Federal regulation of natural gas has been an unmitigated disaster, leaving in its wake declining production, crippling shortages, and the promise of rising prices.



The Controls Are on You by Milton Copulos

HE PHONE LINES lit up early on the morning of September 23, 1981, as the Department of Energy's Office of Congressional Liaison began laying the groundwork for the long-anticipated announcement of the administration's plan to decontrol natural gas prices. After a fast start on the energy front decontrolling oil prices and calling for the abolition of the DOE-the Reagan administration had bogged down. The fight over the first year's tax and budget cuts simply had left no time for energy issues, and especially none for gas decontrol. Recognizing the gas issue as a political "hot potato," officials pleaded with decontrol advocates to "wait until the budget is passed."

Well, on that morning it looked as if the waiting was finally over. The Con-

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gressional Liaison Office had been working overtime for weeks, preparing lists of key senators and congressmen to notify in advance of the planned formal announcement, and making sure that each senator's and representative's schedule was in hand so there would be no trouble in locating them. Briefing papers and fact books were assembled, statistics compiled, press releases written. It was as professional a job as Washington had ever seen, and no one observing it could doubt for a moment that the real push was about to begin.

A press conference was scheduled at 2 P.M. on the appointed day, but no one expected any surprises. Most press insiders knew that the decontrol proposal called for a phasing in of market prices over several years, and that the process was to be completed by the time current controls would expire in 1985. In fact, it was generally accepted that the full cabinet meeting scheduled to take place immediately prior to the press conference was little more than a

formality. The Cabinet Council on Energy and Natural Resources was unanimous in its recommendation to lift price controls, and a substantial majority of the full cabinet shared this view. All in all, decontrol looked like a sure thing. In Washington, however, there are no sure things—at least until the president decides; and this time he decided that the time was not yet right to move on gas. With an election year fast approaching, deferral was really a death knell for natural gas decontrol.

The president's decision stunned DOE officials. All of their weeks of planning, drafting legislation, and drawing lobbying strategies, had just gone up in smoke. Utility interests, and their allies among certain gas drillers who feared new competition, had won the day. More important, the public had lost.

It has been said that politics makes strange bedfellows, but few political matings have been quite as strange as those that evolved on either side of the natural gas issue. In time, it took on a

sort of "through the looking glass" quality as environmental groups found themselves advocating the same positions as their old nemesis "Big Oil," huge pipeline conglomerates linked up with consumer groups, and liberal northeastern congressmen started talking about things like "free enterprise" and "the market system." Even the Independent Petroleum Producers, normally a bastion of freemarket advocates, was split on the issue. To the casual observer, the positions didn't have any rhyme or reason, but that was just a surface impression. Powerful economic and political forces were coming into play, forces that had been set into motion decades earlier and were finally making themselves felt. In short, to paraphrase the Fat Man's comment to Sam Spade on why the Crusades took place, "It was largely a matter of loot."

To understand just how the current mess got started, though, it is necessary to go back to the time that the politics of natural gas were first set into motion.

ATURAL GAS HAS

been used in the United States since the latter part of the nineteenth century. As far back as 1897 it was used as a fuel in twelve states. Still, most drillers viewed it as a nuisance, to be burned off to get to the oil beneath. Through the middle 1920s, the federal government paid little attention to the natural gas market, but things changed by the end of the decade, when a variety of interests began to warn of an alarming trend toward concentration in the natural gas industry. Responding to these expressions of concern, the Federal Trade Commission studied the gas industry and, in 1935, reported that small producers were indeed being squeezed out. At about the same time, Congress came under pressure from a number of midwestern city officials who claimed that the large pipeline companies were pricing their gas unfairly. For many congressmen who remembered the Standard Oil Trust, these complaints seemed to add credence to the trade commission's findings.

Congress responded by passing the Natural Gas Act of 1938. The act extended the jurisdiction of the Federal Power Commission, which had been created to regulate the interstate sale of hydroelectric power, to include



regulating the interstate sale of natural gas. Congress, however, limited the FPC's authority to gas flowing through pipelines, stating specifically that the act "... shall not apply ... to the production or gathering of natural gas." There were valid reasons for this limitation.

The search for natural gas is a risky business at best. It doesn't enjoy the relatively stable and secure returns on investment that characterize the electric utility business—the one the FPC was accustomed to regulating. The notion of trying to regulate gas production as if it were a natural monopoly—as utilities are supposed to be—was ludicrous on its face. It therefore made good sense to keep this portion of the natural gas industry beyond the FPC's grasp. As usual, however, the government just couldn't leave well enough alone.

In 1954 the Supreme Court, through the landmark Phillips v. Wisconsin decision, gave the Federal Power Commission the authority to set the wellhead price of natural gas sold on the interstate market. With this move, the Court effectively created a two-tiered market for natural gas. On the one hand, gas produced and consumed within the confines of a single state would remain free of federal interference. On the other, gas produced in one state and consumed in another would be subject to regulation by the FPC. In short order, though, it became apparent that the Court had handed the commission an impossible task.

The trouble was that the wide variations in cost typical of the natural gas industry made it impossible to regulate evenhandedly. As a result, it wasn't too long before the commission was buried under an avalanche of

appeals to its decisions. The backlog became so large that by 1960 it was estimated that even if the FPC tripled its staff it would still have taken until the year 2043 to process the 3278 cases it had pending. Logically, the commission should have abandoned the attempt to regulate the wellhead price of gas. Logic, however, has never been the strong suit of political bodies, and the FPC was no exception.

in the eyes of the commissioners, was one of paperwork generated by appeals of their decisions, they set out to

find a way to limit appeals. Eventually they decided to divide the country into five regions and set maximum producer prices for each region. Of course, these rates failed to allow for the vast differences in costs, and therefore rates of return, that existed between wells even within the same field, but that didn't matter. The change had nothing to do with what was fair, or what the market conditions were. It was aimed at reducing the paperwork the FPC had to contend with. As might be expected, the new approach was gravely flawed. In practice, the FPC froze interstate natural gas prices throughout the 1960s, giving higher-cost producers no incentive to produce for that market. The level of reserves earmarked for interstate sales began to plunge. In 1964 the ratio of reserves to yearly production—the cushion that gives producers time to seek new supplies as reserves are consumed—was 18.9, just a little under the optimal level of 20. By 1977, however, that ratio had dropped to 8.5, and total gas reserves carmarked for the interstate market had fallen to less than half the 1967 peak of 189 trillion cubic feet. Clearly on the controlled. interstate market, at least, a shortage was developing. On the uncontrolled, intrastate market, however, the picture was different.

In addition to being free from federal controls, most intrastate producers also had local regulatory bodies that allowed them to make a profit. Rather than declining, proved reserves earmarked for this sector actually increased slightly through the 1970s. Moreover, while the prices charged for intrastate gas were higher than those charged for gas sold between states, the price differential was not great enough to suggest the gouging widely

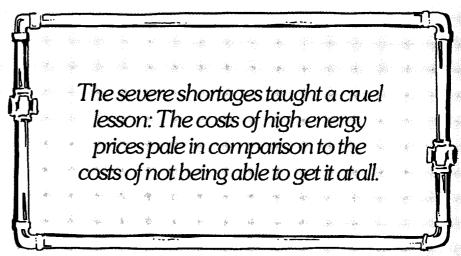
associated with monopolies, nor did it inordinately constrain demand.

It was not too long before the full folly of price controls became evident. As reserve ratios continued to deteriorate on the interstate market, low, controlled prices kept demand on the rise. It therefore became inevitable that shortages would eventually develop. By late 1970 the situation had grown so serious that the Federal Power Commission ordered some large natural gas consumers to curtail their purchases. The action foreshadowed the "share the shortage" mentality that was to become so prevalent during the Carter administration. This approach totally ignored the FPC's own responsibility for the decline in gas resources and, more importantly, set the stage for the myth that our nation was running out of natural gas.

When the commission did at last allow producers some price relief, it was too little and too late. Particularly damaging, though, was the fact that its policy of keeping prices artificially low throughout the 1960s created a vocal constituency opposed to any further increase, thereby ensuring overconsumption. Natural gas, after all, is a premium fuel. It is clean, convenient, and easy to transport. At a bargain price, gas was too good a deal to pass up-and few did. Once little more than a nuisance, natural gas grew to become America's sixth largest industry, wrecking the coal industry in the process. The trouble was, like any deal that seemed too good to be true, it was.

The shortages first felt in 1970-71 hit home with a vengeance during the winter of 1976-77, one of the coldest on record. Severe supply shortfalls wreaked havoc on the gas-consuming states of the Northeast. Emergency measures were enacted, plants and schools closed, business hours curtailed, but it still wasn't enough. The hard-hit regions were rapidly learning a cruel lesson: The costs of high energy prices pale in comparison to the costs of not being able to get it at any price. As the winter's toll of human suffering and economic disruption rose, Congress was bombarded by constituent mail insisting it "do something" about the situation. Ironically, it was the decontrolled intrastate market that provided their salvation.

At the very time that some consumers were paying their pound of flesh for the years of artificially low prices they had enjoyed, other consumers were enjoying the benefits of a relatively



unrestricted market. There was a surplus of natural gas on the intrastate market, a surplus more than adequate to relieve the interstate customers' misery—at least in the short run. With typical logic, or lack of it, Congress only saw part of the message inherent in this set of circumstances: that the immediate solution to the crisis lay in transferring gas from the intrastate to the interstate market. What they missed, however, was the more basic truth: that the long-term answer to ensuring adequate gas supplies lay in getting rid of controls. They therefore opted for a band-aid rather than the radical surgery required, and passed the Emergency Natural Gas Act of 1977. Although this stopgap move did relieve the immediate crisis, it also sent a clear signal that Congress was finally going to have to face up to the gas issuc.

that price controls cause shortages might have seemed an obvious and logical conclusion given the evidence of

the winter of 1976-77, it proved unfathomable to the Congress. Instead of moving to repeal the price ceilings as soon as the immediate crisis was over, Congress instead embarked on a lengthy and heated debate over whether they should be removed at all. One of the central issues in that debate was whether or not there was additional gas to be found at any price. Ignoring all of the data published by authoritative sources, many Members persisted in the unfounded belief that U.S. gas resources were in imminent danger of exhaustion, and that removing controls would only lead to price gouging as shortages became more severe. Congress largely ignored studies by the U.S. Geological Survey and the Colorado School of Mines estimating that enough gas remained for from thirty-seven to forty-five years of consumption, assuming current demand and unchanging technology. (In practice, technology will improve over time to allow recovery of gas that is now unceonomic to produce.)

The waters were further muddied by the desire of the newly elected Carter administration to prove that the United States really was entering the age of scarcity, regardless of what the facts said. The administration's willingness to manipulate data became painfully evident with the "MOPPS" fiasco, MOPPS-short for Market Oriented Program Planning Study-was an analysis ordered by the Carter administration to show how different prices would affect natural gas supplies. Carter's people hoped that MOPPS would demonstrate that natural gas supplies were nearly exhausted and that therefore, after a certain point, no new supplies would be forthcoming no matter how high the price went. They were either unaware, or unconcerned about, the fact that all geological data pointed to the opposite conclusion.

To their chagrin, the first version of MOPPS, dubbed MOPPS I, clearly indicated that supplies of natural gas would continue to increase virtually as long as prices continued to do so. Instead of accepting this conclusion, and rethinking their position, however, the administration sent the analysts back to the drawing board to try again, this time with a far more conservative set of assumptions. Try as they might, they could not get the facts to fit their preconceptions. Their study still came to the inescapable conclusion that if prices went up, more gas would be

found. At this point, the characte escalated to the level of outright lying.

Carter's people had been arguing that a ceiling price of \$1.75 per thousand cubic feet provided all the incentive necessary to attract enough new gas discoveries to reverse the shortterm deficit. They also argued, though, that prices higher than \$1.75 were not warranted, and in fact counterproductive, because supplies were running out, and therefore few if any additional gas discoveries would be stimulated by prices above the ceiling Carter proposed. Of course, MOPPS I and MOPPS II had just made mincemeat out of this argument, so they wanted to be doubly sure that MOPPS III didn't. To do this, they played fast and loose with something called "supply clasticity."

Basically, supply clasticity measures how much more of a commodity will become available with each incremental increase in price. In the case of natural gas, the supply-elasticity coefficient is most often assumed to be 0.75, which means that for each percentage increase in price, you will get about three-quarters that percentage increase in the amount of gas. However, MOPPS III assumed that for prices of between \$0 per thousand cubic feet and \$1.75 per thousand cubic feet, the supply clasticity of natural gas was 1.5. In other words, you would get twice as much additional gas for each incremental increase in price than had been previously assumed. That might merely seem an exercise in optimism, were it not for the second assumption they threw into the pot. This was that for prices above \$1.75 per thousand cubic feet, the supply elasticity of natural gas was zero. That's right. No matter how high the price went, even to a million dollars a cubic foot, there still would not be one single additional cubic foot of gas forthcoming. Such an assumption made no economic (or for that matter, common) sense. It was used only to fit the purposes of the Carter position. One should add that Carter's spokesmen were careful not to make their base assumptions public.

What really made these Carter high jinks particularly egregious, though, is that they were being done in the name of decontrol. As part of the Omnibus Energy Bill, President Carter had suggested what he termed a "phased decontrol" of natural gas prices. However, as a trade-off for the eventual lifting of federal price ceilings, Congress imposed federal controls over

intrastate gas prices during the phaseout period. While this seemed on first glance a reasonable compromise, it proved to be a drastic mistake. It took the one sector of the natural gas market that had been functioning smoothly and ensured that it too would be thrown out of equilibrium. To make matters worse, rather than simplifying the rules producers had to live under, the new plan ended up creating some eight primary categories of natural gas wells, and more than thirty subcategories.

More than anything else, the Natural Gas Policy Act (NGPA), as the Garter initiative came to be called, is reminiscent of the man who jumped from the roof of the Empire State Building—when asked why he did it, as he plummeted down the skyscraper's side, he said, "It seemed like a good idea at the time." Like that man, the NGPA met a sudden shock when it had run its course—a price shock;

In drafting the NGPA, Congress decided to tie the phase-out of controls to the world price of oil. Again, logical enough on the surface. However, they decided that the world price would be around \$15 a barrel in 1985 and used that fixed figure as a basis to determine how rapidly gas prices would rise. This lack of flexibility would come home to roost the following year, as oil prices skyrocketed and gas prices could not keep pace. To illustrate the point: Outside the United States, where there are no controls, natural gas prices rose an average of 48 percent in the first year after the NGPA was enacted. Domestic prices, though, were only allowed to rise 11.6 percent under NGPA. As a result of the use of a fixed target, the gap between U.S. domestic prices and those prevailing on the world market continued to increase. Eventually the gap became so large that fear grew that a lifting of controls as scheduled in 1985 would result in an inflationary shock to the cconomy similar to those that followed the oil price increases of the 1970s. Called a "price spike" by insiders, the notion of such steep increases in natural gas costs became the primary reason the whole issue of decontrol was reopened in 1981. It was also the fear of a price spike that resulted in moves by both Congress and the administration to duck the issue until after the 1982 election. As real as this fear is, the empirical evidence would suggest that it is exaggerated. More importantly, deferring decontrol until some later

date may actually increase the likelihood of such a steep price rise by interfering with the basic realities of supply and demand.

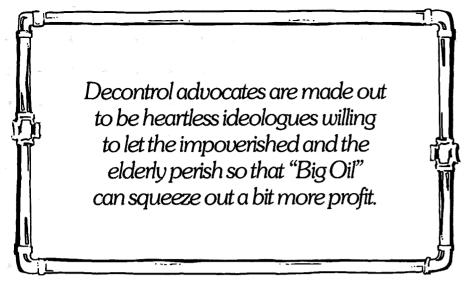
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To begin with, natural gas is a "fungible" commodity, which means there exists a ready substitute acceptable to consumers. In this case, the substitute is residual fuel oil or "resid." Industrial boilers using natural gas can readily burn resid instead. Since they consume nearly one-third of all the natural gas sold, they tend to be the principal factor in determining price. Further, since resid is an acceptable alternative, its price sets a limit on gas prices. If gas prices should rise too steeply, then industrial boilers will switch to resid. If resid in turn should become more expensive than gas, they will switch back to gas. Current resid prices would mandate a ceiling for natural gas at the burner tip of around \$5 per thousand cubic feet. Because of this relationship, the price of natural gas is unlikely to rise above that of resid even with decontrol. Ironically, however, if controls continue, the price of some, if not all, gas may well be in excess of the \$5 figure.

The reason for this particular anomaly is that most of the new supplies being discovered are so-called "deep gas," found below 15,000 feet. Deep gas is the only kind not subject to federal controls, and is being sold for as much as \$11 per thousand cubic feet. Drillers are able to charge this premium at present because pipeline companies still have access to old reserves of price-controlled gas that sells for as little as 25 to 35 cents per thousand cubic feet. This low-priced gas is mixed with the high-priced deep gas, and the average price remains relatively low. However, if decontrol does not take place, and the cheaper gas runs out, we may find ourselves, at some future date, with a significant proportion of our supplies comprised of deep gas. With time the overall price



could easily rise to levels above those that would prevail under decontrol. Without controls, producers would have an incentive to explore for other—and cheaper—kinds of gas than deep gas. These new supplies would in turn lower overall prices, and also keep deep gas prices down to reasonable levels.

The enormous incentives that now exist for deep gas producers explain why they have lobbied so vigorously for continued controls. The removal of price ceilings would force them to either lower their prices or lose their markets. The same is true for advocates of Alaskan gas and synthetic gas. Both of these commodities also need a continued supply of artificially cheap, price-controlled gas for blending if they are to be economically viable. They also depend on shortages of normal gas to keep up the demand for their specialized, high-priced product. Large pipeline companies that have already contracted for deep gas or that are moving to produce synthetic gas have a similar stake in continued controls. As the Fat Man said, it is largely a matter of loot.

The question is, if greed were at the root of the lobbying campaign that industry waged to put a stop to gas decontrol initiatives, why didn't the administration and the Congress see the truth? The reason is simple: They were also being assaulted by consumer groups and some labor interests, who frame the anti-decontrol debate in a different, far more politically damaging way. Decontrol advocates are made out to be heartless ideologues willing to let the impoverished and the elderly perish so that "Big Oil" can squeeze out a few more pennies in

profit. As irrational as this line of argument may be, it tends to garner media attention and to work its way into the public's subconscious, until advocating gas decontrol comes to seem the same as advocating usurious prices.

In an election year, that's hardly the image a candidate wants to project. The political dimension of the decontrol issue was and remains the deciding factor. Even the White House obliquely recognized this fact in the announcement of its decision to defer any action on natural gas until after this year's congressional elections. They stated that decontrol would "overload an already heavily laden political agenda."

F THERE IS ONE LESSON to be learned from the history of natural gas regulation in the United States, it is that the market works best. In fact, on close examination there can be no economic logic to support regulation. Keeping the price of a commodity artificially low ensures overconsumption, underproduction, eventual shortage, and, in the end, higher prices than would otherwise have existed. In the case of natural gas regulation, the controls are particularly heinous because they are so blatantly politically motivated. It is fear of political consequences that prevents the Congress from taking up the issue, fear of political consequences that causes the White House to hold back on submitting legislation and forcing the issue, and the quest for political advantage that motivates the aggressive campaigns of consumer groups, labor unions, and liberal headline grabbers. Through it all, no one seems to be considering the long-term economic consequences for the nation.

The fear of sharp price increases, shortages, and spiraling energy-driven inflation that so permeates the natural gas debate simply has no basis in fact. Of course gas prices would rise in the event of decontrol-gas is underpriced at present—but the scare stories of 300 and 400 percent price hikes are just plain hogwash. Congress must come to recognize that controls do not ensure lower prices. In fact, if anything, they ensure quite the opposite. Over the past eighteen months, in the wake of oil price decontrol, America has had a graphic demonstration of the truth of this notion. When decontrol was proposed, the Cassandras of consumerism held forth with images of a shattered economy, \$2 per gallon gasoline, and oil companies grown fat on their windfall profits, but their dire predictions did not come to pass. Instead, after a small rise, oil prices stabilized, and then began to decline-a decline that continued through the first half of 1982, in spite of the best efforts of OPEC to keep prices up. As a result, the average motorist pays less for a gallon of gasoline today than he did just one year ago. In all likelihood, decontrol of natural gas prices would have similar effects.

The price of gas at the wellhead will eventually settle somewhere between \$4.50 and \$5.00 per thousand cubic feet, and if oil prices should continue their current slide, it could even be lower than that. Further, the wider availability of natural gas that would follow the removal of controls would have an ameliorative effect on oil prices by providing much-needed competition. Therefore, decontrol would not only help to ensure stable gas supplies, and moderate gas prices, but would even help to keep down oil prices.

There is, however, a more basic reason to remove gas price controls: Natural gas is the last major energy source that still suffers from federal price regulation. Removing this last vestige of the past will free the entire energy market from the distorting hand of government, and send a signal to the economy as a whole that controls and regulations have been proven failures. Congress recognized these considerations when it first enacted the NGPA to allow the price of gas to rise to market levels. That effort was far too timid. however, and it is now time to finish the job.

Books

Ordeal by Fire: The Civil War and Reconstruction, by James M. McPherson. Knopf, 694 pp., \$29.95.

The price of union

JOSEPH R. STROMBERG

O GOVERNMENT EXtending from the Atlantic to the Pacific can be fit to govern me or those whom I represent"-so spoke the prescient John Randolph of Roanoke to the U.S. House of Representatives in 1822. Well, mad Jack is long gone, and fit or not, just such an extended government exists, holding sway from sea to shining sea. With a worldwide system of garrisons, fleets, and entangling alliances that would make the ancient Romans envious, that once fragile republican federation has arrived as a centralized continental empire and the number-one world power still hedged about with the reminders of its now vestigial federalism and constitutionalism. As all our leaders tell us, it behooves us to feel uplifted and transformed spiritually by our participation in all this immoderate greatness. (It behooves us even more to pay the grand taxes that go with it.)

Now all of this territorial and moral grandeur didn't just thrust itself upon us. Getting Destiny done required a lot of work, and in the course of it a lot of people were hurt; 600,000 of them lost their lives between 1861 and 1865. Statistically, that makes the War Between the States the most costly grandeur-building enterprise Americans have yet engaged in. A real turning point; you might even call it a watershed. Looked at old-fangledly, the 1860s may have been the last chance we heirs of the American Revolution had at a nonimperial, or less imperial, future. All in all, it makes any new full-scale historical work on the period well worth our careful attention.

Ordeal by Fire, by James M. McPherson of Princeton, is a comprehensive treatment of the "civil war" era. He draws on the full array of established sources and new perspectives; from these, he weaves a plausible story that combines a traditional Northern view of the war with the pro-Reconstruction, "neo-abolitionist" approach that came into being after World War II. McPherson brings in such modern viewpoints as the ethnocultural school (adding a religious/cultural dimension to the social crisis of the 1860s) and the newer economic history (adducing a wealth of statistical data to support generalizations about the backward South and the innovative, industrializing, New England-inspired North).

Transportation revolution, interchangeable parts, factory organization, and the rest receive their due, as does the "ideology of free labor" developed by activists who founded the Republican Party. In the middle of it all stood racially specific chattel slavery, the cause of many of the other North/South differences and the symbol of them all. McPherson believes that the North had committed itself to an ideology and system of "modernizing capitalism" that required free labor in theory and in fact. (It didn't require blacks, however, and some free-labor advocates hoped they would disappear along with slavery.) The South clung to slavery, ensuring its own long-run economic and industrial stagnation. Under the circumstances, forcible conflict was unavoidable, as was Northern victory—and some degree of "revolution" in the process. The North's modernizing "capitalism" needed government strong enough to help it along. In any event, the Yankees also believed philosophically in the Union, and a great number of them died for their belief that the states must remain federated.

Most of the book is the detailed political, diplomatic, and military history of the war from secession to Confederate collapse. The many plates and maps will help hold the attention of those whose forte is not military history. A final, lengthy section deals with Reconstruction as the creation of a new sort of Union atop the ruins of the old one—although it was hardly the new order of racial equality and justice desired by the most radical Republicans.

So there it is, a thorough, readable, but finally fairly orthodox account. McPherson's presentation of the achievements of Reconstruction is strong, and as mentioned, in line with the increasingly accepted "revisionist" view (as against the old Birth of a Nation school). Other than this, his main revisionist indulgences are piecemeal and statistical: e.g., the Confederate army actually contained proportionately more foreigners than did the Union army; and the pro-Confederate Indians were chiefly slave-owning "halfbreeds," while the pro-Union Indians were "pure-breeds."

ow THAT WE ARE LIVing in the imperial system that Northern victory made possible, it seems difficult not to ask if they really should have bothered. To this question, the present book gives few answers. The most appalling battle accounts, the sheer statistics of death and destruction, the cycwitness reports and photographs, scarcely raise a scholarly cycbrow. But this is in an established historical tradition and perhaps only seems complacent.

Yet despite the view that Union victory was right or inevitable (which for the participants in the American Celebration comes to the same thing), there ought to be other ways of looking at our "most American" war. Dutch historian Pieter Geyl observed, "For American writers the overriding importance of the maintenance of the Union allows of no discussion." Even

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