Researchers in the NBER’s Environmental and Energy Economics (EEE) program have studied a wide range of issues, including both long-standing questions and emerging issues, in recent years. One particularly notable body of research has developed in response to the expanding discussion of the potential effects of climate change and of policy proposals designed to affect future greenhouse gas (GHG) emissions. Climate concerns have generated a host of new questions for study, and in light of the novelty as well as volume of the work that addresses them, the first five sections of this report describe this body of research. The last three sections touch on other important topics.

Consequences of Reducing GHG Emissions

Many EEE researchers focus on measuring the economic consequences of various types of emissions in order to inform the design of policies to affect those emissions. With regard to GHGs, the majority of papers have focused on the economic impacts of rising temperature. Early work measured the impact of temperature on the U.S. agriculture sector. While Olivier Deschênes and Michael Greenstone found minimal impacts of rising temperatures on agricultural outputs or profits,1 Michael Roberts and Wolfram Schlenker found large negative effects.2 This work sparked a debate, which has carried over to other economic outcomes, about the merits of using cross-sectional versus panel data to measure climate impacts,3 and led to methodological contributions describing the merits of different weather datasets and climate forecasts.4 Researchers subsequently have analyzed the potential impact of ris-

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*Don Fullerton, the Gutgsell Professor of Finance at the University of Illinois at Urbana-Champaign, has served as the director of the NBER’s Environmental and Energy Economics program since its founding in 2007. Catherine Wolfram, the Cora Jane Flood Professor of Business Administration in the Haas School of Business at the University of California, Berkeley, will succeed him as program director in September 2016.
interests on international agriculture, conflict, mortality, birth rates, income, test scores, and human capital formation. Other work uses observations at a more macro level and examines the impact of temperature on output growth and output per capita. An additional line of research explores how people value temperature by examining their decisions on where to live and how much to pay for their homes. David Alouby, Walter Graf, Ryan Kellogg, and Hendrik Wolfs use a hedonic model to estimate the amenity value of hot days across locations in the U.S., while Paramita Sinha and Maureen L. Copper use a discrete choice approach and account for the disutility of moving. Both papers find that people would pay to avoid the temperature patterns projected to come with climate change, although both also find considerable heterogeneity. H. Allen Klaiber, Joshua Abbott, and V. Kerry Smith suggest that local landscape choices can mitigate the urban heat island effect and thus partially offset the disutility from high temperatures. Schlenker and coauthors Shuhaizhang Feng and Michael Ghirardello show that climate change has been made in the modeling of energy production and the modeling of climate phenomena, uncertainty, and discounting. Weitzman’s seminal work on “fat tail” probability distributions for potential climate catastrophes has had to additional research on GHG emissions by current abatement. For example, Robert Barro uses existing models of macro fuel and finds that optimal environmental investment can be a significant share of GDP. But multiple types of potential catastrophes can affect the optimal response to any one such catastrophe. An ongoing debate concerns the role of “integrated assessment models.” Robert Pindyck shows that these models may not reveal much about optimal policy in response to the possibility of a catastrophic climate outcome.

GHG Reductions in the Electricity Generating Sector

The burning of fossil fuels accounts for 75 percent of GHG emissions. One-third of this total is from the electricity sector, one-fifth from the transportation sector, and the remainder from industry, including the production of fossil fuels. Recent research has analyzed existing and proposed regulations on GHG emissions in each of these sectors. The electricity sector has undergone several profound changes since the transformation brought on by regulatory restructuring in the late 1990s and early 2000s. These changes affect GHG emissions in the sector. Natural gas prices have fallen considerably, from a peak just above $14 per million Btu in 2005 to roughly $3 per million Btu in 2016. Natural gas is about twice the CO2 per unit of energy as coal. Other fuel prices have also fallen precipitously, leading to debates over the relative value of rooftop solar versus grid-scale solar installations.

About the EEE Program

The NBER’s research program in Environmental and Economic Analysis (EEE) was launched in 2007. It brought together participants from an NBER working group on environmental economics, which included economists in trade, productivity, and public economics, and industrial organization economists with an interest in energy markets. While drawn from different backgrounds, members of the EEE group recognize the key role of energy markets in each of these sectors. The electricity sector, for example, although standard models suggest that fuel prices have fallen considerably, from a peak just above $14 per million Btu in 2005 to roughly $3 per million Btu in 2016. Natural gas emits roughly 50 percent less CO2 per unit of energy than coal. Other fuel prices have also fallen precipitously, leading to debates over the relative value of rooftop solar versus grid-scale solar installations.
Federal policy requires car makers to meet a minimum Corporate Average Fuel Economy (CAFE). CAFE raises the average price of new cars sold, and Mark Jacobsen and Arthur van Benthem find that it delays the scrapping of older, fuel-inefficient cars, thus reducing expected fuel savings by 13 to 23 percent. Koichiro Ito and James Sallee find that allowing larger vehicles to meet a weaker standard can have additional welfare costs. CAFE standards that ignore differences in vehicle longevity obtain less than half the welfare gain of policies that account for it. Several studies suggest that environmental subsidies to the transport sector may have counterproductive effects. For example, biofuel subsidies shift agricultural activity with unexpected social costs; energy subsidies to electric cars can reduce local emissions from gasoline, but reduce overall economic welfare in the face of state and federal standards.

Energy Efficiency Policies

Detailed engineering projections, such as those summarized by the McKinsey GHG abatement cost curves, project positive net present value investments in energy efficiency based only on private returns. Moreover, by reducing the energy necessary to achieve a given level of energy services, energy efficiency improvements promise to decrease GHG emissions in addition to other local pollutants. Yet a large and persistent difference remains between the levels of investment in energy efficiency that appear to be privately beneficial and the investments that private actors undertake. This disparity is known as the “energy efficiency gap.” Several explanations have been offered for this gap, and research has touched on each of them. One explanation suggests that divergence of interests between landlords and tenants or workers and owners, information gaps, or credit constraints inhibit take-up of cost-effective, energy-efficient technologies. Several papers have explored how adding more information—for example, through sales agents at the point of purchase for water-heater consumers or in-home displays—can increase efficiency. Lucas Davis and Gilbert Metcalf, and Richard Newell and Juha Siikamäki all consider the role of appliance labels in providing useful information to consumers. Sallee suggests that consumers may be “rationally inattentive” to information about energy efficiency. Newell and Siikamäki find considerable heterogeneity in households’ discount rates, which are correlated with differences in credit scores. They find that individual time preferences play a role in willingness to adopt energy efficiency. Codes and standards are often used to address the problem of market failures. Levinson questions whether California building codes have saved energy, while Matthew Kotchen finds that homes built just after Florida building codes became more stringent use less natural gas than homes built just before the change in code. (See Figure 2.) Turning to appliances, Sébastien Houdé and Joseph E. Aldy find that rebates for energy-efficient appliances have little additional effect on energy efficiency of new appliance purchases in the face of state and federal standards. Also, Newell and Daniel Raimi find that local and state appliance standards may be welfare enhancing in the presence of limited information or consumer inertia.

Another explanation for the energy efficiency gap, which is not necessarily at odds with the foregoing explanations, is that behavioral biases prevent consumers from making privately optimal choices around energy efficiency. Allcott and Judd Kessler point out that policies using behavioral approaches to inducing energy consumption choices may have unmeasured impacts on consumer welfare, and estimate that they are small and positive. They also find that energy efficiency may have unmeasured impacts on consumer welfare, and estimate that they are small and positive.

A number of studies have analyzed the effects of policies and prices on energy production. James Hamilton explains how policies changes over the past decade affect world oil prices. But how do oil prices affect production? In particular, how do they affect oil exploration, drilling, and pumping from existing wells? Soren T. Anderson, Kellogg, and Stephen W. Salant find that drilling activities respond strongly to prices, but pumping from existing wells in Texas does not. (See Figure 3.) Given that output from existing wells depends directly on reservoir pressure, which decays as oil is extracted, their analysis can help explain regional peaks of production and the way that observed patterns of price expectations follow demand shocks. While technological innovation reduces cost and increases production, the potential savings by energy efficiency measures are too high. Borenstein elaborates on the concept of “rebounds,” whereby consumers decide to consume more energy services after an energy-efficiency investment (for example, to keep their homes warmer in winter). Rebound is often suggested as a possible explanation for discrepancies between engineering calculations and field observations. Yet the rebound effect is often measured in the face of state and federal standards.

Oil and Gas Production

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One possible explanation is that the supposed gap is overstated if the engineering calculations understate the potential savings by energy efficiency. Lucas Davis and Gilbert Metcalf, and Richard Newell and Juha Siikamäki all consider the role of appliance labels in providing useful information to consumers. Sallee suggests that consumers may be “rationally inattentive” to information about energy efficiency. Newell and Siikamäki find considerable heterogeneity in households’ discount rates, which are correlated with differences in credit scores. They find that individual time preferences play a role in willingness to adopt energy efficiency. Codes and standards are often used to address the problem of market failures. Levinson questions whether California building codes have saved energy, while Matthew Kotchen finds that homes built just after Florida building codes became more stringent use less natural gas than homes built just before the change in code. (See Figure 2.) Turning to appliances, Sébastien Houdé and Joseph E. Aldy find that rebates for energy-efficient appliances have little additional effect on energy efficiency of new appliance purchases in the face of state and federal standards. Also, Newell and Daniel Raimi find that local and state appliance standards may be welfare enhancing in the presence of limited information or consumer inertia.

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and Neidell review the literature on early-life exposure.75 Several historians are accessing exciting new datasets to examine pollution impacts in early and mid-20th century America. For example, Karen Clay, and coauthors Joshua Levine and Adam Swanson examine the impact of new coal-fired power plants on infant mortality between 1938 and 196276 and Alan Barreca, Clay, and Joel Tett study the impacts of biogas cooking for residential heating between 1945 and 1960.77

Energy and the Environment in Developing Countries

Many of the topics we have raised thus far have unique manifestations in the developing world. Figure 5 shows that air pollution levels are much higher in developing countries.78 Kahn and coauthors Siqi Zheng and Cong Sun show that pollution behaviors—in particular purchases of masks and air filters—are important in developing countries during periods of high pollution, though primarily for the rich.

Weak institutions can impact the provision of both environmental and energy services. In a series of papers on Indian industrial plants, Esther Duflo, Greenstone, Rohini Pandey, and Nicholas Ryan study the relationship between environmental regulators and third-party inspectors, highlighting the importance of conflicts of interest and regulatory discretion.79 Ann Harrison and coauthors Benjamin Hyman, Leslie Martin, and Alanna Nashiati find that higher coal prices constrained emissions more than command-and-control regulations in India.80 Kahn and coauthors and Ubayda Al-Aisan demonstrate weak enforcement of water pollution laws around pastoral borders in China and Allcott, Allan Collard-Weiler, and Stephen O’Connell consider the impact of poor electricity reliability in India and find limited impact on short-run productivity.81 Natasha Chichilnisky-Heal and Geoffrey Heal model the political influence of multi-national corporations extracting rents from resource-rich countries.82

In the rapidly growing economies in the developing world, the energy infrastructure is just being built, and consumers are purchasing energy-using durables such as cars and refrigerators for the first time. Edward Miguel, Wolfram, and coauthors Kenneth Lee, Eric Brewer, Carson Christiano, Francis Meyo, Matthew Podolsky, and Javier Rosa document that many households examine determinants of cofinancing for projects supported by the Global Environment Facility. Finally, gender dynamics among families may be more extreme than in many parts of the developed world, which Grant Miller and Ahmed Mushlik Mobarak find partially explains low demand for improved cookstoves.83


How Economic Shocks Affect Spending

Matthew D. Shapiro

When faced with a common economic shock, such as a temporary drop in income, individuals may respond very differently: some individuals will cut spending while others will draw on liquid assets or borrow.

My collaborators and I use administrative account data and surveys to analyze differences both in how individuals prepare for economic risks and in how they behave when confronted with shocks. This work helps quantify the economic impact of fiscal stimulus policies such as tax rebates and temporary tax cuts. It also provides insights into how households make choices about spending and saving in a world where income is quite variable.

Naturally Occurring Datasets and the Response of Spending to Income

Using a dataset that tracks daily spending and credit card transactions and balances for over one million individuals, Michael Galman, Sharcar Kariv, Dan Silverman, Steven Tadelis, and I produce estimates of spending behavior linked to individuals’ liquidity. These naturally occurring data create a comprehensive picture of spending, income, and liquidity to having more cash on hand. Rather than necessarily excess sensitivity of spending following the receipt of income, individuals may respond in how they behave when confronted with shocks. This work helps quantify the economic impact of fiscal stimulus policies such as tax rebates and temporary tax cuts. It also provides insights into how households make choices about spending and saving in a world where income is quite variable.

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Research Summaries

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Figure 1

A substantial fraction of individuals have very low liquidity. Figure 1 shows the ratio of bank account balances to average daily spending across the paycheque cycle. Liquidity is expressed as a ratio of checking and savings balances to average daily total spending, so the numbers in the figure can be interpreted as on hand relative to typical daily expenditure. The three lines are medians of this liquidity for households in the top, middle, and bottom thirds of the liquidity distribution. The top third of the liquidity distribution is well-positioned to handle an income shock. The median of this group could maintain more than a month of average spending with their checking and savings accounts balances, even in the days just before their paycheck arrives. The lower two-thirds of the liquidity distribution have a substantially smaller cushion. Over the entire pay cycle, the middle group has median liquid assets equal to 7.9 days of average spending. Liquidity drops to only five days of average spending in the days just before their paycheck arrives. The bottom
third of this population is especially ill-prepared, with essentially no liquidity just prior to receiving the paycheck. How do individuals—especially those who have very low liquidity just prior to receiving an upcoming paycheck—cope with fluctuation in income? With so little cash on hand, they appear very vulnerable to even a short-lived drop in income. These two facts—low liquidity combined with temporary shocks to income—might lead to the prediction that households would find it difficult to smooth spending. This prediction is hard to test, however, because the temporary shocks to income may be endogenous, or hard to observe. A recent working paper addresses these problems by examining how individuals adjusted spending and saving in response to a temporary drop in income due to the 2013 U.S. government shutdown. The shutdown cut paychecks by 40 percent for affected employees, but the delayed pay was recovered within two weeks. Hence, the government shutdown provides quasi-experimental variation in income that bears directly on how individuals react to a negative shock affecting only the timing of income.

Though the shock was short-lived and completely reversed, spending dropped sharply, implying a naive estimate of the marginal propensity to consume. The principle means that low-liquidity households used to smooth spending during the shutdown. Th...

Matthew D. Shapiro is a research associate in the Monetary Economics, Economic Fluctuations and Growth, and Productivity, Innovation, and Entrepreneurship Programs of the NBER. At the University of Michigan, he is the Lawrence R. Klein Collegiate Professor of Economics and a research professor in the Survey Research Center. He is editor of the American Economic Journal: Economic Policy.

Shapiro graduated from Yale University in 1979 and received his Ph.D. from MIT in 1984. Among his current research interests are modeling saving, retirement, health, insurance, and portfolio choices of older Americans; using surveys to address questions in macroeconomics and industrial organization; and using naturally occurring data such as account records and social media to measure and understand economic activity.

Shapiro is the Chair of the Federal Economic Statistics Advisory Committee, which is the official advisory committee of the Bureau of the Census, the Bureau of Labor Statistics, and the Bureau of Economic Analysis. He is also a member of the Academic Advisory Panel of the Federal Reserve Bank of Chicago.

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What emerges from these high-resolution data on consumers is a complicated picture of behavior in response to economic shocks. Many consumers do not follow the standard advice by having a substantial cash buffer. Nor do they usually engage in behavior consistent with standard economic models, such as using surveys to address questions in macroeconomics and industrial organization; and using naturally occurring data such as account records and social media to measure and understand economic activity.

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Response of Consumers to Economic Stimulus

In response to economic slowdowns, the government frequently takes steps to put more disposable income in the hands of the consumers. The aim of these policies is to stimulate the economy by boosting aggregate consumer spending. To be effective, these policies require that consumers spend at least a fraction of the extra income.

Jole Smelrod, Claudia Sahm, and I have quantified how the response of receipt of such stimulus payments differs across households. Our approach is to ask survey respondents whether they mostly spend, mostly save, or mostly pay debt with the extra income. These questions have been included in the Survey of Consumers around the time when new stimulus policies were put in place. This method blends the standard approach in economics of observing behavior in response to a tax rebate or payroll tax cut with the intuition that consumers must allocate the extra income.

Our results show that the modal response to a tax rebate or payroll tax cut is to pay debt, which is in stark contrast to the very low MPCs commonly used to project the effectiveness of counter-cyclical policies. Hence, these findings suggest that the per dollar of stimulus effect on aggregate demand is modest relative to standard estimates.

Second, the most common response to receiving extra income is to pay off debt. From the standpoint of aggregate demand, saving a rebate or using it to pay off debt are equivalent. That the modal response to a tax rebate or payroll tax cut is to pay off debt instead of direct spending is a prime example of why the stimulus spending effect of these policies is attenuated. To the extent that a local stimulus results from an economic downturn where consumers are cutting back spending because of a debt overhang— as was certainly the case in 2008 and 2009—it is not surprising that consumers use a tax rebate for balance sheet repair rather than spending. Hence, rebates or temporary tax cuts used precisely when consumers have relatively little inclination to spend, and hence such policies may be less effective in stimulating the economy than would have been the case had they been based on consumer behavior over average.

Third, there is no evidence that the MPC from tax rebates or temporary tax cuts varies with income. This finding runs counter to the conventional wisdom that low-income individuals are more likely to be liquidity-constrained and therefore have higher MPCs.

A recent survey analyzing the expiration of the two percent payroll tax holiday at the end of 2012 provides additional evidence of the importance of balance sheet considerations for household decision-making. Many households that reported using the extra two percent of income during the 2011–12 payroll tax holiday to pay off debt indicated that they would continue to pay off debt at the same rate following the expiration of the tax holiday. The behavior of these “balance sheet households” is hard to reconcile with standard economic theories concerning the determinants of consumption, and since the survey evidence largely explains the anomalous drop in consumption after the expiration of a payroll tax cut, such behavior should be taken seriously.


How Firms Respond to Changes in Taxation

Alexander Ljungqvist

Taxes are one of the most important microeconomic tools at governments’ disposal, touching on practically every aspect of economic activity. They potentially affect a variety of corporate decisions, ranging from how much to invest in R&D, property, plant, and equipment, to the mix of debt and equity with which firms fund operations, to the amount and structure of compensation paid to managers and employees and the dividends offered to shareholders.

A key empirical challenge when testing whether and how particular taxes affect corporate decisions is that a firm’s tax status often depends on its policies. For example, a firm’s choice of investment projects will affect its future marginal tax rate by creating tax shields in the form of depreciation charges that can be deducted from its taxable profits and by increasing its debt capacity. As a result, inference based on tests that use a firm’s actual or simulated tax rate are likely biased. The extensive literature on the effects of taxes on corporate policies therefore has looked for more exogenous sources of identification, favoring two approaches: the use of changes in a country’s tax code over time and the use of international variation in taxes. In a sequence of recent papers, I propose a third approach: variation in state-level tax rates and tax rules across U.S. states and time.

State-level variation in corporate taxation offers two convenient advantages over prior approaches. There are numerous state tax changes, and these changes allow us to get closer to a plausible counterfactual world. To see this, consider first changes in federal taxes. Variation in federal tax rates and tax rules is relatively infrequent (the 1986 Tax Reform Act is a rare example), and when it does occur, it affects virtually all firms in the economy at the same time and in a similar way, making it difficult to find control firms with which to establish a plausible counterfactual for how firms would have behaved absent the tax change.

Cross-country approaches are designed to overcome the first shortcoming. There are many more tax changes across countries than within, and the changes don’t all happen at the same time, leaving some firms treated and others untreated. But these approaches require us to make potentially implausible assumptions about treated and untreated firms being comparable despite their operating in different countries.

State tax changes, on the other hand, lend themselves to standard difference-in-difference tests. Like the tax changes used in cross-country studies, state tax changes are numerous and staggered over time, allowing us to disentangle the effects of tax changes from other macroeconomic shocks that affect firms’ policies. Because they occur in a single country, it can more plausibly be argued that treated and untreated firms would have experienced similar economic conditions in time, space, industry, and so on, but for the consequences of a tax change.

To illustrate the logic of the approach, consider North Carolina, which in 1991 raised its top corporate income tax rate from 7 to 8.06 percent. Let’s say we are interested in the effect of rates on leverage, and we observe that following this state tax increase, firms operating in North Carolina increased leverage from 18.8 percent to 20.8 percent, on average. Part of this leverage increase could reflect changes in economy-wide factors such as aggregate demand or interest rates that altered the attractiveness of debt relative to equity at that particular point in time. To disentangle secular changes from those induced by North Carolina’s tax increase, we can estimate the contemporaneous change in leverage among firms that experience no tax change but are otherwise exposed to the same economic forces as firms in North Carolina. We might, for example, use firms operating in the states bordering North Carolina as a control group, and use the difference in leverage between treated and control firms to estimate the effect of the tax change.


ing North Carolina for this purpose and, if desired, we could hold industry and other factors constant as well. For example, a state may change other rules or regulations at the same time it changes its tax rates, or it may change tax rates to balance its budget at a time of negative demand shock. Finally, a causal interpretation requires that tax changes be unpredictable, or else firms’ observed behavior to a current change may reflect expectations that both how the actual tax change compared to firms’ prior expectations.

The strengths and limitations of this approach in three recent papers that examine the effect of taxes on firms’ capital structure choices, their risk taking, and their survival. For instance, in a recent paper, a given state’s tax change will apply only to that portion of its federal taxable income that is apportioned to the state. In other words, a state tax change will apply to less than the firm’s entire tax base. All else equal, a multi-state firm with zero state tax rate would respond more than a single-state firm to the tax change. By implication, tests that ignore the geographic distribution of multi-state firms’ tax bases will understate the sensitivity of firms’ responses to corporate income taxes. Addressing this issue requires data on each firm’s tax exposure to each state. Standard data sources such as Compustat do not provide these geographic breakdowns. So, in a forthcoming paper, I will use revenue data from the National Establishment Time Series (NETS) database, which provides information on the location of practically every firm in the U.S., along with data on sales and employees, going back to 1989. While not perfect, these data can be used to approximate nexus apportionment weights.

For the 45-year period from 1969 to 2013, Michael Smolansky and I identify corporate income tax increases in 45 states and the District of Columbia, with increases of between 0.1 and 1.4 percentage points in 35 states, or roughly one tax change per decade per state.4 The changes vary in size, with the magnitude larger in absolute than decreases. Increases average 126 basis points while cuts average 71 basis points. A quarter of the cuts exceeded 1 percentage point and one one percentage point or more in absolute value. The ratio of tax increases to tax cuts has fallen from 4.75 in the 1970s to 1.29 in the 1980s, 0.51 in the 1990s, 0.34 in the 2000s, and 0.18 since 2010. With few exceptions, such as the Rust Belt states in the 1980s, tax changes show no obvious geographic clustering.

States do not change taxes randomly. Heider and I use the political economy surrounding each change affecting at least 100 publicly listed firms since 1989 and estimate the political determinants of state tax changes over the period from 1986 to 2010. Perhaps the most interesting predictor of the likelihood and magnitude of state tax changes is how the state’s current tax rate compares to that of the states surrounding it, with tax increases being substantially less likely, and smaller, if the state’s current tax rate is higher than that of its neighbors, and tax cuts being more likely, and larger, if its current rate is relatively low. Tax increases are more likely when the state budget is in deficit, consistent with widespread balanced-budget rules, while tax cuts are more likely when there is a budget surplus. Taxes are more likely to be cut under Republican than Democratic governors, and by larger amounts. Using news reports and a review of the legisla- tive records, I find that the effect of state tax changes coincides systematically with other policy changes that plausibly affect corporate behavior independently.

The one of the oldest questions in corporate finance is whether taxes affect firms’ capital structure choices. It has long been recognized that debt con-

### Taxes and Risk-Taking

Liandong Zhang, Luo Zuo, and I focus on a different corporate choice: how much risk to take.5 The kinds of corporate actions that affect an econo- my’s long-run growth potential nearly always involve risk. Prominent exam- ples are investments in physical assets, production processes, and new prod- ucts or technologies. As has been recognized since at least the 1940s, income taxes affect risk-taking because they induce an asymmetry in a firm’s payoffs. To see how, consider a firm that has access to two projects, A and B, with two equally likely outcomes, “good” and “bad.” [See Figure 1] Project A yields a profit of $40 under both scenarios while proj- ect B yields a profit of $100 under the good scenario and a loss of $20 under the bad scenario. Project risk is idiosyn- cratic and hence diversifiable. Absent taxes, the expected profit of each proj- ect is $40 and so a risk-neutral firm is indifferent between them. If the tax rate increases from zero to 30 percent, the expected after-tax profit of each project falls, but it falls by more for the risky project B than for the safe project A. The reason is that the gov- ernment shares in the firm’s profit but not—absent full tax loss offsets—in the firm’s loss. Given this asymmetry, a risk-neutral firm will prefer the safe project to the risky project as the tax rate increases.

Again using the state tax changes, we estimate the tax sensitivity of vari- ous firm-level measures of risk taking, such as the volatility of quarterly earn- ings. We find that firms reduce earnings volatility by an average of 2.4 percent to 3.2 percent for every one-percentage- point increase in their nexus-weighted tax rates relative to other firms oper- ating in neighboring states and in the same industry that are not subject to a tax change where they operate. This effect is estimated over the three years following a tax increase and becomes stronger when we give firms more time to adjust their risk profiles. The main way in which firms reduce risk is to shorten their operating cycles, which reduces put less capi- tal at risk, in particular in the risky projects of inventories. As in the case of the tax sensitiv- ity of debt, we find evi- dence of asym- metry in a firm’s payoffs. To see how, consider a firm that has access to two projects, A and B, with two equally likely outcomes, “good” and “bad.” [See Figure 1] Project A yields a profit of $40 under both scenarios while proj- ect B yields a profit of $100 under the good scenario and a loss of $20 under the bad scenario. Project risk is idiosyn- cratic and hence diversifiable. Absent taxes, the expected profit of each proj- ect is $40 and so a risk-neutral firm is indifferent between them. If the tax rate increases from zero to 30 percent, the expected after-tax profit of each project falls, but it falls by more for the risky project B than for the safe project A. The reason is that the gov- ernment shares in the firm’s profit but not—absent full tax loss offsets—in the firm’s loss. Given this asymmetry, a risk-neutral firm will prefer the safe project to the risky project as the tax rate increases.

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An interesting theme that emerges from these three examples is that taxes often have an asymmetric effect. In the case of the capital structure, asymmetry in the tax increase would hurt both the treated and the control counties. This is a prediction of one prominent class of models but not of others, which can help us to discriminate empirically between different capital structure theories. In the case of risk-taking, asymmetry is to be expected — if not predicted — given the insights of the literature on risk shifting and asset substitution at highly leveraged firms. In the case of firms’ employment decisions, asymmetry is more of a surprise.

There remains much interesting work to be done on the various ways in which corporate taxes affect economic activity. State taxes, modest though they may often seem, are a useful addition to our empirical toolbox.


Conclusions

The examples presented above suggest that state-level variations in taxes are useful for exploring a number of tax-related research questions. While the changes are generally small, measuring perhaps a percentage point, they apparently are economically meaningful in light of the responses they elicit from firms, in terms of both their use of their risk-taking, and their employment decisions. Whether these responses are too large, too small, or just right is an open question.

The Design of Trade Agreements

Kyle Bagwell and Robert W. Staiger

Since 1947 there has been a multilateral forum — the General Agreement on Tariffs and Trade (GATT), now the World Trade Organization (WTO) — where governments meet to agree on the rules of international trade. To interpret and evaluate the role of these organizations requires a two-step research program. The first step is to identify the central problems that a trade agreement might address. The second is then to bring economic arguments to bear on the design of an agreement that would best resolve these issues. Here we review some of our joint efforts to contribute to ongoing research in this area.

The Purpose of Trade Agreements

Economists have identified two broad and possibly complementary rationales for trade agreements: to help governments internalize the international externalities associated with their policy choices, and to help governments solve a commitment problem with respect to the private sector.1 Our recent work has focused on the former reason, specifically on this question: What form do the international externalities associated with trade policy take?

We have established previously that the terms-of-trade externality plays a central role.2 If governments use trade agreements to achieve mutually beneficial policy outcomes when viewed through the lens of their own objectives, then in the absence of an agreement there must be a policy inefficiency in terms of those objectives that the agreement can correct. Whether government objectives reflect the maximization of national income or the pursuit of national distributional or political goals, we found that it is the terms-of-trade externality — and the associated incentive for international cost-shifting it creates for governments with sufficient monopoly power — that lies at the heart of a trade agreement’s reason to exist.

Governments do not need trade agreements to make adjustments to their own local-market prices; they have their own trade-policy instruments to accomplish this. If the government of a country wishes to adjust the local-market price of an import to good to alter the level of protection it provides to its import-competing producers, it can accomplish this much with a unilateral change in its tariff. But trade agreements can help member governments make such adjustments without altering their terms of trade, and for governments with monopoly power in international markets trade agreements therefore expand the set of possibilities beyond which these governments could achieve on their own. At least some of these new possibilities can create mutual gains for the member governments, though this is so only for the possibilities that entail negotiated tariff reductions. According to this view, the purpose of trade agreements is to eliminate policy inefficiencies that exist when governments are free to exert monopoly power on international markets, depress foreign exporter prices with their unilateral decisions to protect domestic markets, and thereby shift some of the costs of this protection onto foreign exporters. By eliminating these inefficiencies, trade agreements will lead to freer, though not necessarily free, trade.

Our early work on these issues focused on perfectly competitive market settings. In recent work, we show that the central role played by the terms-of-trade externality in identifying the purpose of a trade agreement...
extends to a wide variety of market settings. These settings include free-entry monopolistic competition and free-entry Cournot oligopoly, where firms’ profit-maximization/home-market effects create an incentive for trade policy intervention. They also include policy settings in which the number of firms is fixed and profit-shifting incentives for intervention exist.

Each of these imperfectly competitive settings introduces a rich new set of local-price externalities that complement the traditional terms-of-trade externality. We show, however, that if all governments could be induced to make policy choices that were free from terms-of-trade motives, and hence not motivated by the intervention motives associated with monopoly power, then these policy choices would bring governments to the efficiency frontier defined in light of their objectives, and there would be nothing further for a trade agreement to do. The key point is that local-price externalities are a “shut down” at the local prices implied by each government’s policy choices if each government suppresses international cost-shifting motives when making those choices. In this sense, eliminating the cost-shifting motives associated with the terms-of-trade externality remains the sole rationale for a trade agreement in these imperfectly competitive settings, just as in the perfectly competitive benchmark. From this perspective, the “terms-of-trade” of trade agreements can be understood to encompass a remarkably wide class of models.

In all of these settings, an important question arising in the new set of local-price externalities that complement the traditional terms-of-trade externality is: When can governments be induced to make policy choices that are free from terms-of-trade motives, and hence not motivated by the intervention motives associated with monopoly power, then these policy choices would bring governments to the efficiency frontier defined in light of their objectives, and there would be nothing further for a trade agreement to do. The key point is that local-price externalities are a “shut down” at the local prices implied by each government’s policy choices if each government suppresses international cost-shifting motives when making those choices. In this sense, eliminating the cost-shifting motives associated with the terms-of-trade externality remains the sole rationale for a trade agreement in these imperfectly competitive settings, just as in the perfectly competitive benchmark. From this perspective, the “terms-of-trade” of trade agreements can be understood to encompass a remarkably wide class of models.

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offers to maintain multilateral reciprocity was required once the breakdown became known.

In other recent work, we explore implications of our theoretical analysis for settings with important asymmetries, such as the case of trade-access bargaining forum built on reciprocity and MFN may work well when the desire for increased market access is relatively balanced across bargaining partners, so that the reciprocal one-for-one price of exchange is approximately a market-clearing price. But when large asymmetries exist, as when some countries have already exhausted many of the possibilities for reciprocal exchanges of commitments through earlier bargains, while other countries are just beginning to engage in the process, the reciprocity requirement itself may pose a major hurdle to successful negotiations. We develop this idea as a possible contributing factor to the difficulties faced by the WTO’s Doha “development” round in achieving its goal of better integrating emerging and developing countries into the world trading system.

To study a linear Cournot model and model and provide a partial interpretation of the treatment of export subsidies in the WTO.16

Could the Purpose of Trade Agreements Be Changing?

GATT was created in 1947, and we know that the nature of trade is very different now than it was then. How might these changes affect the relevance of a multilateral forum like the WTO, and how might it evolve in response? This is a natural question to ask in the two-step research program we describe above. First, we answer it, we must first ask whether the changing nature of trade has altered the central role of terms-of-trade externalities in defining the purpose of a trade agreement. This is an open and important question. One possible reason that the answer could be “yes” is that the rise of offshoring and global supply chains may be changing the way that international prices and the terms of trade are determined, from traditional market-clearing mechanisms to a web of bilateral bargains over the prices of customized inputs in specialized buyer-supplier relationships that are no longer tightly disciplined by market-clearing considerations. To the extent that this change has occurred, it changes the nature of international policy externalities, extending them beyond terms-of-trade channels, and thereby creating new problems for a trade agreement to solve and new features of the trade agreement designed to solve them.

1 For recent reviews of much of this literature, see K. Bagwll, C. Bown, and P. Antras, “A First Look at the GATT Bargaining Records,” NBER Working Paper No. 14285, August 2012.


Gender Gaps in Developed Economies

Claudia Olivetti

Women in developed economies have made remarkable progress in the labor market over the past century, resulting in clear convergence in human capital investment, employment prospects, and outcomes relative to men. However, gender differences in pay and employment levels persist. A vast and still growing literature has developed on the causes, characteristics, and consequences of both the improvements for women and the remaining disparities with respect to men. In this summary, I discuss findings from my recent work that contribute to this literature.

The American Experience in Comparative Perspective

Some of my recent research, partly joint with Barbara Petrongolo, has documented historic trends in gender gaps in the United States and other OECD economies.

I combine pre-WWII data on labor force participation rates and sectoral employment by gender from the International Historical Statistics Series with comparable post-WWII data from the International Labour Organization to construct a sample of developed economies for which data are consistently available from the late 19th century to the turn of the 21st century. The sample includes Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, the Netherlands, Norway, Portugal, Spain, Sweden, the United Kingdom and the United States.

Figures 1a and 1b display the resulting female employment-to-population ratio for women over 15 years old, by country. The female employment rate in the U.S. was 20 percent in 1890 and surpassed 60 percent in 2005. In other OECD countries, the rise in female employment only started in the postwar period, with Canada, Australia, the U.K., the Netherlands, and Scandinavian countries reaching levels similar or higher than those in the U.S. Despite growing during at least five decades, by the end of the 20th century the female employment rate in other European countries remained below the 60 percent mark, especially in Mediterranean countries, where the current level of female employment is similar to that observed in the U.S. or the U.K. during the 1970s. Japan is the only country in which female employment stagnated (at around 50 percent) throughout the postwar period. On average, female employment increased during the second half of the 20th century; female labor force participation declines during these 100 years, either throughout the period (for instance in Belgium, the Netherlands, and Portugal), or after an initial rising phase (for example in the U.K., Italy, Spain, Austria, and most notably France). In fact, earlier work argues that even for the U.S., more inclusive measures of labor supply that cover both paid and unpaid work of married women deliver a U-shaped pattern, whereby female labor force participation declines during the 19th century, reaching the bottom sometime in the 1920s, before starting its steady rise during the rest of the 20th century.

Large gains in female employment were thus not a historical necessity, but largely a feature of the postwar period. Other labor market indicators consistently available for OECD countries over the postwar period—hours worked, employment rates of working-age women, wage gaps—confirm gender convergence in labor market outcomes post-1950, though there are interesting differences in the remaining gaps. In countries with a more-compressed wage distribution, such as Scandinavian nations, gender differences in pay are also more compressed than in countries with a wider wage distribution, such as the U.S. and the U.K. Countries in which the employment gap has closed faster display relatively larger gaps in wages. The resulting cross-sectional negative correlation between wages and employment gaps is suggestive of important selection effects, at least for some countries.

Determinants of Convergence

Women’s changing roles in the economy, and the driving forces, whether technological or cultural, have been widely researched. Given the breadth and complexity of the phenomena being analyzed, there is obviously no one-size-fits-all explanation.

The expansion of the service sector with its attendant white-collar jobs greatly facilitated change. Estimates from my work discussed earlier indicate that the growth in female labor force participation in developed economies precedes the acceleration in growth of the service sector. Men may gain from the shift away from agriculture initially, with more robust manufacturing growth, but women who concentrate in service-sector jobs are well positioned in what will eventually be the leading sector. As intellectual skills grow in importance relative to physical power, increasing relative wages lower fertility and increase labor force participation.

Other types of technological progress—for example in contraceptive technology and new domestic appliances—reinforce this process by affecting women’s investment in human capital and fertility choices. Changing cultural norms and attitudes towards gender roles also played an important role.”
Medical Progress in Maternal Health

Recent work with Stefania Albanesi shows that progress in maternity care was critical both to the rise in married women’s labor force participation and to the increase in fertility between 1930 and 1960. In the mid-1930s, maternal mortality was the second leading cause of death for women 15 to 44 in the United States. Maternal morbidity was also rampant. For each death, 20 mothers suffered pregnancy-related disabilities. Medical advances improved maternal health, leading to a remarkable reduction in maternal mortality and morbidity over the 20th century — also played an important auxiliary role in a period of high fertility.

In the U.S., the labor supply of women was affected by World War II, but mostly among the upper half of women by level of schooling. Less-educated women were disproportionately pulled into manufacturing positions during the war and many probably did not remain in them afterward. The more-educated group, however, entered growing sectors like services that enabled them to maintain their educational choices and status in the workforce, on the one hand, and an important social outcome — the marriage market outcomes for skilled vs. unskilled women — on the other. Therefore, the expansion of the service sector may create jobs that are not limited in terms of education and/or wages, a feature that could not be rationalized on the basis of labor supply mechanisms alone.44 Post-1970, the relationship between the rise in service and female hours in developed economies can be grasped in Figure 2. Each line represents the joint evolution of the service share and female

**Figure 2**

![Female Labor Force Participation, 1970-2016](image)

- **FEMALE HOURS AND SIZE OF THE SERVICE SECTOR**

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NBER News

New Directors of Two NBER Programs

In September 2016, Catherine Wolfram, the Cora Jane Flood Professor of Business Administration at the Haas School of Business at the University of California, Berkeley, and an NBER researcher associate, will succeed Don Fullerton of the University of Illinois as the director of the Environmental and Energy Economics (EEE) Program. Fullerton launched the EEE Program in 2007.

In another leadership change, Stephen Redding, the Harold T. Shapiro ’64 Professor of Economics in the Department of Economics and the Woodrow Wilson School at Princeton University, will succeed Robert Feenstra of the University of California, Davis, as the director of the International Trade and Investment (ITI) Program. Feenstra has led the program since 1992, when the NBER’s International Economics Program, which had been led by William Branson, was divided into the ITI and International Finance and Macroeconomics (IFM) Programs.

Conferences

Economics of Culture and Institutions

An NBER conference, “Economics of Culture and Institutions,” took place in Cambridge on April 9. Research Associate Alberto Binis of New York University and Faculty Research Fellow Paola Giuliano of the University of California, Los Angeles, organized the meeting. These researchers’ papers were presented and discussed:

- Christian Dippel, University of California, Los Angeles, and NBER, Stephane Hébrilh, University of Bristol; and Robert Gold, Kiel Institute for the World Economy, “Globalization and Its (Dis-)Content: Trade Shocks and Voting Behavior” (NBER Working Paper No. 21812)
- Sara Lowes, Harvard University; Nathan Nunn, Harvard University and NBER; James A. Robinson, University of Chicago and NBER; and Jonathan Weigel, Harvard University, “The Evolution of Culture and Institutions: Evidence from the Kuba Kingdom” (NBER Working Paper No. 21789)
- Enrico Spolaore, Tufts University and NBER, and Romain Wacziarg, University of California, Los Angeles, and NBER, “Fertility and Modernity”
- Konrad B. Bunchardi, Stockholm University; Thomas Chaney, University of Chicago; and Tarek A. Hassan, University of Chicago and NBER, “Migrants, Ancestors, and Investments” (NBER Working Paper No. 21847)

Summaries of these papers are at: http://www.nber.org/confer/2016/CIs16/summary.html
Capital Flows and Debt in Emerging Markets

An NBER conference, "Capital Flows and Debt in Emerging Markets," took place in Washington, D.C., on April 11–12. Research Associates Sebnem Kalemli-Ozcan of the University of Maryland and Carmen Reinhart of Harvard University organized the meeting. These researchers' papers were presented and discussed:

- Laura Alfaro, Harvard University and NBER; Gonzalo Asis, University of North Carolina at Chapel Hill; Anusha Chari, University of North Carolina at Chapel Hill and NBER; and Ugo Panizza, Graduate Institute of International and Development Studies (Geneva), "Lessons Unlearned: Corporate Debt in Emerging Markets"
- Vladimir Asriyan, Luca Forno, and Alberto Martin, CREI (Barcelona), and Jaume Ventsola, CREI and NBER, "Monetary Policy for a Bubbly World"
- Serkan Arslanalp, International Monetary Fund, and Takahiro Tsuba, Ministry of Finance Japan, "Tracking Global Demand for Emerging Market Sovereign Debt"
- Benjamin Hébert, Stanford University, and Jesse Schreger, Princeton University and NBER, "The Costs of Sovereign Default: Evidence from Argentina" (NBER Working Paper No. 22270)
- Carmen Reinhart; Vincent Reinhart, American Enterprise Institute; and Christoph Teschke, University of Munich, "Global Cycles: Capital Flows, Commodities, and Sovereign Defaults, 1815-2015" (NBER Working Paper No. 21958)
- Jaume Ventsola, and Hans-Joachim Voth, University of Zurich, "Debt into Growth: How Sovereign Debt Accelerated the First Industrial Revolution"
- Gita Gopinath, Harvard University and NBER; Sebnem Kalemli-Ozcan; Loukas Karabarbounis, University of Chicago and NBER; and Carolina Villegas-Sanchez, ESADE (Barcelona), "Capital Allocation and Productivity in South Europe" (NBER Working Paper No. 21453)

Summaries of these papers are at: http://www.nber.org/confer/2016/DEMs16/summary.html

31st Macroeconomics Annual Conference

The NBER's 31st Annual Conference on Macroeconomics took place in Cambridge on April 15–16. Research Associates Martin Eichenbaum of Northwestern University and Jonathan Parker of MIT organized the meeting. These researchers' papers were presented and discussed:

- Jeffrey R. Campbell, Jonas Fisher, Alejandro Justiniano, and Leonardo Melosi, Federal Reserve Bank of Chicago, "Forward Guidance and Macroeconomic Outcomes Since the Financial Crisis"
- Fernando E. Alvarez, University of Chicago and NBER, and Francesco Lippi and Juan Passadore, Einaudi Institute for Economics and Finance (Rome), "Are State and Time Dependent Models Really Different?"
- Paul Beaudry, University of British Columbia and NBER; Dana S. Galizia, Carlton University; and Franck Portier, Toulouse School of Economics, "Is the Macroeconomy Locally Unstable and Why Should We Care?" (NBER Working Paper No. 22275)
- Oscar Jordà, Federal Reserve Bank of San Francisco; Moritz Schularick, University of Bonn; and Alan M. Taylor, University of California, Davis, and NBER, "Macrofinancial History and the New Business Cycle Facts"
- Pierre-Olivier Gourinchas, University of California, Berkeley, and NBER, Thomas Philippon, New York University and NBER; and Dimitri Yavanis, London School of Economics and NBER, "The Analytics of the Greek Crisis"
- Olivier J. Blanchard, Peterson Institute for International Economics and NBER; Christopher J. Erceg, Federal Reserve Board; and Jesper Linde, Sveriges Riksbank (Stockholm), "Jump-Starting the Euro Area Recovery: Would a Rise in Core Fiscal Spending Help the Periphery?" (NBER Working Paper No. 21426)

Summaries of these papers are at: http://www.nber.org/confer/2016/Macro16/summary.html and video presentations are at http://www.nber.org/macroannualconference2016/macroannual_2016.html

State Taxation of Business Income

An NBER conference, "State Taxation of Business Income," took place in Cambridge on May 5–6. Research Associate Joshua Rauh of Stanford University organized the conference. These researchers' papers were presented and discussed:

- William F. Fox, University of Tennessee, and Zhou Yang, Robert Morris University, "Destination Taxation: Road to Economic Success?"
- Jason DiBacker, Middle Tennessee State University; Bradley Heim and Justin Ross, Indiana University; and Shanthi Ramnath, Department of the Treasury, "The Impact of State Taxes on Past-Through Businesses: Evidence from the 2012 Kansas Income Tax Reform"
- David R. Agrawal, University of Kentucky, "The Internet as a Tax Haven? The Effect of the Internet on Tax Competition"

- Frank A. Wolak, Stanford University and NBER, "Managing Reliability Risk and the Consumer and Producer Cost of Intermittent Renewables Integration"
- Steven E. Sexton and Bryan Bollinger, Duke University, and Kenneth Gillingham, Yale University and NBER, "Household Demand for Solar PV and Price Discriminating Subsidies"

Summaries of these papers are at: http://www.nber.org/confer/2016/EEMs16/summary.html
• Enrico Moretti, University of California, Berkeley, and NBER, and Daniel Wilson, Federal Reserve Bank of San Francisco, "The Effect of State Taxes on the Geographical Location of Top Earners: Evidence from Star Scientists" (NBER Working Paper No. 21120)

• Justin Marion, University of California, Santa Cruz, and Erich Muehlegger, University of California, Davis, and NBER, "Tax Compliance and Fiscal Externalities: Evidence from U.S. Diesel Taxation"

• Brian Baugh and Hoonsook Park, Ohio State University and NBER, and Izharak Ben-David, Ohio State University and NBER, "Can Taxes Shape an Industry? Evidence from the Implementation of the Amazon Tax"


• Eric C. Ohrn, Grinnell College, "Investment and Employment Responses to State Adoption of Federal Accelerated Depreciation Policies"

• Adele C. Morris, Brookings Institution; David Bookbinder, Niskanen Center; and Yoram Bauman, Carbon Washington, "State-Level Carbon Taxes: Options and Opportunities for Policymakers"

Summaries of these papers are at: http://www.nber.org/confer/2016/LTAMs16/summary.html

New Developments in Long-Term Asset Management

An NBER conference, "New Developments in Long-Term Asset Management," supported by the Norwegian Finance Initiative, took place in Cambridge on May 19–20. Research Associates Monika Piazzesi of Stanford University and Luis M. Viceira of Harvard University organized the conference. These researchers’ papers were presented and discussed:

• Assaf Hamdani, Eugene Kandel, Yevgeny Mugerman, and Yishay Yafeh, Hebrew University of Jerusalem, "Incentive Fees and Competition in Pension Funds: Evidence from a Regulatory Experiment"

• Joseph J. Gerasos, University of Chicago; Juhani T. Linnainmaa, University of Chicago and NBER; and Adair Morse, University of California, Berkeley, and NBER, "Asset Manager Funds"


• Ian R. Appel, Boston College, and Todd Gormley and Donald Keim, University of Pennsylvania, "Standing on the Shoulders of Giants: The Effect of Passive Investors on Activism"

• Oleg Chuprinin, University of New South Wales, and Denis Sosyura, University of Michigan, "Family Descent as a Signal of Managerial Quality: Evidence from Mutual Funds"

• Alan Moreira, Yale University, and Tyler Muir, Yale University and NBER, "Volatility Managed Portfolios" (NBER Working Paper No. 22088)

• Andrea Eiseleid, University of California, Los Angeles, and NBER; Hanno Lustig, Stanford University and NBER; and Lei Zhang, University of California, Los Angeles, "Risk and Return in Segmented Markets with Expertise"

• Nathan Foley-Fisher, Borghaen Narajabad, and Stephane Verani, Federal Reserve Board, "Securities Lending as Wholesale Funding: Evidence from the U.S. Life Insurance Industry"

• Sergey Chernenko, Ohio State University, and Adi Sunderam, Harvard University and NBER, "Liquidation Transformation in Asset Management: Evidence from the Cash Holdings of Mutual Funds"

Summaries of these papers are at: http://www.nber.org/confer/2016/LTAMs16/summary.html

Women Working Longer

An NBER conference, "Women Working Longer," took place in Cambridge on May 21–22. Research Associates Claudia Goldin and Lawrence Katz of Harvard University organized the conference. These researchers’ papers were presented and discussed:

• Claudia Goldin and Lawrence Katz, "Women Working Longer: Facts and Some Explanations"

• Nicole Maestas, Harvard University and NBER, "The Return to Work and Women's Employment Decisions"

• Sean Faul, State University of New York at Buffalo, and Kathleen McGarry, University of California, Los Angeles, and NBER, "Women Working Longer: Labor Market Implications of Providing Family Care"

• Annamaria Lusardi, George Washington University and NBER, and Olivia Mitchell, University of Pennsylvania and NBER, "Older Women's Labor Market Attachment, Retirement Planning, and Household Debt"

• Alexander Gelber, University of California, Berkeley, and NBER; Adam Isen, Department of the Treasury; and Jae Song, Social Security Administration, "The Role of Social Security Benefits in the Increase of Older Women's Labor Force Participation: Evidence from the Notch Cohorts"

• Joshua Mitchell and Adam Bee, Bureau of the Census, "The Evolution of Women's Total Income near Retirement: Evidence from Matched Survey-Administrative Data"

• Maria Fitzpatrick, Cornell University and NBER, "Teaching, Teachers Pension, and Retirement across Recent Cohorts of College Graduates: Women"

• Janice Compton, University of Manitoba, and Robert Pollak, Washington University in St. Louis and NBER, "What about the Surviving Spouse? Life Expectancy and Retirement"

• Claudia Olivetti, Boston College and NBER, and Dana Rotz, Mathematica Policy Research, "Changes in Marriage and Divorce as Drivers of Employment and Retirement of Older Women"

• Joanna Lahey, Texas A&M University and NBER, "Why Aren't Black Women Working Longer?"

Summaries of these papers are at: http://www.nber.org/confer/2016/WWLs16/summary.html

International Comparisons of Income, Prices, and Production

An NBER conference, "International Comparisons of Income, Prices, and Production," took place in Cambridge on May 27–28. Research Associate Robert Feenstra of the University of California, Davis, and Faculty Research Fellow Alberto Cavallo of MIT organized the conference. These researchers’ papers were presented and discussed:

• Robert C. Allen, New York University Abu Dhabi, "Absolute Poverty: When Necessity Displaces Desire"

• Stephen J. Redding, Princeton University and NBER, and David Weinstein, Columbia University and NBER, "A Unified Approach to Estimating Demand and Welfare"

• Inguld Almås, IIES Stockholm University; Timothy Beatty, University of California, Davis; and Thomas Crossley, University of Essex, "Lost in Translation: What do Engel Curves Tell Us About the Cost of Living?"

• Yuriy Gorodnichenko, University of California, Berkeley, and NBER; Vichaslat Shereemirov, Federal Reserve Bank of Boston; and Oleksandru Talavea, University of Sheffield, "Price Setting in Online Markets: Does IT Click?" (NBER Working Paper No. 20819)

• Robert C. Feenstra, Mingzhi Xu, University of California, Davis; Alexis Antoniades, Georgetown University; and John Romalis, University of Sydney and NBER, "What is the Price of Tea in China? Towards the Relative Cost of Living in Chinese and U.S. Cities"
Productivity in Higher Education

An NBER conference, “Productivity in Higher Education,” took place in Cambridge on May 31–June 1. Research Associate Summaries of these papers are at: http://www.nber.org/confer/2016/PHEs16/summary.html

* Robert C. Feenstra, and Robert Inklaar and Marcel Timmer, University of Groningen, “Perrn World Table: Version 9.0 and Beyond”
* Joel David, University of Southern California; Espen Henriksen, University of California, Davis; and Ina Simonovska, University of California, Davis, and NBER, “The Risky Capital of Emerging Markets” (NBER Working Paper No. 20769)
* Robert Inklaar, and W. Erwin Diewert, University of British Columbia and NBER, “Measuring Industry Productivity across Time and Space and Cross Country Convergence”
* Robert Hill, Miriam Steurer, Sofie Wahl, and Michael Scholz, University of Graz, “The Treatment of Owner Occupied Housing in the CPI and its Implications for Monetary Policy”

Summaries of these papers are at: http://www.nber.org/confer/2016/IGCs16/summary.html

Program and Working Group Meetings

Health Care

The NBER’s Program on Health Care, directed by Jonathan Gruber of MIT, met in Cambridge on March 11. These researchers’ papers were presented and discussed:

* Michael Geruso, University of Texas at Austin and NBER, and Timothy J. Layton, Harvard University, “Upcoding or Selection? Evidence from Medicare on Squeasy Risk Adjustment”
* Jishnu Das and Alaka Holla, World Bank; Aakash Mohpal, University of Michigan; and Karthik Muralidharan, University of California, San Diego, and NBER, “Quality and Accountability in Healthcare Delivery: Audit-Study Evidence from Primary Care in India” (NBER Working Paper No. 21405)
* Hunmy Song, Harvard University, Robert Huckman, Harvard University and NBER, and Jason Barro, Bain & Company, “Cohort Turnover and Operational Performance: The July Phenomenon in Teaching Hospitals”
* Leila Agha, Keith Marrzili Ericson, and James B. Rebitzer, Boston University and NBER, Kimberley Geisler, University of Massachusetts Amherst; and Benjamin Lubin, Boston University, “Causes and Consequences of Fragmented Care Delivery: Theory, Evidence, and Public Policy”

Summaries of these papers are at: http://www.nber.org/confer/2016/IGCs16/summary.html

International Trade and Investment

The NBER’s Program on International Trade and Investment, directed by Robert Feenstra of the University of California, Davis, met in Cambridge on March 18–19. These researchers’ papers were presented and discussed:

* Poa Antras, Harvard University and NBER; Alessio de Gortari Briseno, Harvard University; and Oleg Itskhoki, Princeton University and NBER, “Inequality, Costly Redistribution, and Welfare in an Open Economy”
* Lorenzo Caliendo, Yale University and NBER; Robert C. Feenstra and Alan M. Taylor, University of California, Davis, and NBER; and John Romalis, University of Sydney and NBER, “Tariff Reductions, Entry, and Welfare: Theory and Evidence for the Last Two Decades” (NBER Working Paper No. 21768)
* Benjamin Faber and Thihaught Jolly, University of California, Berkeley, and NBER, “Firm Heterogeneity in Consumption Baskets: Evidence from Home and Store Scanner Data”

Summaries of these papers are at: http://www.nber.org/confer/2016/PHEs16/summary.html
International Finance and Macroeconomics

The NBER’s Program on International Finance and Macroeconomics, directed by Jeffrey A. Frankel of Harvard University, met in Cambridge on April 1. Laura Alfaro and Emmanuel Farhi of Harvard University organized the meeting. These researchers’ papers were presented and discussed:

- Michael B. Devereux, University of British Columbia and NBER, Eric Young, University of Virginia; and Changhua Yu, Peking University (Beijing), “A New Dilemma: Capital Controls and Monetary Policy in Sudden-sto Economies” (NBER Working Paper No. 21791)

Public Economics

The NBER’s Program on Public Economics met in Cambridge on April 1. Directors Raj Chetty of Stanford University and Amy Finkelstein of MIT and Faculty Research Fellows Nathaniel Hendren of Harvard University and Neale Mahoney of the University of Chicago organized the meeting. These researchers’ papers were presented and discussed:

- Caroline M. Hoxby, Stanford University and NBER, and George Bulman, University of California, Santa Cruz, “The Effects of the Tax Deduction for Postsecondary Tuition: Implications for Structuring Tax-Based Aid” (NBER Working Paper No. 21554)

Corporate Finance

The NBER’s Program on Corporate Finance met in Chicago on April 7–8. Faculty Research Fellow Shai Bernstein of Stanford University and Research Associate C. Fritz Foley of Harvard University organized the meeting. These researchers’ papers were presented and discussed:

- Eric Bettinger, Stanford University and NBER, Oded Gurantz, Stanford University; Laura Kawano, Department of the Treasury; and Bruce Sacerdote, Dartmouth College and NBER, “The Long Run Impacts of Merit Aid: Calculations from California’s Cal Grant” (NBER Working Paper No. 21512)
- Jacob Mortensen and Andrew Whitten, Georgetown University, and Heidi R. Schramm, Joint Committee on Taxation, “The Effect of Required Minimum Distribution Rules on Withdrawals from Traditional Individual Retirement Accounts” (NBER Working Paper No. 22281)
- Annette Alstadsæter, Norwegian University of Life Sciences; Martin Jacob, WHU – Otto Beisheim School of Management (Germany); Wojciech Kopczuk, Columbia University and NBER; and Kjetil Telle, Statistics Norway, “Accounting for Business Income in Measuring Top Income Shares: Integrated Accrual Approach Using Individual and Firm Data from Norway” (NBER Working Paper No. 22281)
- Sumit Agarwal, National University of Singapore; Gene Amromin, Federal Reserve Bank of Chicago; Souphala Chomsisengphet, Department of the Treasury; Tomasz Piskorski, Columbia University and NBER; Amit Seru, University of Chicago and NBER; and Vincent Yao, Georgia State University, “Mortgage Refinancing, Consumer Spending, and Competition: Evidence from the Home Affordable Refinancing Program” (NBER Working Paper No. 22281)

Summaries of these papers are at: http://www.nber.org/confere/2016/ITTs16/summary.html

Summaries of these papers are at: http://www.nber.org/confere/2016/IFMs16/summary.html

Summaries of these papers are at: http://www.nber.org/confere/2016/PEs16/summary.html

Summaries of these papers are at: http://www.nber.org/confere/2016/FEs16/summary.html
• Sabrina T. Howell, New York University, “Relaxing Constraints on Risk Management: Evidence from a Natural Experiment”

• Erik Stafford, Harvard University, “Replicating Private Equity with Value Investing, Homemade Leverage, and Hold-to-Maturity Accounting”

• Joshua D. Gottlieb, University of British Columbia and NBER; Richard Townsend, Dartmouth College; and Ting Xu, University of British Columbia, “Experimenting with Entrepreneurship: The Effect of Job-Protection Leave”

• Francesco D’Acunto, University of Maryland; Ryan Liu, University of California, Berkeley; Carolin Pfueger, University of British Columbia; and Michael Weber, University of Chicago and NBER, “Flexible Prices and Leverage”


• Marieke Bos, Stockholm University; Emily L. Breza, Columbia University and NBER; and Andreas Liberman, New York University, “The Labor Market Effects of Credit Market Information”

• Rick Harbaugh and John W. Maxwell, Indiana University, and Kelly Shue, University of Chicago and NBER, “Consistent Good News and Inconsistent Bad News”

• Pedro Bordalo, Royal Holloway, University of London; Nicola Gennaioli, Bocconi University (Milan); and Andrea Shleifer, Harvard University and NBER, “Diagnostic Expectations and Credit Cycles”

Summaries of these papers are at: http://www.nber.org/confer/2016/CFs16/summary.html

Political Economy

The NBER's Program on Political Economy met in Cambridge on April 8. Program Director Alberto Alesina of Harvard University organized the meeting. These researchers’ papers were presented and discussed:


• Joram Mayshar, Hebrew University of Jerusalem; Omer Moar, University of Warwick; Zvika Neeman, Tel Aviv University; and Luigi Pascali, Pompeu Fabra University (Barcelona), “Cereals, Appropriability, and Hierarchy”

• René Bowen, Stanford University and NBER; Jackie M. L. Chan, Chinese University of Hong Kong; Oindrila Dube, New York University and NBER; and Nicolás Lambert, Stanford University, “Reform Fatigue”

• Melissa Dell, Harvard University and NBER, and Pablo Querubín, New York University, “Bombing the Way to State-Building? Lessons from the Vietnam War”


• Abhijit Banerjee and Benjamin A. Olken, MIT and NBER; Rema Hanna, Harvard University and NBER; Jordan C. Kyle, International Food Policy Research Institute; and Sudarino Sumarto, SMERU Research Institute (Indonesia), “Contracting out the Last Mile of Service Delivery: Subsidized Food Distribution in Indonesia” (NBER Working Paper No. 21837)

Summaries of these papers are at: http://www.nber.org/confer/2016/POLA16/summary.html

Behavioral Finance

The NBER’s Working Group on Behavioral Finance met in Chicago on April 9. Working Group Director Nicholas Barberis of Yale University organized the meeting. These researchers’ papers were presented and discussed:

• Juhani T. Linnainmaa, University of Chicago and NBER; Brian T. Melzer, Northwestern University; and Alessandro Previtero, University of Western Ontario, “The Misguided Beliefs of Financial Advisors”

• Jeffrey Hoopes, Ohio State University; Patrick Langsrig, Internal Revenue Service; Stefan Nagel and Joel Slemrod, University of Michigan and NBER; Daniel Reck and Bryan Stuart, University of Michigan, “Who Sold During the Crash of 2008–9: Evidence from Tax-Return Data on Daily Sales of Stock” (NBER Working Paper No. 22209)

• Jean-Philippe Bouchaud, Capital Fund Management (Paris); Philipp Krüger, University of Geneva; Augustin Landier, Toulouse School of Economics; and David Thesmar, HEC Paris, “Sticky Expectations and Stock Market Anomalies”

• Camelia M. Kuhnen, University of North Carolina at Chapel Hill and NBER, and Andrei C. Miu, Capital Fund Management (Paris); and Jean-Philippe Bouchaud, Capital Fund Management (Paris), “The Misjudged Beliefs of Financial Advisors”

• Brian T. Melzer, Northwestern University; and Alessandro Previtero, University of Western Ontario, “The Paradox of Civilization: Pre-Institutional Sources of Security and Prosperity” (NBER Working Paper No. 21829)

• Stefano Giglio and Bryan T. Kelly, University of Chicago and NBER, “Excess Volatility: Beyond Discount Rates” (NBER Working Paper No. 22205)

• J. Anthony Cookson, University of Colorado, Boulder, and Marina Niesner, Yale University, “Why Don’t We Agree? Evidence from a Social Network of Investors”

Summaries of these papers are at: http://www.nber.org/confer/2016/BFs16/summary.html

Asset Pricing

The NBER’s Program on Asset Pricing met in Chicago on April 8. Faculty Research Fellow Adrien Verdelhan and Research Associate Deborah J. Lucas, both of MIT, organized the meeting. These researchers’ papers were presented and discussed:

• Lars P. Hansen, University of Chicago and NBER, and Thomas J. Sargent, New York University and NBER, “Sets of Models and Prices of Uncertainty” (NBER Working Paper No. 22000)

• Robert Novy-Marx, University of Rochester and NBER, “Testing Strategies Based on Multiple Signals”

• Nina Boyarchenko and David Lucca, Federal Reserve Bank of New York, and Laura Veldkamp, New York University and NBER, “Taking Orders and Taking Notes: Dealer Information Sharing in Financial Markets”

• Brian Weller, Northwestern University, “Measuring Tail Risks at High Frequency”

• Michael D. Bauer, Federal Reserve Bank of San Francisco, and James D. Hamilton, University of California, San Diego, and NBER, “Robust Bond Risk Premia”

• Erik P. Gille, University of Pennsylvania; Robert C. Ready, University of Rochester; and Nikolai Roussanov, University of Pennsylvania and NBER, “Fracking, Drilling, and Asset Pricing: Estimating the Economic Benefits of the Shale Revolution”

Summaries of these papers are at: http://www.nber.org/confer/2016/APr16/summary.html
Insurance

The NBER’s Working Group on Insurance met in Chicago on April 9. Directors Liran Einav of Stanford University and Kenneth A. Froot of Harvard University organized the meeting. These researchers’ papers were presented and discussed:

- Anna V. Chornyi, Princeton University, and Daniel Miller and Tilian Tang, Clemson University, “Mergers in Medicare Part D: Decomposing Market Power, Cost Efficiencies, and Bargaining Power”
- Pietro Tchabdi, Stanford University, “Estimating Equilibrium in Health Insurance Exchanges: Price Competition and Subsidy Design under the ACA”
- Naoki Aizawa, University of Minnesota, and You Suk Kim, Federal Reserve Board, “Advertising and Risk Selection in Health Insurance Markets”
- Michael Geruso, University of Texas at Austin and NBER, and Timothy J. Layton, Harvard University, “Upcoding or Selection? Evidence from Medicare on Squishy Risk Adjustment”
- Sabrina T. Howell, New York University, “Relaxing Constraints on Risk Management: Evidence from a Natural Experiment”
- Viral Acharya, Thomas Philippon, and Matthew Richardson, New York University and NBER, “Measuring Systemic Risk for Insurance Companies”
- Darius N. Lakdawalla, University of Southern California and NBER, Julian Reif, University of Illinois at Urbana-Champaign; and Daniel Bauer, Georgia State University, “Mortality Risk, Insurance, and the Value of Life”
- Benjamin L. Collier and Erwann Michel-Kerjan, University of Pennsylvania; Daniel Schwartz, University of Chile; and Howard Kunreuther, University of Pennsylvania and NBER, “Risk Preference Inconsistencies across Low and High Stakes: Evidence from the Field”
- Juan Pablo Atal, University of California, Berkeley, “Lock-in in Dynamic Health Insurance Contracts: Evidence from Chile”

Summaries of these papers are at: http://www.nber.org/confer/2016/INSs16/summary.html

Innovation Policy

The NBER’s Working Group on Innovation Policy met in Washington, D.C., on April 12. Working Group Director Scott Stern of MIT and Research Associates Shane Greenstein and Josh Lerner, both of Harvard University, organized the meeting. These researchers’ papers were presented and discussed:

- Joel Waldfogel, University of Minnesota and NBER, “The Random Long Tail and the Golden Age of Television”
- Marc Rysman, Boston University, and Scott Schuh, Federal Reserve Bank of Boston, “New Innovations in Payments”
- Anna V. Chornyi, Princeton University, and Daniel Miller and Tilian Tang, Clemson University, “Mergers in Medicare Part D: Decomposing Market Power, Cost Efficiencies, and Bargaining Power”
- Pietro Tchabdi, Stanford University, “Estimating Equilibrium in Health Insurance Exchanges: Price Competition and Subsidy Design under the ACA”
- Naoki Aizawa, University of Minnesota, and You Suk Kim, Federal Reserve Board, “Advertising and Risk Selection in Health Insurance Markets”
- Michael Geruso, University of Texas at Austin and NBER, and Timothy J. Layton, Harvard University, “Upcoding or Selection? Evidence from Medicare on Squishy Risk Adjustment”
- Sabrina T. Howell, New York University, “Relaxing Constraints on Risk Management: Evidence from a Natural Experiment”
- Viral Acharya, Thomas Philippon, and Matthew Richardson, New York University and NBER, “Measuring Systemic Risk for Insurance Companies”
- Darius N. Lakdawalla, University of Southern California and NBER, Julian Reif, University of Illinois at Urbana-Champaign; and Daniel Bauer, Georgia State University, “Mortality Risk, Insurance, and the Value of Life”
- Benjamin L. Collier and Erwann Michel-Kerjan, University of Pennsylvania; Daniel Schwartz, University of Chile; and Howard Kunreuther, University of Pennsylvania and NBER, “Risk Preference Inconsistencies across Low and High Stakes: Evidence from the Field”
- Juan Pablo Atal, University of California, Berkeley, “Lock-in in Dynamic Health Insurance Contracts: Evidence from Chile”

Summaries of these papers are at: http://www.nber.org/confer/2016/INSs16/summary.html

Children

The NBER’s Program on Children met in Washington, D.C., on April 14. Program Co-Directors Anna Aliferis of Brown University and Janet Currie of Princeton University organized the meeting. These researchers’ papers were presented and discussed:

- David Figlio, Northwestern University and NBER; Claudio Persico, Northwestern University; and Jeffrey Roth, University of Florida, “Inequality before Birth: The Developmental Consequences of Environmental Toxins” (NBER Working Paper No. 22263)
- Ozkan Eren, Louisiana State University, and Naci Mocan, Louisiana State University and NBER, “Emotional Judges and Unlucky Juveniles”
- Alan Barreta, Tulane University and NBER; Olivier Deschênes, University of California, Santa Barbara, and NBER; and Melanie E. Guild, University of Central Florida, “Maybe Next Month? Temperature Shocks, Climate Change, and Dynamic Adjustments in Birth Rates” (NBER Working Paper No. 21681)

Summaries of these papers are at: http://www.nber.org/confer/2016/CHEDs16/summary.html

Education

The NBER’s Program on Education met in Washington, D.C., on April 15. Program Director Caroline M. Hoxby of Stanford University and Janet Currie of Princeton University organized the meeting. These researchers’ papers were presented and discussed:

- John Bound, University of Michigan and NBER; Breno Braga, Urban Institute; Gaurav Khanna, University of Michigan; and Sarah Turner, University of Virginia and NBER, “A Passage to America: University Funding and International Students”
- Timothy F. Bresnahan, Stanford University and NBER, and Pai-Ling Yin, Stanford University, “Adoption of New Information and Communications Technologies in the Workplace Today”

Summaries of these papers are at: http://www.nber.org/confer/2016/IEPs16/summary.html
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Environmental and Energy Economics

The NBER's Program on Environmental and Energy Economics met in Cambridge on April 14–15. Research Associates Lawrence H. Goulder of Stanford University and Rema Hanna of Harvard University organized the meeting. This year's papers were presented and discussed:

- Solomon M. Hsiang, University of California, Berkeley, and NBER, and Nitin Sekar, Princeton University, "A Global Experiment in Black Market Dynamics: The Effect of Legal Ivory Sales on Illegal Ivory Production".
- Joseph E. Aldy, Harvard University and NBER, Todd Gerarden, Harvard University; and Richard Sweeney, Boston College, "Capital versus Output Subsidies: Implications of Alternative Incentives for Wind Energy".
- Jun Yang, Beijing Transportation Research Center; Antung A. Lin, Indiana University; Ping Qin, Renmin University of China (Beijing); and Joshua Linn, Resources for the Future, "The Effect of Owning a Car on Travel Behavior: Evidence from the Beijing License Plate Lottery".
- Shaun McRae and Robyn Meeks, University of Michigan, "Price Perception and Electricity Demand with Nonlinear Tariffs".
- Robin Burgess, London School of Economics; Francisco J. M. Costa, Getulio Vargas Foundation (Rio de Janeiro); and Benjamin A. Olken, MIT and NBER, "The Power of the State: National Borders and the Deforestation of the Amazon".
- Avraham Ebenstein, Hebrew University of Jerusalem; Michael Greenstone, University of Chicago and NBER; Maoyong Fan, Ball State University; Guojun He, Hong Kong University of Science and Technology; and Maigeng Zhou, Chinese Center for Disease Control and Prevention, "The Impact of Sustained Exposure to Particulate Matter on Life Expectancy: New Evidence from China's Huai River Policy".
- Koichiro Ito, University of Chicago and NBER, and Shuang Zhang, University of Colorado, Boulder, "Willingness to Pay for Clean Air: Evidence from Air Purifier Markets in China".
- James B. Bushnell, University of California, Davis, and NBER; Stephen P. Holland, University of North Carolina at Greensboro and NBER; Jonathan E. Hughes, University of Colorado, Boulder; and Christopher R. Knittel, MIT and NBER, "Strategic Policy Choice in State-Level Regulation: The EPA's Clean Power Plan" (NBER Working Paper No. 21259).
- William A. Pizer, Duke University and NBER, and Brian C. Prest, Duke University, "Prices versus Quantities with Policy Updating".
- Frank A. Wolak, Stanford University and NBER, "Designing Nonlinear Price Schedules for Urban Water Utilities to Balance Revenue and Conservation Goals".

Summaries of these papers are at: http://www.nber.org/conf/2016/EEEs16/summary.html

Cohort Studies

The NBER's Working Group on Cohort Studies, directed by Dora Costa of the University of California, Los Angeles, met in Los Angeles on April 15–16. These researchers' papers were presented and discussed:

- Caleb Finch, University of Southern California, "Air Pollution in Brain Development and Aging".
- Diane Lauderdale, University of Chicago, "Are Americans Sleeping Less Than They Used To? Evidence for Adults and Adolescents".
- Pietro Biroli, University of Zurich, "Genetic and Economic Interaction in Health Formation: The Case of Obesity".
- Marcella Alsan, Stanford University and NBER, and Marianne H. Wamamaker, University of Tennesse and NBER, "Taskgees and the Health of Black Men".
- Günther Fink, Harvard University; Athenee Venkataraman, Massachusetts General Hospital; and Arianna Zanolini, Centre for Infectious Disease Research in Zambia, "Do It Well or Not at All? Maternal Control and Child Development in Zambia".
- Achyuta Adhvaryu, University of Michigan and NBER; Teresa Molina and Jorge A. Tamayo, University of Southern California; Anant Nyshadham, Boston College, "Helping Children Catch Up: Early Life Shocks and the Progress Experiment".
- Sok Chul Hong, Seoul National University, and Jiwon Park, Sogang University (Seoul), "The Socioeconomic Gradient in the Inheritance of Longevity: A Study of American Genealogies".
- Adrian Adermo, Uppsala University, Mikael Lindahl, University of Gothenburg; and Mårten Palme, Stockholm University, "Dyntastic Human Capital, Inequality, and Intergenerational Mobility".
- Leah Platt Bousant, University of California, Los Angeles, and NBER; Katherine Eriksson, University of California, Davis, and NBER; and Philipp Ager, University of Southern Denmark, "The Effect of Fathers' Wealth on Sons' Adult Outcomes in the Nineteenth Century: Evidence from the Civil War".
- Martha Bailey, University of Michigan and NBER, "Intergenerational Family Electronic Microdata (LIFE-M) Project".
- Natalie A. Rivadeniera, Emory University, and Andrew Noymer, University of California, Irvine, "You're Come a Long Way, Baby": The Convergence in Age Patterns of Lung Cancer Mortality by Sex, United States, 1959–2013".
- Steven Lehrer, Queen's University and NBER; Hans-Martin von Gaudecker, University of Bonn; and Mårten Palme, Stockholm University, "Gender Differences in Health Sector Utilization: New Evidence from Exploring Variation across Cohorts and the Lifecycle in Sweden".
- Izaak Fadlon, University of California, San Diego, and NBER, and Torben Heien Nieslen, University of Copenhagen, "Intra-Household Dependencies in Health: Evidence from Spousal Mortality and Severe Health Shocks".

Summaries of these papers are at: http://nber.org/conf/2016/EEEs16/summary.html
**Organizational Economics**

The NBER’s Working Group on Organizational Economics, directed by Robert S. Gibbons of MIT, met in Cambridge on May 13–14. These researchers’ papers were presented and discussed:

- **Victor Lavy,** University of Warwick and NBER; **Analia Schlosser,** Tel Aviv University; and **Adi Shany,** Hebrew University of Jerusalem, “Out of Africa: Human Capital Consequences of In Utero Conditions” (NBER Working Paper No. 21894)

- **Andreas Georgiadis,** University of Oxford, “The Sooner the Better but It’s Never Too Late: The Impact of Nutrition at Different Periods of Childhood on Cognitive Development” (NBER Working Paper No. 21937)


- **Charles J. Courtemanche** and **Rusty Tchernis,** Georgia State University and NBER, and **Benjamin Ukert,** Georgia State University, “The Effect of Smoking on Obesity: Evidence from a Randomized Trial” (NBER Working Paper No. 21937)


- **Christopher J. Ruhm,** University of Virginia and NBER, “Taking the Measure of a Fatal Drug Epidemic”

- **Tom Chang,** University of Southern California; **Joshua S. Graff Zivin,** University of California, San Diego, and NBER; and **Tan Gross** and **Matthew J. Neidell,** Columbia University and NBER, “The Effect of Pollution on Worker Productivity: Evidence from Call-Center Workers in China” (NBER Working Paper No. 22043)

- **Marianne Bitler,** University of California, Davis, and **Christopher Carpenter,** Vanderbilt University and NBER, “Effects of Direct Care Provision to the Uninsured: Evidence from Federal Breast and Cervical Cancer Programs” (NBER Working Paper No. 22043)


**Health Economics**

The NBER’s Program on Health Economics met in Cambridge on April 29. Program Director Michael Grossman of the City University of New York and Research Associate Theodore Joyce of Baruch College organized the meeting. These researchers’ papers were presented and discussed:


- **Charles J. Courtemanche** and **Rusty Tchernis,** Georgia State University and NBER, and **Benjamin Ukert,** Georgia State University, “The Effect of Smoking on Obesity: Evidence from a Randomized Trial” (NBER Working Paper No. 21937)


- **Christopher J. Ruhm,** University of Virginia and NBER, “Taking the Measure of a Fatal Drug Epidemic”

- **Tom Chang,** University of Southern California; **Joshua S. Graff Zivin,** University of California, San Diego, and NBER; and **Tan Gross** and **Matthew J. Neidell,** Columbia University and NBER, “The Effect of Pollution on Worker Productivity: Evidence from Call-Center Workers in China” (NBER Working Paper No. 22043)

- **Marianne Bitler,** University of California, Davis, and **Christopher Carpenter,** Vanderbilt University and NBER, “Effects of Direct Care Provision to the Uninsured: Evidence from Federal Breast and Cervical Cancer Programs” (NBER Working Paper No. 22043)

**Chinese Economy**

The NBER’s Working Group on the Chinese Economy and the Chinese University of Hong Kong met in Shenzhen, China, on May 28–29. Director Hanming Fang of the University of Pennsylvania and Research Associates Shang-Jin Wei of Columbia University and Wei Xiong of Princeton University organized the meeting. These researchers’ papers were presented and discussed:

- **Jiandong Ju,** Shanghai University of Finance and Economics; **Justin Lin,** Peking University (Beijing); **Qing Liu,** Tsinghua University (Beijing); and **Kang Shi,** Chinese University of Hong Kong, “Reserve Requirements and Optimal Chinese Stabilization Policy”

- **Yong Wang** and **Jiaoyi Xu,** Hong Kong University of Science and Technology; and **Xiaodong Zhu,** University of Toronto, “Structural Change and the Dynamics of China-U.S. Real Exchange Rate”

- **Chun Chang** and **Jingyi Zhang,** Shanghai Jiao Tong University, and **Zheng Liu** and **Mark Spiegel,** Federal Reserve Bank of San Francisco, “Regulation under Uncertainty: The Coevolution of Industry and Regulation in the Norwegian Offshore Gas and Oil Industry”

- **Cheng Chen,** University of Hong Kong; **Wei Tian,** University of International Business and Economics (Beijing); and **MiaoJu Xu,** Peking University (Beijing), “Outward FDI and Domestic Inport Distortions: Evidence from Chinese Firms”

- **Lin Ma,** National University of Singapore, and **Yang Tang,** Nanyang Technological University (Singapore), “Rich and Unhappy: A Quantitative Analysis of Internal Trade and Migration in China”

- **Aye Erohorogha,** University of Southern California, and **Kai Zhao,** University of Connecticut, “The Chinese Savings Rate: Productivity, Old-Age Support, and Demographics”

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