Summary of the Papers

THIS ISSUE CONTAINS papers presented at the twelfth meeting of the Brookings Microeconomics Panel held at the Brookings Institution in Washington, D.C., June 19 and 20, 1998. Three of the papers study the economic and legal impacts of liability laws. The other four papers consider a broad range of economic and policy issues. Turning first to the liability papers, Steve Garber and John Adams examine the impact of product liability laws on automobile manufacturers' profitability by measuring stock market and customer reaction to verdicts in automotive personal injury cases. They find small and sometimes anomalous effects of verdicts on car sales and firms' stock prices. Patricia Born and Kip Viscusi consider the effect of liability reforms on medical malpractice and general liability insurance. They find that damage caps and several other types of state liability reforms decreased insurance premiums and yet improved the profitability of insurance companies. Thomas Campbell, Daniel Kessler, and George Shepherd provide empirical evidence on the impact of changes in liability laws on state-level productivity from 1970 to 1990. They find that states that reduced liability experienced greater increases in productivity. There also is some evidence to suggest the converse, that states that strengthened their liability laws tended to have less of an increase in productivity.

The other papers in this volume examine a range of timely economic and policy issues. Paul Gompers and Josh Lerner study the determinants of venture capital fundraising in the United States over the last twenty-five years. They find that taxes, pension fund investment laws, R&D intensity, fund performance, and fund reputations all played significant roles in determining venture fund raising. Axel Börsch-Supan's paper focuses on the role capital management plays in economic efficiency. Specifically, he compares data on capital utilization and capital productivity from Germany, Japan, and the United States. He finds that in addition to relative input prices, capital purchasing and management differences account for significant differences in capital productivity. Martin Baily and Eric Zitzewitz ask whether Korea must institute new reforms to sustain its rapid economic growth. They provide industry-level evidence suggesting that market distortions in Korea have resulted in critical misallocations of capital that have reduced productivity and lowered the rate of return to capital. Jeremy Bulow and Paul Klemperer analyze major economic and policy issues raised by the tobacco litigation in the mid- and late 1990s. They analyze how each stakeholder group (consumers, tobacco companies, federal and state governments, and lawyers) would have fared under the different proposals. They also propose improvements.

Garber and Adams on Economic Effects of Product Liability Verdicts

This paper seeks to expand our knowledge about the economic effects of product liability laws. Specifically, it tries to detect whether product liability verdicts against automobile manufacturers have economic effects beyond the direct cost of the verdict. The authors look for two types of indirect costs. The first is whether losing a liability case directly affects the automobile manufacturer's vehicle sales. The second is whether the stock market revalues manufacturers that lose product liability cases. In both instances, the loss of a case is expected to have a negative impact. The authors, however, also assert that the magnitude could depend on a variety of factors. The magnitude of a sales decline, for example, could depend on the extent and specificity of negative publicity surrounding the verdict. The magnitude of a stock market decline might depend on whether the verdict signals that the manufacturer potentially has a much bigger liability problem.

To gauge the impact of verdicts on sales and stock market values, the authors assembled a database of verdicts between 1985 and mid-1996, which included 93 judgements in favor of the plaintiffs and 116 verdicts for the manufacturers. The authors find that negative verdicts had little impact on sales of the vehicles involved in the suit. At most, sales declined by 1 to 2 percent on average. Regression evidence suggests that this result is not entirely robust or statistically significant. Additional controls for whether the verdict was punitive, there was a prior recall, the case involved dreadful injuries, or the verdict was widely publicized, while sometimes suggestive, also do not correlate with sales reductions.

The stock market analysis examines the impact of verdicts for and against automobile manufacturers. In both cases, the authors find no impact. They then use information on each verdict to try to predict the stock market reaction to that verdict. Here they find mixed evidence of systematic variations across verdicts. They conclude that some of their results are sensitive to several large verdicts. This leads them to argue that product liability verdicts have at most minor effects on company valuations.

Born and Viscusi on Effects of Tort Liability Reforms on Insurers

Did the tort liability reforms by states in the 1980s affect the performance of insurers and premium costs? This is the question that Born and Viscusi address using detailed ratemaking data from the National Association of Insurance Commissioners. In particular, the authors hope to gain insight into the economic factors that drove the rapid escalation of premiums in the mid-1980s and the ways that liability reforms may have differentially affected insurer profits.

Born and Viscusi begin by identifying the nature and extent of tort liability reforms during their sample period. The authors document a wide variety of reforms. They eschew developing a detailed set of variables summarizing these reforms in favor of using categorical variables that summarize whether the reform involved damage caps or something else. The authors use these variables to explain the decline in the ratio of insurers' general and medical malpractice liability losses to premiums from 1985 to 1991. From initial tabulations of the data, they determine that loss ratios during this period behave very differently depending on whether the firm initially has a low or high loss ratio. Born and Viscusi then go on to develop an econometric model of loss ratios that includes factors known to affect claims and premiums. These factors include macroeconomic, industry structure, and firm organization variables. A quantile regression model then allows them to examine the differential impact of these variables across firms' loss ratio distribution.

The authors find that the two liability reform variables do explain part of the decline in loss ratios from 1985 to 1991. The strength of their effect, however, differs across the distribution of loss ratios. For general liability insurers, only the damage cap variable has the predicted negative effect, which becomes more negative as one moves from initially profitable to unprofitable insurers. For medical malpractice insurance, the effect of damage cap reforms is consistently negative, and the effect of other reforms on initially unprofitable insurers is also large and negative. This implies that the financial benefits of liability reforms were concentrated mainly among inefficient or less profitable insurers. This finding shows that liability reforms, such as damage caps, may potentially reduce the costs of poor underwriting practices.

Campbell, Kessler, and Shepherd on Effects of Liability Reforms on Productivity

Campbell, Kessler, and Shepherd ask whether recent reforms in state liability laws have had measurable effects on business productivity. To date, most studies of the effects of liability laws have focused on measuring direct impacts, such as whether tougher medical malpractice law affects medical malpractice claims, awards levels, and administrative costs. This paper argues that liability laws might well have indirect effects through their influence on firms' productive scale and allocative efficiency. Campbell, Kessler, and Shepherd argue that economic models of the productive consequences of liability laws often do not make clear predictions about the consequences of liability reforms, making empirical research critical.

The authors choose to model how state liability reforms affected labor productivity, as measured by output per worker, between 1970 and 1990. Specifically, the authors develop an econometric model of state-level labor productivity data for a range of industries. Crucial to this model are variables that capture temporal, economic, demographic, and political factors affecting labor productivity. These factors include state and time fixed effects, state unemployment, political affiliations of elected officials, exports, interest group employment, asset values, and education. The authors then add qualitative variables that measure whether a state adopted more or less stringent liability reforms during the sample period. The authors painstakingly coded these variables by looking at eight different types of reforms that states adopted during this period. The paper explains in detail how the authors interpreted these reforms and mapped them into the qualitative variables used in the regressions.

Table 4 reports the authors' main finding that the private nonfarm industries of states that reduced their levels of legal liability experienced approximately a 1.7 percent increase in labor productivity. This finding is relatively robust to the choice of specification. In contrast, the private nonfarm industries of states that increased legal liability experienced only a slight negative and statistically insignificant effect on productivity. The authors also report results for the aggregate data. The results for states that reduced their levels of legal liability generally mirror the private nonfarm results. The results for states that increased the strength of their legal liability laws differ greatly across industries and are not robust to the specification employed. In subsequent tables, the authors examine the sensitivity of their results by examining productivity growth rates. From these regressions they conclude that although liability reforms do have a permanent one-time impact on productivity, they do not lead to perpetual increases or decreases in the effected states.

Gompers and Lerner on Venture Capital Fundraising

Gompers and Lerner study the rapid growth of venture capital funding in the United States between 1972 and 1994. They also examine venture capitalist success as well as industry and macroeconomic forces that spurred venture capital fundraising. Their ultimate goal is to examine the relative importance of various factors that could affect either the demand or the supply of venture capital.

The body of the paper outlines a list of industry-specific and macroeconomic factors that have influenced both the demand and supply of venture funds. These factors include economic growth, interest rates, capital gains taxes, technological innovations, and the deregulation of financial markets. The authors then attempt to identify the importance of these factors using unique data on venture capital commitments in the United States. A series of reduced form regressions suggests that tax rates, rule changes in federal pension law, and real growth in gross domestic product seem particularly important predictors of commitments. The authors explore the robustness of these findings using comparable state-level data on actual venture capital investments. Although the state-level results are generally consistent with those for the aggregate data, there are some important differences related to timing of initial public offerings.

In the latter sections of the paper, the authors examine the success of individual venture capital firms at raising funds. In particular, the authors are interested in whether "success begets success" and whether macroeconomic factors are very important. The main findings come from a series of discrete and continuous variable models that look at whether a firm raised funds, and if so, how much it raised. The results are mixed. The authors find some evidence that reputation matters, but this finding is sensitive to the inclusion of other variables, including firm fixed effects. The paper concludes with a discussion of policy implications.

Börsch-Supan on Capital Productivity

This paper examines why capital productivity differs among Germany, Japan, and the United States. It synthesizes evidence contained in a much larger survey of service and manufacturing productivity conducted by the McKinsey Global Institute. Börsch-Supan's main thesis is that relative price differences explain only part of why Germany and Japan are more capital intensive than the United States. He suggests that poor capital management techniques and inefficient investments account for much of the remaining difference.

Börsch-Supan begins by comparing productivity in five sectors across three countries. He finds substantial variation that is not easily explained by differences in input prices. Subsequent sections explore the gap between German and Japanese capital productivity and that of the United States. He finds some evidence that capacity utilization is much lower in most industries in Germany and Japan. He also attributes some of the capital productivity differences to differences in the composition of industry output. The remaining factors that are deemed important are classified as "capital management practices." These practices include such things as operational effectiveness and capital purchasing decisions. Through the extensive use of examples, Börsch-Supan tries to build a case that these management practices, together with regulations in Germany and Japan, have significantly lowered the productivity of capital.

Baily and Zitzewitz on Factor Productivity in Korea

This paper uses industry-level data to identify several structural economic problems that have placed a drag on Korea's factor productivity and made Korea's economy vulnerable to internal and external financial crises. The authors base much of their analysis on proprietary data developed by the McKinsey Global Institute and McKinsey and Company on eight major Korean industries. These data include information on the production practices of firms, their regulatory environment, and their capital requirements.

The paper begins with an analysis of what aggregate macroeconomic indicators suggest about Korea's productivity and its development path. These data show both that Korea has grown rapidly relative to most developed economies and that growth in input accounts for much of this overall growth. The data also reveal that capital productivity has fallen in Korea, and that in some sectors it is below that of other developed countries. This decline also is reflected in low returns to invested capital.

Baily and Zitzewitz follow up these aggregate statistics with detail from eight major Korean industries, four in manufacturing and four in services and construction. The authors find that many Korean industries have capital intensities in excess of their U.S. counterparts, despite having total factor productivities that are roughly half those in the United States. The authors then discuss institutions and regulations in Korea that might tend to encourage this overinvestment. They conclude that although moral hazard in financing arrangements may have contributed to some overinvestment, much of the explanation seems to lie in a confluence of events: the deregulation of Korean capital markets, slowing internal growth, and the East Asian financial crisis. These events, together with the failure of Korean firms to develop flexible capital management skills, exposed the overinvestment. The paper concludes with some suggestions for economic reforms.

Bulow and Klemperer on Tobacco Settlements

Bulow and Klemperer set out to analyze the economic ramifications of recent proposals for ending tobacco litigation. Their primary goal is to analyze major economic issues posed by the June 1997 tobacco resolution and congressional legislation that sought to alter the resolution. In analyzing these issues, they attempt to avoid normative conclusions and instead focus on isolating inefficient and costly provisions. They then seek to propose more efficient settlement terms.

The paper begins by describing the cigarette industry and business conditions in 1997. The authors then discuss the original settlement proposals. They first focus on the unusual taxes the resolution and legislation effectively imposed on cigarette manufacturers. They argue that the proposed fixed-revenue taxes are less efficient than ordinary specific taxes. They also argue that the proposed taxes are an extremely inefficient way of deterring teen smokers, one of the stated targets of legislative proposals. The authors next analyze company damage payment and liability protection proposals. They argue that these parts of the settlement might have unintended incentive issues.

The latter parts of the paper consider alternative proposals that would reduce teen smoking, reduce legal fees, and enforce competition in the face of a mandated rise in prices. The paper concludes by discussing the sequentially negotiated state settlements. It also makes specific suggestions for settlements.