAGEMENT OPTIONS?

Many would answer the landowner, but that is only partially correct today. Landowners no longer have free reins in managing their forests today. Society is demanding a say in forest land management decisions on private, as well as public, lands. For example, both public and private forest land managers face regulatory constraints imposed by society, such as sediment generation regulations to protect water quality, curbs on chemical usage, and the use of certain harvesting practices.

Emboldened by their success in influencing public land management, the public is increasingly exerting power to leverage choices on managing private forest lands. How many forest industries now leave buffer zones of unharvested timber, not only along streams to protect water quality, but also along highways to protect scenic quality? Why are even-aged regeneration cuts shielded from public view by highway buffers? I think it's a recognition of the fact that landowners are having to share more of the power of choice in how to manage their lands. More and more, we will see that the real key to successful forest management is merging landowner desires with public desires for clean water, wildlife, and scenic amenities.

WHAT DOES ALL THIS MEAN FOR THE DEBATE OVER EVEN-AGED VERSUS ALL-AGED MANAGEMENT OPTIONS?

To answer the question about which form of management is "right" for a certain situation requires us to look beyond the silviculture question. The answer depends on the politics of the choice. Who besides the landowner is affected? Are there stakeholders—parties with a vested interest in the decision besides the landowner—who have the political leverage, or clout, to insist on certain conditions or constrain the decision? What are the risks of confronting stakeholders on a particular tract—will you win the battle on this site but increase your chances of losing the ability to use the technique on many other sites? These kinds of questions are crucial to examining the even-aged versus all-aged question from a political economy perspective. Econometrics is next to useless in answering them. Political economy is the name of the game.

So deciding among even-aged and all-aged management options will depend on constraints. Answers will have a decidedly sub-optimal flavor—what is best for the landowner, given the constraints imposed by the public and stakeholders. Suboptimization is not new to economists—just messy for econometrics. The key to the analyses and the answers are the assumptions. Only now, it is critical that economists take a much broader view of the kinds of things considered as legitimate assumptions. Assumptions such as public and interest group viewpoints and the regulatory climate are as important, maybe more important, than the traditional economic assumptions displayed in spreadsheets. To gain credibility and acceptance in today's decisionmaking process, it is essential that economists fold these broader assumptions into their analyses.

Results of economic analyses must be displayed in ways that tie their differences more closely and more visibly to the social and political assumptions made. Neither even-aged nor all-aged timber management is a panacea for all situations. In fact, both options will be highly desirable in many situations.

As you listen to the papers presented today and tomorrow, listen carefully and critically. Can you determine what the broader assumptions are? Have the authors analyzed how the results affect stakeholders besides the landowner? Do the results hinge on an assumption about landowner or stakeholder preferences, rights, abilities, that is out of touch with present political realities?

I think answers to those kinds of questions are critical to determining the role of alternative silvicultural systems for private and public landowners in the South today. Economists need to develop the ability to analyze these kinds of questions—to think like political economists—to make substantive contributions to the debate over management options. Until we can do so, we will be a liability to landowners and land managers looking to us for advice and we will not have a credible role in decisions about managing the South's abundant forest resources.