

Incidental Paper

**ADMINISTRATIVE PROCEDURAL POLICY:
RULEMAKING OR ADJUDICATION IN
DEALING WITH TECHNOLOGY?**

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PROGRAM ON INFORMATION RESOURCES POLICY

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DEALING WITH TECHNOLOGY?

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INTRODUCTION

Administrative agencies have two methods at their disposal for formulation and development of policy: rulemaking and case-by-case adjudication. We will examine how the choice between rulemaking and adjudication is affected by the highly dynamic and technologically complex subject of computers. We will focus on the past attempts of administrative bodies such as the Federal Communications Commission (FCC) and the Patent Office to deal with the issues posed by computer technology through the use of either rulemaking or adjudication, and evaluate their choice in terms of administrative law theory. As will be seen, the choice of method¹--rulemaking or adjudication--can have a crucial impact on the resulting substantive policy.

RULEMAKING AND ADJUDICATION:
ADMINISTRATIVE THEORY PERSPECTIVE

Rulemaking, designed to culminate in the issuance of regulations, is explicitly directed at a class of persons or practices. Adjudication results in the issuance of an order and, at least in part, is designed to determine the legal status of a particular person or practice.

It is difficult to elaborate more specific definitions because of the overlap that exists between these two procedural approaches. Rulemaking proceedings may produce regulations that embody broad policies or extremely specific standards. Similarly, an adjudicatory proceeding may produce an order that contains a broad policy statement to guide future issues as well as whatever specific directions are necessary to resolve a particular issue. Further, the two processes are not mutually exclusive; agencies often will articulate general policies through rulemaking and then use the case-by-case method to narrow the rules in order to deal with specific problems.²

Despite some overlap and joint use these two processes still represent distinct means for articulating agency policy. Each has its own specific strengths and weaknesses.³

One of the strengths of rulemaking is that it provides a clear articulation of agency policy. Unlike adjudication where the agency's policy may be clouded by the facts of the particular case or scattered throughout a number of opinions, rulemaking allows the agency to articulate its policy in a clear and coherent fashion.⁴

A by-product of this will be a decrease in litigation and a saving of agency resources due to the decrease in uncertainty surrounding an issue. In other words, certainty insures ease of compliance for those affected and

ease of enforcement for the agency.

Notions of fairness further recommend this approach because it promises uniform treatment for similarly situated parties. Adjudication will often temporarily place the party against whom the case is directed at a competitive disadvantage until the agency gets around to bringing cases against similarly situated parties; although, as Shapiro notes,⁵ this problem may be ameliorated somewhat by the practice of joining multiple parties in one case.⁶

Another advantage of rulemaking is that it allows the agency rather than a litigant to take the initiative in developing policy. Indeed, adjudication is often criticized because of its haphazard nature which fails to provide any logical order for the treatment of issues. However, to the extent that the agency has the power to initiate adjudicatory proceedings this problem is diminished.

Procedurally, rulemaking's greatest strength lies in the open-ended nature of its proceedings. Unlike adjudication which is typically limited to a few parties, rulemaking allows the participation and contributions of large numbers of interested parties. All interested parties are permitted to submit written arguments, views and data and are normally allowed oral presentations. By increasing participation rulemaking serves an important educational function as the agency's knowledge is enhanced concerning such issues as the parties and interests affected by the proposed policy, the accuracy of alleged facts, the potential problems with the policy, and the interrelationship of the proposed policy with other policies. It should be noted that a similar educational function can be served by adjudication through the use of amicus curiae briefs, although on the whole rulemaking allows broader participation--normally including oral presentations.

Further, rulemaking allows the agency to concentrate all of its resources on a particular policy issue without being distracted by the factual issues of a particular case. The rulemaking agency is presented with as much relevant information as possible in one proceeding, whereas the case-by-case method forces the agency to deal with bits and pieces of information relevant to the formulation of policy collected over a number of proceedings. However, this problem is diminished by the fact that most agencies have investigatory powers that can be used for gathering information independent of the particular adjudicatory proceeding.

A final advantage of rulemaking is that it allows greater procedural flexibility than adjudication and its trial-type procedures.

Rulemaking's major weakness stems from the fact that it may impede the ability of an agency to respond quickly and effectively to changing conditions. Although an agency may amend its rules this process is rather slow and cumbersome. In fact, to the extent that the agency quickly overturns its regulations, it loses the asserted advantages connected with certainty. Further, regulations, even specific ones, may lead to unfair treatment because of their failure to take into account subtle fact distinctions. Some issues depend on factual distinctions or changing conditions to such an extent that they defy rulemaking.

Adjudication's strengths parallel the weaknesses of rulemaking. By proceeding case-by-case an agency may consider specific issues with greater care while adjusting and defining policy. This prevents premature generalization, a factor that is often crucial with dynamic subject matter. In addition to flexibility, adjudication allows an agency an opportunity for experimentation, an attribute which is particularly valuable when an agency is

dealing with an unfamiliar problem. In this manner an agency can educate itself by accumulating experience with a particular problem before plunging in any particular policy direction.

In Justice Cardozo's words adjudication is particularly valuable where:

An agency could not reasonably foresee problems which must be solved despite the absence of a relevant general rule. Or the agency may not have sufficient experience with a particular problem to warrant rigidifying its tentative judgment into a hard and fast rule. Or the problem may be so specialized and varying in nature as to be impossible of capture within the boundaries of a general rule. Chenery at 203.

The purported weaknesses of adjudication and the extent to which they can be compensated has already been covered in the discussion of rulemaking.

Of course, whether an agency decides to formulate policy through rulemaking or adjudication turns on factors besides the inherent strengths and weaknesses of the two methods. The nature of the subject matter, the nature of the agency and its statutory authority, and the circumstances in which the issues arise, all affect the ultimate choice. The effect of a highly complex and dynamic subject on this procedural-policy choice is discussed below.

COMMUNICATIONS: THE ISSUE IN A NUTSHELL

The FCC responded to the technological convergence of the communications and computer industries by initiating a rulemaking proceeding. A Notice of Inquiry began in 1966⁷ and ended in 1971 with the promulgation of general rules designed to regulate the area of overlap between the two industries.⁸ The FCC's asserted goal was to preserve the integrity of the communications facilities of common carriers already under its jurisdiction and to prevent

cross-subsidization by them. The FCC formulated broad rules which attempted to delineate communication services from computer services. A case-by-case evaluation to determine when a borderline service fell into any of the "hybrid" categories was also provided.⁹

However, subsequent adjudications¹⁰ indicated that the rules were unadministrable and inadequate. A second computer Notice of Inquiry was issued in 1976 in preparation for the issuance of revised rules.¹¹ The second inquiry proposes, inter alia, to retain the communications/computer dichotomy but to adopt a more specific definition of data processing and eliminate the troublesome hybrid categories.¹² The reasons for the rise, collapse and resurgence of rulemaking are explored below.

Focusing on the FCC's choice of a mixed procedural approach, general rulemaking and adjudication of specific issues, the agency actually attempted the type of balancing analysis (i.e., evaluation of the strengths and weaknesses of each procedure) suggested in the preceding section. The commission asserted that it was "adopting rules of general applicability . . . to deal with clear-cut, reasonably foreseeable dangers" ¹³ Further, the commission stated that it would use adjudication with respect to the "hybrid" categories because of its "insufficient experience with such offerings to enable [it] to adopt rules of general applicability sufficiently definitive to accommodate the variety of future service offerings."¹⁴

Evaluating the agency on its own terms--given its belief in the clarity of the broad issues and its capacity for self-education in this new area--the general rulemaking/limited adjudication approach is a sound one. The rulemaking allows maximal information flow and the adoption of a clear agency position. The adjudication allows adjustment of the general standard in the

limited areas where the agency lacks expertise. Given agency education and clear issues and policies, loss of adjudication flexibility in this primarily rulemaking approach arguably is of minimal importance.

Unfortunately, the premises upon which the FCC based its decision are open to serious question. Although rulemaking procedure is conducive to a clear and comprehensive standard, the standard promulgated was far from such.

The policy that represented the output of the rulemaking procedure was far from clear and certainly subject to dispute. The commission's rhetoric concerned the need to take a broad prophylactic approach because of "anticipated improprieties." Unfortunately, the only real "evil" that can be identified is the cross-subsidization problem. As Chairman Burch noted, "The Commission has acted in the usual, orthodox, kneejerk fashion: arbitrarily without any real showing of actual or even potential abuse."¹⁵

Similarly, the Commission's grasp of the issues at stake were vague. As one commentator noted,

Despite the considerable time and effort expended in the First Inquiry, the regulations left many issues undecided or unclear . . . the current FCC rules provide little if any guidance as to what will be subjected to regulation, what can be offered by regulated carriers, and what can be sold only by unregulated firms.¹⁶

The assertion that the FCC was unclear as to both its policies and the issues involved is supported by the subsequent adjudication under these vague rules.¹⁷

The FCC's confusion concerning issues and policies is not surprising in light of the technical complexity and variety of the subject matter and the commission's relative unfamiliarity with it. As one commentator pointed out,

The data bearing on the critical issues in such complex proceedings are qualitatively different from the material that administrative agencies and special courts traditionally have handled....¹⁷

[Agency] members bring to their tasks not expertise arising from mastery of a distinct, substantive technical or scientific discipline, but, experience derived from extensive familiarity with a special subject.¹⁸

The FCC anticipated that rulemaking's educational aspect would enable it to attain technical knowledge and the experience needed. They were wrong. The results were rules marked by vagueness which led to difficult adjudicatory implementations, uncertainty that discourages innovation and investment, and easy evasion of enforcement.

Additionally, the rapidity of change certainly contributed to the collapse of the rules. As one observer put it,

The data communications and processing industry has experienced tremendous growth in communication--capable computers, distributed processing linked by communications, and services blending communications with data processing. The merger of data processing and data communications due to these developments has virtually eliminated the utility of the current FCC regulations.¹⁹

The FCC noted this point in its Second Notice of Computer Inquiry when it related that,

Since the release of our Final Decision, we have witnessed technological advances, in hardware and software, which are tending to cause a blurring of the distinctions between data processing and communications which we had then established.²⁰

The commission's new round of rulemaking is an attempt to respond to this technological change. It is designed to take into account new developments such as "smart" terminals and to develop a more precise distinction between data processing and communications. Unfortunately the rule--with the

exception of technological change--does not appear responsive to any of the problems noted above. In fact, the speed of technological ferment in the communications area does not appear to be abating.²¹ One commentator summed up the proposed rules by stating that, "While the proposed rules do take some forward steps, significant shortcomings remain which leave the suggested revisions unsuitable for implementation."²²

To understand the FCC's insistence on rulemaking in this area it is necessary to look beyond traditional administrative theory. The FCC has relied on rulemaking to develop policies more than any other major federal agency. It has relied on rulemaking to implement almost all of its major regulatory programs.²³ Furthermore, the FCC has a history of failure in the rulemaking area. In 1960 the Landis Commission accused the FCC of vacillation "in almost every major area" and of being "incapable of policy planning."²⁴ For one observer,

[This] choice to regulate closely followed similar FCC reactions to prior technological developments . . . [A] survey of prior FCC reactions to technological developments indicates that regulatory overreaction has more often than not been the case in the communications field . . . The FCC's tendency consistently has been to protect the status quo against all change.²⁵

Thus, the FCC's insistence on rulemaking despite the countervailing factors discussed above may be seen as part of a traditional response by the FCC. In part it is also symptomatic of the general tendency of modern agencies to overextend regulation, particularly when faced with the threat of "agency obsolescence" as technological development fosters change in the relevance of legal categories.

In sum, given the characteristics of the communications field (i.e., rapidly changing technology, newly developing areas, highly technical subject

matter), the inexperience of the FCC vis-à-vis communications, and the relative lack of potential "evils" calling for regulation, it would appear that an adjudicative approach to formulating policy is to be preferred. Furthermore, given the rapidity with which the boundary between communications and data processing is becoming indistinct, it may be that the communications area is simply not at all amenable to rulemaking.

The real strength of the case-by-case method lies in its flexibility, a quality to be desired when dealing with a subject such as communications which is developing at tremendous speed; this is especially true if the policy orientation is to promote development rather than to prevent so-called improprieties. Adjudication would give the agency the freedom to deal with technological changes as they occur and to gain the experience necessary for effective regulation of an unfamiliar area like communications, without unduly interfering with its development. Although improprieties may not be anticipated, they can be dealt with expediently, as they arise, thus fulfilling preventative goals.

However, this argument can be overstated. In fact the ad hoc nature of the case-by-case method may create great uncertainty if used extensively. In a newly developing and constantly changing area such as communications this could be conceivably no better than the existing vague rules. In light of all the characteristics of the communications industry summarized above, a policy of minimal regulation may be the best. Under this approach adjudication is used sparingly by the agency to deal with "evils" as they arise, allowing some self-education with the presumption of no regulation.

A report on communication done by the Stanford Research Institute, for example, recommended "that for the immediate future, we should adopt a wait-

and-see policy."²⁶ This is explored again in the patent materials below.

PATENTS: PROCEDURAL-POLICY CHOICE IRRELEVANT?

The Patent Office attempted rulemaking in the area of software. The attempt failed, but the process of rule development and collapse sheds significant light on prospective administrative procedural-policy choices.

On November 11, 1969, after allowing multiple party input the Patent Office promulgated its rule. The Patent Office claimed this rule to be a "basic principle."²⁷ The commissioner noted that "it may well be that, when particular applications are considered, modification in some instances may become necessary."²⁸ The Patent Office did adjudicate particular patents as applications under this rule were processed.

The basic principle was that "computer programs, per se, shall not be patentable." The Patent Office distinguished between a computer programming process which provided a mere numerical and informational statement, i.e., "computer programming, per se," from a process which caused changes in the "components" of the computer. The latter was found to be patentable.²⁹

In administrative theory terms, the Patent Office apparently felt sufficiently competent or "expert" to promulgate a broad rule or "basic principle." The office recognized that certain problems may not be foreseeable and that certain fact patterns may prove specialized. The Patent Office anticipated modification of its rule and employed case-by-case adjudication to determine how particular patent applications fit within the categories defined by the rules.

The Patent Office's reliance on both rulemaking and adjudication

represented a compromise between the inherent tensions of certainty and clarity versus flexibility, experimentation and accumulation.³⁰

An effective rule is one which is clear both on its face and in application. The Patent Office surely felt its "basic principles" to be clear, but many commentators disagreed--feeling that agency expertise on this issue was minimal. It is argued that, if applied, the rule would have required so many modifications both via specific rulemaking and adjudication as to become meaningless. Unfortunately, court intervention occurred so quickly that the rule was never tested on its own terms.

In Application of Prater 415 F2d 1393 (1969) the Court of Custom and Patent Appeals (CCPA) reversed a Patent Office adjudication decision which had held the claimed invention to be a "mere computer program" and therefore not patentable. The CCPA ruling was on statutory grounds. It was the court's view that the patent statute did not allow computer programs, in the generic sense, to be declared non-patentable. In other words, the Patent Office rule went beyond the office's enabling power delimited by the statute.

Thus, the rules collapsed because of statutory construction and not because of the particular procedural-policy choice. However, the agency chose not to develop another rule but rather to rely on adjudication. Articulated agency reasons were dual: 1) to deter "pending future judicial interpretation of the law on a case-by-case basis" and 2) "consideration [which] question the advisability of issuing guidelines for the examination of patent applications on computer programs."³¹ The latter reason gives substantial credence to the observations of commentators concerning the vagueness of the agency's rules and its lack of expertise in the software area.

Chief Judge Woley, concurring in Application of Prater, articulated

these concerns of experience and ability to clarify:

It is questionable . . . whether a broad rule either sanctioning or prohibiting the patentability of such steps in relation to computer programs [can be supported]. Where the line will be drawn can only be determined on a case-by-case basis in building, as best we can, sound and intelligent [decisions].³²

Rulemaking on software, as later perceived in the Patent Office, was flawed because of problems in interpreting the statute, clarifying legal categories to fit this technology and attaining agency experience with the technology. Undoubtedly, the fact that the software technology is novel, complex and dynamic heightened the normal clarification and experience problems faced by the Patent Office.

If rulemaking was flawed, adjudication proved no better. The Patent Office suspended consideration of most computer patent applications because of administrative problems. The office lacked classification techniques and the requisite search files, and cited an inability to economically perform prior art searches "because of the tremendous volume of prior art being generated" even if search files were present.³³ Any argument that adjudication allowed for slow, sound intelligent development of experience and policy under these circumstances seems ludicrous.

The vast majority of applications that the office did consider it denied. The CCPA reversed the Patent Office and granted most patents. And to the extent certiorari was granted, the Supreme Court reversed the CCPA. The CCPA then attempted to narrow any Supreme Court rulings.³⁴ This adjudicative ping-pong focused on statutory interpretation and necessarily heightened criticism of this ad hoc procedural-policy choice.

Adjudication, like rulemaking, had many flaws because of statutory problems and the new, massive, complex and ever-changing nature of software.

The software malaise in the Patent Office has forced an adjudicative/ rulemaking debate on a more general level--at least in terms of the statutory problem. The question is whether the courts can adequately define the statute through a case-by-case approach and whether Congressional legislation--rule-making--is necessary.

The Supreme Court in Gottschalk v. Benson 409 US 63 (1972) called on Congressional action for reasons identical to those in favor of agency rule-making:

If these programs are to be patentable, considerable problems are raised which only committees of Congress can manage, for broad powers of investigation are needed, including hearings which canvass the wide variety of views which those operating in this field entertain.³⁵

In addition to a belief in adjudication's inability to gather all pertinent facts, Judge Rich, dissenting in a CCPA decision narrowing Benson, stressed the need for consistency and certainty:

My colleagues of the majority take a narrower view of Benson and arrive at an opposite result in these two new cases . . . This, to me signals an urgent need to settle the question of patent protection for software by higher authority than this court so that the Patent and Trademark Office, the Federal judiciary as a whole, and the data-processing industry (hardware and software both) may know what the law on software patentability is. It is a socioeconomic issue with an impact of considerable magnitude, particularly on the practical operation of the Patent and Trademark Office . . . It seems to me like taking the problem of school segregation to court on a case-by-case basis, one school at a time.³⁶

The majority in the CCPA acknowledged that adjudication does not address "the broad public policy considerations involved" and called on Congress to do so. However, they seemed to disagree that a broad principle is necessary or urgent. For the majority the "unique technological aspects" of software

and the "changes wrought" illustrate "the undesirability of deciding the issues of patentability by mere use of a label computer program (or category?)." The majority felt themselves able to determine "issues presented in specific cases" with "particular claims."³⁷

The Patent Office itself has decided to lift its suspension of computer patent considerations. The office is following a case-by-case approach.³⁸ It is inferred that reliance on adjudication is more out of a compelling desire to do something, than out of a reasoned procedural-policy choice.

Adjudication as a tool to gain experience--the reason for its adoption in place of rulemaking--has not worked. Like rulemaking it has worked because of the complexity, pace of change and novelty of the technology. In adjudication this has been manifested in huge administrative burdens. Like rulemaking it has not worked because of the unending statutory interpretation battle.

Additionally, adjudication in software patents has been criticized above as haphazard, inconsistent, and confusing, and as lacking the ability to gather all pertinent information.

Adjudication does at least allow a final decision in particular fact patterns as the CCPA majority and the Patent Office seem to recognize. But it is by no means clear that decision for decision's sake is at all valuable.

Ironically, the proposed solution for rulemaking has been adjudication and the proposed solution for adjudication has been rulemaking. A vicious circle has developed. It seems evident that at least in the field of patents--with its unique statutory definitional problem--the procedural-policy choice is not determinative of the ills at hand.

The underlying tension, irony, absurdity and illogic of a procedural-policy focus here may be highlighted even more by focusing on firmware.³⁹

Even after the issue of software patentability is resolved satisfactorily, currently rapid advancement of computer technology--in the guise of firmware--is adding new uncertainty, complexity and potential inconsistency to the patent area.

It would seem that in December of 1977, after living through the Patent Office's tormenting experience in rulemaking and adjudication, no one knowledgeable could focus on the firmware problem from a procedural-policy perspective. Yet that is just what one author did. Ortho Ross III, a partner in New York's major patent litigation firm, surely very aware of the Patent Office experience, proposed this:

Empirical evidence of the current position of firmware in the American computer industry is too sketchy at present for an informed judgment to be made on whether firmware should be patentable as a matter of social policy. When more evidence becomes available, consideration of this issue should proceed in a fashion similar to the analysis of whether ordinary software should be patentable. Specific legislation on firmware would introduce certainty into the area from the beginning. In light of the fact, however, that firmware technology continues to change, consideration of firmware patentability by the courts in individual cases is perhaps the best way, for now, of dealing with new developments as they arise.⁴⁰

Arguably, Ross is basically correct but just did not go far enough. He is undoubtedly correct that firmware evidence is "too sketchy" and that the "technology continues to change." But his conclusion that firmware must follow software seems untenable and masochistic in light of the history sketched.

Perhaps the conclusion is to do nothing, because in the patent area neither adjudication nor rulemaking can cope with a highly complex and quickly changing technology. Or perhaps the tormenting Patent Office experience can be narrowed simply to the statutory delineated problem. In candor, the patent

materials have been developed in detail with the hope that the reader would be sufficiently moved by the inherent procedural-policy dilemma to support the former conclusions.

BANKING AND COMPUTERS:

DEFINING VERSUS ELIMINATING LEGAL CATEGORIES

Technological developments in the banking field have produced two areas where regulators have formulated policies through rulemaking: electronic funds transfer systems (EFTS) and the provision of data processing services by banks.

One problem in the EFTS area has been the issue of whether a Customer-Bank Communications Terminal (CBCT) constitutes a branch of national banks. In 1974 the comptroller ruled that CBCT's were not branches, thus permitting national banks to establish CBCT's without geographical restrictions and regardless of state laws controlling branching.⁴¹

It appears the comptroller made the correct procedural-policy choice. The comptroller was faced with a very specific issue, i.e., whether CBCT's should be considered branches, and he responded to it by constructing a very specific rule. Unlike other agencies the comptroller was faced with an issue and a subject matter with which he was quite familiar. The comptroller had dealt extensively with the issue of the "branching" definition. The subject matter, CBCT's, was familiar to him because of their extensive use in some of the states.⁴²

Further, the comptroller was clear as to his policy and the reasons for it. He wanted to allow national banks to be able to use CBCT's in order to put them on a competitive par with savings and loan associations and state banks which could already use them.⁴³ As one commentator put it,

The overriding factor in [the Comptroller's] ruling was the competitive aspect of branch banking . . . [It was] a necessary step to enable national banks to meet existing and potential competition.⁴⁴

The comptroller also had case law to back up his interpretation.⁴⁵ In addition, the comptroller stated that he wanted national banks to be allowed to experiment with CBCT's while the National Commission on EFTS studied the situation.⁴⁶ In other words, the commissioner's policy was to free the EFTS technology from "an archaic legal structure . . . and legal quagmire."⁴⁷

Given the comptroller's certainty concerning the issues, his policy goals, and his reasons for them it is inferable that he wanted the clarity and comprehensiveness that rulemaking affords, in order to eliminate uncertainty among national banks on this issue. This climate of certainty would allow the national banks to experiment freely with CBCT's and compete effectively with other financial institutions. It is true that the comptroller lost the flexibility which adjudication affords, but this was not a very important consideration given that the comptroller's ruling amounted to a decision not to regulate. Consequently, the fact that technology was changing rapidly in this area was not a major concern.

Additionally, the specificity of the issue made it amenable to easy amendment, either through renewed rulemaking or through adjudication.⁴⁸

Finally, rulemaking gives the comptroller the ability to take the initiative in making policy in this area. Considering the past controversies surrounding the branch banking problem it is important that the regulator be able to finely time the content and timing of his policy initiatives, and rulemaking allows this.

It is enlightening to contrast the success of rulemaking in this context with the comptroller's effort at defining what data processing services

banks may offer. In the branch banking situation the comptroller was attempting to free dynamic technological development from the constraints of old legal structures, thus making the use of rulemaking appropriate; whereas in this area rulemaking was used to formulate just such a legal structure.

In 1974 the comptroller issued an interpretive ruling which attempted to create a broad regulatory framework to govern this subject. Unlike branch banking, no preexisting regulatory structure existed aside from a general statute prohibiting activities not "incidental" to banking.⁴⁹ The comptroller resorted to general rulemaking which resulted in vague categories that attempted to define what is "incidental" to banking. The comptroller was incorrect in approaching this problem by general rulemaking. The vagueness of the categories defeats the "clear standard" function of rulemaking and instead creates substantial uncertainty. This in turn poses substantial enforcement problems as rapid technological changes make it difficult to categorize particular offerings and allows banks to evade the rules by modifying or characterizing their computer service offerings in certain ways. Indeed, the flexibility that adjudication offers would appear to be at a premium in this area of rapid change and development.

Additionally the regulator is basically lacking the familiarity with the subject matter necessary to promulgate effective rules. The many challenges to the regulation in the courts illustrate its weaknesses.⁵⁰ It seems that adjudication would have been more appropriate here in order to gain experience and allow for flexibility while fulfilling the clear statutory command to regulate in this field.⁵¹

In sum, the banking area illustrates how the effect of a rapidly developing subject such as computers on the rulemaking/adjudication decision may

depend a great deal on the preexisting legal structure that the regulator must cope with. As shown above, rulemaking works well when there is a preexisting legal structure and the regulator is attempting to deal with a narrow problem. On the other hand, general rulemaking is an ineffective way to generate a broad regulatory framework.

LABOR--JOB ELIMINATION:

THE ADJUDICATION PARADIGM

One area of computer influence in the labor field is automation--the replacement of human labor by machines. The normal resolution of issues here is by case-by-case adjudication in the form of arbitration of contracts developed through the market system.⁵² No evidence of rulemaking has been found. Apparently the adjudication approach is considered thorough, efficient, and effective.

Surely the problem has been sufficiently discussed so as to make a prospective rulemaker both aware of and expert in dealing with such problems. The underlying reason for the choice of an adjudicative approach appears to be that the problems are specialized to particular situations such that general principles are not effective. Up to this point the impact of computer technology in this area has not been such as to compel a reconsideration of the initial procedural-policy choice.

Some mention of prospective need for rules has been found. The International Association of Machinists believes that reliance on contracts (and adjudication) "cushion the impact of technological change" and fear that without "imaginative governmental policies" (which implies rules) sole reliance on "market forces" will be "disastrous" in controlling the change. For

the machinists, "change is inevitable, but not uncontrollable."⁵³

This notion that the pace of change is such that it must be controlled by public forces is paralleled in Detroit Newspaper Publishers v. Typographical Union 471 F2d 872 (6th cir. 1972). The union in that case sought to enjoin the publishers' use of new equipment prior to arbitration. The union relied on a National Labor Board Rule promulgated under the aegis of the Fair Labor Act which preserves the "status quo" until arbitration in order to prevent "irreparable harm." No such irreparable harm was proven here. The time necessary to implement any change was found to be great enough to insure that the normal process (contract adjudication) would prevent any harm.

Of course the prospective need for public regulation of the market here does not mandate either procedural-policy choice. It does, however, reopen the debate over procedural method which had been settled in the contract dispute/technological change area.

The conclusion of note is that where the computer is used for non-novel and slow-changing applications, the procedural-policy choice may not be affected by technology. In this case, because of non-technological fact variations, adjudication has proven effective. As the nature of the technology changes--in this case as the pace, time and speed of technological effects hasten--the procedural-policy must be reconsidered.

EXPENDITURE TAXATION--CAPITAL OR CURRENT EXPENSE:

THE RULEMAKING PARADIGM

A software taxation issue is whether the costs of development of software are to be treated as current expenses, deductible in full in the year incurred, or as capital expenditure, deductible over a number of years.

The initial Internal Revenue Service (IRS) position was that software must be capitalized. This decision was reached in an advisory opinion pending notice and comment rulemaking. The advisory opinion was issued without external input.⁵⁴ After outside opinions were received, the IRS reversed itself and allowed the taxpayers' election as to the proper treatment. The only qualification was that the taxpayer apply his/her choice consistently, that a change in taxpayer treatment of software would require approval by the commission.⁵⁵

In choosing rulemaking, the IRS adopted a clear rule easily subject to consistent and uniform treatment, fair to all parties involved. Problems in acquiring experience to deal with the subtleties of the applications of a more complex rule were eliminated by what was in essence deferral of the decision to the individual. So too, the need to deal with the novel, complex and dynamic attributes of the technology was deferred.

The agency apparently felt that the costs in adopting and presiding over a case-by-case approach, by itself or as a necessary concomitant to a complex rule, were much greater than any governmental monetary gain from such a flexible approach. The very simplicity of the deferral plan allowed the agency to successfully resort to rulemaking and take advantage of its clarity.

Thus, the particular nature of the subject matter compelled the agency to resort to deferral which in turn made rulemaking possible.

The agency's scheme had all the advantages of rulemaking and (by deferral to the market system--the individual) eliminated those procedural problems endemic to such technological subject matter and/or normally present when adjudication is not used.

It must be noted that even this apparent model of clarity is not without

its particularized application problems. Critics have raised issues concerning the definition of "software" and "development," and the role of leases, licenses, and installation fees.^{56,57}

LABOR--PROGRAMMERS AND OVERTIME WAGES:

A WORKING EXAMPLE OF ADJUDICATION AND RULEMAKING SYMBIOSIS

The issue here is whether employers must pay data processing employees overtime wages. The secretary of labor, after receiving oral and written information from interested parties, established guidelines as to whether these employees were within the "professional capacity" exception to the overtime wage requirement of the Fair Labor Standards Act.

In rendering the rule the secretary opted for "broad guidelines" instead of an exact and particularized regulation.⁵⁸ The secretary noted that this "new occupational area is in a state of flux" and at present there is "too much variation in standards and academic achievement" to reach "logical" conclusions (emphases added).

The secretary's guidelines articulate factors such as primary duty, amount of discretion, and employment directly related to management policies in establishing a list for guidance in a case-by-case resolution by the courts. It became the court's duty, by employing these guidelines, to decide whether the particular employee fit the exception or not:

The Administrator's policies are made in pursuance of official duty, based upon more specialized experience and broader investigations and information than is likely to come to a judge in a particular case. They do determine the policy which will guide applications . . . The rulings . . . do constitute a body of experience and informed judgment to which courts and litigants may properly resort for guidance.⁵⁹

It should not be inferred that the secretary's rule has no independent binding force. One court, for example, allocated punitive damages against an employer because of a "conscious determination to disregard the mandates" of the rule.⁶⁰

Thus, here, the secretary of labor opted for a symbiotic, procedural relationship. To the extent possible broad principles were articulated in rules. However, both because of the technology's characteristics of novelty and change, and because of factual variations in applications, significant reliance was placed on adjudication.

It is possible to speculate further as to why this mixed approach was chosen and succeeded here. Unlike other agencies already studied, the rule-maker and the courts were faced with a familiar definitional problem--the interpretation of the professional capacity exception. Consequently they were able to effectively utilize general rules in adjudication. Further, while the characteristics of the computer field were important, the factors relevant to the labor issues transcended them.

SECURITIES--NATIONAL MARKET SCHEME:

USE OF NON-BINDING RULES

A major issue in securities today is development of a centralized securities market with its concomitant electronic information system and comprehensive communications linkage scheme. The focus to date has been on implementing effective local market linkages.

The Securities and Exchange Commission (SEC) in 1973 asked for comments from all concerned parties (explicitly including "government agencies"). The commission's intent, through rulemaking, was to "provide direction . . .

[and] sketch at a broad regulatory framework" within which the central market system would operate.⁶¹

On February 4, 1978, after the intermittent information collection and Congressional direction to "facilitate the establishment of a national market system," the SEC issued what it called an "intent to commence rulemaking, if necessary, to implement [its] initiatives."⁶²

It is important at the outset to be aware of exactly what the commission did. The SEC did not promulgate a binding rule. It did not require anyone to do anything. Instead the SEC simply set forth with particularity its view as to those steps "which it believed necessary to facilitate development of the system."⁶³ It was the SEC's wish that the actual steps "be undertaken voluntarily by the self-regulatory organizations" (e.g., The New York Stock Exchange).⁶⁴

The SEC was very loath to even suggest "its view." It only did so because of "continued uncertainty as to the mechanisms and principles upon which [the] system must be based, and the role the Commission will assume in shaping the system" and because of the "inability of several discrete . . . segments of the securities issues to surmount the problems presented by the diversity of their interests and to settle upon a common course."⁶⁵

The commission was so concerned with these problems of uncertainty and diversity, however, that it stood "prepared to consider appropriate means of ensuring [a national market] result."⁶⁶

In essence, nonetheless, the commission's basic procedural-policy choice was to refrain from developing binding rules. Its choice--like our suggestion after the patent materials--was to defer to the private sector. The commission felt the development "should remain essentially an evolutionary

process, free of the rigidity inherent in any Commission attempt to dictate the ultimate configuration of the system."⁶⁷ The SEC felt "a change of this magnitude probably should seem as a result [of] evolutionary" free market forces. It felt it would be "difficult to foresee and provide against the problems and difficulties which might arise."⁶⁸

The SEC did indicate it would use its rulemaking and adjudication powers in such areas as surveillance of the market and centralized governance "after progress has been made in achieving effective market linkage."⁶⁹ The commission felt these "refinements and adjustments . . . will suggest themselves."⁷⁰

Thus in attempting to develop local market linkage--the area where the novel, complex and dynamic software technology is important--the agency chose a procedural-policy choice of deference. The "deference choice" relies on evolutionary fluidity which, of course, is the reason for the adjudicative procedure. Adjudication was not used because of the magnitude of the task, the complexity of the issues, and the unpredictable nature of future problems. Only out of a concern for reconciling diverse interests and fostering certainty--especially as to the role the commission would play--did the SEC promulgate even broad policies.

As the novel, complex and dynamic character of the issues diminishes, and the problems become more familiar to and traditional for an agency, the SEC indicated a traditional procedural-policy choice of either rulemaking or adjudication would be developed.⁷¹

TAXATION--INVESTMENT TAX CREDIT:

EXAMPLE OF SPECIFIC RULEMAKING

It has been previously demonstrated that broad rulemaking involving a changing and novel technology is fraught with problems of fact variation and agency inexperience. The result has been collapse of the rule (as in the patent and communication sections) or massive reliance on adjudication (as in the overtime wage section).

Another alternative to broad rulemaking is possible. A rule can be applied to a specific fact pattern. Commentators argue that this would insure the maximal information flow inherent in rulemaking as well as allow for the flexibility inherent in adjudication. An agency through specific rulemaking could develop its policy and clarify its perception of the technology quite slowly.⁷²

An example of such a specific rulemaking approach is found in the question of whether to allow an investment tax credit for computer software. In 1971 the IRS decided that when hardware (and software necessary to it) are purchased together, an investment tax credit is allowed.⁷³ In 1977 the service ruled that when the software is part of a non-creditable fire detection system, no tax credit is allowed.⁷⁴

Although specific rulemaking certainly is distinct from adjudication, the authors perceive no substantial significance for the difference in this highly complex and dynamic technology area. The main distinction is that rulemaking procedures generally afford more information. However, it seems unlikely that parties not interested in the particular fact applications being considered would be moved to present such information.⁷⁵

CONCLUSION

The preceding examples of procedural-policy choices made by various agencies confronted with the problems posed by computer technology allow us to draw some general conclusions.

The choice between rulemaking and adjudication is often transcended and determined by the more general issue of whether regulation is desirable and/or feasible. In five cases--communications, patents, bank data processing, expenditure taxation, and securities--the negative effect of dynamic technology on the efficacy of rulemaking and adjudication led us to the conclusion that effective regulation was not feasible and therefore should be deferred.

In other words we have argued that tinkering with procedures can only have an effect when one is dealing with a viable and working schematic with only a few kinks. Procedure may be able to smooth rough edges but it is unlikely that it can correct maladies in core concepts.

In our study the core malady has been fast technological change. For the agencies this fast technological change has often meant that problems are not foreseeable and that the agencies cannot become expert as to the issues. Communications and bank data processing areas represent case studies in the failure of rulemaking. The patent materials demonstrate rulemaking and adjudication failures. Collectively these studies led us to our proposal of deferral. In the expenditure taxation and securities areas the agencies adopted this policy of deferral.

The tax expenditure taxation area represents the rare circumstance when pure non-regulation is an option. In most cases a policy of deferral

requires some minimal regulation: problems in defining statutes, as in patents; problems in defining problems, as in communications; statutorily mandated regulation, as in the regulation of non-bank activities; a perceived need to spur the industry, as in creating a national securities market--all require some agency response. Obviously a further choice between rulemaking and adjudication is necessary to effectuate this minimal regulation.

In general, in this minimal regulation and dynamic technology area, adjudication is preferable. Adjudication allows the agency to educate itself and achieve some flexible control until technology slows and some educational development occurs so that general rulemaking is feasible. The degree of adjudication in turn depends on situational factors, such as the statute governing the agency and the particular goal to be achieved. For instance, banking statutes mandate some regulation of non-bank activities so the use of adjudication must be great. In securities, to the extent the national market develops from private initiatives, adjudication should only be used to deal with unforeseen developments. In the communications and patents areas only the most necessary adjudication should be used until the agencies, courts and Congress are better prepared to deal with the problems technology presents.

Of course, situational factors may be such so that rulemaking is feasible. An example of an exception to the adjudication preference is found in the securities area. Like adjudication, the SEC's use of non-binding rules allowed the agency to educate itself and achieve some flexible control. Of course this agency's choice of rulemaking is limited to those cases where there are relatively clear policies that are for the most part independent of technological flux.

Like the SEC policy of national market formulations, we found other

examples where the nature of the technology played a role tangential to other variables and policies. In these instances the choice between procedural methods turns on the administrative theory factors articulated in the introduction.

In the branch banking area the agency's policies and underlying results were clear and the issues were narrow. Rulemaking was found to be preferable. We noted that, in general, rulemaking is more apt when the agency is attempting to free technology from the constraints of an old legal structure rather than when it is attempting to impose just such a structure on technology. In general we felt the imposition of legal categories posed complex and unclear issues and policies more conducive to treatment through adjudication. The latter conclusion represents a fall-back to the deferral-minimum regulation mentioned above; as the technological factor increases in importance, the preference for adjudication and ultimately deferral increases.

The labor-job elimination situation represents an example of administrative theory, independent of technology, dictating adjudication. We again noted that in this area, the nature of the technology may rise to a level of importance so as to require a reconsideration of the procedural-policy choice. Again such reconsideration may ultimately yield to deferral.

Similarly, the labor-overtime wage study represents a case where administrative theory calls for an adjudication and rulemaking symbiosis. In this instance, while computer characteristics were important, the well-known factors relevant to the labor issue transcended them.

In essence what we have portrayed is a continuum. Without the technology, administrative theory dictates the procedure. As the technological factor increases in importance, the procedural-policy choice may have to be

reconsidered. Generally when technology is an important factor, adjudication is to be preferred. Ultimately the impact of a highly novel, dynamic and complex technology dictates deferral, if possible.

In the final analysis the effect of computer technology on the choice between rulemaking and adjudication is important to substantive results. To the extent that the two methods achieve different results, the technological impact on the procedural choice will affect the substantive outcome. In addition, to the extent that one or both procedures are rendered ineffective by the nature of the technology, the feasibility and desirability of regulating at all is thrown into serious question.

NOTES

Introduction/Rulemaking and Adjudication

¹SEC v. Chenery Corp. 332 U.S. 194 (1947) provides an excellent introduction into the judicial review of an agency's rulemaking/adjudication choice. In general, "the choice is one that lies primarily in the informed discretion of the administrative agencies." Chenery at 203.

²For a discussion of the problems surrounding the rulemaking/adjudication distinction see M. C. Bernstein, The NLRB's Adjudication-Rulemaking Dilemma Under the APA, 79 Yale L. J. 571 (1970).

³For a more extensive discussion of this topic see David L. Shapiro, 78 Harv. L. Rev. 921 (1965).

⁴There is a danger of overstatement here. While on the whole this is true, an agency could announce a policy in a single "landmark" case if it so chose.

⁵Shapiro, op. cit., p. 935.

⁶In general it may be said that another equitable consideration in favor of rulemaking is that regulations have a prospective effect and thus do not penalize parties for relying on past law, as is often the case with adjudicatory orders that have a retroactive effect. However, adjudicatory orders may be made prospective in nature, while "retroactivity is by no means unknown" in rulemaking. See Shapiro, op. cit., p. 933.

Communications

⁷7 FCC 2d 11 (1966).

⁸47 C.F.R. Sec. 67-702 (1976).

⁹The rules created categories consisting of communications, hybrid communications, and data processing and hybrid data processing. The hybrid categories were designed to distinguish between "mixed" services on a "primary business theory." Common carriers could offer services falling in the latter two categories only if they set up separate corporate subsidiaries. The data processing industry in general was allowed to remain unregulated.

¹⁰See e.g., in Dataspeed 40/4 52 F.C.C. 2d 21 (1977) and Western Union SICOM (II) 59 F.C.C. 2d 140 (1976).

¹¹ 61 F.C.C. 2d 103 (1976); a Supplemental Notice of Inquiry, 64 F.C.C. 2d 771, was issued in 1977.

¹² Herbert E. Marks and Stephen R. Bell, Computer Communications: Government Regulation, 1977 Wash. U.L.R. 479, 488 (1977).

¹³ 28 F.C.C. 2d 267, 275 (1971).

¹⁴ Ibid., p. 276.

¹⁵ 28 F.C.C. 2d at 290 (dissenting opinion) (1970).

¹⁶ Comment, Interdependence of Communications and Data Processing, 73 Nw. U. L. Rev. 307, 312, 324 (1978).

¹⁷ See note 10, supra. Interdependence of Communication, op. cit., pp. 318, 320.

For instance, in Western Union SICOM (II) (see note 10, supra), The commission's decision concerning the category that a "mixed" service fell into appeared to turn upon the fact that Western Union itself characterized it as "data processing" in its promotional efforts. One author noted that, "[The FCC] failed to offer a serviceable definition for later use . . . It may well be possible for the FCC to reach opposite classification conclusions due to how each service is technically performed and how it is marketed."

¹⁸ Scott Cameron Whitney, Technical and Scientific Evidence in Administrative Adjudication, 45 U. Conn. L. R. 37, 41 (1976).

¹⁹ Interdependence of Communication, op. cit., p. 313.

²⁰ Notice of Second Computer Inquiry C.L.S.R. Sec. 6-4, art. 8, p. 4.

²¹ It is projected that by 1981 over 65 percent of the investment in operational computers will have a communications capability.

²² Ibid., p. 331.

²³ See Glen O. Robinson, The Making of Administrative Policy: Another Look at Rulemaking and Adjudication and Administrative Procedural Reform, 118 U. Pa. L. Rev. 428, 531 (1970).

²⁴Ibid., p. 434; quoting from J. Landis, Report on Regulatory Agencies to the President-Elect 53 (1960).

²⁵Note, G.T.E. Service Corp. v. F.C.C., 15 Boston College Industrial and Commercial Law Review 162 (1973).

²⁶28 F.C.C. 2d at 301.

Patent

²⁷855 Off. Ga. Pat. Off. 829 (1966).

²⁸829 Off. Ga. Pat. Off. 865 (1966).

²⁹855 Off. Ga. Pat. Off. 829 (1966). The particulars of the rule may be found here. They are not important for our discussions.

³⁰Class Notes, March 6, 1979.

³¹868 Off. Ga. Pat. Off. 349 (1969).

³²415 F2d 1407. It should be noted that the Patent Office in questioning the advisability of issuing guidelines cited Application of Prater.

³³"To Promote the Progress of . . . Useful Arts," Reports of the President's Commission on the Patent System (1966) at 13, cited in Gottschalk v. Benson 409 US 63 (1972). "Prior art" is a statutory phrase intended to encompass all inventions in the "art" of software which would make the "invention" to which a patent is desired just a repetition of an older idea.

³⁴Tavey, "Patents III--Forces on Software Patents" at 31. Examples of C.C.P.A. cases narrowing S. Ct. holdings are Application of Chatfield 545 F2d 152 (1976) and Application of Morehouse 545 F2d 162 (1976).

³⁵See also similarly articulated views in Parker v. Flook 46 USLW 4791 (S. Cit. 1978).

³⁶Application of Chatfield 545 F2d 152 at 161.

³⁷Id., pp. 156-157.

³⁸954 Off. Ga. Pat. Off. 550 (Dec. 1976).

³⁹"Firmware" is the ill-defined technological cross between software and hardware.

⁴⁰"The Patentability of Software and Firmware," 2CLS Sec. 4-2 Article 5 (1977).

Banking

⁴¹This ruling was withdrawn following a number of court cases contradicting the comptroller's reading of the statute. The statutory concerns are of no importance here. See Independent Bankers Assn. of America v. Smith 524 F2d 921 (4th Cir. 1976). 12 C.F.R. Sec. 7.7491 (1975).

⁴²See Alan S. Noar and Stanley B. Stein, EFTS: The Computer Revolution in Electronics Banking, 5 Rutgers Journal of Computers and the Law 429, 476 (1976).

⁴³The Federal Home Loan Bank Board ruled earlier in 1974 that S & L's could use CBCT's. See 40 Fed. Reg. 27477 (June 30, 1975). Also some states allowed state chartered banks to use CBCT's.

⁴⁴Noar and Stein, op. cit., p. 468.

⁴⁵See First National Bank in Plant City v. Dickinson 396 US 122 (1969).

⁴⁶Ibid., p. 473.

⁴⁷J. Thomas Franklin, Regulation of EFT Revolution, 37 U. Pitt. L. Rev. 693, 794 (1976).

⁴⁸40 Fed. Reg. 21700; This is an amendment to the earlier ruling.

⁴⁹12 C.F.R. Sec. 7.3500 (1974).

⁵⁰For an example of a MINO amendment see National Retailers Corporation of Arizona v. Valley National Bank 411 F. Supp. 308 (1976).

⁵¹But note the procedural-policy choice of deferral to the market mentioned in the patents and communications sections where the need to regulate were not so clearly mandated.

Labor--Job Elimination

⁵²The underlying notion in the contracts is that no technological innova-

tions should be utilized but that employees cannot be laid off and can be transferred on to "similar" work at "same compensations." Representative arbitration cases finding for and against the employer respectively are Van Norman Machine Co. 1 CLSR 72 (1957), A.S. Abell Co. 1CLSR 330 (1964).

⁵³"Automation--The IAM Viewpoint," 1 CLS 22-4 Article 4 at 3 (1968).

Expenditure Taxation

⁵⁴"Memorandum re Capitalization Service" (Jan. 1969). 1CLS App. 2-3.2a.

⁵⁵Rev. Proc. 69-21 (Oct. 1969). It is of note that the adoption of rule-making procedures was an ingredient in the changed agency position.

⁵⁶"Federal Software Taxation," Bigelow, 1 CLS 923 Article 1. For the author, "The new revenue procedure has settled many of the simpler problems. But it has not solved all problems, nor the complex ones. As time goes by, we may well find that the new problems . . . provide lots of employment for lawyers and accountants."

⁵⁷The agency itself has been forced into the adjudicative mode as to what constituted a taxpayer "change" in treatment. The case in holding that a different tax treatment in a new as opposed to an old computer seemed very straightforward, but may foreshadow more complex issues. Rev. Ruling 71-248.

Labor--Programmers and Overtime Wages

⁵⁸"Programmers as Exempt Employees" 29 CFR Pat 541. 1 CLS App. 2-4a (1976).

⁵⁹Zacek v. Automated Systems Corp. Ct. of Civil Appeals, Texas 541 SW 2d 516. 6 CLSR 240 (1976). See also Horne v. Singer Business Machines, Inc. WD Tenn. 413 F Supp 52. 6 CLSR 228 (1976).

⁶⁰Pezzillo v. General Telephone M.D. Tenn. 414 F Supp 1257. 5 CLSR 1435 (1976).

Securities

⁶¹"The Central Market System--A Summary," SEC (1973) 4 CLS Sec. 8-3 Article 1.

⁶²"Development of National Market System," SEC (1978). 43 Fed. 4354. 17 CFR Part 240. 4 CLS Sec. 8-3 Article 2 at 1.

⁶³Ibid., p. 8.

⁶⁴Ibid., p. 10.

⁶⁵Ibid., p. 8. Emphasis added.

⁶⁶Ibid., p. 10.

⁶⁷Ibid., p. 8. Emphases added.

⁶⁸Ibid., p. 16. Emphases added.

⁶⁹Ibid., p. 16. Emphases added.

⁷⁰Ibid., p. 17.

⁷¹For an example of a binding rule in this area see Rule 17a-15 (amended 1974--On Reporting of Market Transaction). 4 CLS App. 8-3b. For an adjudication see Bunker Ramo Corp. SEC (1976--allowing a temporary except to 17a-15 for changeover) 41 Fed. Reg. 29499. 6 CLSR 284.

Taxation--Investment Tax Credit

⁷²K. Davis. Administrative Law Treatise, 1970 Supp., at Sec. 6.14 (1971). Also W. Lavey, "Patents,II: Rulemaking Approach to Software Patents" at 3-5, 27-29.

⁷³Rev. Rul. 71-177.

⁷⁴Rev. Rul. 77-362.

⁷⁵In the rest of this paper, specific rulemaking and adjudication are treated as one. It is left to others to refine our thesis--the distinction was introduced in the interest of completeness of treatment.

