Unilateral or bilateral rule.	Existing federal rule.	Sustainability of federal policy; sustainability of firm.	Invalidation of rule.	Supremacy & Commerce Clauses.
Unilateral or bilateral rule.	Investment based on existing bilateral rule.	Sustainability of property rights system; sustainability of bilateral rule.	Invalidation of rule.	Contract Clause.
Unilateral rule.	Prior conduct.	Sustainability of political process (by preventing abusive legislation).	Invalidation of retroactive rule.	Ex Post Facto Clause.

Fundamentally, the sustainability problems depicted in table 6 arise from prior investments - whether in real property, based on existing contracts, or based on existing bilateral rules - or prior conduct. The discussion in Section III also recognized sustainability problems arising from preexisting circumstances when changes in regulatory rules occur. However, the only preexisting circumstance commonly addressed in the economic literature is the existence of a bilateral commitment in the form of a regulatory contract. In this regard, the economic literature offers remedies in terms of the recognition of expropriated investments, whereby either government is compelled to compensate for the diminished value of or inability to recover the investment or the firm is permitted to compensate the government to avoid the loss. Beyond that, little guidance is given as to how to transition an entire industry from one regulatory regime to another.

Yet, prior constitutional jurisprudence provides extensive experience in addressing expropriation problems under specific circumstances. The Takings and Due Process Clauses address expropriation problems with regard to existing real property rights and the sustainability of utilities under existing bilateral commitments. The Supremacy and Commerce Clauses address expropriation problems resulting from the conflict between federal and state rules, and the Contract Clause addresses those problems arising from conflicts with existing public or private contracts. As such, the case law does provide us with some critical insights for addressing changes from traditional regulation to a more competitive environment.

First, governments must better anticipate the new confiscation problems that may arise from altering significant aspects of existing bilateral commitments with traditional telecommunications providers. The existing case law is based on confiscation problems that arose from ratemaking decisions. It is likely that new types of confiscation problems will arise with the elimination of the monopoly franchise, such as government's attempt to asymmetrically impose cross-subsidy requirements and carrier of last resort obligations. But likewise, the courts must be willing to grant remedies for these new types of confiscation by permitting a more expansive reading of the Takings and Due Process Clauses.

Second, governments must be willing to renegotiate or establish new bilateral commitments as a whole. Piecemeal changes in regulatory rules may render existing, modified, or even new commitments unsustainable. This process can be facilitated if the courts are willing to interpret the Contract Clause so as to more readily recognize when a public contract exists. For example, the courts should recognize the traditional regulatory contract between the state and a LEC, notwithstanding perhaps the lack of certain legal terms it traditionally seeks to determine the existence of a public contract. In this way, a remedy will be more readily available if action by that governmental unit breaches the contract. Furthermore, the government will then have a greater incentive to negotiate a sustainable bilateral commitment in the first place.

Third, we should be more attentive to the ramifications of conflict between federal and state rules. New types of federal-state conflicts may arise, the effects of which we have little experience with, due to the rapidity of the transition from monopoly franchises to competition. However, this will likely require that the standards for determining the need for federal preemption under the Supremacy Clause will have to be broadened. In particular, the impossibility standard will need to be interpreted more broadly to include situations where the "impossibility" does not become apparent except upon analysis over a longer time period or through the interactions of complex combinations of governmental rules.

VI. Summary and Conclusion

New technologies and a changed regulatory philosophy are leading to a rapid dismantling of the decades old regime of franchised monopoly in telecommunications. Performance obligations once carried out as part of an all encompassing bilateral commitment between service provider and regulator are now being administered as unilateral rules, or conditions of service. This still ongoing evolution of a new regulatory regime has proceeded without serious consideration of the types of problems and goals the old regime might have been particularly well-suited to address, and, more importantly whether unilateral rules imposed on competitive firms are adequate remedies for these same problems and goals.

To address this fundamental question of regulatory reform in telecommunications, we examined and compared the policies employed in support of universal service goals under the old bilateral commitment regime and the emerging regime of unilateral rules. A general conclusion of this economic analysis was that each of these unilateral rules are fundamentally incompatible with a competitive telecommunications industry for at least one of the following three reasons: (1) they are applied differently to different firms, resulting in rule-based advantages that lead to inefficient competitive outcomes; (2) difficulty in monitoring compliance leads to competitive advantage based on differential ability to evade them and, consequently, a strong incentive to do so; or (3) the investments that must be incurred to satisfy these rules are sufficiently at risk to regulatory expropriation as to preclude voluntary provision of service at desired levels of quality, continuity and price. The solution to the first two problems is to convert unilateral rules to bilateral agreements while the third problem must be addressed through bilateral commitments. Failure to recognize these limitations will eventually lead to inconsistencies and contradictions within the emerging regulatory regime that will have to be corrected by revision of the rules employed.

Unfortunately, the economics literature provides little guidance as to how to manage the transition to a more competitive regime without sufficiently violating the legitimate expectations for investments made under the old regime so as to make such bilateral commitments that will be required in the future difficult to achieve. While this analysis suggests that it is important, going forward, to try to anticipate and deal with potential confiscation problems before they arise, this recognition of a general principle does little to help us through the transition between regimes that is already well underway. A review of the legal literature suggests, however, that a broader interpretation and application of the Takings, Due Process, Contract, and Supremacy Clauses, by expanding the scope of governmental liability, would force policymakers to be more attentive to the financial interests of private parties when imposing regulation for social goals. If such Clauses are applied expeditiously, so as to mitigate transaction costs and time delays in providing remedies, then a more efficient and sustainable transition in regulatory regimes to achieve universal service goals with local competition will likely occur.