Literature Report

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Abstract

Bombs, Brains, and Science: The Role of Human and Physical Capital for the Creation of Scientific Knowledge

• The Review of Economics and Statistics---2016---Fabian Waldinger

I examine the role of human and physical capital for the creation of scientific knowledge. I address the endogeneity of human and physical capital with two exogenous shocks: the dismissal of scientists in Nazi Germany and World War II bombings. A 10% shock to human capital reduced output by 0.2 SD in the short run, and the reduction persisted in the long run. A 10% shock to physical capital reduced output by 0.05 SD in the short run, and the reduction did not persist. The dismissal of star scientists caused much larger reductions in output because they are key for attracting other successful scientists.

The White/Black Educational Gap, Stalled Progress, and the Long-Term Consequences of the Emergence of Crack Cocaine Markets

The Review of Economics and Statistics---2016---William Evans, Craig Garthwaite, Timothy J.
 Moore

We propose the rise of crack cocaine markets as a key explanation for the end to the convergence in black-white educational outcomes in the United States that began in the mid-1980s. After constructing a measure to date the arrival of crack markets in cities and states, we show that the decline in educational outcomes for black males begins with the start of the crack epidemic. We also show that there are higher murder and incarceration rates after the arrival of crack cocaine and that these are predictive of lower black high school completion rates, a result consistent with human capital theory. We estimate that effects related to crack markets can account for approximately 40% to 70% of the fall in black male high school completion rates.

School Accountability, Postsecondary Attainment, and Earnings

The Review of Economics and Statistics---2016---David Deming, Sarah Cohodes, Jennifer Jennings, Christopher Jencks

We study the impact of accountability pressure in Texas public high schools in the 1990s on postsecondary attainment and earnings, using administrative data from the Texas Schools Project. Schools respond to the risk of being rated Low Performing by increasing student achievement on high-stakes exams. Years later, these students are more likely to have attended college and

completed a four-year degree, and they have higher Liquidity Problems and Early Payment Default earnings at age 25. However, we find no overall impact of accountability pressure to achieve a higher rating, and large negative impacts on attainment and earnings for the lowest-scoring students.

Trickle-Down Consumption

• The Review of Economics and Statistics---2016---Marianne Bertrand, Adair Morse

We document that nonrich households consume a larger share of their current income when exposed to higher top income and consumption levels. Permanent income, wealth effects, and upward local price pressures cannot provide the sole explanation for this finding. Instead, we show that the budget shares that nonrich households allocate to more visible goods and services rise with top income levels, consistent with status-maintaining explanations for our primary finding. Nonrich households might have saved up to 3% more annually by the mid-2000s had incomes at the top grown at the same rate as median income since the early 1980s.

Credit Standards and Segregation

• The Review of Economics and Statistics---2016---Amine Ouazad, Romain Rancière

This paper explores the effects of changes in lending standards on racial segregation within metropolitan areas. Such changes affect neighborhood choices as well as aggregate prices and quantities in the housing market. Using the credit boom of 2000 to 2006 as a large-scale experiment, we put forward an IV strategy that predicts the relaxation of credit standards as the result of a credit supply shock predominantly affecting liquidity-constrained banks. The relaxed lending standards led to significant outflows of whites from black and racially mixed neighborhoods. Without such a credit supply shock, black households would have had between 2.3 and 5.1 percentage points more white neighbors in 2010.

among Subprime Mortgages

• The Review of Economics and Statistics---2016---Nathan Anderson, Jane K. Dokko

We compare the twelve-month default probability among subprime borrowers differing only in the number of months before their first lump-sum property tax payment, after which time they may be exposed to reduced liquidity. We show that borrowers with an earlier property tax bill—within three months of origination—have 2% to 6% higher first-year default rates than borrowers facing their first property tax bill ten to twelve months after origination. Lump-sum property tax payments appear to produce a persistent state of low liquidity, the length of which raises the likelihood of default. These results are about one-third the effect size of a transition from 10% positive to 20% negative equity found in the literature. This paper provides causal evidence that liquidity constraints are important predictors of mortgage default.

Survive Another Day: Using Changes in the **Composition of Investments to Measure the Cost** of Credit Constraints

• The Review of Economics and Statistics---2016---Luis Garicano, Claudia Steinwender

We introduce a novel empirical strategy to measure the size of credit shocks. Theoretically, we show that credit shocks reduce the value of long-term relative to short-term investments. Empirically, we can therefore compare the reduction of long-term relative to short-term investments within firms, allowing for firmtimes-year fixed effects. Using Spanish firm-level data, we estimate the credit crunch to be equivalent to an additional tax rate of around 11% on the longest-lived capital. To pin down credit constraints as the underlying cause, we apply triple-differences strategies using foreign ownership or precrisis debt maturity.

War and Relatedness

• The Review of Economics and Statistics---2016---Enrico Spolaore, Romain Wacziarg

We find that more closely related populations are more prone to engage in international conflict with each other. We provide an economic interpretation based on two connected mechanisms. First, more closely related groups share more similar preferences over rival goods and are thus more likely to fight over them. Second, rulers have stronger incentives to conquer populations more similar to their own, to minimize postconflict heterogeneity in preferences over government types and policies. We find support for these mechanisms using evidence on international conflicts over natural endowments and on territorial changes, including decolonization.

Markov-Switching Models with Evolving Regime-Specific Parameters: Are Postwar Booms or Recessions All Alike?

The Review of Economics and Statistics---2016--- Yunjong Eo, Chang-Jin Kim

In this paper, we relax the assumption of constant regime-specific mean growth rates in Hamilton's (1989) two-state Markov-switching model of the business cycle. We introduce a random walk hierarchy prior for each regime-specific mean growth rate and impose a cointegrating relationship between the mean growth rates in recessionary and expansionary periods. By applying the proposed model to postwar U.S. real GDP growth (1947:Q4-2011:Q3), we uncover the evolving nature of the regime-specific mean growth rates of real output in the U.S. business cycle. Additional features of the postwar U.S. business cycle that we uncover include a steady decline in the long-run mean growth rate of real output over the postwar sample and an asymmetric error-correction mechanism when the economy deviates from its long-run equilibrium.

Measuring the Level and Uncertainty of Trend Inflation

• The Review of Economics and Statistics---2016---Elmar Mertens

Firmly anchored inflation expectations are widely multicountry Schumpeterian growth model with hetviewed as playing a central role for the conduct of mon- erogeneous workers, endogenous skill formation, and oc-

etary policy. This paper presents estimates of trend inflation, based on information contained in monthly data on realized inflation, survey expectations, and the term structure of interest rates. In order to assess whether inflation expectations are anchored, a timevarying volatility of trend shocks is estimated as well. While there is some commonality in inflation- and survey-based estimates of trend inflation, yield-based trend estimates embed a highly persistent component orthogonal to trend inflation. Trimmed-mean inflation rates and survey forecasts are most indicative of trend inflation.

Policy Regimes, Policy Shifts, and U.S. Business Cycles

• The Review of Economics and Statistics---2016---Saroj Bhattarai, Jae Won Lee, Woong Yong Park

Using an estimated DSGE model with monetary and fiscal policy interactions and allowing for equilibrium indeterminacy, we find that a passive monetary and passive fiscal policy regime prevailed in the pre-Volcker period. This gave rise to self-fulfilling beliefs and unconventional transmission mechanisms of policy shifts: unanticipated increases in interest rates increased inflation and output, while unanticipated increases in lump-sum taxes decreased inflation and output. We show that had the monetary policy regime of the post-Volcker era been in place pre-Volcker, inflation volatility would have been lower by 25% and the rise of inflation in the 1970s would not have occurred.

Globalization and Wage Polarization

The Review of Economics and Statistics---2016--- Guido Cozzi, Giammario Impullitti

In the 1980s and 1990s, the U.S. labor market experienced a remarkable polarization along with fast technological catch-up as Europe and Japan improved their global innovation performance. Is foreign technological convergence an important source of wage polarization? To answer this question, we build a multicountry Schumpeterian growth model with heterogeneous workers, endogenous skill formation, and oc-

cupational choice. We show that convergence produces polarization through business stealing and increasing competition in global innovation races. Quantitative analysis shows that these channels can be important sources of U.S. polarization. Moreover, the model delivers predictions on the U.S. wealth-income ratio consistent with empirical evidence.

Identification of Instrumental Variable Correlated Random Coefficients Models

 The Review of Economics and Statistics---2016----Matthew A. Masten, Alexander Torgovitsky

We study identification and estimation of the average partial effect in an instrumental variable correlated random coefficients model with continuously distributed endogenous regressors. This model allows treatment effects to be correlated with the level of treatment. The main result shows that the average partial effect is identified by averaging coefficients obtained from a collection of ordinary linear regressions that condition on different realizations of a control function. These control functions can be constructed from binary or discrete instruments, which may affect the endogenous variables heterogeneously. Our results suggest a simple estimator that can be implemented with a companion Stata module.

Religious Identity and Economic Behavior

The Review of Economics and Statistics---2016--- Daniel Benjamin, James Choi, Geoffrey Fisher

We find using laboratory experiments that primes that make religion salient cause subjects to identify more with their religion and affect their economic choices. The effect on choices varies by religion. For example, priming causes Protestants to increase contributions to public goods, whereas Catholics decrease contributions to public goods, expect others to contribute less to public goods, and become less risk averse. A simple model implies that priming effects reveal the sign of the marginal impact of religious norms on preferences. We find no evidence of religious priming effects on

disutility of work effort, discount rates, or dictator game generosity.

The Effect of Disability Payments on Household Earnings and Income: Evidence from the SSI Children's Program

• The Review of Economics and Statistics---2016---Manasi Deshpande

I estimate the effect of removing children with disabilities from Supplemental Security Income (SSI) on parental earnings and household disability receipt. Using administrative data from the Social Security Administration (SSA), I implement regression discontinuity and differencein- differences designs based on changes in SSA's budget for child medical reviews. I find that parents fully offset the SSI loss with increased earnings, and the loss of the child's SSI payment reduces disability applications by parents and siblings but does not reduce their actual disability receipt. I examine alternative hypotheses for the large parental earnings response.

What Is the Case for Paid Maternity Leave?

 The Review of Economics and Statistics---2016---Gordon Dahl, Katrine Løken, Magne Mogstad, Kari Vea Salvanes

We assess the case for generous government-funded maternity leave, focusing on a series of policy reforms in Norway that expanded paid leave from 18 to 35 weeks. We find the reforms do not crowd out unpaid leave and that mothers spend more time at home without a reduction in family income. The increased maternity leave has little effect on children's schooling, parental earnings and labor force participation, completed fertility, marriage, or divorce. The expansions, whose net costs amounted to 0.25% of GDP, have negative redistribution properties and imply a considerable increases in taxes at a cost to economic efficiency.

Learning from the Test: Raising Selective College Enrollment by Providing Information

The Review of Economics and Statistics---2016--- Sarena Goodman

Between 2000 and 2010, five U.S. states adopted mandates requiring high school juniors to take a college entrance exam. In the two earliest-adopting states, nearly half of all students were induced into testing, and 40% to 45% of them earned scores high enough to qualify for selective colleges. Selective enrollment rose by 20% following implementation of the mandates, reflecting substitution away from noncompetitive schools. I conclude that a large number of high-ability students appear to dramatically underestimate their candidacy for selective colleges. Policies aimed at reducing this information shortage are likely to increase human capital investment for a substantial number of students.

Distributional Tests for Regression Discontinuity: Theory and Empirical Examples

• The Review of Economics and Statistics---2016---Shu Shen, Xiaohan Zhang

This paper proposes consistent testing methods for examining the effect of a policy treatment on the whole distribution of a response outcome within the setting of a regression discontinuity design. These methods are particularly useful when a policy is expected to produce treatment effects that are heterogeneous along some unobserved characteristics. The test statistics are Kolmogorov-Smirnov-type and are asymptotically distribution free when the data are i.i.d. The proposed tests are applied to three seminal RD studies (Pop-Eleches & Urquiola, 2013; Abdulkadiroglu, Angrist, & Pathak, 2014; and Battistin et al., 2009).

Robust Standard Errors in Small Samples: Some Practical Advice

 The Review of Economics and Statistics---2016---Guido Imbens, Michal Kolesár

We study the properties of heteroskedasticity-robust confidence intervals for regression parameters. We show that confidence intervals based on a degrees-of-freedom correction suggested by Bell and McCaffrey (2002) are a natural extension of a principled approach to the Behrens-Fisher problem. We suggest a further improvement for the case with clustering. We show that these standard errors can lead to substantial improvements in coverage rates even for samples with fifty or more clusters. We recommend that researchers routinely calculate the Bell-McCaffrey degrees-of-freedom adjustment to assess potential problems with conventional robust standard errors.

Multinational Firms and Tax Havens

The Review of Economics and Statistics---2016-- Anna Gumpert, James Hines, Monika Schnitzer

Multinational firms with operations in high-tax countries can benefit the most from reallocating taxable income to tax havens, though this is sufficiently difficult and costly that only 20.4% of German multinational firms have any tax haven affiliates. Among German manufacturing firms, a 1 percentage point higher foreign tax rate is associated with a 2.3% greater likelihood of owning a tax haven affiliate. This is consistent with tax avoidance incentives and contrasts with earlier evidence for U.S. firms. The relationship is less strong for firms in service industries, possibly reflecting the difficulty of reallocating taxable service income.

Looking for Local Labor Market Effects of NAFTA

 The Review of Economics and Statistics---2016---Shushanik Hakobyan, John McLaren

Using U.S. Census data for 1990 to 2000, we estimate effects of NAFTAon U.S.wages. We look for effects of the agreement by industry and by geography, measuring each industry's vulnerability to Mexican imports and each locality's dependence on vulnerable industries. We find evidence of both effects, dramatically lowering wage growth for blue-collar workers in the most affected industries and localities (even for service-sector workers in affected localities, whose jobs do not compete with imports). These distributional effects are

by other authors.

Forecasting Conditional Probabilities of Binary Outcomes under Misspecification

• The Review of Economics and Statistics---2016---Graham Elliott, Dalia Ghanem, Fabian Krüger

We consider constructing probability forecasts from a parametric binary choice model under a large family of loss functions ("scoring rules"). Scoring rules are weighted averages over the utilities that heterogeneous decision makers derive from a publicly announced forecast (Schervish, 1989). Using analytical and numerical examples, we illustrate how different scoring rules yield asymptotically identical results if the model is correctly specified. Under misspecification, the choice of scoring rule may be inconsequential under restrictive symmetry conditions on the data-generating process. If these conditions are violated, typically the choice of a scoring rule favors some decision makers over others.

What Hinders Investment in the Aftermath of **Financial Crises: Insolvent Firms or Illiquid** Banks?

• The Review of Economics and Statistics---2016---Sebnem Kalemli-Ozcan, Herman Kamil, Carolina Villegas-Sanchez

We quantify the effects of lending and balance sheet channels on corporate investment during large devaluations. We find that if currency crises are accompanied by banking crises, domestic exporters holding unhedged foreign currency debt decrease investment while foreign exporters with better access to credit increase investment despite their unhedged foreign currency debt. We do not find such a differential effect under pure currency crises. Using firm-bank matched data during the global financial crisis, we showthat both domestic and foreign-owned firms experienced a decline in bank credit from affected banks; however, foreign-owned firms substituted the lost credit.

• The Review of Economics and Statistics---2016---James H. Stock, Mark W. Watson

This paper examines empirically whether the measurement of trend inflation can be improved by using disaggregated data on sectoral inflation to construct indexes akin to core inflation but with a time-varying distributed lags of weights, where the sectoral weight depends on the timevarying volatility and persistence of the sectoral inflation series and on the comovement among sectors. The modeling framework is a dynamic factor model with time-varying coefficients and stochastic volatility as in Del Negro and Otrok (2008), and is estimated using U.S. data on seventeen components of the personal consumption expenditure inflation index.

Real-Time Properties of the Federal Reserve's **Output Gap**

• The Review of Economics and Statistics---2016---Rochelle M. Edge, Jeremy B. Rudd

We consider the revision properties of Federal Reserve Board staff estimates of the output gap after the mid-1990s and examine the usefulness of these estimates for inflation forecasting. Over this period, we find that the Federal Reserve's output gap is more reliably estimated in real time than previous studies have documented for earlier periods and alternative estimation techniques. In contrast to previous work, we also find no deterioration in forecast performance when inflation projections are conditioned on real-time rather than on final estimates of the output gap.

The Medium Is the Measure: Technical Change and Employment, 1909—1949

• The Review of Economics and Statistics---2016---Michelle Alexopoulos, Jon Cohen

New indicators, based on technology titles, are used to measure the impact of innovative activity on the U.S. labor market between 1909 and 1949. We find that positive technology shocks raised productivity, employment, vacancies, and labor turnover and lowered unemployment and business failures. Moreover, automotive and electrical innovations (quintessential general-purpose technologies) had a greater positive impact on employment than those in mechanical innovations. The overall results, compatible with the predictions of the real business cycle model, raise questions about the anemic recovery in employment after 1934 since the strong upsurge in technical change failed to be accompanied by vigorous job expansion.

Human Capital and the Supply of Religion

 The Review of Economics and Statistics---2016---Joseph Engelberg, Raymond Fisman, Jay C. Hartzell, Christopher A. Parsons

We study the role of labor inputs in religious attendance using data on Oklahoma Methodist congregations from 1961 to 2003. Pastors play a significant role in church growth: replacing a 25th percentile pastor with a 75th percentile one increases annual attendance growth by 3%. A pastor's performance in his or her first church (largely the result of random assignment) predicts future performance, suggesting a causal effect of pastors on growth. The deployment of pastors by the church indicates efficient use of labor: low-performing pastors are more likely to be rotated or exit the sample, and high-performing pastors are moved to larger congregations.

Long-Lasting Effects of Socialist Education

 The Review of Economics and Statistics---2016----Nicola Fuchs-Schündeln, Paolo Masella

Political regimes influence the content of education and criteria used to select and evaluate students. We study the impact of a socialist education on the likelihood of obtaining a college degree and on several labor market outcomes by exploiting the reorganization of the school system in East Germany after reunification. Our identification strategy uses cutoff birth dates for school enrollment that lead to variation in the length of exposure to the socialist education system within the

employment, vacancies, and labor turnover and lowered unemployment and business failures. Moreover, cation decreases the probability of obtaining a college automotive and electrical innovations (quintessential degree and affects longer-term labor market outcomes general-purpose technologies) had a greater positive for men.

How Accurate Are Surveyed Preferences for Public Policies? Evidence from a Unique Institutional Setup

• The Review of Economics and Statistics---2016---Patricia Funk

Opinion polls and other surveys are used to capture public sentiments on a variety of issues. If citizens are unwilling to reveal certain policy preferences to others, surveys may fail to characterize population preferences accurately. The innovation of this paper is to use unique data that allow one to measure biases in surveyed preferences for a broad range of public policies. I combine data on 184 referenda held in Switzerland between 1987 and 2007 with postballot surveys that ask how the citizens voted for each proposal. The difference between stated preferences in the survey and revealed preferences at the ballot box provides a direct measure of survey bias. I find that these biases vary by policy area, with the largest occurring in policies on immigration, international integration, and votes involving liberal or conservative attitudes. Also, citizens show a tendency to respond in accordance with the majority.

Misunderestimating Corruption

The Review of Economics and Statistics---2016--- Aart Kraay, Peter Murrell

Corruption estimates rely largely on self-reports of affected individuals and officials. Yet survey respondents are often reticent to tell the truth about sensitive subjects, leading to downward biases in surveybased corruption estimates. This paper develops a method to estimate the prevalence of reticent behavior and reticence-adjusted rates of corruption using survey responses to sensitive questions. A statistical model captures how respondents answer a combination of conventional and randomresponse questions, allowing

identification of the effect of reticence. GMM and maximum likelihood estimates are obtained for ten countries. Adjusting for reticence dramatically alters the perceptions of the extent of corruption.

One-Child Policy and the Rise of Man-Made Twins

• The Review of Economics and Statistics---2016---Wei Huang,Xiaoyan Lei,Yaohui Zhao

This paper examines an unintended response to the one-child policy in China: births of twins. Analysis of population census data shows that the one-child policy has accounted for more than one-third of the increase in the reported births of twins since the 1970s. Investigation using birth spacing with prior births and height difference within twins suggests that the increase in the birth of twins is partly due to parents reporting regularly spaced children as twins to avoid the policy violation punishment. The study highlights the possibility of individual behavioral response to undesirable government policies and the potential social consequences.

What Are Cities Worth? Land Rents, Local Productivity, and the Total Value of Amenities

 The Review of Economics and Statistics---2016----David Albouy

This paper models how to use widely available data on wages and housing costs to infer land rents, local productivity, and the total value of local amenities in the presence of federal taxes and locally produced nontraded goods. I apply the model to U.S. metropolitan areas with the aid of visually intuitive graphs. The results improve measures of productivity and feature large differences in land rents. Wage and housing cost differences across metropolitan areas are accounted for more by productivity than quality-of-life differences. Regressions using individual amenities reveal that the most productive and valuable cities are typically coastal, sunny, mild, educated, and large.

Do Wage Subsidies Provide a Stepping-Stone to Employment for Recent College Graduates? Evidence from a Randomized Experiment in Jordan

 The Review of Economics and Statistics---2016----Matthew Groh, Nandini Krishnan, David McKenzie, Tara Vishwanath

This study examines the impact of a randomized experiment in Jordan in which female community college graduates were assigned to receive a wage subsidy voucher. The wage voucher led to a 38 percentage point increase in employment in the short run, but the average effect is much smaller and no longer statistically significant after the voucher period has expired. The extra job experience gained as a result of the wage subsidy does not provide a stepping-stone to new jobs for these recent graduates, which appears to be due to productivity levels not rising above a binding minimum wage.

The Price Is Right: Updating Inflation Expectations in a Randomized Price Information Experiment

 The Review of Economics and Statistics---2016---Olivier Armantier, Scott Nelson, Giorgio Topa, Wilbert van der Klaauw, Basit Zafar

Using a unique, randomized information experiment embedded in a survey, this paper investigates how consumers' inflation expectations respond to new information. We find that respondents, on average, update their expectations in response to (certain types of) information, and do so sensibly, in a manner consistent with Bayesian updating. As a result of information provision, the distribution of inflation expectations converges toward its center and cross-sectional disagreement declines. We document heterogeneous information processing by gender and present suggestive evidence of respondents forecasting under asymmetric loss. Our results provide support for expectation-formation models in which agents form expectations rationally but face information constraints.

Measuring Rationality with the Minimum Cost of Revealed Preference Violations

 The Review of Economics and Statistics---2016----Mark Dean, Daniel Martin

We introduce a new measure of how close a set of choices is to satisfying the observable implications of rationality and apply it to a large, balanced panel of household level consumption data. This new measure, the minimum cost index, is the minimum cost of breaking all revealed preference cycles found in choices from budget sets. Unlike existing measures of rationality, it responds to both the number and severity of revealed preference violations.

Regional Policy Evaluation: Interactive Fixed Effects and Synthetic Controls

• The Review of Economics and Statistics---2016---Laurent Gobillon, Thierry Magnac

In this paper, we investigate the use of interactive effect or linear factor models in regional policy evaluation. We contrast treatment effect estimates obtained using Bai (2009) with those obtained using difference in differences and synthetic controls (Abadie and coauthors). We show that difference in differences are generically biased, and we derive support conditions for synthetic controls. We construct Monte Carlo experiments to compare these estimation methods in small samples. As an empirical illustration, we provide an evaluation of the impact on local unemployment of an enterprise zone policy implemented in France in the 1990s.

Finance-Led Growth in the OECD since the Nineteenth Century: How Does Financial Development Transmit to Growth?

 The Review of Economics and Statistics---2016----Jakob Madsen, James Ang

It is well established in the literature that financial development (FD) is conducive to growth, and yet the channels through which FD affects growth are not well understood. Using a unique new panel data set for 21 OECD countries over the past 140 years, this paper

examines the extent to which FD transmits to growth through ideas production, savings, fixed investment, and schooling. Unionization and agricultural share are used as instruments for FD. The empirical results show that FD influences growth through all four channels. In particular, ideas production is found to be the most important channel through which FD affects growth.

Resource Windfalls, Political Regimes, and Political Stability

The Review of Economics and Statistics---2016--- Francesco Caselli, Andrea Tesei

We study theoretically and empirically whether natural resource windfalls affect political regimes. We show that windfalls have no effect on democracies, while they have heterogeneous political consequences in autocracies. In deeply entrenched autocracies, the effect of windfalls is virtually nil, while in moderately entrenched autocracies, windfalls significantly exacerbate the autocratic nature of the political system. To frame the empirical work, we present a simple model in which political incumbents choose the degree of political contestability and potential challengers decide whether to try to unseat the incumbents. The model uncovers a mechanism for the asymmetric impact of resource windfalls on democracies and autocracies, as well as the differential impact within autocracies.

Adaptation to Poverty in Long-Run Panel Data

The Review of Economics and Statistics---2016---Andrew Clark, Conchita D' Ambrosio, Simone Ghislandi, Conchita D' Ambrosio

We consider the link between poverty and subjective wellbeing and focus in particular on potential adaptation to poverty. We use panel data on almost 54,000 individuals living in Germany from 1985 to 2012 to show, first, that life satisfaction falls with both the incidence and intensity of contemporaneous poverty. We then reveal that there is little evidence of adaptation within a poverty spell: poverty starts bad and stays bad in terms of subjective well-being. We cannot

overall lack of poverty adaptation.

Price Setting and Rapid Technology Adoption: The Case of the PC Industry

• The Review of Economics and Statistics---2016---Adam Copeland, Adam Hale Shapiro

We examine how the confluence of competition and upstream innovation influences downstream firms' profit-maximizing strategies. We focus on personal computers and use two novel data sets to describe the dramatic fall in both price (27% at an annual rate) and sales of a computer over its product cycle. Further, we document that computers are typically sold for only four months before being replaced by a higherquality product. To explain these facts, we develop and calibrate a vintage capital model that combines a competitive market structure with an exogenous rapid rate of innovation.

When War Comes Home: The Effect of Combat Service on Domestic Violence

• The Review of Economics and Statistics---2016---Resul Cesur, Joseph J. Sabia

This study is the first to estimate the effect of war service in the Global War on Terrorism on domestic violence. We exploit a natural experiment in overseas deployment assignment among active-duty servicemen by relying on theoretical and empirical evidence that, conditional on military rank and occupation, deployment assignments are orthogonal to the propensity for violence. Our results show that assignment to combat substantially increases the probability of intimate partner violence and child abuse. Descriptive evidence suggests that the effects may be explained in part by the stress- and substance use-related consequences of war.

How Dark Is Dark? Bright Lights, Big City, Racial **Profiling**

• The Review of Economics and Statistics---2016---William Horrace, Shawn M. Rohlin

identify any cause of poverty entry that explains the Grogger and Ridgeway (2006) use the daylight saving time shift to develop a police racial profiling test that is based on differences in driver race visibility and (hence) the race distribution of traffic stops across daylight and darkness. However, urban environments may be well lit at night, eroding the power of their test. We refine their test using streetlight location data in Syracuse, New York, and the results change in the direction of finding profiling of black drivers. Our preferred specification suggests that the odds of a black driver being stopped (relative to nonblack drivers) increase 15% in daylight compared to darkness.

Your Friends and Neighbors: Localized **Economic Development and Criminal Activity**

• The Review of Economics and Statistics---2016---Matthew Freedman, Emily Owens

We exploit a sudden shock to demand for a subset of low-wage workers generated by the 2005 Base Realignment and Closure (BRAC) program in San Antonio, Texas, to identify the effects of localized economic development on crime. We use a differencein-differences methodology that takes advantage of variation in BRAC's impact over time and across neighborhoods. We find that appropriative criminal behavior increases in neighborhoods where a fraction of residents experienced increases in earnings. This effect is driven by residents who were unlikely to be BRAC beneficiaries, implying that criminal opportunities are important in explaining patterns of crime.

Paving Streets for the Poor: Experimental **Analysis of Infrastructure Effects**

• The Review of Economics and Statistics---2016---Marco Gonzalez-Navarro, Climent Quintana-Domeque

We provide the first experimental estimation of the effects of the supply of publicly financed urban infrastructure on property values. Using random allocation of first-time street asphalting of residential streets located in peripheral neighborhoods in Mexico, we show that within two years of the intervention, households are

able to transform their increased property wealth into significantly larger rates of vehicle ownership, household appliances, and home improvements. Increased consumption is made possible by both credit use and less saving. A cost-benefit analysis indicates that the valuation of street asphalting as capitalized into property values is about as large as construction costs.

The Permanent Effects of Transportation **Revolutions in Poor Countries: Evidence from Africa**

• The Review of Economics and Statistics---2016---Remi Jedwab, Alexander Moradi

We exploit the construction and eventual demise of the colonial railroads in Ghana, and most of the rest of Africa, to study the impact of transportation investments in poor countries. Using new data on railroads and cities spanning over one century, we find that railroads had large effects on the distribution of economic activity during the colonial period and these effects have persisted to date, although railroads collapsed and road networks expanded considerably after independence. Initial transportation investments may thus have large effects in poor countries. As countries develop, increasing returns solidify their spatial distribution, and subsequent investments may have smaller effects.

Measuring Intertemporal Substitution in Consumption: Evidence from a VAT Increase in Japan

• The Review of Economics and Statistics---2016---David Cashin, Takashi Unayama

We estimate the intertemporal elasticity of substitution in consumption (IES) using a preannounced increase in Japan's consumption tax rate. Because this tax is highly comprehensive, the rate increase was announced prior to its implementation, and because other factors that affect the real interest rate were constant, the tax rate increase presents an ideal natural experiment to estimate the IES. A Japanese monthly household survey is exploited to accurately categorize nondurables, approximation that has been used previously in the

and our empirical specification addresses intratemporal substitution bias. We find that the IES is 0.21 and not significantly different from 0, but it is significantly less than 1.

Maximum Likelihood Estimation and Inference for Approximate Factor Models of High **Dimension**

• The Review of Economics and Statistics---2016---Jushan Bai, Kunpeng Li

An approximate factor model of high dimension has two key features. First, the idiosyncratic errors are correlated and heteroskedastic over both the cross-section and time dimensions; the correlations and heteroskedasticities are of unknown forms. Second, the number of variables is comparable or even greater than the sample size. Thus, a large number of parameters exist under a high-dimensional approximate factor model. Most widely used approaches to estimation are principal component based. This paper considers the maximum likelihood-based estimation of the model. Consistency, rate of convergence, and limiting distributions are obtained under various identification restrictions. Monte Carlo simulations show that the likelihood method is easy to implement and has good finite sample properties.

The Econometrics of the Hodrick-Prescott Filter

• The Review of Economics and Statistics---2016---Robert de Jong, Neslihan Sakarya

The Hodrick-Prescott (HP) filter is a commonly used tool in macroeconomics used to extract a trend component from a time series. In this paper, we derive a new representation of the transformation of the data that is implied by the HP filter. This representation highlights that the HP filter is a symmetric weighted average plus a number of adjustments that are important near the beginning and end of the sample. The representation allows us to carry out a rigorous analysis of properties of the HP filter without using the ARMA-based

terize the large T behavior of the HP filter and find conditions under which it is asymptotically equivalent to a symmetric weighted average with weights independent of sample size. We also find that the cyclical component of the HP filter possesses weak dependence properties when the HP filter is applied to a stationary mixing process, a linear deterministic trend process, or a process with a unit root. This provides the first formal justification of the use of the HP filter as a tool to achieve weak dependence in a time series. In addition, a large smoothing parameter approximation to the HP filter is derived, and using this approximation, we find an alternative justification for the procedure given in Ravn and Uhlig (2002) for adjusting the smoothing parameter for the data frequency.

Risky Choice in the Limelight

• The Review of Economics and Statistics---2016---Guido Baltussen, Martijn J. van den Assem, Dennie van Dolder

This paper examines how risk behavior in the limelight differs from that in anonymity. In two separate experiments, we find that subjects are more risk averse in the limelight. However, risky choices are similarly path dependent in the different treatments. Under both limelight and anonymous laboratory conditions, a simple prospect theory model with a path-dependent reference point provides a better explanation for subjects' behavior than a flexible specification of expected utility theory. In addition, our findings suggest that ambiguity aversion depends on being in the limelight, that passive experience has little effect on risk taking, and that reference points are determined by imperfectly updated expectations.

Responding to Risk: Circumcision, Information, and HIV Prevention

• The Review of Economics and Statistics---2016---Susan Godlonton, Alister Munthali, Rebecca Thornton

literature. Using this new representation, we charac- actual or perceived risk is important because risk-reduction goals can be undermined by riskcompensating behavior. This paper examines the response to new information about the risk of HIV infection. Approximately 1,200 circumcised and uncircumcised men in rural Malawi are randomly informed that male circumcision reduces the HIV transmission rate, predicting asymmetric behavioral responses. We find no evidence that the information induces circumcised men to engage in riskier sex while uncircumcised men practice safer sex in response to the information. There were no significant effects of the information on child circumcisions after one year.

Caution, Drivers! Children Present: Traffic, Pollution, and Infant Health

• The Review of Economics and Statistics---2016---Christopher Knittel, Douglas Miller, Nicholas Sanders

We investigate the effects of automobile congestion on ambient air pollution and local infant mortality rates using data from California spanning 2002 to 2007. Constructing instrumental variables (IV) using the relationship of traffic, weather conditions, and pollutants, we show that particulate matter, even at modern levels, has large marginal effects on weekly infant mortality rates, especially for premature or low birthweight infants. We also find suggestive evidence of large effects for carbon monoxide, though results are imprecise. Finally, we check estimate sensitivity to nonclassical measurement error in local pollution and show that our IV results are robust to such concerns.

The Role of Interchange Fees in Two-Sided Markets: An Empirical Investigation on Payment **Cards**

 The Review of Economics and Statistics---2016---Santiago Carbo Valverde, Sujit Chakravorti, Francisco Rodríguez Fernández

We study the impact of reductions in interchange fees Understanding behavioral responses to changes in on payment card services. We find that consumer and merchant acceptance and transaction volumes increased when interchange fees were reduced. Our results suggest that a 10% reduction in the rate of decline per quarter in the average interchange fee by an acquirer resulted in a rate of increase in merchant acceptance per quarter of up to 1.4%. In addition, a 10% increase in the rate of interaction of merchant acceptance and the total number of cards increased the rate of quarterly issuer transaction volumes up to 1.7%.

Education and Invention

 The Review of Economics and Statistics---2016---Otto Toivanen, Lotta Väänänen

Modern growth theory puts invention on the center stage. Inventions are created by individuals, raising the question of whether we can increase the number of inventors. To answer this question, we study the causal effect of MSc engineering education on invention, using data on U.S. patents' Finnish inventors and the distance to the nearest technical university as an instrument. We find a positive effect of engineering education on the propensity to patent and a negative OLS bias. Our counterfactual calculation suggests that establishing three new technical universities resulted in a 20% increase in the number of USPTO patents by Finnish inventors.

How Important Is U.S. Location for Research in Science?

• The Review of Economics and Statistics---2016---Shulamit Kahn, Megan J. MacGarvie

This paper asks whether being located outside the United States lowers research productivity in a data set of foreign-born, U.S.-educated scientists. Instrumenting location with visa status that requires return to home countries, we find a large negative relationship between non-U.S. location and research output for countries with low income per capita but none for countries with high income per capita. This suggests that a scientist exogenously located in a country at the top of the income distribution can expect to be

and merchant acceptance and transaction volumes in- as productive in research as he or she would be in the creased when interchange fees were reduced. Our re- United States.

How the Time of Day Affects Productivity: Evidence from School Schedules

• The Review of Economics and Statistics---2016---Nolan G. Pope

Increasing the efficiency of the school system is a primary focus of policymakers. I analyze how the time of day affects students' productivity and if efficiency gains can be obtained by rearranging the order of tasks they perform throughout the school day. Using a panel data set of nearly 2 million sixth- through eleventh-grade students in Los Angeles County, I perform within-teacher, class type, and student estimation of the time-of-day effect on students' learning as measured by GPA and state test scores. I find that given a school start time, students learn more in the morning than later in the school day. Having a morning instead of afternoon math or English class increases a student's GPA by 0.072 (0.006) and 0.032 (0.006), respectively. A morning math class increases state test scores by an amount equivalent to increasing teacher quality by one-fourth standard deviation or half of the gender gap. Rearranging school schedules can lead to increased academic performance.

Credit Constraints and Demand for Higher Education: Evidence from Financial Deregulation

• The Review of Economics and Statistics---2016---Stephen Teng Sun, Constantine Yannelis

We use staggered banking deregulation across states in the United States to examine the impact of the resulting increased credit supply on college enrollment from the 1970s to the early 1990s. Our research design produces estimates that are not confounded by wealth effects due to changes in income or housing wealth. We find that lifting banking restrictions raises college enrollment by about 2.6 percentage points (4.9%). We rule out alternative interpretations by examining results for different income groups and bankrupt households. We also find similar effects for two-year or

in household educational borrowing.

Tear in the Iron Curtain: The Impact of Western **Television on Consumption Behavior**

• The Review of Economics and Statistics---2016---Leonardo Bursztyn, Davide Cantoni

This paper examines the impact of exposure to foreign media on the economic behavior of agents in a totalitarian regime. We study private consumption choices focusing on the former East Germany, where differential access to Western television was determined by geographic features. Using data collected after the transition to a market economy, we find no evidence of a significant impact of previous exposure to Western television on aggregate consumption levels. However, exposure to Western broadcasts affects the composition of consumption, biasing choices in favor of categories of goods with a high intensity of prereunification advertisement. The effects vanish by 1998.

French Roast: Consumer Response to International Con flict--Evidence from **Supermarket Scanner Data**

• The Review of Economics and Statistics---2016---Sonal S. Pandya, Rajkumar Venkatesan

Do consumers boycott in response to international conflict? We show that during the 2003 U.S.-France dispute over the Iraq War, the market share of Frenchsounding, U.S. supermarket brands declined. The dispute was a negative shock to U.S. consumers' associations with France. French-sounding brands, which consumers perceive to be French imports but are not, allow us to isolate the dispute's effect on economic behavior, as these brands' only link to France is through consumers' associations. Our estimates, derived from a nationwide sample of weekly supermarket sales for over 8,000 brands, are robust to a variety of alternate explanations. We also show that supermarkets with a higher proportion of customers who are U.S. citizens (i.e., who more strongly identify with the U.S. national identity) exhibited sharper boycotts.

four-year college completion and supporting evidence The Political Consequences of Income Shocks: **Explaining the Consolidation of Democracy in France**

• The Review of Economics and Statistics---2016---Raphael Franck

This study analyzes the circumstances that enabled France to become in the late nineteenth century the first stable parliamentary democracy with universal (male) suffrage in Europe. It establishes a causal relationship between short-term variations in local income and the electoral support for the coalition of republican parties that represented the newly established regime. The results suggest the republican coalition won the parliamentary elections because most French regions did not suffer from transitory negative income shocks stemming from heavy precipitations. They thus raise questions about the rationality of voters and, ultimately, the actual causes of the consolidation of democracy in France.

Inference with Few Heterogeneous Clusters

• The Review of Economics and Statistics---2016---Rustam Ibragimov, Ulrich K. Müller

Suppose estimating a model on each of a small number of potentially heterogeneous clusters yields approximately independent, unbiased, and Gaussian parameter estimators. We make two contributions in this setup. First, we showhow to compare a scalar parameter of interest between treatment and control units using a two-sample t-statistic, extending previous results for the one-sample t-statistic. Second, we develop a test for the appropriate level of clustering; it tests the null hypothesis that clustered standard errors from a much finer partition are correct. We illustrate the approach by revisiting empirical studies involving clustered, time series, and spatially correlated data.

Predicting Time-Varying Parameters with Parameter-Driven and Observation-Driven **Models**

• The Review of Economics and Statistics---2016---Siem Jan Koopman, Andre Lucas, Marcel Scharth

We verify whether parameter-driven and observation-driven classes of dynamic models can outperform each other in predicting time-varying parameters. We consider existing and new dynamic models for counts and durations, but also for volatility, intensity, and dependence parameters. In an extended Monte Carlo study, we present evidence that observation-driven models based on the score of the predictive likelihood function have similar predictive accuracy compared to their correctly specified parameter-driven counterparts. Dynamic observation-driven models based on predictive score updating outperform models based on conditional moments updating. Our main findings are supported by the results from an extensive empirical study in volatility forecasting.

Partial Identification, Distributional Preferences, and the Welfare Ranking of Policies

 The Review of Economics and Statistics---2016---Maximilian Kasy

We discuss the tension between "what we can get" (identification) and "what we want" (parameters of interest) in models of policy choice (treatment assignment). Our nonstandard empirical object of interest is the ranking of counterfactual policies. Partial identification of treatment effects maps into a partial welfare ranking of treatment assignment policies. We characterize the identified ranking and show how the identifiability of the ranking depends on identifying assumptions, the feasible policy set, and distributional preferences. An application to the project STAR experiment illustrates this dependence. This paper connects the literatures on partial identification, robust statistics, and choice under Knightian uncertainty.

Trade Credit and Taxes

The Review of Economics and Statistics---2016--- Mihir A. Desai, C. Fritz Foley, James Hines

This paper analyzes the extent to which tax differences affect the use of trade credit. U.S.-owned affiliates postwar business cycle was as volatile overal in low-tax countries use trade credit to lend, whereas the Classical Gold Standard, but much less those in high-tax countries use trade credit to borrow: the Great Moderation and the Golden Age.

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10% lower local tax rates are associated with net trade
credit positions that are 1.4% higher as a fraction of
sales. The use of trade credit to get capital out of
low-tax, low-return environments is also illustrated by
the temporary repatriation tax holiday in 2005, which
was used most intensively by affiliates with positive
net trade credit positions.

Banks and Development: Jewish Communities in the Italian Renaissance and Current Economic Performance

The Review of Economics and Statistics---2016--- Luigi Pascali

Are differences in local banking development long lasting? Do they affect economic performance? I answer these questions by relying on a historical development that occurred in Italian cities during the Renaissance. A change in Catholic doctrine led to the development of modern banks in cities hosting Jewish communities. Using Jewish demography in 1500 as an instrument, I provide evidence of extraordinary persistence in the level of banking development across Italian cities and substantial effects of local banks on per capita income. Additional firm-level analyses suggest that banks exert large effects on aggregate productivity by reallocating resources toward more efficient firms.

The U.S. Business Cycle, 1867-2006: A Dynamic Factor Approach

The Review of Economics and Statistics---2016-- Albrecht Ritschl.Samad Sarferaz.Martin Uebele

We estimate a Stock/Watson index of economic activity to assess U.S. business cycle volatility since 1867. We replicate the Great Moderation of the 1980s and 1990s and find exceptionally low volatility also in the Golden Age of the 1960s. Postwar moderation relative to pre-1914 occurs under constant but not time-varying factor loadings, suggesting structural change toward more volatile sectors. For comparable series, the U.S. postwar business cycle was as volatile overall as under the Classical Gold Standard, but much less so during the Great Moderation and the Golden Age.

Environmental Policy and Directed Technological Change: Evidence from the European Carbon Market

• The Review of Economics and Statistics---2016---Raphael Calel, Antoine Dechezleprêtre

This paper investigates the impact of the European Union Emissions Trading System (EU ETS) on technological change, exploiting installations level inclusion criteria to estimate the System's causal impact on firms' patenting. We find that the EU ETS has increased low-carbon innovation among regulated firms by as much as 10%, while not crowding out patenting for other technologies. We also find evidence that the EU ETS has not affected patenting beyond the set of regulated companies. These results imply that the EU ETS accounts for nearly a 1% increase in European low-carbon patenting compared to a counterfactual scenario.

The Relationship between Market Structure and Innovation in Industry Equilibrium: A Case Study of the Global Automobile Industry

• The Review of Economics and Statistics---2016---Aamir Hashmi, Johannes Van Biesebroeck

We specify and estimate a dynamic game to study the equilibrium relationship between market structure and innovation in the automobile industry. The quality of each firm's product for the average consumer, the key state variable, is modeled as stochastically increasing in innovation, the dynamic control, which is proxied by patent applications. Equilibrium innovation is a function of market structure, the vector of quality levels of all active firms, and the cost of R&D. Our main findings are as follows: (a) optimal innovation has an inverted-U shape in own quality; (b) holding own quality constant, innovation is declining in average rival quality but increasing in quality dispersion; and (c) following entry, each incumbent's innovation declines, but aggregate innovation increases in most market structures. These findings are broadly consistent with the Schumpeterian hypothesis that market power leads to more innovation.

How Important Are Banks for Development? National Banks in the United States, 1870-1900

The Review of Economics and Statistics---2015--- Scott Fulford

Do banks matter for growth, and if so, how? This paper examines the effects of national banks in the United States from 1870 to 1900. I use the discontinuity in entry caused by a large minimum size requirement to identify the effects of banking. For the counties on the margin between getting a bank and not, gaining a bank increased production per person by 10%. National banks in rural areas improved agriculture over manufacturing, moving counties toward geographic comparative advantage. Since these banks made few long-term loans, the evidence suggests that the provision of working capital and liquidity matters for growth.

The Repeat Rent Index

The Review of Economics and Statistics---2015--- Brent Ambrose, N. Edward Coulson, Jiro Yoshida

We employ a weighted repeat rent estimator to construct quarterly indexes that expand the profession's ability to make cross-sectional comparisons of housing markets. Our analysis shows that there is considerable heterogeneity in the behavior of rents across cities over the 2000–2010 decade, but the number of cities and years for which nominal rents fell is substantial; rents fell in many cities following the onset of the housing crisis in 2007; and the repeat rent and Bureau of Labor Statistics indexes differ due to sampling and construction methods.

Technology Diffusion and Productivity Growth in Health Care

• The Review of Economics and Statistics---2015---Jonathan Skinner, Doug Staiger

We draw on macroeconomic models of diffusion and productivity to explain empirical patterns of survival gains in heart attacks. Using Medicare data for 2.8 million patients from 1986 to 2004, we find that hospitals

rapidly adopting cost-effective innovations such as beta blockers, aspirin, and reperfusion had substantially better outcomes for their patients. Holding technology adoption constant, the marginal returns to spending were relatively modest. Hospitals increasing the pace of technology diffusion ("tigers") experienced triple the survival gains compared to those with diminished rates ("tortoises"). In sum, small differences in the propensity to adopt effective technology lead to wide productivity differences across hospitals.

Regulation and Capacity Competition in Health Care: Evidence from U.S. Dialysis Markets

• The Review of Economics and Statistics---2015---Mian Dai,Xun Tang

This paper studies entry and capacity decisions by dialysis providers in the United States. We estimate a structural model where providers make continuous strategic choices of capacity based on their private information about own costs and knowledge of the distribution of competitors' private information. We evaluate the impact on the market structure and providers' profits under counterfactual regulatory policies that increase the costs or reduce the payment per unit of capacity. We find that these policies reduce the market capacity as measured by the number of dialysis stations. However, the downward-sloping reaction curve shields some providers from negative profit shocks in certain markets. The paper also has a methodological contribution in that it proposes new estimators for Bayesian games with continuous actions.

Does Planning Regulation Protect Independent Retailers?

 The Review of Economics and Statistics---2015----Raffaella Sadun

Regulations curbing the entry of large retail stores have been introduced in many countries to protect independent retailers. Analyzing a planning reform launched in the United Kingdom in the 1990s, I show that independent retailers were actually harmed by the creation of entry barriers against large stores. This

is because the entry barriers created the incentive for large retail chains to invest in smaller and more centrally located formats, which competed more directly with independents and accelerated their decline. Overall, these findings suggest that restricting the entry of large stores may exert negative competitive effects on independent retailers.

Barriers to Entry in the Airline Industry: A Multidimensional Regression-Discontinuity Analysis of AIR-21

 The Review of Economics and Statistics---2015----Connan Snider, Jonathan W. Williams

We investigate the success of legislation aimed at increasing competition at highly concentrated U.S. airports, mainly by forcing these airports to increase the availability of scarce facilities. We use a multidimensional regression-discontinuity approach to exploit a sharp discontinuity in the law's implementation and identify its effects. We find that fares decrease by 13.4% (20.2%) in markets with one (both) end point(s) covered. Approximately half of the decline is driven by the entry of low-cost carriers. We find little evidence that the fare declines were accompanied by a diminished quality of service, and passenger volumes increased, which suggests the legislation improved consumer welfare.

Export Superstars

 The Review of Economics and Statistics---2015----Caroline Freund.Martha Denisse Pierola

We show that very large firms shape country export patterns. Among 32 countries, the top firm on average accounts for 14% of a country's total (nonoil) exports, and the top five firms make up 30%. These export superstars are also important in the sectoral distribution of exports. Variation in exports from the top firm in a country explains about one-third of the variation in sectoral exports relative to income across countries, and variation in exports from the top five firms explains nearly half. Revealed comparative advantage in a sector can be created by a single firm.

Trade Liberalization, Quality, and Export Prices

 The Review of Economics and Statistics---2015---Haichao Fan, Yao Li, Stephen Yeaple

This paper presents theory and evidence from disaggregated Chinese data that tariff reductions induce a country's producers to upgrade the quality of their exports. We first document stylized facts regarding the effect of trade liberalization on export prices. Next, we develop an analytic framework that relates a firm's choice of quality to its access to imported intermediates. In the model, a reduction in import tariffs induces a firm to increase export quality and raise its export price in industries where the scope for quality differentiation is large and lower its export price in industries where the scope is small. The predictions are consistent with the stylized facts and are highly robust econometrically.

Some Inconvenient Truths about Climate Change Policy: The Distributional Impacts of Transportation Policies

• The Review of Economics and Statistics---2015---Stephen P. Holland, Jonathan Hughes, Christopher Knittel, Nathan C. Parker

Climate policy has favored costly measures that implicitly or explicitly subsidize lowcarbon fuels. We simulate four transportation sector policies: cap and trade (CAT), ethanol subsidies, a renewable fuel standard (RFS), and a lowcarbon fuel standard. Our simulations confirm that alternatives to CAT are 2.5 to 4 times more costly but are amenable to adoption due to right-skewed distributions of gains. We analyze voting on the Waxman-Markey (WM) CAT bill. Conditional on a district's CAT gains, a district's RFS gains are negatively correlated with the likelihood of voting for WM. Our analysis supports campaign contributions as a partial mechanism.

Please Call Again: Correcting Nonresponse Bias in Treatment Effect Models

• The Review of Economics and Statistics---2015---Luc Behaghel,Bruno Crépon,Marc Gurgand, Thomas Le Barbanchon

We propose a novel selectivity correction procedure to deal with survey attrition in treatment effect models, at the crossroads of the Heckit model and the bounding approach of Lee (2009). As a substitute for the instrument needed in sample selectivity correction models, we use information on the number of prior calls made to each individual before obtaining a response to the survey. We obtain sharp bounds to the average treatment effect on the common support of responding individuals. Because the number of prior calls brings information, we can obtain tighter bounds than in other nonparametric methods.

Identifying the Effect of Changing the Policy Threshold in Regression Discontinuity Models

 The Review of Economics and Statistics---2015----Yingying Dong, Arthur Lewbel

Regression discontinuity models are commonly used to nonparametrically identify and estimate a local average treatment effect (LATE). We show that the derivative of the treatment effect with respect to the running variable at the cutoff, referred to as the treatment effect derivative (TED), is nonparametrically identified, easily estimated, and has implications for testing external validity and extrapolating the estimated LATE away from the cutoff. Given a local policy invariance assumption, we further show this TED equals the change in the treatment effect that would result from a marginal change in the threshold, which we call the marginal threshold treatment effect (MTTE). We apply these results to Goodman (2008), who estimates the effect of a scholarship program on college choice. MTTE in this case identifies how this treatment effect would change if the test score threshold to qualify for a scholarship were changed, even though no such change in threshold is actually observed.

Under the Cover of Darkness: How Ambient Light Influences Criminal Activity

• The Review of Economics and Statistics---2015---Jennifer Doleac, Nicholas Sanders We exploit daylight saving time (DST) as an exogenous shock to daylight, using both the discontinuous nature of the policy and the 2007 extension of DST, to consider the impact of light on criminal activity. Regression discontinuity estimates show a 7% decrease in robberies following the shift to DST. As expected, effects are largest during the hours directly affected by the shift in daylight. We discuss our findings within the context of criminal decision making and labor supply, and estimate that the 2007 DST extension resulted in \$59 million in annual social cost savings from avoided robberies.

Which Peers Matter? The Relative Impacts of Collaborators, Colleagues, and Competitors

 The Review of Economics and Statistics---2015---George J. Borjas, Kirk Doran

Many economists believe knowledge production generates positive spillovers among knowledge producers. The available evidence, however, is mixed. We argue that spillovers can exist along three dimensions: idea, geographic, and collaboration space. To isolate the key channel through which knowledge spills over, we use a unique data set to examine the impact of a large post-1992 exodus of Soviet mathematicians on the output of the nonémigrés. Although the data reveal strong competitive effects in idea space, there is evidence of knowledge spillovers in collaboration space, when high-quality researchers directly engage with other researchers in the joint production of new knowledge.

Retractions

• The Review of Economics and Statistics---2015---Pierre Azoulay,Jeffrey L. Furman,Joshua L. Krieger,Fiona Murray

To what extent does "false science" affect the rate and direction of scientific change? We examine the impact of over 1,100 scientific retractions on the citation trajectories of articles that are related to retracted papers in intellectual space but were published prior to the retraction event. Following retraction and relative

to carefully selected controls, related articles experience a lasting 5% to 10% decline in the rate of citations received. This penalty is more severe when the retracted article involves fraud or misconduct rather than honest mistakes. In addition, we find that the arrival rate of new articles and funding flows into these fields decrease after a retraction.

Are Tenure Track Professors Better Teachers?

 The Review of Economics and Statistics---2015----David Figlio, Morton O. Schapiro, Kevin B. Soter

This study makes use of detailed student-level data from eight cohorts of first-year students at Northwestern University to investigate the relative effects of tenure track/tenured versus contingent faculty on student learning. We focus on classes taken during a student's first term at Northwestern and employ an identification strategy in which we control for both student-level fixed effects and next-class-taken fixed effects to measure the degree to which contingent faculty contribute more or less to lasting student learning than do other faculty. We find consistent evidence that students learn relatively more from contingent faculty in their first term courses. This result is driven by the fact that the bottom quarter of tenure track/tenured faculty (as indicted by our measure of teaching effectiveness) has lower "value added" than their contingent counterparts. Differences between contingent and tenure track/tenured faculty are present across a wide variety of subject areas and are particularly pronounced for Northwestern's averages and less-qualified students.

Moral Hazard in Health Insurance: Do Dynamic Incentives Matter?

 The Review of Economics and Statistics---2015---Aviva Aron-Dine, Liran Einav, Amy Finkelstein, Mark Cullen

Using data from employer-provided health insurance and Medicare Part D, we investigate whether health care utilization responds to the dynamic incentives created by the nonlinear nature of health insurance contracts. We exploit the fact that because annual coverage usually resets every January, individuals who join a plan later in the year face the same initial ("spot") price of health care but a higher expected end-of-year ("future") price. We find a statistically significant response of initial utilization to the future price, rejecting the null that individuals respond only to the spot price. We discuss implications for analysis of moral hazard in health insurance.

The Natural Selection of Infectious Disease Resistance and Its Effect on Contemporary Health

The Review of Economics and Statistics---2015--- Justin Cook

This paper empirically tests the association between genetically determined resistance to infectious disease and cross-country health differences. A country-level measure of genetic diversity for the system of genes associated with the recognition and disposal of foreign pathogens is constructed. Genetic diversity within this system has been shown to reduce the virulence and prevalence of infectious diseases and is hypothesized to have been naturally selected from historical exposure to infectious pathogens. Base estimation shows a statistically strong, robust, and positive relationship between this constructed measure and country-level health outcomes in times prior to, but not after, the international epidemiological transition.

External Shocks, Internal Shots: The Geography of Civil Conflicts

• The Review of Economics and Statistics---2015---Nicolas Berman, Mathieu Couttenier

We use georeferenced information on the location of choice overload. A special violent events in sub-Saharan African countries and provide evidence that external income shocks are important determinants of the intensity and geography of civil conflicts. More precisely, we find that (a) the incidence, intensity, and onset of conflicts are generally negatively and significantly correlated with income variations at the local level; (b) this relationship is significantly weaker for the most remote locations; and (c) the quality of decisions.

at the country level, these shocks have an insignificant impact on the overall probability of conflict outbreak but do affect the probability that conflicts start in the most opened regions.

The Tip of the Iceberg: A Quantitative Framework for Estimating Trade Costs

 The Review of Economics and Statistics---2015----Alfonso Irarrazabal, Andreas Moxnes, Luca David Opromolla

Trade costs are often additive. Well-known examples are quotas, per unit tariffs, and, in part, transportation costs. In spite of this, we have no broad and systematic evidence of the magnitude of these costs. In this paper, we develop a new empirical framework for estimating additive trade costs from standard firm-level trade data. Our results suggest that additive barriers are on average 14%, expressed relative to the median price. The point estimates are strongly correlated with common proxies for trade costs. Using our microestimates, we show that an additive import tariff reduces welfare and trade by more than an equal-yield multiplicative tariff.

Reducing Choice Overload without Reducing Choices

 The Review of Economics and Statistics---2015---Tibor Besedes, Cary Deck, Sudipta Sarangi, Mikhael Shor

Previous studies have demonstrated that a multitude of options can lead to choice overload, reducing decision quality. Through controlled experiments, we examine sequential choice architectures that enable the choice set to remain large while potentially reducing the effect of choice overload. A specific tournament-style architecture achieves this goal. An alternate architecture in which subjects compare each subset of options to the most preferred option encountered thus far fails to improve performance due to the status quo bias. Subject preferences over different choice architectures are negatively correlated with performance, suggesting that providing choice over architectures might reduce the quality of decisions

A Matching Estimator Based on a Bilevel Optimization Problem

The Review of Economics and Statistics---2015--- Juan Díaz, Tomás Rau, Jorge Rivera

This paper proposes a novel matching estimator where neighbors used and weights are endogenously determined by optimizing a covariate balancing criterion. The estimator is based on finding, for each unit that needs to be matched, sets of observations such that a convex combination of them has the same covariate values as the unit needing matching or with minimized distance between them. We implement the proposed estimator with data from the National Supported Work Demonstration, finding outstanding performance in terms of covariate balance. Monte Carlo evidence shows that our estimator performs well in designs previously used in the literature.

Price Stickiness: Empirical Evidence of the Menu Cost Channel

The Review of Economics and Statistics---2015-- Eric Anderson, Nir Jaimovich, Duncan Simester

A leading explanation in the economic literature is that monetary policy has real effects on the economy because firms incur a cost when changing prices. Using a unique database of cost and retail price changes, we find that variation in menu costs results in up to 13.3% fewer price increases. We confirm that these effects are allocative and have a persistent impact on both prices and unit sales. We provide evidence that the menu cost channel operates only when cost increases are small in magnitude, which is consistent with theory and provides the first empirical evidence of boundary conditions.

Measuring Price-Level Uncertainty and Instability in the United States, 1850–2012

The Review of Economics and Statistics---2015--- Timothy Cogley, Thomas Sargent

We measure price-level uncertainty and instability in that Japanese automakers in general have successfully the United States over the period 1850 to 2012. Matransferred their practices to their U.S. transplants

jor outbreaks of price-level uncertainty and instability occur both before and after World War II, alternating with three price-level moderations: one near the turn of the twentieth century, another under Bretton Woods, and a third in the 1990s. There is no evidence that the price level was systematically more stable or less uncertain before or after World War II. Moderations sometimes involved links to gold, but the experience of the 1990s proves that a well-managed fiat regime can achieve the same outcome.

U.S. Multinationals and Preferential Market Access

The Review of Economics and Statistics---2015--- Emily Blanchard, Xenia Matschke

We combine firm-level panel data on U.S. foreign affiliate activity with detailed measures of U.S. trade policy to study the relationship between offshoring and preferential market access. Consistent with theory, we find that trade preferences and offshoring activity are positively and significantly correlated. Using instrumental variables, we estimate that a 10% increase in U.S. foreign affiliate exports to the United States is associated with a 4 percentage point increase in the rate of preferential duty-free access. Restricting attention to the Generalized System of Preferences (GSP) among developing countries, this estimate more than triples, relative to the baseline, full sample results.

Would You Buy a Honda Made in the United States? The Impact of Production Location on Manufacturing Quality

The Review of Economics and Statistics---2015--- Nicola Lacetera, Justin Sydnor

Are location-specific factors important for understanding firms' heterogeneities? We examine prices and quality metrics for Japanese cars at wholesale auctions, comparing otherwise identical cars assembled in the United States versus Japan. We find similar values regardless of country of assembly. These results indicate that Japanese automakers in general have successfully transferred their practices to their U.S. transplants

and that there is no inherent limitation to high-quality automobile production in the United States. Deeper analysis of patterns for Toyota cars, complemented by historical analysis, suggests that although it is possible to transfer standards, quality convergence can require conscious effort and not just cumulative production.

Agglomerative Forces and Cluster Shapes

The Review of Economics and Statistics---2015--- William Kerr, Scott Kominers

We model spatial clusters of similar firms. Our model highlights how agglomerative forces lead to localized, individual connections among firms, while interaction costs generate a defined distance over which attraction forces operate. Overlapping firm interactions yield agglomeration clusters that are much larger than the underlying agglomerative forces themselves. Empirically, we demonstrate that our model's assumptions are present in the structure of technology and labor flows within Silicon Valley. Our model further identifies how the lengths over which agglomerative forces operate influence the shapes and sizes of industrial clusters; we confirm these predictions using variations across patent technology clusters.

Combined Effects of Capacity and Time on Fares: Insights from the Yield Management of a Low-Cost Airline

 The Review of Economics and Statistics---2015----Marco Alderighi, Marcella Nicolini, Claudio Piga

Based on two strands of theoretical research, this paper provides new evidence on how fares are jointly affected by in-flight seat availability and purchasing date. As capacity-based theories predict, it emerges that fares monotonically and substantially increase with flight occupancy. After controlling for capacity utilization, our analysis also supports time-based theories, indicating a U-shaped temporal profile over a two-month booking period, as well as a sharp increase in fares in the two weeks prior to departure.

Intermediaries in International Trade: Products and Destinations

The Review of Economics and Statistics---2015--- Andrew Bernard, Marco Grazzi, Chiara Tomasi

This paper examines the factors that give rise to intermediaries in exporting and explores the implications for trade volumes. Export intermediaries such as whole-salers serve different markets and export different products than manufacturing exporters do. Wholesalers are more prevalent in markets with higher destination-specific fixed costs and focus on products that are less differentiated, have lower contract intensity, and have large sunk entry costs. Aggregate exports to destinations with high shares of indirect exports are less responsive to changes in the real exchange rate than are exports to markets served primarily by direct exporters.

The Effect of Schooling on Cognitive Skills

 The Review of Economics and Statistics---2015---Magnus Carlsson, Gordon Dahl, Björn Öckert, Dan-Olof Rooth

To identify the causal effect of schooling on cognitive skills, we exploit conditionally random variation in the date Swedish males take a battery of cognitive tests in preparation for military service. We find an extra ten days of school instruction raises scores on crystallized intelligence tests (synonyms and technical comprehension tests) by approximately 1 percent of a standard deviation, whereas extra nonschool days have almost no effect. In contrast, test scores on fluid intelligence tests (spatial and logic tests) do not increase with additional days of schooling but do increase modestly with age.

Discrimination and the Effects of Drug Testing on Black Employment

 The Review of Economics and Statistics---2015----Abigail Wozniak

A common assumption is that the rise of drug testing among U.S. employers must have had negative consequences for black employment. I use variation in the timing and nature of drug testing regulation to identify the impacts of testing on black hiring. I find that adoption of protesting legislation increases black employment in the testing sector by 7 percent to 30 percent and relative wages by 1.4 percent to 13.0 percent, with the largest shifts among low-skilled black men. The results are consistent with ex ante discrimination and suggest that drug testing may benefit African Americans by enabling nonusing blacks to prove their status to employers.

Fair Trade and Free Entry: Can a Disequilibrium Market Serve as a Development Tool?

 The Review of Economics and Statistics---2015---Alain de Janvry, Craig McIntosh, Elisabeth Sadoulet

The Fair Trade (FT) coffee initiative attempts to channel charity from consumers to poor producers via increased prices. We show that the rules of the FT system permit this rent to be eliminated due to free entry and costly excess certification of output. Using data from an association of coffee cooperatives in Central America, we verify that expected producer benefits are close to 0 when we take into account the output that is certified but not sold as FT. Our results illustrate how free entry undermines the attempt at extending charity via a price distortion in an otherwise competitive market.

Firm Exports and Multinational Activity Under Credit Constraints

 The Review of Economics and Statistics---2015----Kalina Manova, Shang-Jin Wei, Zhiwei Zhang

We provide firm-level evidence that credit constraints restrict international trade and affect the pattern of multinational activity. We show that foreign affiliates and joint ventures in China have better export performance than private domestic firms in financially more vulnerable sectors. These results are stronger for destinations with higher trade costs and not driven by firm size or other sector characteristics. Our findings are

consistent with multinational subsidiaries being less liquidity constrained because they can access foreign capital markets or funding from their parent company. They further suggest that FDI can alleviate the impact of domestic financial market imperfections on trade.

Climatic Fluctuations and the Diffusion of Agriculture

The Review of Economics and Statistics---2015--- Quamrul Ashraf, Stelios Michalopoulos

This research examines the climatic origins of the diffusion of Neolithic agriculture across countries and archaeological sites. The theory suggests that a foraging society's history of climatic shocks shaped the timing of its adoption of farming. Specifically, as long as climatic disturbances did not lead to a collapse of the underlying resource base, the rate at which huntergatherers were climatically propelled to experiment with their habitats determined the accumulation of tacit knowledge complementary to farming. Consistent with the proposed hypothesis, the empirical investigation demonstrates that, conditional on biogeographic endowments, climatic volatility has a hump-shaped effect on the timing of the adoption of agriculture.

Who Benefits from Environmental Regulation? Evidence from the Clean Air Act Amendments

The Review of Economics and Statistics---2015--- Antonio Bento, Matthew Freedman, Corey Lang

Using geographically disaggregated data and exploiting an instrumental variable strategy, we show that contrary to conventional wisdom, the benefits of the 1990 Clean Air Act Amendments (CAAA) were progressive. The CAAA created incentives for local regulators to target the initially dirtiest areas for cleanup, creating heterogeneity in the incidence of air quality improvements that favored lower-income households. Based on house price appreciation, households in the lowest quintile of the income distribution received annual benefits from the program equal to 0.3 percent of their income on average during the 1990s, over twice as much as those in the highest quintile.

Borders, Geography, and Oligopoly: Evidence from the Wind Turbine Industry

The Review of Economics and Statistics---2015--- A. Kerem Cosar, Paul L. E. Grieco, Felix Tintelnot

Using a microlevel data set of wind turbine installations in Denmark and Germany, we estimate a structural oligopoly model with cross-border trade and heterogeneous firms. Our approach separately identifies border-related from distance-related variable costs and bounds the fixed cost of exporting for each firm. In the data, firms' market shares drop precipitously at the border. We find that 40 percent to 50 percent of the gap can be attributed to national border costs. Counterfactual analysis indicates that eliminating national border frictions would increase total welfare in the wind turbine industry by 4 percent in Denmark and 6 percent in Germany.

The Risks of Innovation: Are Innovating Firms Less Likely to Die?

The Review of Economics and Statistics---2015-- Ana Fernandes, Caroline Paunov

While innovation matters for competitiveness, it may expose firms to survival risks. Using plant-product data for Chile and discretetime hazard models, we show that innovating plants have a lower hazard of exit. However, risk has a strong impact on the innovation-exit relationship: only innovators that retain diversified sources of revenue or face lower market risk are less likely to die. Single-product innovators are at greater risk of exiting. Exposure to technical risk does not affect exit probabilities differentially. We provide tentative evidence that single-product innovators have higher profits, which helps to rationalize their innovation decision despite the increased risk of exit.

Authorized Generic Entry prior to Patent Expiry: Reassessing Incentives for Independent Generic Entry

• The Review of Economics and Statistics---2015---Silvia Appelt

Originators seek to mitigate the loss of monopoly power by authorizing generic entry prior to patent expiry. Off-patent competition may be adversely affected if authorized generic entry substantially lowers the attractiveness of subsequent generic entry. This study assesses the impact of authorized generic entry on independent generic entry in recent cases of patent expiry in Germany. The results of a recursive bivariate probit regression, accounting for the endogeneity of authorized generic entry, show that authorized generic entry has no significant effect on the likelihood of generic entry. Business scope expansion and rent-seeking motives drive authorized generic entry decisions.

Pricing Regulation and Imperfect Competition on the Massachusetts Health Insurance Exchange

We analyze insurance-pricing regulation under imperfect competition on the Massachusetts health insurance exchange. Differential markups lead to price variation apart from cost variation. Coarse insurer pricing strategies identify consumer demand. Younger consumers are twice as price sensitive as older consumers. Older consumers thus face higher markups over costs. Modified community rating links prices for consumers differing in both costs and preferences, and changes the marginal consumer firms face. Stricter regulations transfer resources from low-cost to high-cost consumers, reduce firm profits, and increase overall consumer surplus.

Good Volatility, Bad Volatility: Signed Jumps and The Persistence of Volatility

The Review of Economics and Statistics---2015--- Andrew Patton, Kevin Sheppard

Using estimators of the variation of positive and negative returns (realized semivariances) and high-frequency data for the S&P 500 Index and 105 individual stocks, this paper sheds new light on the predictability of equity price volatility. We show that future volatility is more strongly related to the volatility of past negative returns than to that of positive

depends on the sign of the jump, with negative (positive) jumps leading to higher (lower) future volatility. We show that models exploiting these findings lead to significantly better out-of-sample forecast performance.

Unemployment and Productivity in the Long Run: The Role of Macroeconomic Volatility

• The Review of Economics and Statistics---2015---Pierpaolo Benigno, Luca Ricci, Paolo Surico

This paper presents a new empirical regularity between the volatility of productivity growth and long-run unemployment for a given level of long-run productivity growth. A theoretical framework based on asymmetric real wage rigidities is shown to have the potential to rationalize this finding. The model tends to fit U.S. long-run unemployment better than a specification based on long-run productivity growth only, especially during the Great Moderation and the Great Recession.

Incentives to Identify: Racial Identity in the Age of Affirmative Action

• The Review of Economics and Statistics---2015---Francisca Antman, Brian Duncan

We link data on racial self-identification with changes in statelevel affirmative action policies to ask whether racial self-identification responds to economic incentives. We find that after a state bans affirmative action, multiracial individuals who face an incentive to identify under affirmative action are about 30% less likely to identify with their minority group. In contrast, multiracial individuals who face a disincentive to identify under affirmative action are roughly 20% more likely to identify with their minority group once affirmative action policies are banned.

Automatic Bill Payment and Salience Effects: Evidence from Electricity Consumption

• The Review of Economics and Statistics---2015---Steven Sexton

returns and that the impact of a price jump on volatility The introduction of automatic bill payment (ABP) programs in 2005 eliminated the need for consumers to view recurring bills. If those enrolled in ABP programs offered by utilities and other service providers forgo inspection of their recurring bills, then price salience declines, prices perceived by boundedly rational agents fall, and consumption increases. This paper considers the impact of such programs on consumer demand and welfare and empirically tests whether enrollment in such programs increases demand. Results show ABP enrollment increases residential electricity consumption by 4.0% and commercial electricity consumption by as much as 8.1%. Enrollment in programs designed to smooth seasonal variation in monthly utility bills of lowincome customers results in 6.7% greater electricity use. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Consumer Demand for Fair Trade: Evidence from a Multistore Field Experiment

• The Review of Economics and Statistics---2015---Jens Hainmueller, Michael J. Hiscox, Sandra Sequeira

We provide new evidence on consumer demand for ethical products from experiments conducted in a U.S. grocery store chain. We find that sales of the two most popular coffees rose by almost 10% when they carried a Fair Trade label as compared to a generic placebo label. Demand for the higher-priced coffee remained steady when its price was raised by 8%, but demand for the lower-priced coffee was elastic: a 9% price increase led to a 30% decline in sales. While consumers attach value to ethical sourcing, there is significant heterogeneity in willingness to pay for it. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Would you Pay for Transparently Useless Advice? A Test of Boundaries of Beliefs in The **Folly of Predictions**

• The Review of Economics and Statistics---2015---Nattavudh Powdthavee, Yohanes Riyanto

Standard economic models assume that the demand for expert predictions arises only under the conditions in which individuals are uncertain about the underlying process generating the data and there is a strong belief that past performances predict future performances. We set up the strongest possible test of these assumptions. In contrast to the theoretical suggestions made in the literature, people are willing to pay for predictions of truly random outcomes after witnessing only a short streak of accurate predictions live in the lab. We discuss potential explanations and implications of such irrational learning in the contexts of economics and finance. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Temporal Stability of Time Preferences

• The Review of Economics and Statistics---2015---Stephan Meier, Charles Sprenger

The preferences assumed to govern intertemporal trade- By influencing the size and bargaining power of prioffs are generally considered to be stable economic primitives, though evidence on this stability is notably lacking. We present evidence from a large field study conducted over two years, with around 1,400 individuals using incentivized intertemporal choice experiments. Aggregate choice profiles and corresponding estimates of discount parameters are unchanged over the two years and individual correlations through time are high by existing standards. However, some individuals show signs of instability. By linking experimental measures to administrative tax records, we show that identified instability is uncorrelated with both levels and changes in sociodemographic variables. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

The Effect of Microinsurance on Economic **Activities: Evidence from a Randomized Field Experiment**

• The Review of Economics and Statistics---2015---Hongbin Cai, Yuyu Chen, Hanming Fang, Li-An Zhou

We report results from a large, randomized field to We implemented a randomized field experiment that

study how access to formal microinsurance affects production and economic development. We induce exogenous variation in insurance coverage at the village level by randomly assigning performance incentives to the village animal husbandry worker who is responsible for signing farmers up for the insurance. We find that promoting greater adoption of insurance significantly increases farmers' sow production, and this effect seems to persist in the longer run; moreover, the increase in sow production in response to the sow insurance does not seem to be the result of the substitution of other livestock. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Insurers' Negotiating Leverage and the External **Effects of Medicare Part D**

• The Review of Economics and Statistics---2015---Darius Lakdawalla, Wesley Yin

vate insurers, public subsidization of private health insurance may project effects beyond the subsidized population. We test for such spillovers by analyzing how increases in insurer size resulting from the implementation of Medicare Part D affected drug prices negotiated in the non-Medicare commercial market. On average, Part D lowered prices for commercial enrollees by 3.7 percentage. The external commercial market savings amount to \$1.5 billion per year, which, if passed to consumers, approximates the internal cost savings of newly insured subsidized beneficiaries. If retained by insurers, it corresponds to a greater than 9.25 percentage average increase in profitability on stand-alone drug insurance. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Savings in Transnational Households: A Field **Experiment among Migrants from El Salvador**

• The Review of Economics and Statistics---2015---Nava Ashraf, Diego Aycinena, Claudia Martínez A., Dean Yang, Claudia Martínez A.

tested ways to stimulate migrants' savings in their origin country. We find that migrants value opportunities to exert greater control over financial activities in their home countries. We offered U.S.-based migrants bank accounts in El Salvador, randomly varying migrant control over El Salvador-based savings by offering different accounts across treatments. Migrants offered the greatest degree of control accumulated the most savings. Impacts likely represent increases in total savings; there is no evidence that savings increases were simply reallocated from other savings mechanisms. Enhanced control over home country savings does not affect remittances sent home. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

The Subprime Crisis: Is Government Housing Policy to Blame?

• The Review of Economics and Statistics---2015---Robert B. Avery, Kenneth Brevoort

Some have suggested that housing policy, embodied by the Community Reinvestment Act (CRA) and affordable housing goals of the government-sponsored enterprises (GSEs), caused the subprime crisis. We examine if these programs led to worse mortgage outcomes using two approaches. The first examines whether more activity by CRA-covered lenders, or more loan sales to the GSEs, was associated with worse outcomes. The second uses regression discontinuity to determine if outcomes were worse at the geographic thresholds used by each program. Our results suggest that neither program played a significant role in the subprime crisis. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Incentive Strength and Teacher Productivity: Evidence from a Group-Based Teacher Incentive Pay System

• The Review of Economics and Statistics---2015---Scott Imberman, Michael Lovenheim

We estimate the impact of incentive strength on achievement under a group-based teacher incentive pay pro- We derive testable implications of instrument validity

gram. The system provides variation in the share of students in a subject-grade that a teacher instructs, which proxies for incentive strength. We find that achievement on incentivized exams, but not nonincentivized exams, improves when incentives strengthen. For the incentivized exams, we find that effects fade out monotonically as a teacher's portion of the group increases to between 20 and 30 percentage and are larger for teachers with low-achieving students. Calculations based off these estimates show modest positive effects of the program overall. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Estimating and Testing Models with Many Treatment Levels and Limited Instruments

• The Review of Economics and Statistics---2015---Lance Lochner, Enrico Moretti

Empirical researchers interested in the causal effect of the endogenous regressor often use instrumental variables. When few valid instruments are available, they typically estimate restricted specifications that impose uniform per unit treatment effects, even when these effects are likely to vary. We show that in these cases, ordinary least squares and instrumental variables estimators identify different weighted averages of all per unit effects, so the traditional Hausman test is uninformative about endogeneity. We develop a new exogeneity test that works even when the true model cannot be estimated using IV methods as long as a single valid instrument is available. We revisit three recent empirical examples to demonstrate the practical value of our test. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Testing Instrument Validity for LATE Identification Based on Inequality Moment Constraints

• The Review of Economics and Statistics---2015---Martin Huber, Giovanni Mellace

in just identified treatment effect models with endogeneity and consider several tests. The identifying assumptions of the local average treatment effect allow us to both point identify and bound the mean potential outcomes of the always takers under treatment and the never takers under nontreatment. The point-identified means must lie within their respective bounds, which provides us with four testable inequality moment constraints. Finally, we adapt our testing framework to the identification of distributional features. A brief simulation study and an application to labor market data are also provided. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

A Unifying Approach to the Empirical Evaluation of Asset Pricing Models

The Review of Economics and Statistics---2015--- Francisco Peñaranda, Enrique Sentana

Regression and SDF approaches with centered or uncentered moments and symmetric or asymmetric normalizations are commonly used to empirically evaluate linear factor pricing models. We show that unlike two-step or iterated GMM procedures, single-step estimators such as continuously updated GMM yield numerically identical risk prices, pricing errors, and overidentifying restrictions tests irrespective of the model validity and regardless of the factors being traded, or the use of excess or gross returns. We illustrate our results with Lustig and Verdelhan's (2007) currency returns, propose tests to detect some problematic cases, and provide Monte Carlo evidence on the reliability of asymptotic approximations. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Prior Selection for Vector Autoregressions

 The Review of Economics and Statistics---2015----Domenico Giannone, Michele Lenza, Giorgio Primiceri

Vector autoregressions (VARs) are flexible time series models that can capture complex dynamic interrela-

tionships among macroeconomic variables. However, their dense parameterization leads to unstable inference and inaccurate out-of-sample forecasts, particularly for models with many variables. A solution to this problem is to use informative priors in order to shrink the richly parameterized unrestricted model toward a parsimonious naive benchmark, and thus reduce estimation uncertainty. This paper studies the optimal choice of the informativeness of these priors, which we treat as additional parameters, in the spirit of hierarchical modeling. This approach, theoretically grounded and easy to implement, greatly reduces the number and importance of subjective choices in the setting of the prior. Moreover, it performs very well in terms of both out-of-sample forecasting—as well as factor models—and accuracy in the estimation of impulse response functions. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Global Inequality of Opportunity: How Much of Our Income Is Determined by Where We Live?

 The Review of Economics and Statistics---2015---Branko Milanovic

Suppose that all people in the world are allocated only two characteristics over which they have (almost) no control: country of residence and income distribution within that country. Assume further that there is no migration. We show that more than one-half of variability in income of world population classified according to their household per capita in 1% income groups (by country) is accounted for by these two characteristics. The role of effort or luck cannot play a large role in explaining the global distribution of individual income. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Incorporating Climate Uncertainty into Estimates of Climate Change Impacts

The Review of Economics and Statistics---2015---Marshall Burke, John Dykema, David B. Lobell, Edward Miguel, Shanker Satyanath

Quantitative estimates of the impacts of climate change on economic outcomes are important for public policy. We show that the vast majority of estimates fail to account for well-established uncertainty in future temperature and rainfall changes, leading to potentially misleading projections. We reexamine seven well-cited studies and show that accounting for climate uncertainty leads to a much larger range of projected climate impacts and a greater likelihood of worst-case outcomes, an important policy parameter. Incorporating climate uncertainty into future economic impact assessments will be critical for providing the best possible information on potential impacts. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

The Promise of Freedom: Fertility Decisions and the Escape from Slavery

The Review of Economics and Statistics---2015-- Treb Allen

This paper examines how the fertility of enslaved women was affected by the promise of freedom. Exploiting geographic variation in the effect of the Fugitive Slave Law of 1850, I demonstrate a negative correlation between fertility and the distance to freedom. This negative correlation is stronger on larger plantations but weaker when the slaveholder is a woman. A similar correlation is not present for white children, slave children with white fathers, or slave children born prior to the Fugitive Slave Law. The negative correlation suggests that the promise of freedom played an important role in the everyday lives of slaves. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

The Impact of Training on Productivity and Wages: Firm-Level Evidence

 The Review of Economics and Statistics---2015----Jozef Konings, Stijn Vanormelingen

This paper uses firm-level panel data of on-the-job training to estimate its impact on productivity and wages. To this end, we apply and extend the control function approach for estimating production functions, which allows us to correct for the endogeneity of input factors and training. We find that the productivity premium of a trained worker is substantially higher compared to the wage premium. Our results are consistent with recent theories that explain work-related training by imperfect competition in the labor market. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Entrepreneurship and Urban Growth: An Empirical Assessment with Historical Mines

The Review of Economics and Statistics---2015---Edward L. Glaeser, Sari Pekkala Kerr, William Kerr

We study entrepreneurship and growth through the lens of U.S. cities. Initial entrepreneurship correlates strongly with urban employment growth, but endogeneity bedevils interpretation. Chinitz (1961) hypothesized that coal mines near cities led to specialization in industries, like steel, with significant scale economies and that those big firms subsequently damped entrepreneurship across several generations. Proximity to historical mining deposits is associated with reduced entrepreneurship for cities in the 1970s and onward in industries unrelated to mining. We use historical mines as an instrument for our modern entrepreneurship measures and find a persistent link between entrepreneurship and city employment growth. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

On the Blurring of the Color Line: Wages and Employment for Black Males of Different Skin Tones

 The Review of Economics and Statistics---2015----Daniel Kreisman, Marcos A. Rangel

We evaluate the role skin color plays in earnings and employment for black males in the NLSY97. By applying a novel, scaled measure of skin tone to a nationally representative sample and by estimating the evolution of labor market differentials over time, we bridge

tablished literatures on wage differentials and labor market discrimination. We find that while intraracial wage gaps widen with experience, gaps between the lightest-skinned black workers and whites remain constant, suggesting that a blurring of the color line elicits subtle yet meaningful variation in earnings differentials over time. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Facial Attractiveness and Lifetime Earnings: **Evidence from a Cohort Study**

• The Review of Economics and Statistics---2015---John Scholz, Kamil Sicinski

We use unique longitudinal data to document an eco- This paper uses random assignment of students to nomically and statistically significant positive correlation between the facial attractiveness of male high school graduates and their subsequent labor market earnings. There are only weak links between facial attractiveness and direct measures of cognitive skills and no link between facial attractiveness and mortality. Even after including a lengthy set of characteristics, including IQ, high school activities, proxy measures for confidence and personality, family background, and additional respondent characteristics in an empirical model of earnings, the attractiveness premium is present in the respondents' mid-30s and early 50s. Our findings are consistent with attractiveness being an enduring, positive labor market characteristic. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Learning from Teen Childbearing Experiences of Close Friends: Evidence using Miscarriages as a **Natural Experiment**

• The Review of Economics and Statistics---2015---Olga Yakusheva, Jason Fletcher

We examine peer effects in teen childbearing among close friends, using miscarriages as a natural experiment. We use 775 women from the core sample of effect. The results show that participants correctly

a burgeoning literature on skin color with more es- We find a sizable negative treatment effect: a close friend's teen birth is associated with a 6 percentage point reduction in the likelihood of own teen pregnancy and childbearing. There is evidence that this effect operates through a learning mechanism by changing beliefs regarding early childbearing. Effects of teen pregnancy prevention policies may be partially offset by reductions in the opportunities for social learning. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

The Impact of Study Groups and Roommates on **Academic Performance**

• The Review of Economics and Statistics---2015---Tarun Jain, Mudit Kapoor

investigate the impact of study groups and roommates on academic achievement. We find that informal social interaction with roommates has a significant positive impact on academic achievement, while study group peers have no discernible impact, a result driven by group heterogeneity in ability. We also find that lowerability students benefit from high-ability students but not vice versa. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Bad News: An Experimental Study on the Informational Effects Of Rewards

• The Review of Economics and Statistics---2015---Andrei Bremzen, Elena Khokhlova, Anton Suvorov,Jeroen van de Ven

Psychologists and economists have argued that rewards often have hidden costs. One possible reason is that the principal may have incentives to offer higher rewards when she knows the task is difficult. Our experiment tests if high rewards embody such bad news and if this is correctly perceived by their recipients. Our design allows us to decompose the overall effect of rewards on effort into a direct incentive and an informational Add Health who had a friend with a teen pregnancy. interpret high rewards as bad news. In accordance with theory, the negative informational effect coexists with the direct positive effect. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

The Impact of Age Pension Eligibility Age on Retirement and Program Dependence: Evidence from an Australian Experiment

• The Review of Economics and Statistics---2015---Kadir Atalay, Garry Barrett

Governments around the world are reforming their social security systems in light of the challenges posed by population aging. We study the 1993 Australian Age Pension reform, which progressively increased the eligibility age for women from 60 to 65 years. We find economically significant responses to the reform. An increase in the eligibility age of one year induced a decline in the probability of retirement by 12 to 19 percentage points. In addition, the reform induced significant program substitution, with increases in enrollment in other social insurance programs, particularly the disability support pension, which effectively functioned as an alternative source of retirement income. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Locus of Control and Job Search Strategies

The Review of Economics and Statistics---2015---Marco Caliendo, Deborah Cobb-Clark, Arne Uhlendorff

Standard job search theory assumes that unemployed individuals have perfect information about the effect of their search effort on the job offer arrival rate. We present an alternative model that assumes that each individual has a subjective belief about the impact of her search effort on the job arrival. These beliefs depend in part on an individual's locus of control. We estimate the impact of locus of control on job search behavior using a data set of newly unemployed individuals in Germany. Consistent with our theoretical predictions, we find evidence that individuals with an internal locus of control search more and that individuals who

believe that their future outcomes are determined by external factors have lower reservation wages. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Kyoto and Carbon Leakage: An Empirical Analysis of the Carbon Content of Bilateral Trade

• The Review of Economics and Statistics---2015---Rahel Aichele, Gabriel Felbermayr

Has the Kyoto Protocol induced carbon leakage? We conduct the first empirical ex post evaluation of the protocol. We derive a theoretical gravity equation for the carbon dioxide content of trade, which accounts for intermediate inputs, both domestic and imported. The structure of our new panel database of the carbon content of sectoral bilateral trade flows allows controlling for the endogenous selection of countries into the Kyoto Protocol. Binding commitments under Kyoto have increased committed countries' embodied carbon imports from noncommitted countries by around 8% and the emission intensity of their imports by about 3%. Hence, Kyoto has indeed led to leakage. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Asymmetric Phase Shifts in U.S. Industrial Production Cycles

The Review of Economics and Statistics---2015--- Yongsung Chang, Sunoong Hwang

We identify cyclical turning points for 74 U.S. manufacturing industries and uncover new empirical regularities: (a) industries tend to comove between expansion and contraction phases over the business cycle; (b) clusters of industry turning points are highly asymmetric between peaks and troughs: troughs are much more concentrated and sharper than peaks; (c) the temporal pattern of phase shifts across industries supports the spillovers through input-output linkages; and (d) macroeconomic shocks, such as unanticipated changes in monetary policy, government spending, oil prices, and financial conditions, are significant drivers of industrial phase shifts. © 2015 The President and Fellows

of Harvard College and the Massachusetts Institute of Variety Pass-Through: An Examination of the Technology

Production Factor Returns: The Role of Factor Utilization

 The Review of Economics and Statistics---2015---Gilbert Cette, Nicolas Dromel, Remy Lecat, Anne Paret

Short-term increasing returns to production factors are usually found in empirical studies. We argue they can be due to omitted variables, particularly the intensity of factor utilization. Thanks to original French firm-level data (1992–2008), we show how increasing returns to scale disappear when working time, capacity utilization rate, and, particularly, capital operating time are introduced in the production function. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Does Online Availability Increase Citations? Theory and Evidence from a Panel of Economics and Business Journals

• The Review of Economics and Statistics---2015---Mark J. McCabe, Christopher M. Snyder

Does online availability boost citations? Using a panel of citations to economics and business journals, we show that the enormous effects found in previous studies were an artifact of their failure to control for article quality, disappearing once fixed effects are added as controls. The absence of aggregate effects masks heterogeneity across platforms: JSTOR has a uniquely large effect, boosting citations around 10%. We examine other sources of heterogeneity, including whether JS-TOR disproportionately increases cites from developing countries or to "long-tail" articles. Our theoretical analysis informs the econometric specification and allows citation increases to be translated into welfare terms. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Ready-to-Eat Breakfast Cereal Market

• The Review of Economics and Statistics---2015---Timothy J. Richards, Stephen Hamilton

We examine variety pass-through effects that occur when multiproduct retailers adjust the length of their product lines in response to changes in wholesale prices. Studying variety pass-through is essential to understanding how wholesale price changes transmit into retail prices when variety is endogenous. Using data from the ready-to-eat breakfast cereal category, we find that retailers jointly adjust retail prices and the length of their product lines in response to changes in wholesale prices. We show the importance of controlling for the endogeneity of retailers' product line decisions when calculating price pass-through rates. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

The Effect of the Internet on Performance and Quality: Evidence from the Airline Industry

• The Review of Economics and Statistics---2015---Itai Ater, Eugene Orlov

We argue that the rise of online travel agencies changed the nature of competition in the airline industry—from competition on elapsed scheduled flight times to price competition. Using flight-level data between 1997 and 2007 and geographical Internet growth patterns, we find a positive relationship between Internet access and flight times. The magnitude of this relationship is larger in competitive markets without low-cost carriers and for flights with shortest scheduled times. We also find that flight delays increased as more passengers gained Internet access. These findings suggest that the Internet may adversely affect firms' performance and incentives to provide high-quality products. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Entry and Competition in Differentiated Products Markets

 The Review of Economics and Statistics---2015----Catherine Schaumans, Frank Verboven

We propose a methodology for estimating the competition effects from entry when firms sell differentiated products. We first derive precise conditions under which Bresnahan and Reiss's entry threshold ratios (ETRs) can be used to measure competition effects. We then augment the traditional entry model with a revenue equation. This serves to adjust the ETRs by the extent of market expansion from entry, giving unbiased estimates of the competition effects. We apply our approach to seven local service sectors. We find that entry typically leads to significant market expansion, implying that traditional ETRs may substantially underestimate the competition effects from entry. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Asymptotic F-Test in a GMM Framework with Cross-Sectional Dependence

 The Review of Economics and Statistics---2015----Yixiao Sun, Min Seong Kim

The paper develops an asymptotically valid F-test that is robust to spatial autocorrelation in a GMM framework. The validity of the F-test is established under mild conditions that can accommodate a wide range of spatial processes. The proposed F-test is very easy to implement, as critical values are from a standard F-distribution. The F-test achieves triple robustness: it is asymptotically valid regardless of the spatial autocorrelation, the sampling region, and the limiting behavior of the smoothing parameter. Simulation also shows that the F-test has good size and power properties in finite samples. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Migration and Financial Constraints: Evidence from Mexico

 The Review of Economics and Statistics---2015----Manuela Angelucci

This paper shows that poor households' entitlement to an exogenous, temporary, but guaranteed income stream increases Mexican migration to the United States, although this income is mainly consumed. Some households use the entitlement to this income stream as collateral to finance the migration. The new migrations come from previously constrained individuals and households and worsen migrant skills. In sum, financial constraints to international migration are binding for poor Mexicans, some of whom would like to migrate but cannot afford to. As growth and antipoverty and microfinance programs relax financial constraints for the poor, low-skilled Mexican migration to the United States will likely increase. © 2015 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Gasoline Prices, Fuel Economy, and the Energy Paradox

The Review of Economics and Statistics---2014-- Hunt Allcott, Nathan Wozny

Policymakers often assert that consumers undervalue future gasoline costs when they buy automobiles. We test this by measuring whether relative prices of vehicles with different fuel economy ratings fully adjust to variation in gasoline prices. Vehicle prices move as if consumers are indifferent between \$1.00 in discounted future gas cost and \$0.76 in vehicle purchase price. We show how corrections for endogenous market shares and utilization, measurement error, and different gasoline price forecasts affect the results. We also provide unique evidence of sticky information: vehicle markets respond to changes in gasoline prices with up to a six-month delay.

Smithian Growth through Creative Organization

• The Review of Economics and Statistics---2014---Patrick Legros, Andrew F. Newman, Eugenio Proto We model technological progress as an external effect of organizational design, focusing on how factories, based on labor division, could spawn the Industrial Revolution. Dividing labor, as Adam Smith argued, facilitates invention by observers of production processes. However, entrepreneurs cannot internalize this benefit and choose labor division to facilitate monitoring. Equilibrium with few entrepreneurs features low wage shares, and high specialization, but a limited market for innovations. Conversely, with many entrepreneurs, there is a large market for innovation but little specialization because of high wage shares. Technological progress therefore occurs with a moderate scarcity of entrepreneurs. Institutional improvements affect growth ambiguously.

Evidence of Treatment Spillovers Within Markets

This paper provides a method to infer the presence of treatment spillovers within markets where a fraction of agents is treated. We model individual outcomes as functions of the assigned treatment status and the distribution of assigned treatments in a market. We develop a two-step identification and estimation method, focusing first on the treatment distribution among individuals within markets and then on the treatment distribution across markets. We apply our approach to training programs for unemployed individuals in France using rich administrative data. Our results provide evidence of interactions within local labor markets as potential individual outcomes vary with the proportion of treated individuals.

Care or Cash? The Effect of Child Care Subsidies on Student Performance

• The Review of Economics and Statistics--- 2014---Sandra Black, Paul Devereux, Katrine V. Lï
¿ $\frac{1}{2}$ ken, Kjell G Salvanes, Katrine Vellesen Løken

Given the wide use of child care subsidies across countries, it is surprising how little we know about the effect

of these subsidies on children's longer-run outcomes. Using a sharp discontinuity in the price of child care in Norway, we are able to isolate the effects of child care subsidies on both parental and student outcomes. We find very small and statistically insignificant effects of child care subsidies on child care utilization and parental labor force participation. Despite this, we find significant positive effect of the subsidies on children's academic performance in junior high school, suggesting that the positive shock to disposable income provided by the subsidies may be helping to improve children's scholastic aptitude.

Happy Doctor Makes Happy Baby? Incentivizing Physicians Improves Quality of Prenatal Care

The Review of Economics and Statistics---2014--- Vibeke Jensen

Physician-induced demand, whereby physicians alter patient treatment for personal gain, lies at the heart of concerns about publicly provided health care. However, little is known about how payment systems affect the ultimate outcome of patient health. Exploiting a unique policy induced variation in Denmark, I investigate the impact of physician payment contracts on infant health. In a difference-in-differences framework, I find that firstborn infants exposed in the womb to the care of general practitioners with capitation contracts have poorer infant health outcomes than infants exposed to fee-for-service contracts. The firstborn children of younger women primarily drive the effects.

The Increasing Complementarity between Cognitive and Social Skills

 The Review of Economics and Statistics---2014----Catherine J. Weinberger

Data linking 1972 and 1992 adolescent skill endowments to adult outcomes reveal increasing complementarity between cognitive and social skills. In fact, previously noted growth in demand for cognitive skills affected only individuals with strong endowments of both social and cognitive skills. These findings are corroborated using Census and CPS data matched

with Dictionary of Occupational Titles (DOT) job task measures; employment in and earnings premia to occupations requiring high levels of both cognitive and social skill grew substantially compared with occupations that require only one or neither type of skill, and this emerging feature of the labor market has persisted into the new millennium.

Monetary Policy Regime Shifts and Inflation Persistence

The Review of Economics and Statistics---2014-- Troy Davig, Taeyoung Doh

Using Bayesian methods, we estimate a Markov-switching New Keynesian (MSNK) model that allows shifts in the monetary policy reaction coefficients and shock volatilities with U.S. data. We find that a more aggressive monetary policy regime was in place after the Volcker disinflation and before 1970 than during the Great Inflation of the 1970s. Our estimates also indicate that a low-volatility regime has been in place during most of the sample period after 1984. We connect the timing of the different regimes to a measure of inflation persistence.

Job Loss, Credit Constraints, and Consumption Growth

The Review of Economics and Statistics---2014-- Thomas Crossley, Hamish Low

We use direct evidence on credit constraints to study their importance for household consumption growth and for welfare. We distentangle the direct effect on consumption growth of a currently binding credit constraint from the indirect effect of a potentially binding credit constraint that generates consumption risk. Our data are focused on job losers. We find that less than 5% of job losers experience a binding credit constraint, but those who do experience significant welfare losses, and consumption growth is 24% higher than for the rest of the population. However, even among those who are unconstrained and are able to borrow if needed, consumption responds to transitory income.

New Evidence on the Finite Sample Properties of Propensity Score Reweighting and Matching Estimators

 The Review of Economics and Statistics---2014---Matias Busso, John DiNardo, Justin McCrary

Fri; $\frac{1}{2}$ lich (2004) compares the finite sample properties of reweighting and matching estimators of average treatment effects and concludes that reweighting performs far worse than even the simplest matching estimator. We argue that this conclusion is unjustified. Neither approach dominates the other uniformly across data-generating processes (DGPs). Expanding on Fri; $\frac{1}{2}$ lich's analysis, this paper analyzes empirical as well as hypothetical DGPs and also examines the effect of misspecification. We conclude that reweighting is competitive with the most effective matching estimators when overlap is good, but that matching may be more effective when overlap is sufficiently poor.

Observation-Driven Mixed-Measurement Dynamic Factor Models with an Application to Credit Risk

The Review of Economics and Statistics---2014---Drew Creal, Bernd Schwaab, Siem Jan Koopman, Andre Lucas

We propose an observation-driven dynamic factor model for mixed-measurement and mixed-frequency panel data. Time series observations may come from a range of families of distributions, be observed at different frequencies, have missing observations, and exhibit common dynamics and cross-sectional dependence due to shared dynamic latent factors. A feature of our model is that the likelihood function is known in closed form. This enables parameter estimation using standard maximum likelihood methods. We adopt the new framework for signal extraction and forecasting of macro, credit, and loss given default risk conditions for U.S. Moody's-rated firms from January 1982 to March 2010.

Nested Logit or Random Coefficients Logit? A Comparison of Alternative Discrete Choice Models of Product Differentiation

The Review of Economics and Statistics---2014-- Laura Grigolon, Frank Verboven

We propose a random coefficients nested logit (RCNL) model to compare the tractable nested logit (NL) model with the more complex random coefficients logit (RC) model. After a simulation study, we use data on the European automobile market. Both the NL and RC models are rejected against the RCNL model. The RC model results in different substitution patterns and a wider market definition than the NL and RCNL models. Nevertheless, the predicted price effects from mergers are robust across models. Our findings stress the importance of accounting for discrete sources of market segmentation not captured by continuous product characteristics.

Social Networks and Research Output

 The Review of Economics and Statistics---2014---Lorenzo Ductor, Marcel Fafchamps, Sanjeev Goyal, Marco van der Leij

We study how knowledge about the social network of an individual researcher, as embodied in his coauthor relations, helps us in developing a more accurate prediction of his or her future productivity. We find that incorporating information about coauthor networks leads to a modest improvement in the accuracy of forecasts on individual output, over and above what we can predict based on the knowledge of past individual output. Second, we find that the informativeness of networks dissipates over the lifetime of a researcher's career. This suggests that the signaling content of the network is quantitatively more important than the flow of ideas.

Opium for the Masses? Conflict-Induced Narcotics Production in Afghanistan

• The Review of Economics and Statistics---2014---Jo Lind, Karl Ove Moene, Fredik Willumsen

To explain the rise in Afghan opium production, we explore how rising conflicts change the incentives of farmers. Conflicts make illegal opportunities more profitable as they increase the perceived lawlessness and destroy infrastructure crucial to alternative crops. Exploiting a unique data set, we show that Western hostile casualties, our proxy for conflict, have a strong impact on subsequent local opium production. Using the period after the planting season as a placebo test, we show that conflict has a strong effect before but no effect after planting, indicating causality.

Localized Knowledge Spillovers and Patent Citations: A Distance-Based Approach

 The Review of Economics and Statistics---2014---Yasusada Murata, Ryo Nakajima, Ryosuke Okamoto, Ryuichi Tamura

We develop a new distance-based test of localized knowledge spillovers that embeds the concept of control patents. Using microgeographic data, we identify localization distance for each technology class while allowing for spillovers across geographic units. We revisit the debate between Thompson and Fox-Kean (2005a, 2005b) and Henderson, Jaffe, and Trajtenberg (2005) on the existence of localized knowledge spillovers and find solid evidence supporting localization even when using finely grained controls. Unless biases induced by imperfect matching between citing and control patents due to unobserved heterogeneity are extremely large, our distance-based test detects localization for the majority of technology classes.

Sequentiality Versus Simultaneity: Interrelated Factor Demand

 The Review of Economics and Statistics---2014---Magne K. Asphjell, Wilko Letterie, Øivind Nilsen, Gerard A. Pfann

Firms may adjust capital and labor sequentially or simultaneously. In this paper, we develop a structural model of interrelated factor demand subject to nonconvex adjustment costs and estimated by simulated method of moments. Based on Norwegian manufacturing industry plant-level data, parameter estimates reveal cost advantages for adjusting capital and making net changes in labor simultaneously. Factor demand models with fully specified interrelated adjustment costs structures perform best to describe the dynamic panel data.

Product Cycles in U.S. Imports Data

• The Review of Economics and Statistics---2014---Chong Xiang

In this paper, I construct product-level U.S.-manufacturing-imports data for new products. I show that consistent with product cycles, the North's new-products exports to the United States, relative to its old-products exports, grow faster than the South's for over a decade; then the South catches up with the North, and this pattern is reversed. This finding holds up in parametric, nonparametric, and semiparametric estimations, and only when new products are properly identified and old products within the same industries are used as controls. There is also evidence that product cycles become shorter over time and they are technology related.

Estimating the Impact of Trade and Offshoring on American Workers using the Current Population Surveys

The Review of Economics and Statistics---2014---Avraham Ebenstein, Ann Harrison, Margaret McMillan, Shannon Phillips

We link industry-level data on trade and offshoring with individual-level worker data from the Current Population Surveys from 1984 to 2002. We find that occupational exposure to globalization is associated with significant wage effects, while industry exposure has no significant impact. We present evidence that globalization has put downward pressure on worker wages through the reallocation of workers away from higher-wage manufacturing jobs into other sectors and other occupations. Using a panel of workers, we find that occupation switching due to trade led to real

method of moments. Based on Norwegian manufacturing industry plant-level data, parameter estimates The President and Fellows of Harvard College and the reveal cost advantages for adjusting capital and making Massachusetts Institute of Technology

The Legacies of Forced Freedom: China's Treaty Ports

• The Review of Economics and Statistics---2014---Ruixue Jia

This paper investigates the long-run development of China's treaty ports from the mid-eighteenth century until today. Focusing on a sample of prefectures on the coast or on the Yangtze River, I document the dynamic development paths of treaty ports and their neighbors in alternate phases of closedness and openness. I also provide suggestive evidence on migration and sectorwise growth to understand the advantage of treaty ports in the long run. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Heterogeneity of Ambiguity Preferences

The Review of Economics and Statistics---2014-- Dale O. Stah

There is much interest in ambiguity-averse behavior under uncertainty, and many theories have been advanced to explain this. Empirical analyses of choices involving ambiguous options have typically used a representative agent model. We address the question of whether representative agent models are accurate approximations of reality or whether there is substantial heterogeneity in ambiguity preferences. In contrast to the representative agent model, we find that the vast majority of participants are not significantly ambiguity averse and that a significant proportion of participants are consistent with expected utility theory. This finding has important implications for the application of behavioral economics. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

The Mortgage Interest Deduction and its Impact on Homeownership Decisions

• The Review of Economics and Statistics---2014---Christian Hilber, Tracy M. Turner

This paper examines the impact of the combined U.S. state and federal mortgage interest deduction (MID) on homeownership attainment, using data from 1984 to 2007 and exploiting variation in the subsidy arising from changes in the MID within and across states over time. We test whether capitalization of the MID into house prices offsets the positive effect on homeownership. We find that the MID boosts homeownership attainment only of higher-income households in less tightly regulated housing markets. In more restrictive places, an adverse effect exists. The MID is an ineffective policy to promote homeownership and improve social welfare. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

A Flexible Finite-Horizon Alternative to Long-Run Restrictions with an Application to Technology Shocks

The Review of Economics and Statistics---2014---Neville Francis, Michael Owyang, Jennifer E. Roush, Riccardo DiCecio

Recent studies using long-run restrictions question the validity of the technology-driven real business cycle hypothesis. We propose an alternative identification that maximizes the contribution of technology shocks to the forecast-error variance of labor productivity at a long but finite horizon. In small-sample Monte Carlo experiments, our identification outperforms standard long-run restrictions by significantly reducing the bias in the short-run impulse responses and raising their estimation precision. Unlike its long-run restriction counterpart, when our Max Share identification technique is applied to U.S. data, it delivers the robust result that hours worked responds negatively to positive technology shocks. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

The Economics of Cross-Border Travel

The Review of Economics and Statistics---2014--- Ambarish Chandra, Keith Head, Mariano Tappata

We model the decision to travel across an international border as a trade-off between benefits derived from buying a range of products at lower prices and the costs of travel. We estimate the model using microdata on Canada–United States travel. Price differences motivate cross-border travel; a 10% home appreciation raises the propensity to cross by 8% to 26%. The larger elasticity arises when the home currency is strong, a result predicted by the model. Distance to the border strongly inhibits crossings, with an implied cost of 87 cents per mile. Geographic differences can partially explain why American travel is less exchange rate responsive. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

An Empirical Examination of the Procyclicality of R&D Investment and Innovation

The Review of Economics and Statistics---2014--- Kira R. Fabrizio, Ulva Tsolmon

The Schumpeterian opportunity cost hypothesis predicts that firms concentrate innovative activities in recessions. However, empirical evidence suggests that innovative activities are procyclical. Theory proposes that firms shift R&D investments and innovation from recessions to booms to maximize returns by capturing high-demand periods before imitators compete away rents. This paper provides the first empirical test of these predictions. Results indicate that R&D spending is more procyclical in industries with faster obsolescence, where matching invention to demand is more valuable, and innovation is more procyclical in industries with weaker IP protection, where imitation poses a greater threat. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Human Capital and the World Technology Frontier

The Review of Economics and Statistics---2014-- Jakob Madsen

This paper examines the productivity growth effects of educational attainment and its interaction with the distance to the world technology frontier, which is the percentage distance to the country with the highest total factor productivity (TFP) (the United Kingdom or United States), while allowing for the endogeneity of educational attainment in some of the estimates. For this purpose, a new annual data set for educational attainment is constructed for 21 industrialized countries over the period from 1870 to 2009. The results show that changes in educational attainment and the interaction between education and the distance to the frontier, as predicted by Schumpeterian growth theory, have been influential for productivity growth over the past 140 years. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Caregiving to Elderly Parents and Employment Status of European Mature Women

• The Review of Economics and Statistics---2014---Laura Crespo,Pedro Mira

We study the prevalence of informal caregiving to elderly parents by their mature daughters in Europe and the links between parental health, intense (daily) caregiving, and the employment status of daughters. We group data from SHARE into three country pools (North, Central, and South), which differ in the availability of public formal care services and female labor market attachment. There is a strong North-South gradient in the (positive) effect of parental ill health on the probability of daily caregiving. The loss of employment ascribable to daily informal caregiving seems negligible, except in southern countries. We use a time allocation model to provide a link to an empirical IV-treatment effects framework and to interpret our findings. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

R&D Subsidies and Company Performance: Evidence from Geographic Variation in Government Funding Based on the ERDF Population-Density Rule

The Review of Economics and Statistics---2014-- Elias Einiö

Despite the prevalence of R&D support programs, evaluation studies based on explicit differences in support allocation are rare. In this paper, the identification of the causal effect of R&D support on company performance is based on geographic variation in government funding arising from a population-density rule. I find positive impacts on R&D investment, employment, and sales among the participants who were granted an R&D subsidy as a result of additional aggregate R&D support funding in their region. Although there are no instantaneous impacts on productivity, the study provides evidence of long-term productivity gains. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Exports and Credit Constraints under Incomplete Information: Theory and Evidence from China

• The Review of Economics and Statistics---2014---Robert Feenstra, Zhiyuan Li, Miaojie Yu

This paper examines why credit constraints for domestic and exporting firms arise in a setting where banks do not observe firms' productivities. To maintain incentive compatibility, banks lend below the amount that firms need for optimal production. The longer time needed for export shipments induces a tighter credit constraint on exporters than on purely domestic firms. In our application to Chinese firms, we find that the credit constraint is more stringent as a firm's export share grows, as the time to ship for exports is lengthened, and as there is greater dispersion of firms' productivities, reflecting more incomplete information. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Forecasting Aggregate Productivity Using Information from Firm-Level Data

• The Review of Economics and Statistics---2014---Eric Bartelsman, Zoltán Wolf

In this paper, we explore whether information from firm-level data can improve forecasts of aggregate productivity growth. We generate firm-level productivity measures and aggregate them into time-series components that capture within-firm productivity and the productivity contribution of reallocation. We show that these components improve aggregate total factor productivity forecasts in a simple univariate setting, even when firm-level data are available with a time lag. Lagged firm-level information also improves aggregate productivity forecasts when we combine results from a variety of different multivariate forecasting models using Bayesian model averaging techniques. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Do Common Stocks Have Perfect Substitutes? Product Market Competition and the Elasticity of Demand for Stocks

• The Review of Economics and Statistics---2014---Kenneth Ahern

Though common stocks are one of the most important assets in an economy, little is known about their demand curves. I estimate demand curves for 144 NYSE stocks using a unique data set of all orders, including off-equilibrium orders, during three months in 1990 and 1991. Connecting asset pricing with industrial organization, I find that stocks of firms in less competitive industries are more elastic because they have closer substitutes than stocks in more competitive industries. Tests that exploit the 1991 Gulf War shock and S&P 500 Index additions confirm these results. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Overtime Labor, Employment Frictions, and the New Keynesian Phillips Curve

• The Review of Economics and Statistics---2014---Joao Madeira

This paper presents a New Keynesian (NK) model that is extended to differentiate between straight time and overtime work. The model proposes that the New Keynesian Phillips curve (NKPC) should be estimated with marginal cost measured in terms of overtime labor; the resulting coefficient estimates are in accordance with theory and statistically significant for the hybrid NKPC (which allows for backward-looking price setters) but not for the purely forward-looking NKPC. In the hybrid model, backward-looking behavior is found to be predominant. The paper also shows that the incorporation of employment frictions (predetermined employment and convex adjustment costs) in NK models helps reconcile the frequent price changes found in the microdata with the degree of sluggishness in inflation adjustment to output changes at the macro level. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Random Walk-Based Segregation Measures

 The Review of Economics and Statistics---2014----Coralio Ballester, Marc Vorsatz

We propose an intuitive way of how to measure segregation in social and spatial networks. Using random walks, we define the segregation index as the probability that an individual meets an individual from the same social group. The segregation index is a generalization of the isolation index and a homophily index introduced in Currarini, Jackson, and Pin (2009), and it has a closed-form relation to PageRank that facilitates its computation. We also show that the Spectral Segregation Index proposed by Echenique and Fryer (2007) is not continuous with respect to the network structure. Finally, we apply the measure to Spanish census data and to citations data from economics, and rationalize the index as the equilibrium outcome of a game. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Binary Choice Models with Social Network under Heterogeneous Rational Expectations

• The Review of Economics and Statistics---2014---Lung-Fei Lee, Ji Li, Xu Lin

This paper extends Brock and Durlauf's (2001a, 2001b) We estimate the extent to which legal and administrabinary choice complete network (or group interaction) model with homogeneous rational expectations to a general network model with heterogeneous rational expectations. In our model, individuals will form expectations regarding peers' behaviors taking into account their characteristics. Endogenous, contextual, and correlated effects are all identifiable. Conditions for unique equilibrium are established. For a complete network with heterogeneous rational expectations, multiple equilibria can be characterized by an aggregate scalar index. The empirical results on adolescents' smoking behaviors show significant endogenous and contextual effects, even after controlling for schoolgrade random effects and school fixed effects. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Numeracy and the Impact of High Food Prices in Industrializing Britain, 1780-1850

• The Review of Economics and Statistics---2014---Joerg Baten, Dorothee Crayen, Hans-Joachim Voth

Using census-based data on the ability to recall one's age, we show that low levels of nutrition impaired numeracy in industrializing England, 1780 to 1850: cognitive ability declined among those born during the Napoleonic wars. The effect was stronger in areas where grain was expensive and relief for the poor, an early form of welfare support was limited. Nutritional shortages had a nonlinear effect on numeracy, with, severe shortages impairing numeracy more. Nutrition during childhood also mattered for labor market outcomes: individuals born in periods or counties with low numeracy typically worked in occupations with lower earnings.© 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Liquidity Constraints and Consumer Bankruptcy: Evidence from Tax Rebates

• The Review of Economics and Statistics---2014---Tal Gross, Matthew Notowidigdo, Jialan Wang

tive fees prevent liquidity-constrained households from declaring bankruptcy. To do so, we study how the 2001 and 2008 tax rebates affected consumer bankruptcy filings. We exploit the randomized timing of the rebate checks and estimate that the rebates caused a significant short-run increase in consumer bankruptcies in both years, with larger effects in 2008 when the rebates were more generous and more widely distributed. Using hand-collected data from individual bankruptcy petitions, we document that households that filed shortly after receiving their rebate checks had higher average liabilities and liabilities-to-income ratios. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Contrast Effects in Sequential Decisions: Evidence from Speed Dating

The Review of Economics and Statistics---2014---Saurabh Bhargava, Raymond Fisman

We provide an empirical test of contrast effects—a bias where a decision maker perceives information in contrast to what preceded it—in the quasi-experimental context of speed dating decisions. We document that prior partner attractiveness reduces the subsequent likelihood of an affirmative dating decision. This relationship is confined to recent interactions, consistent with a perceptual error, but not learning or the presence of a quota in affirmative responses. The contrast effect is driven almost entirely by male evaluators. Additional evidence documents the effect's linearity with respect to prior partner attractiveness, its amplification for partners of moderate attractiveness, and its partial attenuation with accumulated experience. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Lead and Mortality

 The Review of Economics and Statistics---2014----Karen Clay, Werner Troesken, Michael Haines

This paper examines the effect of waterborne lead exposure on infant mortality in American cities over the period 1900 to 1920. Variation across cities in water acidity and the types of service pipes, which together determined the extent of lead exposure, identifies the effects of lead on infant mortality. In 1900, a decline in exposure equivalent to an increase in pH from 6.675 (25th percentile) to 7.3 (50th percentile) in cities with lead-only pipes would have been associated with a decrease in infant mortality of 7% to 33%, or at least twelve fewer infant deaths per 1,000 live births. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

An Empirical Model of Tax Convexity and Self-Employment

The Review of Economics and Statistics---2014-- Jean-Francois Wen, Daniel Gordon

Do progressive marginal income tax rates discourage self-employment? We assume risk neutrality to construct an implicit surtax on stochastic income relative to steady income, arising from a convex tax schedule. It is computed as part of a structural probit model with earnings equations and a tax simulator. The tax convexity variable and the net-of-tax income difference between self- and paid employment have the predicted signs and high levels of statistical significance for the probability of self-employment. A simulated flat tax reform suggests the tax effects are small. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

The Impact of Labor Market Dynamics on the Return Migration of Immigrants

The Review of Economics and Statistics---2014---Govert Bijwaard, Christian Schluter, Jackline Wahba

Using administrative panel data on the entire population of new labor immigrants to the Netherlands, we estimate the effects of individual labor market spells on immigration durations using the timing-of-events method. The model allows for correlated unobserved heterogeneity across migration, unemployment, and employment processes. We find that unemployment spells increase return probabilities for all immigrant groups, while reemployment spells typically delay returns. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Skill Bias Magnified: Intersectoral Linkages and White-Collar Labor Demand in U.S. Manufacturing

 The Review of Economics and Statistics---2014---Nico Voigtländer

This paper presents a novel stylized fact and analyzes its contribution to the skill bias of technical change in U.S. manufacturing. The share of skilled labor embedded in intermediate inputs correlates strongly with the skill share employed in final production. This finding points toward an intersectoral technology-skill complementarity (ITSC). Together with input-output linkages, the observed complementarity delivers a multiplier that reinforces skill demand along the production chain. Reduced-form estimates suggest that the effect is quantitatively important, explaining about as much skill upgrading as outsourcing. Empirical evidence suggests that one channel through which this complementarity works is product innovation. I also analyze the importance of different drivers of skill upgrading over time. While foreign outsourcing and IT capital are associated with skill demand particularly strongly from the 1980s on (a period of rapidly increasing skill premiums), R&D contributed stably throughout the period 1958 to 2005. The same is true for ITSC, which augmented within-sector skill bias in a stable fashion throughout the past five decades. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Can Achievement Peer Effect Estimates Inform Policy? A View from Inside the Black Box

• The Review of Economics and Statistics---2014---Jane Fruehwirth

Empirical studies of peer effects rely on the assumption that peer spillovers can be measured through observables. However, in the education context, many theories of peer spillovers center around unobservables, such as ability, effort, or motivation. I show that when peer effects arise from unobservables, the typical empirical specifications will not measure these effects accurately, which may help explain differences in the magnitude and even sign of peer effect estimates across studies. I also show that under reasonable assumptions, these estimates cannot be applied to determine the effects of regrouping students, a central motivation of the literature. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Consumer Inertia, Choice Dependence, and Learning from Experience in a Repeated Decision Problem

The Review of Economics and Statistics---2014--- Eugenio Miravete, Ignacio Palacios-Huerta

Understanding when and how individuals think about real-life problems is a central question in economics. This paper studies the role of inertia (inattention), state dependence, and learning. The empirical setting is a tariff experiment, when optional measured tariffs for local telephone calls were introduced unanticipatedly. We find that consumers tend to align their choices of tariff and telephone use levels correctly. Despite low potential savings, mistakes are not permanent, as individuals actively engage in tariff switching in order to reduce the monthly cost of telephone service. Ignoring unobservable heterogeneity and the endogeneity of past choices would have reversed these results. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Trade Flows, Multilateral Resistance, and Firm Heterogeneity

The Review of Economics and Statistics---2014-- Alberto Behar, Benjamin Nelson

Anderson and van Wincoop (2003) showed the importance of multilateral resistance general equilibrium effects in estimating the response of trade flows to trade costs. We integrate this into Helpman, Melitz, and Rubinstein's (2008) extension of Anderson and van Wincoop's framework, which allows for firm heterogeneity, in order to quantify the different margins of adjustment. For bilateral trade cost changes, the general equilibrium effects are small. Surprisingly, most country pairs reduce their trade after a multilateral fall in trade costs. The global trade response to lower costs is positive, amplified by firm entry, but significantly dampened by multilateral resistance. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

The Weight of the Crisis: Evidence From Newborns in Argentina

The Review of Economics and Statistics---2014--- Carlos Bozzoli, Climent Quintana-Domeque

We investigate how prenatal economic fluctuations affected birth weight in Argentina during the period from January 2000 to December 2005 and document its procyclicality. We find evidence that the birth weight of children born to low-educated (less than high school) mothers is sensitive to macroeconomic fluctuations during both the first and third trimesters of pregnancy, while those of high-educated (high school or above) mothers react only to the first trimester of pregnancy. Our results are consistent with low-educated women facing credit constraints and suffering from both nutritional deprivation and maternal stress, while high-educated women are affected only by stress. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Measuring True Sales and Underreporting with Matched Firm-Level Survey and Tax Office Data

The Review of Economics and Statistics---2014-- Fujin Zhou, Remco Oostendorp

This paper uses firm-level survey data matched with official tax records to estimate the unobserved true sales of formal firms in Mongolia. Taking into account firm-level incentives to comply with taxes and a production function technology linking unobserved true sales with observable firm-level production characteristics, we derive a multiple-indicators, multiple-causes model predicting true sales. We find that firms underreport sales to the tax office by 38.6%, but firm-level survey data also suffer from significant underreporting. Finally, we compare our approach with two alternative approaches of measuring underreporting and discuss the practical implications of the findings for firm-level analyses of underreporting. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Who Marries Differently Aged Spouses? Ability, Education, Occupation, Earnings, and Appearance

 The Review of Economics and Statistics---2014----Hani Mansour, Terra McKinnish

In direct contrast to conventional wisdom and most economic models of marital age gaps, we present robust evidence that men and women who are married to differently aged spouses are negatively selected. Empirical results show lower cognitive ability, lower educational attainment, lower occupational wages, lower earnings, and less attractive appearance among those married to a differently aged spouse. These results, obtained using samples of first marriages and controlling for age of marriage, are consistent with a model in which individuals with more schooling and more upwardly mobile occupations interact more heavily with similarly aged peers and are ultimately more likely to marry similarly aged spouses. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Revealed Preferences in a Heterogeneous Population

The Review of Economics and Statistics---2014--- Stefan Hoderlein, Jörg Stoye

This paper explores the empirical content of the weak axiom of revealed preference (WARP) for repeated cross-sections. In a heterogeneous population, the fraction of consumers who violate WARP is not point identified but can be bounded. These bounds, as well as some nonparametric refinements, correspond to intuitive behavioral assumptions if there are two goods. With three or more goods, such intuitions break down, and plausible assumptions can have counterintuitive implications. We also provide estimators and confidence regions. The empirical application reveals that in the British Family Expenditure Survey, upper bounds are frequently positive but lower bounds are not significantly so. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Entry Threats and Pricing in the Generic Drug Industry

• The Review of Economics and Statistics---2014---Steven Tenn,Brett W. Wendling

We use the unique regulatory environment of the pharmaceutical industry to examine how potential competition affects generic drug pricing. Our identification strategy exploits a provision of the Hatch-Waxman Act that awards 180 days of marketing exclusivity to the first valid generic drug applicant against the holder of a branded drug patent. In smaller drug markets, we find that price falls in response to an increase in potential competition. We also find that few manufacturers enter these markets, indicating this price reduction is an effective deterrent. In contrast, we find that generic incumbents accommodate entry in larger drug markets. © No rights reserved. This work was authored as part of the Contributor's official duties as an Employee of the United States Government and is therefore a work of the United States Government. In accordance with 17 U.S.C. 105, no copyright protection is available for such works under U.S. law.

The Development Impact of a Best Practice Seasonal Worker Policy

 The Review of Economics and Statistics---2014---John Gibson, David McKenzie

Seasonal migration programs are widely used around the world, yet there is little evidence as to their development impacts. A multiyear prospective evaluation of New Zealand's Recognised Seasonal Employer (RSE) seasonal worker program allows us to measure the impact of participating in this program on households in Tonga and Vanuatu. Using a propensity-score prescreened difference-in-differences analysis based on surveys fielded before, during, and after participation, we find that the RSE has indeed had positive development impacts that dwarf those of other popular development interventions. It has increased income, consumption, and savings of households; durable goods ownership; and subjective standard of living. The results also suggest that child schooling improved in Tonga. © 2014 The World Bank

Investing in Schooling In Chile: The Role of Information about Financial Aid for Higher Education

The Review of Economics and Statistics---2014- -Taryn Dinkelman, Claudia Martínez A., Claudia Martínez A.

We investigate the impacts of providing low-income Chilean adolescents with information about how to finance higher education and ask whether providing parents with the same information magnifies the effects on schooling outcomes. We randomly assigned eighth graders and some parents to receive information about aid for higher education. Exposure to information raised college preparatory high school enrollment, primary school attendance, and financial aid knowledge, with gains concentrated among medium- and high-grade students. Parental exposure to information did not significantly magnify these effects. Our results demonstrate that access to relevant information about financial aid affects important schooling choices long before tertiary education begins. © 2014 The President

and Fellows of Harvard College and the Massachusetts Institute of Technology

Did the 2007 Legal Arizona Workers Act Reduce the State's Unauthorized Immigrant Population?

 The Review of Economics and Statistics---2014----Sarah Bohn, Magnus Lofstrom, Steven Raphael

We test for an effect of Arizona's 2007 Legal Arizona Workers Act (LAWA) on the proportion of the state's population characterized as noncitizen Hispanic. We use the synthetic control method to select a group of states against which Arizona's population trends can be compared. We document a notable and statistically significant reduction in the proportion of the Hispanic noncitizen population in Arizona. The decline observed matches the timing of LAWA's implementation, deviates from the time series for the synthetic control group, and stands out relative to the distribution of placebo estimates for other states in the nation. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Printing and Protestants: An Empirical Test of the Role of Printing in the Reformation

The Review of Economics and Statistics---2014-- Jared Rubin

The causes of the Protestant Reformation have long been debated. This paper seeks to revive and econometrically test the theory that the spread of the Reformation is linked to the spread of the printing press. I test this theory by analyzing data on the spread of the press and the Reformation at the city level. An econometric analysis that instruments for omitted variable bias with a city's distance from Mainz, the birthplace of printing, suggests that cities with at least one printing press by 1500 were at minimum 29 percentage points more likely to be Protestant by 1600. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Taxation and the Earnings of Husbands and Wives: Evidence from Sweden

• The Review of Economics and Statistics---2014---Alexander Gelber

I examine the response of husbands' and wives' earnings to a tax reform in which husbands' and wives' tax rates changed independently, allowing me to examine the effect of both spouses' incentives on each spouse's behavior. I analyze the large Swedish tax reform of 1990–1991 and find that in response to a compensated fall in one spouse's tax rate, each spouse's earnings rise. I compare these results to those of simplified econometric models used in the typical setting in which independent variation in each spouse's tax rate is unavailable. I find that standard econometric specifications may produce substantially biased estimates. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Market Equilibrium and the Environmental Effects of Tax Adjustments in China's Automobile Industry

 The Review of Economics and Statistics---2014----Junji Xiao, Heng Ju, Junji Xiao, Junji Xiao

This paper explores the effects of consumption-tax and fuel-tax adjustments in the Chinese automobile industry. Applying the model and simulation method of Berry, Levinson, and Pakes (1995), we conduct a comparative static analysis of equilibrium prices and sales, fuel consumption, and social welfare before and after tax adjustments. For the first time, we compare the progressivity of both taxes. Our empirical findings suggest that the fuel tax is effective in decreasing fuel consumption at the expense of social welfare, while the consumption or social welfare. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

In School and Out of Trouble? The Minimum Dropout Age and Juvenile Crime

• The Review of Economics and Statistics---2014---D. Mark Anderson

This paper examines the relationship between the minimum high school dropout age and juvenile arrest rates by exploiting state-level variation in dropout age laws. County-level arrest data for the period 1980 to 2008 and difference-in-difference-in-difference-type empirical strategy are used to compare the arrest rates over time of various age groups within counties that differ by their state's minimum dropout age. The evidence suggests that minimum dropout age requirements have a significant and negative effect on property and violent crime arrest rates for individuals 16 to 18 years old. The results are consistent with an incapacitation effect of schooling. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Does Enforcement of Intellectual Property Rights Matter in China? Evidence from Financing and Investment Choices in the High-Tech Industry

• The Review of Economics and Statistics---2014---James S. Ang, Yingmei Cheng, Chaopeng Wu

Using a unique and rich database of high-technology firms in China, we show that effective enforcement of intellectual property rights at the provincial level is critical in encouraging financing and investing in R&D. Better enforcement of intellectual property (IP) rights positively affects firms' ability to acquire new external debt and allows firms to invest in more R&D, generate more innovation patents, and produce more sales from new products. Our results suggest that facilitating financing and investing in R&D are the channels through which better IP rights enforcement can affect economic growth. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Collusion Through Joint R&D: An Empirical Assessment

The Review of Economics and Statistics---2014-- Tomaso Duso, Lars-Hendrik Röller, Jo Seldeslachts

This paper tests whether upstream R&D cooperation leads to downstream collusion. We show that a sufficient condition for identifying collusive behavior is a decline in the market share of firms participating in research joint ventures (RJVs). Using information from the U.S. National Cooperation Research Act, we estimate a market share equation correcting for the endogeneity of RJV participation and R&D expenditures. We find robust evidence that large networks between direct competitors, created through firms being members in several RJVs at the same time, are conducive to collusive outcomes in the product market that reduce consumer welfare. By contrast, RJVs among noncompetitors are efficiency enhancing. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

A Causal Interpretation of Extensive and Intensive Margin Effects in Generalized Tobit Models

 The Review of Economics and Statistics---2014----Kevin Staub

This note proposes a new decomposition of average treatment effects on nonnegative outcomes. It represents the total effect as a population-weighted sum of the effects for two groups: those induced to participate by the treatment and those participating regardless of it. The usual decomposition into extensive and intensive margins used in the literature is generally incompatible with such a causal interpretation. The difference between decompositions can be substantial and yield diametrically opposed results. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

A Conditional-Heteroskedasticity-Robust Confidence Interval for the Autoregressive Parameter

The Review of Economics and Statistics---2014-- Donald Andrews, Patrik Guggenberger

This paper introduces a new confidence interval (CI) for the autoregressive parameter (AR) in an AR(1)model that allows for conditional heteroskedasticity of a general form and AR parameters that are less than or equal to unity. The CI is a modification of Mikusheva's (2007a) modification of Stock's (1991) CI that employs the least squares estimator and a heteroskedasticity-robust variance estimator. The CI is shown to have correct asymptotic size and to be asymptotically similar (in a uniform sense). It does not require any tuning parameters. No existing procedures have these properties. Monte Carlo simulations show that the CI performs well in finite samples in terms of coverage probability and average length, for innovations with and without conditional heteroskedasticity. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Liar's Loan? Effects of Origination Channel and Information Falsification on Mortgage Delinquency

The Review of Economics and Statistics---2014--- Wei Jiang, Ashlyn Aiko Nelson, Edward Vytlacil

This paper presents an analysis of mortgage delinquency between 2004 and 2008 using a loan-level data set from a major national mortgage bank. Our analysis highlights two problems underlying the mortgage crisis: a reliance on mortgage brokers who tend to originate lower-quality loans and a prevalence of low-documentation loans—known in the industry as "liar's loans"—that result in borrower information falsification. While over three-quarters of the difference in delinquency rates between bank and broker channels can be attributed to observable loan and borrower characteristics, the delinquency difference between full-and low-documentation mortgages is due to unobservable heterogeneity, about half of it potentially due to

income falsification. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Are Household Surveys Like Tax Forms? Evidence from Income Underreporting of the Self-Employed

• The Review of Economics and Statistics---2014---Erik Hurst, Geng Li, Benjamin Pugsley

A large literature shows that the self-employed underreport their income to tax authorities. In this paper, we quantify the extent to which the self-employed also systematically underreport their income in U.S. household surveys. We use the Engel curve describing the relationship between income and expenditures of wage and salary workers to infer the actual income, and thus the reporting gap, of the self-employed based on their reported expenditures. On average, the self-employed underreport their income by about 25%. We show that failing to account for such income underreporting leads to biased conclusions in a variety of settings. © No rights reserved. This work was authored as part of the Contributor's official duties as an Employee of the United States Government and is therefore a work of the United States Government. In accordance with 17 U.S.C. 105, no copyright protection is available for such works under U.S. law.

Estimation of Random-Coefficient Demand Models: Two Empiricists' Perspective

 The Review of Economics and Statistics---2014---Christopher Knittel, Konstantinos Metaxoglou

We document the numerical challenges we experienced estimating random-coefficient demand models as in Berry, Levinsohn, and Pakes (1995) using two well-known data sets and a thorough optimization design. The optimization algorithms often converge at points where the first- and second-order optimality conditions fail. There are also cases of convergence at local optima. On convergence, the variation in the values of the parameter estimates translates into variation in the models' economic predictions. Price elasticities and

changes in consumer and producer welfare following hypothetical merger exercises vary at least by a factor of 2 and up to a factor of 5. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Has ICT Polarized Skill Demand? Evidence from Eleven Countries over Twenty-Five Years

The Review of Economics and Statistics---2014-- Guy Michaels, Ashwini Natraj, John van Reenen

We test the hypothesis that information and communication technologies (ICT) polarize labor markets by increasing demand for the highly educated at the expense of the middle educated, with little effect on low-educated workers. Using data on the United States, Japan, and nine European countries from 1980 to 2004, we find that industries with faster ICT growth shifted demand from middle-educated workers to highly educated workers, consistent with ICT-based polarization. Trade openness is also associated with polarization, but this is not robust to controlling for R&D. Technologies account for up to a quarter of the growth in demand for highly educated workers. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Self-Selection and International Migration: New Evidence from Mexico

 The Review of Economics and Statistics---2014----Robert Kaestner, Ofer Malamud

This paper examines the selection of Mexican migrants to the United States using novel data with rich premigration characteristics that include permanent migrants, return migrants, and migrating households. Results indicate that Mexican migrants are more likely to be young, male, and from rural areas compared to nonmigrants, but they are similar to nonmigrants in cognitive ability and health. Migrants are selected from the middle of the education distribution. Male Mexican migrants are negatively selected on earnings, and this result is largely explained by differential returns to labor market skill between the United States

and Mexico rather than proxies for differential costs significantly predicts economic and health outcomes of migration. © 2014 The President and Fellows of at older ages. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Harvard College and the Massachusetts Institute of Technology

Monopsony in the Low-Wage Labor Market? **Evidence from Minimum Nurse Staffing** Regulations

• The Review of Economics and Statistics---2014---Jordan Matsudaira

This paper provides direct evidence on the extent of monopsony power in the low-wage labor market by estimating the firm-level elasticity of labor supply for nurse aides in the long-term care (nursing home) industry. Using exogenous variation in hiring induced by the passage of a state minimum nurse staffing law, I find that facilities initially out of compliance with the new law did not have to raise their wage offers relative to their competitors in order to hire more nurses. While this is consistent with perfect competition in simple monopsony models of the labor market, I discuss how the results may be more ambiguous in more complicated models. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Effects of World War II on Economic and **Health Outcomes across Europe**

• The Review of Economics and Statistics---2014---Iris Kesternich, Bettina Siflinger, James Smith.Joachim Winter

We investigate long-run effects of World War II on socioeconomic status and health of older individuals in Europe. We analyze data from SHARELIFE, a retrospective survey conducted as part of SHARE in Europe in 2009. SHARELIFE provides detailed data on events in childhood during and after the war for over 20,000 individuals in thirteen European countries. We construct several measures of war exposure: experience of dispossession, persecution, combat in local areas, and hunger periods. Exposure to war and, more important, to individual-level shocks caused by the war

Technology.

Statistical Discrimination or Prejudice? A Large Sample Field Experiment

• The Review of Economics and Statistics---2014---Michael Ewens, Bryan Tomlin, Liang Wang

A model of racial discrimination provides testable implications for two features of statistical discriminators: differential treatment of signals by race and heterogeneous experience that shapes perception. We construct an experiment in the U.S. rental apartment market that distinguishes statistical discrimination from taste-based discrimination. Responses from over 14,000 rental inquiries with varying applicant quality show that landlords treat identical information from applicants with African American— and white-sounding names differently. This differential treatment varies by neighborhood racial composition and signal type in a manner consistent with statistical discrimination and in contrast to patterns predicted by a model of taste-based discrimination. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Employment Protection Legislation, Multinational Firms, and Innovation

• The Review of Economics and Statistics---2014---Rachel Griffith, Gareth Macartney

The theoretical effects of labor regulations, such as employment protection legislation (EPL), on innovation is ambiguous. EPL increases job security, and the greater enforceability of job contracts may increase worker investment in innovative activity. But EPL increases firms' adjustment costs, which may lead to underinvestment in activities that are likely to require adjustment, including technologically advanced innovation. In this paper, we find empirical evidence that these effects are at work—in particular, a higher share

of multinational enterprise innovative activity in coun- and Fellows of Harvard College and the Massachusetts tries with high EPL is technologically advanced. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Information Sharing and Stock Market Participation: Evidence from Extended Families

• The Review of Economics and Statistics---2014---Geng Li

Using the Panel Study of Income Dynamics, we document that controlling for observable characteristics, household investors' likelihood of entering the stock market within the ensuing five years is about 20% to 30% higher if their parents or children had entered the stock market during the previous five years. By eliminating competing hypotheses such as preference similarity and herding, we argue that these findings highlight the significance of information sharing regarding household financial decisions. © No rights reserved. This work was authored as part of the Contributor's official duties as an Employee of the United States Government and is therefore a work of the United States Government. In accordance with 17 U.S.C. 105, no copyright protection is available for such works under U.S. law.

Is the Effect of Competition on Price Dispersion Nonmonotonic? Evidence from the U.S. Airline Industry

• The Review of Economics and Statistics---2014---Mian Dai, Qihong Liu, Konstantinos Serfes

We investigate the effect of competition on price dispersion in the airline industry. Using panel data from 1993 to 2008, we find a nonmonotonic effect of competition on price dispersion. An increase in competition is associated with greater price dispersion in concentrated markets but with less price dispersion in competitive markets—an inverse-U relationship. Our empirical findings are consistent with an oligopolistic second-degree price discrimination model and encompass contradictory findings in the literature. © 2014 The President

Institute of Technology.

Knowledge Spillovers from Research Universities: Evidence from Endowment Value **Shocks**

• The Review of Economics and Statistics---2014---Shawn Kantor, Alexander Whalley

We estimate the local spillovers from research university activity in a sample of urban counties. Our approach uses the interaction between university endowment values and stock market shocks over time for identification. We find statistically significant local spillover effects from university activity. The effects are significantly larger when local universities are more research intensive or local firms are technologically close to universities. Our results suggest that the longer-term effects that universities have on their local economies may grow over time as the composition of local industries adjusts to take advantage of the heterogeneous knowledge spillovers we identify. © 2014 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Effect of Health Insurance on Emergency Department Visits: Evidence from an Age-Based **Eligibility Threshold**

• The Review of Economics and Statistics---2014---Michael Anderson, Carlos Dobkin, Tal Gross

Health insurance affects the rate at which individuals visit hospitals and emergency departments (EDs). We identify the causal effect of losing health insurance using a regression discontinuity design. We compare individuals just before and after their twenty third birthday, which insurers have used as a cutoff after which students are no longer eligible for their parents' health insurance: 1.5% of young adults lose their health insurance upon turning 23, and this transition leads to a 1.6% decrease in ED visits and a 0.8% decrease in hospital stays. We discuss why these estimates are larger than those observed among teenage populations. and the Massachusetts Institute of Technology.

Estimating Measurement Error in Annual Job Earnings: A Comparison of Survey and Administrative Data

• The Review of Economics and Statistics---2013---John Abowd, Martha H. Stinson

We propose a new methodology that does not assume a prior specification of the statistical properties of the measurement errors and treats all sources as noisy measures of some underlying true value. The unobservable true value can be represented as a weighted average of all available measures, using weights that must be specified a priori unless there has been a truth audit. The Census Bureau's Survey of Income and Program Participation (SIPP) survey jobs are linked to Social Security Administration earnings data, creating two potential annual earnings observations. The reliability statistics for both sources are quite similar except for cases where the SIPP used imputations for some missing monthly earnings reports. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Evolution of the Black-White Test Score Gap in Grades K-3: The Fragility of Results

• The Review of Economics and Statistics---2013---Timothy Bond, Kevin Lang

Although both economists and psychometricians typically treat them as interval scales, test scores are reported using ordinal scales. Using the Early Childhood Longitudinal Study (ECLS-K) and the Children of the National Longitudinal Survey of Youth (CNLSY), we examine how order-preserving scale transformations affect the evolution of the black-white reading test score gap from kindergarten entry through third grade. Plausible transformations reverse the growth of the gap in the CNLSY and greatly reduce it in the ECLS-K during the early school years. All growth from entry through first grade and a nontrivial proportion from first to third grade probably reflects scaling decisions. current quarter out to four quarters hence. The gains

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Relative Status and Well-Being: Evidence from U.S. Suicide Deaths

• The Review of Economics and Statistics---2013---Mary C. Daly, Daniel Wilson, Norman J. Johnson

We assess the importance of interpersonal income comparisons using data on suicide deaths. We examine whether suicide risk is related to others' income, holding own income and other individual and environmental factors fixed. We estimate models of the suicide hazard using two independent data sets: the National Longitudinal Mortality Study and the National Center for Health Statistics' Multiple Cause of Death Files combined with the 5% Public Use Micro Sample of the 1990 decennial census. Results from both data sources show that, controlling for own income and individual characteristics, individual suicide risk rises with others' income. (No rights reserved. This work was authored as part of the Contributor's official duties as an Employee of the United States Government and is therefore a work of the United States Government. In accordance with 17 U.S.C. 105, no copyright protection is available for such works under U.S. law.)

Credit Spreads as Predictors of Real-Time Economic Activity: A Bayesian Model-Averaging Approach

• The Review of Economics and Statistics---2013---Jon Faust, Simon Gilchrist, Jonathan H. Wright, Egon Zakrajšsek

Employing a large number of financial indicators, we use Bayesian model averaging (BMA) to forecast realtime measures of economic activity. The indicators include credit spreads based on portfolios, constructed directly from the secondary market prices of outstanding bonds, sorted by maturity and credit risk. Relative to an autoregressive benchmark, BMA yields consistent improvements in the prediction of the cyclically sensitive measures of economic activity at horizons from the in forecast accuracy are statistically significant and economically important and owe almost exclusively to the inclusion of credit spreads in the set of predictors. (No rights reserved. This work was authored as part of the Contributor's official duties as an Employee of the United States Government and is therefore a work of the United States Government. In accordance with 17 U.S.C. 105, no copyright protection is available for such works under U.S. law.)

Sex Ratios and Crime: Evidence from China

• The Review of Economics and Statistics---2013---Lena Edlund, Hongbin Li, Junjian Yi, Junsen Zhang

Since the introduction of the one-child policy in China in 1979, many more boys than girls have been born, foreshadowing a sizable bride shortage. What do young men unable to find wives do? This paper focuses on criminality, an asocial activity that has seen a marked rise since the mid-1990s. Exploiting province-year level variation, we find an elasticity of crime with respect to the sex ratio of 16- to 25-year-olds of 3.4, suggesting that male sex ratios can account for one-seventh of the rise in crime. We hypothesize that adverse marriage market conditions drive this association. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Inequality and City Size

• The Review of Economics and Statistics---2013---Nathaniel Baum-Snow,Ronni Pavan

A strong positive monotonic relationship between wage inequality and city size developed between 1979 and 2007 in the United States. After accounting for differences in skill composition across cities of different sizes, we find that at least 23% of the nationwide increase in the variance of log hourly wages is explained by the more rapid growth in wage inequality in larger locations than in smaller locations. This influence occurred throughout the wage distribution, was most prevalent during the 1990s, and was mostly driven by more rapid growth in within-skill-group inequality in larger cities.

in forecast accuracy are statistically significant and © 2013 The President and Fellows of Harvard College economically important and owe almost exclusively to and the Massachusetts Institute of Technology.

Catastrophic Natural Disasters and Economic Growth

• The Review of Economics and Statistics---2013---Eduardo Cavallo, Sebastian Galiani, Ilan Noy, Juan Pantano

We examine the average causal impact of catastrophic natural disasters on economic growth by combining information from comparative case studies. For each country affected by a large disaster, we compute the counterfactual by constructing synthetic controls. We find that only extremely large disasters have a negative effect on output in both the short and the long runs. However, we also show that this results from two events where radical political revolutions followed the disasters. Once we control for these political changes, even extremely large disasters do not display any significant effect on economic growth. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Unexploited Gains From International Diversification: Patterns Of Portfolio Holdings Around The World

The Review of Economics and Statistics---2013--- Tatiana Didier, Roberto Rigobon, Sergio Schmukler

Using unique data on mutual fund portfolios with different investment scopes, we study the extent of international diversification. Mutual funds invest in a surprisingly limited number of stocks—about 100. The number of holdings from a given region declines as the investment scope broadens. Moreover, unexploited gains exist from international diversification. Funds that invest globally could achieve better risk-adjusted returns by adding stocks held by more specialized funds within the same family. These findings are not driven by different sectoral allocations, lack of information or instruments, transaction costs, or different tail risks. Instead, organizational factors might play an important

role. © 2013 The President and Fellows of Harvard 2013 The President and Fellows of Harvard College College and the Massachusetts Institute of Technology. and the Massachusetts Institute of Technology.

Evidence on the Accuracy of Merger Simulations

• The Review of Economics and Statistics---2013---Matthew C. Weinberg, Daniel Hosken

This paper evaluates the efficacy of a structural model of oligopoly used for merger review. Using premerger data, we estimate several demand systems and use a static Bertrand model to simulate the price effects of two mergers. Using pre- and postmerger data, we directly estimate the price effects. The direct estimates imply that one merger resulted in moderate price increases, while the second left prices essentially unchanged. While some simulations are similar to the directly estimated price effects, overall simulations overstate the price effects in one case and understate them in the other. Explanations for the discrepancies are explored. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Strategic Decision-Making with Information and **Extraction Externalities: A Structural Model of** the MultiStage Investment Timing Game in Offshore Petroleum Production

• The Review of Economics and Statistics---2013---C.-Y. Cynthia Lin Lawell

When individual petroleum-producing firms make their exploration and development investment timing decisions, positive information externalities and negative extraction externalities may lead them to interact strategically with their neighbors. This paper examines whether these inefficient strategic interactions take place by estimating a structural econometric model of the firms' multi-stage investment timing game. Results show that firms interact strategically on small tracts but not on large tracts. For small tracts, having a neighboring tract explored reduces real profits by about \$26 million, while having a neighboring tract

Resource Extraction Contracts Under Threat of Expropriation: Theory and Evidence

• The Review of Economics and Statistics---2013---Johannes Stroebel, Arthur van Benthem

We use fiscal data on 2,468 oil extraction agreements in 38 countries to study tax contracts between resourcerich countries and independent oil companies. We analyze why expropriations occur and what determines the degree of oil price exposure of host countries. With asymmetric information about a country's expropriation cost, even optimal contracts feature expropriations. Near linearity in the oil price of real-world hydrocarbon contracts also helps to explain expropriations. We show theoretically and verify empirically that oil price insurance provided by tax contracts is increasing in a country's cost of expropriation and decreasing in its production expertise. The timing of actual expropriations is consistent with our model. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Distributing Pollution Rights in Cap-and-Trade Programs: Are Outcomes Independent of Allocation?

• The Review of Economics and Statistics---2013---Meredith Fowlie, Jeffrey Perloff

Standard economic theory predicts that if property rights to pollute are clearly established, equilibrium outcomes in an efficient emissions permit market will be independent of how the emissions permits are initially distributed. This so-called independence property has important implications for policy design and implementation. Past studies document a strong positive correlation between the initial permit allocation and firm-level emissions, raising concerns that the independence property is failing to hold in real-world settings. We exploit the random assignment of firms to different permit allocation cycles in Southern California's developed raises real profits by about \$3.5 million. © RECLAIM program in order to test the independence

of permit allocation and emissions. Our results lend trade reforms is weak. Econometrics are mostly ad hoc, empirical support to the independence hypothesis. © results are typically not judged against models, policies are poorly measured, and most studies are based and the Massachusetts Institute of Technology. on pre-1990 experience. We address these concerns

Competition and Innovation: The Inverted-U Relationship Revisited

The Review of Economics and Statistics---2013--- Aamir Hashmi

I reexamine the inverted-U relationship between competition and innovation (modeled and tested by Aghion et al. (2005)) by using data from publicly traded manufacturing firms in the United States. I control for the possible endogeneity of competition by using a trade-weighted average of industry exchange rates as an instrument. I find a mildly negative relationship between competition (as measured by the inverse of markups) and innovation (as measured by citationweighted patents). The negative relationship is robust to many alternative assumptions and specifications. To reconcile the mildly negative relationship in the U.S. data with the inverted-U relationship that Aghion et al. (2005) find in the U.K. data, I modify their theoretical model and show that the modified model can explain both negative and inverted-U relationships. The key theoretical assumption is that the U.K. manufacturing industries are technologically more neck-and-neck than their counterparts in the United States. I find support for this assumption in the data. The different empirical results between the two countries may also arise because of differences in data and samples. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Is the Washington Consensus Dead? Growth, Openness, and the Great Liberalization, 1970s–2000s

• The Review of Economics and Statistics---2013---Antoni Estevadeordal, Alan Taylor

According to the Washington Consensus, developing countries' growth would benefit from reductions in barriers to trade. However, the empirical basis for judging trade reforms is weak. Econometrics are mostly ad hoc, results are typically not judged against models, policies are poorly measured, and most studies are based on pre-1990 experience. We address these concerns by employing a model with capital and intermediate goods, compiling new disaggregated tariff measures, and employing treatment and control regression analysis with differences-in-differences. We find that a specific treatment, liberalizing tariffs on imported capital and intermediate goods, led to faster growth, consistent with the model. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Comparing Treatments across Labor Markets: An Assessment of Nonexperimental Multiple-Treatment Strategies

• The Review of Economics and Statistics---2013---Carlos A. Flores, Oscar Mitnik

We study the effectiveness of nonexperimental strategies in adjusting for comparison group differences when using data from several programs, each implemented at a different location, to compare their effect if implemented at alternative locations. First, we adjust for individual characteristics differences simultaneously across all groups using unconfoundedness-based and conditional difference-in-difference methods for multiple treatments. Second, we adjust for differences in local economic conditions and stress their role after program participation. Our results show that it is critical to have sufficient overlap across locations in both dimensions and illustrate the difficulty of adjusting for local economic conditions that differ greatly across locations. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Impact of Charitable Subsidies on Religious Giving and Attendance: Evidence from Panel Data

 The Review of Economics and Statistics---2013----Barış Yörük The literature documents that charitable giving is responsive to tax subsidies but often ignores the spillover effects of such policies. This paper investigates the spillover effects of charitable subsidies on religious participation using individual-level panel data. The results show that religious giving and participation are complements. The implied cross-price elasticity of religious participation with respect to the after-tax price of 0.27. Furthermore, a 1% increase in the amount of religious contributions is associated with a 0.4% increase in religious attendance. These results are robust under several different specifications and highlight the positive externalities created by charitable subsidies. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Commodity Market Dynamics and the Joint Executive Committee, 1880–1886

• The Review of Economics and Statistics---2013---Franco Mariuzzo, Patrick Walsh

Using weekly spot and future commodity prices in Chicago and New York, we construct expected transportation rates for grain between these two cities, expected inventory levels in New York, and realized errors in the expectations of such variables. We incorporate these exogenous commodity market dynamics into Porter's (1983) structural modeling of the Joint Executive Committee Railroad Cartel. As in Porter, we model marginal cost as a parametric function of (instrumented) output, among other factors. Unlike Porter, we model pricing over marginal cost as a nonparametric function of a set of variables, which include expectations of deterministic demand cycles and cartel stability. We estimate the pricing and demand equation simultaneously and semiparametrically. Our estimated weekly markups during periods of cartel stability are shown to reflect optimal collusive pricing over deterministic business cycles, as modeled in Haltiwanger and Harrington (1991). Periods of cartel instability are proven to be triggered by realized mistakes in expectations of New York grain prices. © 2012 by The President and Fellows of Harvard College and the Mas-

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Institutional Determinants of New Firm Entry in Russia: A Cross-Regional Analysis

We investigate how the regional institutional environment—in particular, the political environment—affects Russian new firm entry across regions, industries, firm size classes, and time. We find that entry rates in Russia are explained by natural entry rates and the institutional environment. Industries that are characterized by low entry barriers in developed market economies are found to have lower entry rates in regions subject to greater political fluidity, as in the case of gubernatorial change. We also find that higher levels of political fluidity and democracy increase relative entry rates for small-sized firms but reduce them for medium-sized or large ones. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Do Product Market Regulations In Upstream Sectors Curb Productivity Growth? Panel Data Evidence For OECD Countries

 The Review of Economics and Statistics---2013---Renaud Bourlès, Gilbert Cette, Jimmy Lopez, Jacques Mairesse, Giuseppe Nicoletti

We identify the impact of intermediate goods markets imperfections on productivity downstream. Our empirical specification is based on a model of multifactor productivity (MFP) growth in which the effects of upstream competition can vary with distance to frontier. This model is estimated on a panel of fifteen OECD countries and twenty industries over 1985 to 2007. Competitive pressures are proxied with industry product market regulation data. We find evidence that anticompetitive upstream regulations have significantly curbed MFP growth over the past fifteen years, and more strongly so for observations that are close

to the productivity frontier. © 2013 The President productive, which helped mitigate the reduction in and Fellows of Harvard College and the Massachusetts Institute of Technology.

Technical Change and The Commons

The Review of Economics and Statistics---2013---Dale Squires, Niels Vestergaard

This paper addresses normative exploitation of common renewable resources with changes in technology and technical, allocative, and scale efficiency that exacerbate the commons problem and externality. Their impact depends on the rate and nature of change, investment, and state of property rights. An augmented fundamental equation of renewable resources with a modified marginal stock effect and a new marginal technology effect account for changes in disembodied and embodied technology and technical efficiency. Neglecting these changes generates misleading policy advice and dynamic inefficiency with overaccumulation of physical and natural capital and sizable foregone rents. An empirical application illustrates. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Do Crises Catalyze Creative Destruction? Firm-level Evidence from Indonesia

• The Review of Economics and Statistics---2013---Mary Hallward-Driemeier, Bob Rijkers

Indonesian manufacturing Using census data (1991–2001), this paper rejects the hypothesis that the East Asian crisis unequivocally improved the reallocative process. The correlation between productivity and employment growth did not strengthen, and the crisis induced the exit of relatively productive firms. The attenuation of the relationship between productivity and survival was stronger in provinces with comparatively lower reductions in minimum wages, but not due to reduced entry, changing loan conditions, or firms connected to the Suharto regime suffering disproportionately. On the bright side, firms that entered during the crisis were relatively more

aggregate productivity. © 2013 World Bank

Dynamic Hierarchical Factor Model

The Review of Economics and Statistics---2013---Emanuel Moench, Serena Ng, Simon Potter

This paper uses multilevel factor models to characterize within- and between-block variations as well as idiosyncratic noise in large dynamic panels. Block-level shocks are distinguished from genuinely common shocks, and the estimated block-level factors are easy to interpret. The framework achieves dimension reduction and yet explicitly allows for heterogeneity between blocks. The model is estimated using an MCMC algorithm that takes into account the hierarchical structure of the factors. The importance of block-level variations is illustrated in a four-level model estimated on a panel of 445 series related to different categories of real activity in the United States. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Income and Health Spending: Evidence from Oil **Price Shocks**

• The Review of Economics and Statistics---2013---Daron Acemoglu, Amy Finkelstein, Matthew Notowidigdo

Health expenditures as a share of GDP in the United States have more than tripled over the past half-century. A common conjecture is that this is a consequence of rising income. We investigate this hypothesis by instrumenting for local area income with time series variation in oil prices interacted with local oil reserves. This strategy enables us to capture both partial equilibrium and local general equilibrium effects of income on health expenditures. Our central income elasticity estimate is 0.7, with 1.1 as the upper end of the 95% confidence interval, which suggests that rising income is unlikely to be a major driver of the rising health expenditure share of GDP. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Match Quality, Worker Productivity, and Worker Mobility: Direct Evidence from Teachers

The Review of Economics and Statistics---2013--- C. Kirabo Jackson

I investigate the importance of the match between teachers and schools for student achievement. I show that teacher effectiveness increases after a move to a different school and estimate teacher-school match effects. Match quality explains away a quarter of and has two-thirds the explanatory power of teacher quality. Match quality is negatively correlated with school switching, is unrelated to exit, and increases with experience. This paper provides the first estimates of worker-firm match quality using output data, as opposed to inferring productivity from wages or employment durations. The results suggest that workers seek high-quality matches for reasons other than higher pay. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Can Self-Control Explain Avoiding Free Money? Evidence from Interest-Free Student Loans

The Review of Economics and Statistics---2013--- Brian Cadena, Benjamin Keys

This paper uses insights from behavioral economics to explain a particularly surprising borrowing phenomenon: one in six undergraduate students offered interest-free loans turns them down. Models of impulse control predict that students may optimally reject subsidized loans to avoid excessive consumption during school. Using the National Postsecondary Student Aid Study, we investigate students' take-up decisions and identify a group of students for whom the loans create an especially tempting liquidity increase. Students who would receive the loan in cash are significantly more likely to turn it down, suggesting that consumers choose to limit their liquidity in economically meaningful situations. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Peer Effects and Multiple Equilibria in the Risky Behavior of Friends

 The Review of Economics and Statistics---2013----David Card, Laura Giuliano

We study social interactions in the initiation of sex and other risky behaviors by best friend pairs in the Add Health panel. Focusing on friends with minimal experience at the baseline interview, we estimate bivariate ordered-choice models that include both peer effects and unobserved heterogeneity. We find significant peer effects in sexual initiation: the likelihood of initiating intercourse within a year increases by almost 5 percentage points (on an 11% base rate) if one's friend also initiates intercourse. Similar effects are present for smoking, marijuana use, and truancy. We find larger effects for females and important asymmetries in nonreciprocated friendships. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Electricity Unit Value Prices and Purchase Quantities: U.S. Manufacturing Plants, 1963–2000

 The Review of Economics and Statistics---2013---Steven Davis, Cheryl Grim, John Haltiwanger, Mary Streitwieser

We measure unit value electricity prices using 2 million annual observations on U.S. manufacturing plants from 1963 to 2000. These prices display tremendous cross-sectional dispersion, 85–95% of which reflects differences by plant location and purchase quantity. Spatial differentials decline markedly until the late 1980s for large purchasers but rise over time for small purchasers. Unit value price gaps between larger and smaller purchasers are enormous, diminish through the late 1970s, and then stabilize at still-high levels. There are major differences across states in cost and regulatory factors that we relate to the changing structure of unit value prices. No rights reserved. This work was authored as part of the Contributor's official duties as an Employee of the United States Government and is therefore a work of the United States Government. In

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Remittances Deteriorate Governance

• The Review of Economics and Statistics---2013---Faisal Z. Ahmed

I use a natural experiment of oil-price-driven remittance flows to poor, non-oil-producing Muslim countries to demonstrate that remittances deteriorate the quality of governance, especially in countries with weak democratic institutions. The results indicate that a 1 standard deviation increase in remittances raises corruption by 1.5 index points (on a 6-point scale), which is equivalent to a [dollar]600 decrease in per capita GDP. Concomitantly, remittances may enable governments to reduce their delivery of public services (for example, health care, school enrollment). The results suggest that political institutions may mediate the potentially beneficial socioeconomic effects of remittance inflows. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

House Price Fluctuations: The Role of Housing Wealth as Borrowing Collateral

• The Review of Economics and Statistics---2013---Daniel Cooper

Rising house prices affect household spending by either loosening a household's lifetime budget constraint (pure wealth effect) or the household's borrowing constraint so that consumption rises toward the level implied by the consumption Euler equation (borrowing collateral effect). The empirical findings in this paper are consistent with house price appreciation affecting household spending through the borrowing collateral channel and not the pure wealth effect channel. The consumption of potentially borrowing constrained households increases between [dollar]0.06 and [dollar]0.18 per dollar increase in their housing equity, while the consumption of unconstrained households is little changed. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

accordance with 17 U.S.C. 105, no copyright protection Automakers' Short-Run Responses to Changing **Gasoline Prices**

• The Review of Economics and Statistics---2013---Ashley Langer, Nathan H. Miller

We provide empirical evidence that automobile manufacturers use cash incentives to offset how gasoline price fluctuations affect the expected fuel expenses of automobile buyers. Regressions based on a database of incentives over 2003 to 2006 suggest that on average, manufacturers offset 40% of the change in relative fuel costs between vehicles due to gasoline price fluctuations. The results highlight that carbon taxes and emissions trading programs likely would generate substantial substitution within vehicle classes, and studies that ignore manufacturer discounting likely underestimate consumer demand for fuel economy. The results also have implications for the optimal design of feebate programs. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Effect of Gasoline Prices on Household Location

 The Review of Economics and Statistics---2013---Raven Molloy, Hui Shan

By raising commuting costs, an increase in gasoline prices should reduce the demand for housing in areas far from employment centers relative to locations closer to jobs. Using annual panel data on a large number of postal codes and municipalities from 1981 to 2008, we find that a 10% increase in gas prices leads to a 10% decrease in construction in locations with a long average commute relative to other locations but to no significant change in house prices. Thus, the supply response prevents the change in housing demand from capitalizing in house prices. No rights reserved. This work was authored as part of the Contributor's official duties as an Employee of the United States Government and is therefore a work of the United States Government. In accordance with 17 U.S.C. 105, no copyright protection is available for such works under U.S. law

Skill-Biased Technological Change and the Business Cycle

• The Review of Economics and Statistics---2013---Almut Balleer, Thijs van Rens

Over the past two decades, technological progress in the United States has been biased toward skilled labor. What does this imply for business cycles? We construct a quarterly skill premium from the CPS and use it to identify skill-biased technology shocks in a VAR with long-run zero and sign restrictions. Hours fall in response to skill-biased technology shocks, indicating that part of the technology-induced fall in hours is due to a compositional shift in labor demand. Investment-specific technology shocks reduce the skill premium, indicating that capital and skill are not complementary in aggregate production. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Effects of Usury Laws: Evidence from the Online Loan Market

The Review of Economics and Statistics---2013-- Oren Rigbi

Usury laws cap the interest rates that lenders can charge. Using data from Prosper.com, an online lending marketplace, I investigate the effects of these laws. The key to my empirical strategy is that there was initially substantial variability in states' interest rate caps, ranging from 6% to 36%. A behind-the-scenes change in loan origination, however, suddenly increased the cap to 36%. The main findings of the study are that higher interest rate caps increase the probability that a loan will be funded, especially if the borrower was previously just "outside the money." I do not find, however, changes in loan amounts and default probability. The interest rate paid rises slightly, probably because online lending is substantially, yet imperfectly, integrated with the general credit market. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Immigrant Networks and Their Implications for Occupational Choice and Wages

Occupational shares of various ethnic groups have grew tremendously in regional U.S. labor markets from 1980 to 2000. Using U.S. Census data, we examine the extent to which this growth is attributed to network effects by studying the relationship between the occupational choice of recently arrived immigrants with those of established immigrants from the same country, We find strong evidence of network effects. First, new arrivals are choosing the same occupations as their compatriots, a decision that is operating at the regional level. Second, individuals who choose the most common occupation of their compatriots enjoy a large and positive earnings effect. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Crime and Immigration: Evidence from Large Immigrant Waves

The Review of Economics and Statistics---2013-- Brian Bell, Francesco Fasani, Stephen Machin

This paper focuses on empirical connections between crime and immigration, studying two large waves of recent U.K. immigration (the late 1990s/early 2000s asylum seekers and the post-2004 inflow from EU accession countries). The first wave led to a modest but significant rise in property crime, while the second wave had a small negative impact. There was no effect on violent crime; arrest rates were not different, and changes in crime cannot be ascribed to crimes against immigrants. The findings are consistent with the notion that differences in labor market opportunities of different migrant groups shape their potential impact on crime. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Effect of Rising Income Inequality on **Taxation and Public Expenditures: Evidence** from U.S. Municipalities and School Districts, 1970-2000

• The Review of Economics and Statistics---2013---Leah Boustan, Fernando Ferreira, Hernan Winkler, Eric M. Zolt

The income distribution in many developed countries widened dramatically from 1970 to 2000. Some scholars argue that income inequality contributes to a host of social ills by undermining voters' willingness to support public expenditures. In contrast, we find that growing income inequality is associated with an expansion in government revenues and expenditures on a wide range of services in U.S. municipalities and school districts. Results are robust to a number of model specifications, including instrumental variables that address the endogeneity of the local income distribution. Our results are inconsistent with models predicting that heterogeneous societies provide lower levels of public goods. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Organizational Form and Performance: Evidence from the Hotel Industry

• The Review of Economics and Statistics---2013---Renáta Kosová, Francine Lafontaine, Rozenn Perrigot

We use a unique proprietary panel data set from a large hotel company to study how organizational form affects hotel pricing and performance. Aggregate data patterns suggest sizable performance differences between franchised and company-operated hotels. However, after controlling for other factors, we find that if significant at all, such differences are economically small. Moreover, once we endogenize the choice of organizational form, the differences become insignificant. We conclude that the company chooses which hotels to franchise and operate corporately such that, conditional on hotel and market characteristics, it obtains consistent outcomes across organizational forms. © Massachusetts Institute of Technology.

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Competition Policy and Productivity Growth: An **Empirical Assessment**

• The Review of Economics and Statistics---2013---Paolo Buccirossi, Lorenzo Ciari, Tomaso Duso, Giancarlo Spagnolo, Cristiana Vitale

This paper estimates the impact of competition policy on total factor productivity growth for 22 industries in twelve OECD countries over 1995 to 2005. We find a positive and significant effect of competition policy as measured by created indexes. We provide results based on instrumental variables estimators and heterogeneous effects to support the causal nature of the established link. The effect is particularly strong for specific aspects of competition policy related to its institutional setup and antitrust activities. It is also strengthened by good legal systems, suggesting complementarities between competition policy and the efficiency of law enforcement institutions. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Wage Rigidity, Collective Bargaining, and the Minimum Wage: Evidence from French **Agreement Data**

• The Review of Economics and Statistics---2013---Sanvi Avouyi-Dovi, Denis Fougere, Erwan Gautier

Using data sets on wage agreements at both industry and firm levels in France, we document stylized facts on wage stickiness. The average duration of wages is a little less than one year, and 10% of wages are modified each month by a wage agreement. The frequency of wage change agreements is staggered over the year, but the frequency of effective wage changes is seasonal. The national minimum wage has a significant impact on the probability and the seasonality of wage changes. Negotiated wage increases are correlated with inflation, minimum wage increases, and firm profitability. © 2013 The President and Fellows of Harvard College and the

Expectations and Economic Fluctuations: An Analysis Using Survey Data

 The Review of Economics and Statistics---2013----Sylvain Leduc, Keith Sill

Using survey-based measures of future U.S. economic activity from the Livingston Survey and the Survey of Professional Forecasters, we study how changes in expectations and their interaction with monetary policy contribute to fluctuations in macroeconomic aggregates. We find that changes in expected future economic activity are a quantitatively important driver of economic fluctuations: a perception that good times are ahead typically leads to a significant rise in current measures of economic activity and inflation. We also find that the short-term interest rate rises in response to expectations of good times as monetary policy tightens. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Airline Alliances, Antitrust Immunity, and Market Foreclosure

 The Review of Economics and Statistics---2013---Volodymyr Bilotkach, Kai Hüschelrath, Kai Hueschelrath

We examine the issue of market foreclosure by airline partnerships with antitrust immunity. Overlapping data on frequency of service and passenger volumes on nonstop transatlantic routes with information on the dynamics of airline partnerships, we find evidence consistent with the airlines operating under antitrust immunity refusing to accept connecting passengers from the outside carriers at respective hub airports. Following the antitrust immunity, airlines outside the partnership reduce their traffic to the partner airlines' hub airports by 4.1% to 11.5%. We suggest regulators should take possible market foreclosure effects into account when assessing the competitive effects of antitrust immunity for airline alliances. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Time to Change What to Sow: Risk Preferences and Technology Adoption Decisions of Cotton Farmers in China

• The Review of Economics and Statistics---2013---Elaine Liu

This paper examines the role of individual risk attitudes in the decision to adopt a new form of agricultural biotechnology in China. I conducted a survey and a field experiment to elicit the risk preferences of Chinese farmers, who faced the decision of whether to adopt genetically modified Bt cotton a decade ago. In my analysis, I expand the measurement of risk preferences beyond expected utility theory to incorporate prospect theory. I find that farmers who are more risk averse or more loss averse adopt Bt cotton later. Farmers who overweight small probabilities adopt Bt cotton earlier. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Import Competition and Skill Content in U.S. Manufacturing Industries

• The Review of Economics and Statistics---2013---Yi Lu,Travis Ng

Skill content varies enormously across industries and over time. This paper shows that import competition can explain a significant portion of the variation in various skill measures across manufacturing industries. Industries that face more intense import competition employ more nonroutine skill sets, including cognitive, interpersonal, and manual skills, and fewer cognitive routine skills. In addition, we find that the impact of import competition on skills is not driven by imports from low-wage countries or from China. A number of robustness checks also suggest that our results are unlikely to be driven by econometric problems. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

From Baghdad to London: Unraveling Urban Development in Europe, the Middle East, and North Africa, 800–1800

 The Review of Economics and Statistics---2013---Maarten Bosker, Eltjo Buringh, Jan Luiten van Zanden

This paper empirically investigates why, between 800 and 1800, the urban center of gravity moved from the Islamic world to Europe. Using a large new cityspecific data set covering Europe, the Middle East, and North Africa, we unravel the role of geography and institutions in determining long-run city development in the two regions. We find that the main reasons for the Islamic world's stagnation and Europe's longterm success are specific to each region: any significant positive interaction between cities in the two regions hampered by their different main religious orientation. Together, the long-term consequences of a different choice of main transport mode (camel versus ship) and the development of forms of local participative government in Europe that made cities less dependent on the state explain why Europe's urban development eventually outpaced that in the Islamic world. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Gender, Competitiveness, and Socialization at a Young Age: Evidence From a Matrilineal and a Patriarchal Society

The Review of Economics and Statistics---2013---Steffen Andersen, Seda Ertaç, Uri Gneezy, John List, Sandra Maximiano

Recent literature presents evidence that men are more competitively inclined than women. Since top-level careers usually require competitiveness, competitiveness differences provide an explanation for gender gaps in wages and differences in occupational choice. A natural question is whether women are born less competitive or whether they become so through the process of socialization. To pinpoint when in the socialization process the difference arises, we compare the competitiveness of children in matrilineal and patriarchal societies. We

find that while there is no difference at any age in the matrilineal society, girls become less competitive around puberty in the patriarchal society. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Consumption Smoothing after the Final Mortgage Payment: Testing the Magnitude Hypothesis

 The Review of Economics and Statistics---2013----Barry Scholnick

We examine whether the magnitude of an anticipated income change affects consumption smoothing (the magnitude hypothesis). Although this hypothesis has been discussed for fifty years, we are one of the first to provide formal statistical evidence to support it. We consider the natural experiment of an individual's final mortgage payment, an anticipated income change, and examine how it affects credit card expenditure. We can identify causality because the dates of final mortgage payments across individuals are uncorrelated with unobserved determinants of consumption. Using an event study methodology, we provide evidence to support the magnitude hypothesis. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Season of Birth and Later Outcomes: Old Questions, New Answers

 The Review of Economics and Statistics---2013----Kasev Buckles, Daniel Hungerman

Season of birth is associated with later outcomes; what drives this association remains unclear. We consider a new explanation: variation in maternal characteristics. We document large changes in maternal characteristics for births throughout the year; winter births are disproportionally realized by teenagers and the unmarried. Family background controls explain nearly half of season-of-birth's relation to adult outcomes. Seasonality in maternal characteristics is driven by women trying to conceive; we find no seasonality among unwanted births. Prior seasonality-in-fertility research

focuses on conditions at conception; here, expected debates over judicial elections, and highlight the interconditions at birth drive variation in maternal characteristics, while conditions at conception are unimportant. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

action between judicial discretion and the influence of judicial elections. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Firing Costs and Flexibility: Evidence from Firms' **Employment Responses to Shocks in India**

• The Review of Economics and Statistics---2013---Achyuta Adhvaryu, Amalavoyal Chari, Siddharth Sharma

A key prediction of dynamic labor demand models is that firing restrictions attenuate firms' employment responses to economic fluctuations. We provide the first direct test of this prediction using data from India. We exploit the fact that rainfall fluctuations, through their effects on agricultural productivity, generate variation in local demand within districts over time. Consistent with the theory, we find that industrial employment is more sensitive to shocks where labor regulation is less restrictive. Our results are robust to controlling for endogenous firm placement and vary across factory size in a pattern consistent with institutional features of Indian labor law. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Crime, Punishment, and Politics: An Analysis of **Political Cycles in Criminal Sentencing**

• The Review of Economics and Statistics---2013---Carlos Berdejó, Noam Yuchtman

We present evidence that Washington State judges respond to political pressure by sentencing serious crimes more severely. Sentences are around 10% longer at the end of a judge's political cycle than at the beginning; judges' discretionary departures above the sentencing guidelines range increase by 50% across the electoral cycle, accounting for much of the greater severity. Robustness specifications, nonlinear models, and falsification exercises allow us to distinguish among explanations for increased sentencing severity at the end of judges' political cycles. Our findings inform

Going Soft: How the Rise of Software-Based Innovation Led to the Decline of Japan's IT Industry and the Resurgence of Silicon Valley

• The Review of Economics and Statistics---2013---Ashish Arora, Lee G. Branstetter, Matej Drev

This paper documents a systematic shift in the nature of innovation in information technology (IT) toward increasing dependence on software. Using a broad panel of U.S. and Japanese publicly listed IT firms in the period 1983 to 2004, we show that this change in the nature of IT innovation had differential effects on the performance of the IT industries in the United States and Japan, resulting in U.S. firms increasingly outperforming their Japanese counterparts, particularly in more software-intensive sectors. We provide suggestive evidence that human resource constraints played a role in preventing Japanese firms from adapting to the documented shift in IT innovation. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Stock Market Volatility and Macroeconomic Fundamentals

• The Review of Economics and Statistics---2013---Robert Engle, Eric Ghysels, Bumjean Sohn

We revisit the relation between stock market volatility and macroeconomic activity using a new class of component models that distinguish short-run from long-run movements. We formulate models with the long-term component driven by inflation and industrial production growth that are in terms of pseudo out-of-sample prediction for horizons of one quarter at par or outperform more traditional time series volatility models at longer horizons. Hence, imputing economic fundamentals into volatility models pays off in terms of

conomic fundamentals play a significant role even at short horizons. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Micro-Macro Disconnect of Purchasing **Power Parity**

• The Review of Economics and Statistics---2013---Paul Bergin, Reuven Glick, Jyh-Lin Wu

This paper reconciles the persistence of aggregate real exchange rates with the faster adjustment of international relative prices in microeconomic data. Error correction model estimates indicate that a different mix of shocks drives international price deviations at the microeconomic level and that dynamic adjustment works through arbitrage in the goods market rather than the foreign exchange market. When half-lives are estimated conditional on a common set of estimated macro shocks, we find that micro relative prices exhibit every bit as much persistence as aggregate real exchange rates. These results challenge theories of real exchange rate persistence based on sticky prices and heterogeneity across goods. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Measuring Global Poverty: Why PPP Methods Matter

• The Review of Economics and Statistics---2013---Robert Ackland, Steve Dowrick, Benoit Freyens

We present theory and evidence to suggest that, in the context of analyzing global poverty, the EKS approach to estimating purchasing power parities yields more appropriate international comparison of real incomes than the Geary-Khamis approach. Our analysis of the 1996 and 2005 International Comparison Project data confirms that the Geary-Khamis approach substantially overstates the relative incomes of the world's poorest nations, and this leads to misleading comparisons of poverty across regions and over time. The EKS

long-horizon forecasting. We also find that macroe- index of real income is much closer to being a true index of economic welfare and is therefore preferred for assessment of global poverty. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Determinants of Intrafirm Trade: Evidence from French Firms

• The Review of Economics and Statistics---2013---Gregory Corcos, Delphine M. Irac, Giordano Mion, Thierry Verdier

How well does the theory of the firm explain the choice between intrafirm and arm's-length trade? This paper uses firm-level import data from France to look into this question. We find support for three key predictions of property rights theories of the multinational firm. Intrafirm imports are more likely in capital- and skill-intensive firms, in highly productive firms, and from countries with well-functioning judicial institutions. We bridge previous aggregate findings with our investigation by decomposing intrafirm imports into an extensive and intensive margin and uncover interesting patterns in the data that require further theoretical investigation. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Heterogeneous Firms or Heterogeneous Workers? Implications for Exporter Premiums and the Gains from Trade

• The Review of Economics and Statistics---2013---Alfonso Irarrazabal, Andreas Moxnes, Karen Helene Ulltveit-Moe

We investigate to what extent worker heterogeneity explains the well-known wage and productivity exporter premiums, employing a matched employer-employee data set for Norwegian manufacturing. The wage premium falls by roughly 50% after controlling for observed and unobserved worker characteristics, while the total factor productivity premium falls by 25% to 40%, suggesting that sorting explains up to half of these premiums. Recent trade models emphasize the role of within-industry reallocation of labor in response to various shocks to the economy. Our findings suggest that aggregate productivity gains due to reallocation may be overstated if not controlling for sorting between firms and workers. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Family Ties and Organizational Design: Evidence from Chinese Private Firms

 The Review of Economics and Statistics---2013----Hongbin Cai, Hongbin Li, Albert Park, Li-An Zhou

Analyzing data from a unique survey of managers of Chinese private firms, we investigate how family ties with firm heads affect managerial compensation and job assignment. We find that family managers earn higher salaries and receive more bonuses, hold higher positions, and are given more decision rights and job responsibilities than nonfamily managers in the same firm. However, family managers face weaker incentives than professional managers, as seen in the lower sensitivity of their bonuses to firm performance. Our findings are consistent with the predictions of a principal-agent model that incorporates family trust and endogenous job assignment decisions. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Does Ethnicity Pay? Evidence from Overseas Chinese FDI in China

 The Review of Economics and Statistics---2013----Yasheng Huang, Li Jin, Yi Qian

Most of the economic analyses of the overseas Chinese network focus on trade and investment flows at the country level. In this paper, we analyze the effects of the ethnic Chinese network at the firm level. Contrary to the conventional wisdom, we find that ethnic Chinese FDI firms in China in fact underperform nonethnic Chinese FDI firms. We also find that the performance of ethnic Chinese firms deteriorates over time. We present evidence consistent with the hypothesis that ethnic Chinese firms underinvest in those

firm attributes that may contribute to long-term performance, such as human capital and technology. Our findings raise both empirical and normative implications of ethnic ties. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Spreading the Word: Geography, Policy, and Knowledge Spillovers

 The Review of Economics and Statistics---2013----Sharon Belenzon, Mark Schankerman

Using new data on citations to university patents and scientific publications, we study how geography affects university knowledge spillovers. Citations to patents decline sharply with distance and are strongly constrained by state borders. The effect of distance on citations to scientific publications is less sharp, and the state border effect on publications is significant only for lower-quality public universities. We show that the state border effect is heterogeneous and strongly influenced by university and state characteristics and policies. It is larger for universities that are public and that have strong local development policies, and in states with strong noncompete labor laws, greater reliance on in-state educated scientists, and lower rates of interstate scientific labor mobility. We confirm the impact of noncompete statutes by studying a policy reform in Michigan. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Economics of Consanguineous Marriages

The Review of Economics and Statistics---2013--- Quy-Toan Do, Sriya Iyer, Shareen Joshi

This paper provides an economic rationale for the practice of consanguineous marriages observed in parts of the developing world. In a model of incomplete marriage markets, dowries are viewed as ex ante transfers made from the bride's family to the groom's family when the promise of ex post gifts and bequests is not credible. Consanguineous unions join families between whom ex ante pledges are enforceable ex post. The

model predicts a negative relationship between con- improves covariate balance and that it may reduce bias sanguinity and dowries and higher bequests in consanguineous unions. An empirical analysis based on data from Bangladesh delivers results consistent with the model. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Breastfeeding and Children's Early Cognitive **Outcomes**

• The Review of Economics and Statistics---2013---Donna S. Rothstein

This paper investigates whether breastfeeding affects 5- to 6-year old children's cognitive development using three U.S. longitudinal data sets. The results for the full samples roughly point to a dose-response effect of breastfeeding on children's cognitive outcomes, with breastfeeding six months or more associated with about one-tenth of a standard deviation increase in cognitive test scores. The breastfeeding effects do not appear to be due to differences in maternal employment, cognitive ability, or parenting skills. In contrast, within-sibling results show no statistically significant breastfeeding effect. (No rights reserved. This work was authored as part of the Contributor's official duties as an Employee of the United States Government and is therefore a work of the United States Government. In accordance with 17 U.S.C. 105, no copyright protection is available for such works under U.S. law.)

Genetic Matching for Estimating Causal Effects: A General Multivariate Matching Method for **Achieving Balance in Observational Studies**

• The Review of Economics and Statistics---2013---Alexis Diamond, Jasjeet S. Sekhon

This paper presents genetic matching, a method of multivariate matching that uses an evolutionary search algorithm to determine the weight each covariate is given. Both propensity score matching and matching based on Mahalanobis distance are limiting cases of this method. The algorithm makes transparent certain issues that all matching methods must confront. We present simulation studies that show that the algorithm

if the selection on observables assumption holds. We then present a reanalysis of a number of data sets in the LaLonde (1986) controversy. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Which Reforms Work and under What Institutional Environment? Evidence from a New **Data Set on Structural Reforms**

• The Review of Economics and Statistics---2013---Alessandro Prati, Massimiliano Onorato, Chris Papageorgiou

Are structural reforms growth enhancing? Is the effectiveness of reforms constrained by a country's distance from the technology frontier or by its institutional environment? This paper takes a new and comprehensive look at these questions by employing a novel data set that includes several kinds of real (trade, agriculture, and networks) and financial (domestic finance, banking, securities, and capital account) reforms for an extensive list of developed and developing countries, going back to the early 1970s. First-pass evidence based on growth breaks analysis and on panel growth regressions suggests that on average, both real and financial sector reforms are positively associated with higher growth. However, on several occasions, botched reforms resulted in growth disasters. More important, the positive reform-growth relationship is shown to be highly heterogeneous and to be influenced by a country's constraints on the authority of the executive power and by its distance from the technology frontier. Finally, there is some evidence that crises, defined as severe growth downturns, are associated with subsequent reform upticks. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Vengeance

• The Review of Economics and Statistics---2013---Naci Mocan

ings and their determinants using data on more than 116,000 individuals from 66 countries. Country characteristics as well as personal attributes of the individuals influence vengeful feelings. The magnitude of vengeful feelings is greater for people in countries with low levels of education, low-income countries, and interrupted democracies. Personal education has an impact on vengeful feelings in lower-income countries. The results suggest that some puzzles about individual choice can best be explained by considering the interplay of personal and economic factors. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Assessing Economic Liberalization Episodes: A **Synthetic Control Approach**

• The Review of Economics and Statistics---2013---Andreas Billmeier, Tommaso Nannicini

We use a transparent statistical methodology for datadriven case studies—the synthetic control method—to investigate the impact of economic liberalization on real GDP per capita in a worldwide sample of countries. Economic liberalization is measured by a widely used indicator that captures the scope of the market in the economy. The methodology compares the postliberalization GDP trajectory of treated economies with the trajectory of a combination of similar but untreated economies. We find that liberalizing the economy had a positive effect in most regions, but more recent liberalizations, in the 1990s and mainly in Africa, had no significant impact. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Making Friends with Your Neighbors? Agglomeration and Tacit Collusion in The Lodging Industry

• The Review of Economics and Statistics---2013---Li Gan, Manuel Hernandez

Agglomeration is a location pattern frequently observed in service industries such as hotels. This paper empiri-

This paper investigates the extent of vengeful feel- cally examines whether agglomeration facilitates tacit collusion in the lodging industry using a quarterly data set of hotels in Texas. We jointly model a price and occupancy rate equation under a switching regression model to identify a collusive and noncollusive regime. The estimation results indicate that clustered hotels have a higher probability of being in the potential collusive regime than isolated properties in the same town. The identification of a collusive regime is also consistent with other factors considered to affect the sustainability of tacit collusion. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

What Is the True Loss Due to Piracy? Evidence from Microsoft Office in Hong Kong

• The Review of Economics and Statistics---2013---Tin Cheuk Leung

Using a unique conjoint data set drawn from 281 college students in Hong Kong, I estimate a random-coefficient discrete choice demand system for Microsoft Office from legal and various illegal sources. Counterfactual results show two things. First, most students would switch to Internet piracy even if the government eradicated street piracy. This explains why software piracy in Hong Kong remains well above 40% despite the government's successful measures to bring down street piracy. Second, the true gain from shutting off all sources of piracy is HK\$48.6 (US\$6) per person, only 15\% of the Business Software Alliance's estimated cost of piracy. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Optimal Use of Labor Market Policies: The Role of Job Search Assistance

• The Review of Economics and Statistics---2013---Conny Wunsch

This paper demonstrates how economic theory can be combined with state-of-the-art empirics to make quantitative statements about optimal policy. Using a large administrative data set for West Germany as well

niques, I parameterize the model proposed by Pavoni and Violante (2005, 2007) for the optimal choice of different financial and activation measures for unemployed workers. The parameterized model is used to study the role of job search assistance in optimal welfare-towork programs and assess the optimality of the West German policy in the period 2000 to 2002. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Do Natural Resources Attract Nonresource FDI?

• The Review of Economics and Statistics---2013---Steven Poelhekke, Frederick (Rick) van der Ploeg

A new and extensive panel of outward nonresource and resource FDI is used to investigate the effect of natural resources on the different components of FDI. Our main findings are as follows. First, for countries which were not a resource producer before, a resource discovery causes nonresource FDI to fall 16% in the short run and by 68% in the long run. Second, for countries that were already a resource producer, a doubling of resource rents induces a 12.4% fall in nonresource FDI. Third, on average, the contraction in nonresource FDI outweighs the boom in resource FDI. Aggregate FDI falls by 4% if the resource bonanza is doubled. Finally, these negative effects on nonresource FDI are amplified through the positive spatial lags in nonresource FDI. We also find that resource FDI is vertical, whereas nonresource FDI is of the export-fragmentation variety. Our main findings are robust to different measures of resource reserves and the oil price and to allowing sample selection bias. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Regulatory Reform and Productivity Change in **Indian Banking**

• The Review of Economics and Statistics---2013---Barbara Casu, Alessandra Ferrari, Tianshu Zhao

This paper examines the impact of regulatory reform on productivity growth and its components for Indian

as nonparametric and semiparametric estimation tech- banks from 1992 to 2009. We estimate parametric and nonparametric efficiency frontiers, followed by Divisia and Malmquist indexes of total factor productivity, respectively. To account for technology heterogeneity among ownership types, we use a metafrontier approach. Results are consistent across methodologies and show sustained productivity growth, driven mainly by technological progress. Furthermore, results indicate that different ownership types react differently to changes in the operating environment. The position of foreign banks becomes increasingly dominant, and their production technology becomes the best practice in the industry. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Who Creates Jobs? Small versus Large versus

 The Review of Economics and Statistics---2013---John Haltiwanger, Ron Jarmin, Javier Miranda

The view that small businesses create the most jobs remains appealing to policymakers and small business advocates. Using data from the Census Bureau's Business Dynamics Statistics and Longitudinal Business Database, we explore the many issues at the core of this ongoing debate. We find that the relationship between firm size and employment growth is sensitive to these issues. However, our main finding is that once we control for firm age, there is no systematic relationship between firm size and growth. Our findings highlight the important role of business start-ups and young businesses in U.S. job creation. Copyright: No rights reserved. This work was authored as part of the Contributor's official duties as an Employee of the United States Government and is therefore a work of the United States Government. In accordance with 17 U.S.C. 105, no copyright protection is available for such works under U.S. law.

Policy Volatility, Institutions, and Economic Growth

The Review of Economics and Statistics---2013---Antonio Fatas, Ilian Mihov

In this paper, we present evidence that policy volatility exerts a strong and direct negative impact on growth. Using data for 93 countries, we construct measures of policy volatility based on the standard deviation of the residuals from country-specific regressions of government consumption on output. Undisciplined governments that implement frequent and large changes in government spending unrelated to the state of the business cycle generate lower economic growth. We employ both instrumental variables and panel estimation to address concerns of omitted variables and endogeneity. A 1 standard deviation increase in policy volatility reduces long-term economic growth by about 0.74% in the panel regressions and by more than 1 percentage point in the cross-section. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Asset Market Participation, Monetary Policy Rules, and the Great Inflation

The Review of Economics and Statistics---2013--- Florin Bilbiie, Roland Straub

This paper argues that limited asset market participation is crucial in explaining U.S. macroeconomic performance and monetary policy before the 1980s and their changes thereafter. In an otherwise conventional sticky-price model, standard aggregate demand logic is inverted at low enough asset market participation: interest rate increases become expansionary, and passive monetary policy ensures equilibrium determinacy and maximizes welfare. This suggests that Federal Reserve policy in the pre-Volcker era was better than conventional wisdom implies. We provide empirical evidence consistent with this hypothesis and study the relative merits of changes in structure and shocks for reproducing the conquest of the Great Inflation and the Great Moderation. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Knowledge Transfers from Multinational to Domestic Firms: Evidence from Worker Mobility

• The Review of Economics and Statistics---2013---Jennifer Poole

Labor turnover is a commonly cited mechanism for the transmission of technology from multinational to domestic firms. Using a matched establishment-worker database from Brazil, I present evidence consistent with positive multinational wage spillovers through worker mobility. When workers leave multinationals and are rehired at domestic establishments, continuingworkers' wages increase. To my knowledge, this avenue for wage spillovers has not previously been explored. The paper also investigates where spillovers occur and how they are absorbed to demonstrate heterogeneous impacts. Higher-skilled former multinational workers are better able to transfer information, and higherskilled incumbent domestic workers are better able to absorb information. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Is Earnings Nonresponse Ignorable?

The Review of Economics and Statistics---2013--- Christopher Bollinger, Barry Hirsch

Earnings nonresponse in the Current Population Survey is roughly 30% in the monthly surveys and 20% in the March survey. If nonresponse is ignorable, unbiased estimates can be achieved by omitting nonrespondents. Little is known about whether CPS nonresponse is ignorable. Using sample frame measures to identify selection, we find clear-cut evidence among men but limited evidence among women for negative selection into response. Wage equation slope coefficients are affected little by selection, but because of intercept shifts, wages for men and, to a lesser extent, women are understated, as are gender gaps. Selection is least severe among household heads. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Ecological Footprint of Poverty Alleviation: Evidence from Mexico's Oportunidades Program

 The Review of Economics and Statistics---2013----Jennifer Alix-Garcia, Craig McIntosh, Katharine R.
 E. Sims, Jarrod R. Welch

We study the consequences of poverty-alleviation programs for environmental degradation. We exploit the community-level eligibility discontinuity for a conditional cash transfer program in Mexico to identify the impacts of income increases on deforestation and use the program's initial randomized rollout to explore household responses. We find that additional income raises consumption of land-intensive goods and increases deforestation. The observed production response and deforestation increase are larger in communities with poor road infrastructure. This suggests that better access to markets disperses environmental harm and that the full effects of poverty alleviation on the environment can be observed only where poor infrastructure localizes them. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Do Spillovers Matter When Estimating Private Returns to R&D?

The Review of Economics and Statistics---2013---Markus Eberhardt, Christian Helmers, Hubert Strauss

A large body of literature estimates private returns to R&D adopting the Griliches knowledge production framework, which ignores the potential impact on fertility decisions. Us of spillovers on consistent estimation. Using a panel of Income Dynamics, we of twelve manufacturing industries across ten OECD in housing wealth among economies, we investigate whether ignoring spillovers 18% increase in the probleads to bias in the estimated private returns to R&D. We compare results from a common factor framework, growth on the fertility which accounts for spillovers and other unobserved shocks, to those from a standard Griliches approach. Our findings confirm that conventional estimates conflate own-R&D and spillover effects, implying that with the recent housing spillovers cannot be ignored even when the interest and Fellows of Harvard lies exclusively in evaluating private returns to R&D. Institute of Technology.

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When Distance Disappears: Inventors, Education, and the Locus of Knowledge Spillovers

 The Review of Economics and Statistics---2013----Paola Giuri, Myriam Mariani

This paper discusses the role of education in shaping the geographical breadth of knowledge spillovers. Data pertaining to 6,051 European inventions reveal that inventors with a high level of education, such as a university or doctoral degree, rely more on external spillovers regardless of the geographical location of their sources. Controlling for this effect, they also access geographically wider knowledge spillovers. This result holds after controlling for alternative explanations, such as the inventors' network and the site where the research is performed. By contributing to individual openness, education thus provides a means to break through geographical barriers to attain knowledge diffusion. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Do Family Wealth Shocks Affect Fertility Choices? Evidence from the Housing Market

The Review of Economics and Statistics---2013---Michael Lovenheim, Kevin Mumford

This paper uses wealth changes driven by housing market variation to estimate the effect of family resources on fertility decisions. Using data from the Panel Study of Income Dynamics, we show that a \$100,000 increase in housing wealth among home owners causes a 16% to 18% increase in the probability of having a child. There is no evidence of an effect of MSA-level housing price growth on the fertility of renters, however. We also present evidence that housing wealth growth increases total fertility and that the responsiveness of fertility to housing wealth has increased over time, commensurate with the recent housing boom. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology

Import Competition and Quality Upgrading

• The Review of Economics and Statistics---2013---Mary Amiti, Amit Khandelwal

The production of high-quality goods is often viewed as a precondition for export success and economic development. We provide the first evidence that countries' import tariffs affect the rate at which they upgrade product quality. Our analysis uses highly disaggregated data covering exports from 56 countries across 10,000 products to the United States using a novel approach to measure quality. As predicted by distanceto-the-frontier models, we find that lower tariffs are associated with quality upgrading for products close to the world quality frontier, whereas lower tariffs discourage quality upgrading for products distant from the frontier. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Inter-Industry Strategic R&D and **Supplier-Demander Relationships**

• The Review of Economics and Statistics---2013---Andrew C. Chang

This paper investigates if the R&D of an industry changes due to the R&D of an industry's suppliers and/or demanders. Using an annual industry-level panel of manufacturing R&D in the United States, I find that regressing the R&D of an industry on the lagged values of another industry's R&D suggests R&D comovement between industries with a strong supplierdemander relationship. Variance decompositions indicate that the R&D of an industry has high forecasting power over the R&D variance of another industry if the two industries share a strong supplier-demander relationship. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Empirical Evidence on the Role of Nonlinear Wholesale Pricing and Vertical Restraints on **Cost Pass-Through**

Boas, Daniel Klapper

How a cost shock is passed through to final consumer prices may relate to nominal price stickiness and rigidities, the existence of nonadjustable cost components, strategic markup adjustments, or other contract terms along the supply distribution chain. This paper presents a simple framework to assess the potential role of nonlinear pricing contracts and vertical restraints, such as resale price maintenance or wholesale price discrimination in the supply chain, in explaining the degree of pass-through from upstream cost shocks in the ground coffee category to downstream retail prices. We find that resale price maintenance increases passthrough rate. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Who Pays Cigarette Taxes? The Impact of **Consumer Price Search**

• The Review of Economics and Statistics---2013---Philip DeCicca, Donald Kenkel, Feng Liu, Philip DeCicca

We conduct an empirical study of the impact of consumer price search on the shifting of cigarette excise taxes to consumer prices. We use novel data on the prices that smokers report paying and document substantial price dispersion. We find that cigarette taxes are shifted at lower rates to carton buyers and, especially, smokers who buy cartons of cigarettes in a state other than their state of residence. We also find evidence that taxes are shifted at somewhat lower rates to the prices paid by heavier smokers and at somewhat higher rates to the prices paid by smokers of light cigarettes. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Unemployment Dynamics in the OECD

• The Review of Economics and Statistics---2013---Michael Elsby, Bart Hobijn, Ayşegül Şahin

• The Review of Economics and Statistics--- We provide a set of comparable estimates for the rates 2013---Céline Bonnet, Pierre Dubois, Sofia Villas- of inflow to and outflow from unemployment using publicly available data for fourteen OECD economies. Us- on the probabilities of foreclosure and prepayment. ing a novel decomposition that allows for deviations of unemployment from its flow steady state, we find that fluctuations in both inflow and outflow rates contribute substantially to unemployment variation within countries. Anglo-Saxon economies exhibit approximately a 15:85 inflow-outflow split to unemployment variation, while continental European and Nordic countries display closer to a 45:55 split. In all economies, increases in inflows lead increases in unemployment, whereas outflows lag a ramp-up in unemployment. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

From the Peaks to the Valleys: Cross-State **Evidence on Income Volatility over the Business** Cycle

• The Review of Economics and Statistics---2013---Colleen Carey, Stephen H. Shore

Countercyclical variation in individuals' idiosyncratic labor income risk could generate substantial welfare costs. Following past research, we infer income volatility—the variance of permanent income shocks, a standard proxy for income risk—from the rate at which cross-sectional variances of income rise over the life cycle for a given cohort. Our novelty lies in exploiting cross-state variation in state economic conditions or state sensitivity to national economic conditions. We find that income volatility is higher in good state times than bad; during good national times, we find volatility is higher in states that are more sensitive to national conditions. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Geographic Variation in Subprime Loan Features, Foreclosures, and Prepayments

• The Review of Economics and Statistics---2013---Morgan Rose

Using data on subprime mortgages from ten cities, I examine geographic variation in the effects of prepayment penalties, balloon loans, and reduced documentation

Results indicate that across cities, reduced documentation is consistently related to higher probabilities of foreclosure, and prepayment penalties are consistently related to lower probabilities of prepayment. Prepayment penalties and balloon loans are more sporadically associated with foreclosures, and reduced documentation and balloon loans are more sporadically associated with prepayments. These results are robust to controls for several state antipredatory lending law provisions, whose effects are also tested. © No rights reserved. This work was authored as part of the Contributor's official duties as an Employee of the United States Government and is therefore a work of the United States Government. In accordance with 17 U.S.C. 105, no copyright protection is available for such works under U.S. law.

Do Countries Falsify Economic Data Strategically? Some Evidence That They Might

• The Review of Economics and Statistics---2013---Tomasz Michalski, Gilles Stoltz

Using Benford's law, we find evidence supporting the hypothesis that countries at times misreport their economic data strategically. We group countries with similar economic conditions and find that for countries with fixed exchange rate regimes, high negative net foreign asset positions, negative current account balances, or more vulnerable to capital flow reversals, we reject the first-digit law for the balance-of-payments data. This corroborates the intuition of a simple economic model. The main results do not seem to be driven by countries in sub-Saharan Africa or those with low institutional quality ratings. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Long-Term Determinants of the Demographic Transition, 1870-2000

• The Review of Economics and Statistics---2013---Fabrice Murtin

nants of the demographic transition using a large panel of countries since 1870. A simple theoretical framework accounts for the possibly nonmonotonic variations of fertility in the course of economic development. As predicted by unified growth theory, I find that primary schooling, rather than income or health-related variables, is the most robust determinant of the fertility transition. As regards the health transition, both education and income are significant determinants of mortality rates, but education alone accounts for the bulk of their time variation over the twentieth century. Thus, education can be viewed as the main long-term determinant of the demographic transition. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Closing the Gap between Risk Estimation and **Decision Making: Efficient Management of Trade-Related Invasive Species Risk**

• The Review of Economics and Statistics---2013---Robert Lieli, Michael Springborn

This paper examines the implications of a binary action, binary outcome decision problem for estimating risk. We use data on the invasiveness of biological imports to develop the first comparison of two classical methods—maximum likelihood and Bayesian—against a third, the recently developed maximum utility (MU) approach. MU estimation uniquely takes advantage of the structure of the decision problem, which depends on a local rather than global fit to the model. Extending methods to account for an endogenously stratified sample, we show that the MU approach is less sensitive to specification error and can offer significant economic gains under model uncertainty. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Structural Breaks in the International Dynamics of Inflation

• The Review of Economics and Statistics---2013---Erdenebat Bataa, Denise Osborn, Marianne Sensier, Dick van Dijk

This paper analyzes the long-term economic determi- This paper proposes an iterative procedure to discriminate between structural breaks in the coefficients and the disturbance covariance matrix of a system of equations, with recursive procedures then identifying individual coefficient shifts and separating volatility from correlation breaks. Structural breaks in short-term cross-country inflation relations are then examined for major G-7 economies and within the euro area. There is evidence that the euro area leads inflation in North America, while changing short-term interactions apply within the euro area. Covariability generally increases from the late 1990s, while euro-area countries move from essentially idiosyncratic contemporaneous variation to comovement in the 1980s. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Gradients of the Intergenerational Transmission of Health in Developing Countries

• The Review of Economics and Statistics---2013---Sonia Bhalotra, Samantha Rawlings

This paper investigates the sensitivity of the intergenerational transmission of health to changes in the socioeconomic and public health environment into which children are born using individual survey data on 2.24 million children born to 600,000 mothers during the period 1970 to 2000 in 38 developing countries merged by country and cohort with macroeconomic data. We find that children are more likely to bear the penalty exerted by poor maternal health if they are conceived or born in adverse socioeconomic conditions. Equivalently, shocks to the child's birth environment are more damaging of children born to women with weaker health at birth. \odot 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Causal Effects of Health Shocks on **Consumption and Debt: Quasi-Experimental Evidence from Bus Accident Injuries**

• The Review of Economics and Statistics---2013---Manoj Mohanan

Endogeneity between health and wealth presents a challenge for estimating causal effects of health shocks. Using a quasi-experimental design, comprising exogenous shocks sustained as bus accident injuries in India, with controls drawn from travelers on the same bus routes one year later, I present new evidence of causal effects on consumption and debt. Using primary household survey data, I find that households faced with shock-related expenditures are able to smooth consumption on food, housing, and festivals, with small reductions in educational spending. Debt was the principal mitigating mechanism households used, leading to significantly larger levels of indebtedness. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Access to Markets and Rural Poverty: Evidence from Household Consumption in China

• The Review of Economics and Statistics---2013---M. Shahe Emran, Zhaoyang Hou

This paper presents evidence on the effects of access to domestic and international markets on per capita consumption of households using data from rural China. The econometric analysis uses alternative identification schemes to address the potential endogeneity of access to markets. We use straight-line distances to coastline and navigable river, along with the topography of the intervening counties, as sources of exogeneous variations. We also use identification through heteroskedasticity, which does not rely on standard exclusion restrictions. The results from alternative identification schemes show that better access to both domestic and international markets has positive effects on per capita consumption, the domestic market effect is significantly larger in magnitude, and there is complementarity between the access to domestic and international markets. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Chinese Graduate Students and U.S. Scientific Productivity

 The Review of Economics and Statistics---2013----Patrick Gaulé, Mario Piacentini

The migration of young Chinese scientists to undertake graduate studies in U.S. universities is arguably one of the most important recent episodes of skilled migration. Using a new data set covering around 16,000 Ph.D. graduates in 161 U.S. chemistry departments, we show that Chinese students have a scientific output during their thesis that is significantly higher than other students. In fact, conditional on acceptance into the same programs, Chinese students perform about as well as the awardees of the NSF doctoral fellowship program. These results shed new light on the benefits of student migration on scientific productivity of destination countries. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Trade Crisis? What Trade Crisis?

We investigate the 2008–2009 trade collapse using microdata from a small open economy, Belgium. Belgian exports and imports mostly fell because of smaller quantities sold and unit prices charged rather than fewer firms, trading partners, and products being involved in trade. Our difference-in-difference results point to a fall in the demand for tradables as the main driver of the collapse. Finance and involvement in global value chains played a minor role. Firm-level exports-to-turnover and imports-to-intermediates ratios reveal a comparable collapse of domestic and cross-border operations. Overall, our results reject a crisis of cross-border trade per se. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Financial Incentives and Fertility

• The Review of Economics and Statistics---2013---Alma Cohen, Rajeev Dehejia, Dmitri Romanov Using panel data on over 300,000 Israeli women from 1999 to 2005, we exploit variation in Israel's child subsidy to identify the impact of changes in the price of a marginal child on fertility. We find a positive, statistically significant, and economically meaningful price effect on overall fertility and, consistent with Becker (1960) and Becker and Tomes (1976), a small effect of income on fertility, which is negative at low and positive at high income levels. We also find a price effect on fertility among older women, suggesting that part of the overall effect is due to a reduction in total fertility. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Are Children "Normal" ?

• The Review of Economics and Statistics---2013---Dan Black,Natalia Kolesnikova,Seth G. Sanders,Lowell J. Taylor

We examine Becker's (1960) contention that children are "normal." For the cross-section of non-Hispanic white married couples in the United States, we show that when we restrict comparisons to similarly educated women living in similarly expensive locations, completed fertility is positively correlated with the husband's income. The empirical evidence is consistent with children being "normal." In an effort to show causal effects, we analyze the localized impact on fertility of the mid-1970s' increase in world energy prices, an exogenous shock that substantially increased men's incomes in the Appalachian coal-mining region. Empirical evidence for that population indicates that fertility increases with men's income. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Are Building Codes Effective at Saving Energy? Evidence from Residential Billing Data in Florida

• The Review of Economics and Statistics---2013---Grant Jacobsen, Matthew Kotchen

We evaluate the effect of a change in the energy code applied to buildings using residential billing data on electricity and natural gas, combined with data on observable characteristics of each residence. The study is based on comparisons between residences constructed just before and after an increase in the stringency of Florida's energy code in 2002. We find that the code change is associated with a decrease in the consumption of electricity by 4% and natural gas by 6%. We estimate average social and private payback periods that range between 3.5 and 6.4 years. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Economics of Green Building

The Review of Economics and Statistics---2013--- Piet Eichholtz, Nils Kok, John Quigley

We analyze the economics of green building, finding that recent increases in the supply of green buildings and the volatility in property markets have not affected the returns to green buildings. We then analyze a large cross-section of office buildings, demonstrating that economic returns to energy-efficient buildings are substantial. Finally, we relate the economic premiums for green buildings to their relative efficiency in energy use—the attributes rated for thermal efficiency, as well as sustainability, contribute to premiums in rents and asset values. Among green buildings, increased energy efficiency is fully capitalized into rents and asset values. 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Using Nonpecuniary Strategies to Influence Behavior: Evidence from a Large-Scale Field Experiment

The Review of Economics and Statistics---2013--- Paul Ferraro, Michael Price

Policymakers are increasingly using norm-based messages to influence individual decision making. We partner with a metropolitan water utility to implement a natural field experiment to examine the effect of such messages on residential water demand. The data, drawn from more than 100,000 households, indicate that social comparison messages had a greater influence on behavior than simple prosocial messages or

technical information alone. Moreover, our data suggest that social comparison messages are most effective served in Vietna among households identified as the least price sensitive: high users. Yet the effectiveness of such messages ans' disability properties wanes over time. Our results thus highlight important complementarities between pecuniary and nonpecuniary strategies. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Spillovers from High-Skill Consumption to Low-Skill Labor Markets

 The Review of Economics and Statistics---2013----Francesca Mazzolari, Giuseppe Ragusa

The least-skilled workforce in the United States is disproportionally employed in the provision of time-intensive services that can be thought of as market substitutes for home production activities. At the same time, skilled workers, with their high opportunity cost of time, spend a larger fraction of their budget in these services. Given the skill asymmetry between consumers and providers in this market, product demand shifts—such as those arising when relative skilled wages increase—should boost relative labor demand for the least-skilled workforce. We estimate that this channel may explain one-third of the growth of employment of noncollege workers in low-skill services in the 1990s. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Employment Effects of Army Service and Veterans' Compensation: Evidence from the Australian Vietnam-Era Conscription Lotteries

The Review of Economics and Statistics---2013--- Peter Siminski

Exploiting Australia's National Service lotteries of 1965 to 1972, I estimate the effect of army service on employment outcomes. Population data from military personnel records, tax returns, veterans' compensation records, and the Census facilitate a rich and precise analysis, identified by 53,000 complying conscripts. The estimated employment effect is 12 percentage

points (95% CI: 13, 11) overall, 37 for those who served in Vietnam and 0 for those who served only in Australia. It emerged in the 1990s, mirrored by veterans' disability pension effects. These results contrast with those for the United States, possibly reflecting employment disincentives associated with Australia's veterans' compensation system. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

HIV Status and Labor Market Participation in South Africa

 The Review of Economics and Statistics---2013---James Levinsohn, Zoë McLaren, Olive Shisana, Khangelani Zuma

We use econometric methods based on the propensity score to estimate the causal effect of HIV status on employment outcomes in South Africa. Relying on rich data from a national survey, which included HIV testing, we control for systematic differences between HIV-positive and HIV-negative individuals. We provide the first nationally representative estimates of the impact of HIV status on employment outcomes for southern Africa. Being HIV positive is associated with an increase of 6 to 7 percentage points in the likelihood of unemployment overall and 10 to 11 percentage points for those who are less educated. This disadvantage reinforces existing inequalities in South Africa. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Quotas and Quality: The Effect of H-1B Visa Restrictions on the Pool of Prospective Undergraduate Students from Abroad

 The Review of Economics and Statistics---2013---Takao Kato, Chad Sparber

In October 2003, the United States drastically reduced the number of H-1B visas available for foreign-born workers. Such restrictions could make U.S. colleges less attractive to foreign students considering an American education as a pathway to U.S. employment. Citizens from five countries are de facto exempt from the visa restrictions, however. Our difference-in-difference estimates show that restrictive immigration policy reduced SAT scores of international applicants by about 1.5% and decreased the number of SAT score reports sent by international students at the top quintile of the SAT score distribution. Restrictive immigration policy disproportionately discourages high-ability international students from pursuing education in the United States. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Partisan Representation in Congress and the Geographic Distribution of Federal Funds

• The Review of Economics and Statistics---2013---David Albouy

In a two-party legislature, districts represented by the majority may receive greater funds if majority-party legislators have greater proposal power or disproportionately form coalitions with each other. Funding types received by districts may depend on their legislators' party identity when party preferences differ. Estimates from the United States, using fixed-effect and regression-discontinuity designs, indicate that states represented by members of Congress in the majority receive greater federal grants, especially in transportation, and defense spending. States represented by Republicans receive more for defense and transportation than those represented by Democrats; the latter receive more spending for education and urban development. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Determinants of Health Care Decisions: Insurance, Utilization, and Expenditures

The Review of Economics and Statistics---2013--- Chan Shen

This paper studies three interrelated health care decisions: insurance, utilization, and expenditures. The model treats insurance as an endogenous variable with respect to both utilization and expenditures, addresses potential selection issues, and takes into account that

the decisions to use health care and the level of treatment are determined by different decision makers. We employ semiparametric methods to avoid making distributional assumptions. Using the Medical Expenditure Panel Survey 2005 data, the semiparametric approach predicts insurance to increase the level of expenditures by 48%, a number in accord with an important experimental study and less than half that obtained using parametric methods. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Well-Being over the Life Span: Semiparametric Evidence from British and German Longitudinal Data

The Review of Economics and Statistics---2013---Christoph Wunder, Andrea Wiencierz, Johannes Schwarze, Helmut Küchenhoff

This paper applies semiparametric regression models using penalized splines to investigate the profile of well-being over the life span. Using data from the British Household Panel Survey (BHPS) and the German Socio-Economic Panel Study (SOEP), the analysis shows a common, and quite similar, age-specific pattern of life satisfaction for both Britain and Germany that can be characterized by three age stages. The evidence suggests that the U-shaped profile is a good approximation of decreasing and increasing well-being in the first and second stage. After people reached their late 60s, however, a decline in well-being is found in the third stage. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

A Faith-Based Initiative Meets the Evidence: Does a Flexible Exchange Rate Regime Really Facilitate Current Account Adjustment?

 The Review of Economics and Statistics---2013----Menzie Chinn, Shang-Jin Wei

It is often asserted that a flexible exchange rate regime would facilitate current account adjustment. Using data on over 170 countries over the 1971–2005 period,

we examine this assertion systematically. We find no strong, robust, or monotonic relationship between exchange rate regime flexibility and the rate of current account reversion, even after accounting for the degree of economic development and trade and capital account openness. This finding presents a challenge to the Friedman (1953) hypothesis and a popular policy recommendation by international financial institutions. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

What Does the Yield Curve Tell Us about Exchange Rate Predictability?

• The Review of Economics and Statistics---2013---Yu-chin Chen,Kwok Ping Tsang

Since the term structure of interest rates embodies information about future economic activity, we extract relative Nelson-Siegel (1987) factors from cross-country yield curve differences to proxy expected movements in future exchange rate fundamentals. Using monthly data for the United Kingdom, Canada, Japan, and the United States, we show that the yield curve factors predict exchange rate movements and explain excess currency returns one month to two years ahead. Our results provide support for the asset pricing formulation of exchange rate determination and offer an intuitive explanation to the uncovered interest parity puzzle by relating currency risk premiums to inflation and business cycle risks. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Commodity Prices, Convenience Yields, and Inflation

 The Review of Economics and Statistics---2013----Nikolay Gospodinov, Serena Ng

This paper provides evidence that the two leading principal components in a panel of 23 commodity convenience yields have statistically and quantitatively important predictive power for inflation even after controlling for unemployment gap and oil prices. The results hold up in out-of-sample forecasts, across forecast

horizons, and across G7 countries. The convenience yields also explain commodity prices and can be seen as informational variables about future economic conditions as conveyed by the futures markets. A bootstrap procedure for conducting inference when the principal components are used as regressors is also proposed. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Differences in Portfolios across Countries: Economic Environment versus Household Characteristics

 The Review of Economics and Statistics---2013---Dimitris Christelis, Dimitris Georgarakos, Michael Haliassos

We use cross-country microdata and counterfactual methods to document international differences in ownership and holdings of stocks, private businesses, homes, and mortgages among older households in thirteen countries. We decompose these differences into two parts, related to population characteristics and economic environments. Shortly prior to the recent financial crisis, U.S. households tended to invest more in stocks and less in homes and to have larger mortgages than Europeans of similar characteristics. Differences in ownership and amounts are primarily linked to differences in economic environments that are more pronounced among European countries than among U.S. regions, suggesting considerable potential for harmonization. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Product Market Competition and Upstream Innovation: Evidence from the U.S. Electricity Market Deregulation

 The Review of Economics and Statistics---2013----Paroma Sanyal, Suman Ghosh

This paper studies the innovation response of upstream technology suppliers when their downstream buyers transition from regulation to competition. By modeling the impact of the 1990s U.S. electricity deregulation on patenting, we find that after deregulation, the net comfor the first time in their career, particularly for top petition effect (comprising the pure competition and the escape competition effect) decreased innovation by 18.3% and the appropriation effect increased innovation by 19.6%. Other deregulation factors have led to a 20.6% decline. In aggregate, after deregulation, innovation by the upstream technology suppliers has declined by 19.3%, and upstream innovation quality and generality have declined as well. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Estimating the Benefits of Targeted R&D **Subsidies**

• The Review of Economics and Statistics---2013---Tuomas Takalo, Tanja Tanayama, Otto Toivanen

We study the expected welfare effects of targeted R&D subsidies using project-level data from Finland. We model the application and R&D investment decisions of firms and the subsidy-granting decision of the public agency in charge of the program. Our model and institutional environment allow us to identify different benefits and costs of the R&D subsidy program. We find that expected effects of subsidies are very heterogeneous and estimated application costs low on average. The social rate of return on targeted subsidies is 30% to 50%, but spillover effects of subsidies are smaller than effects on firm profits. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Top Research Productivity and Its Persistence: Gender as a Double-Edged Sword

• The Review of Economics and Statistics---2013---Stijn Kelchtermans, Reinhilde Veugelers

The paper contributes to the debate on top performance in research productivity, its persistence over time, and the impact of gender. It uses a panel data set comprising the publications of all biomedical and exact scientists at the University of Leuven in the period 1992 to 2001. We find that women have a significant lower probability of reaching top performance performance measured through citations, but there is no evidence for a gender bias hindering repeated top performance. On the contrary, women seem to persist in top performance more easily than men do. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Estimating Lost Output from Allocative Inefficiency, with an Application to Chile and **Firing Costs**

• The Review of Economics and Statistics---2013---Amil Petrin, Jagadeesh Sivadasan

We propose a new measure of allocative efficiency based on unrealized increases in aggregate productivity growth. We show that the difference in the value of the marginal product of an input and its marginal cost at any plant—the plant-input gap—is exactly equal to the change in aggregate output that would occur if that plant changed that input's use by one unit. We show how to estimate this gap using plant-level data for 1982 to 1994 from Chilean manufacturing. We find the gaps for blue- and white-collar labor are quite large in absolute value, and these gaps (unlike for materials and electricity) are increasing over time. The timing of the sharpest increases in the labor gaps suggests that they may be related to increases in severance pay. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Effects of Coworker Heterogeneity on Firm-Level Output: Assessing the Impacts of **Cultural and Language Diversity in the National Hockey League**

• The Review of Economics and Statistics---2013---Leo Kahane, Neil Longley, Robert Simmons

This paper uses data from the National Hockey League (NHL) to consider the potential gains to firms from employing culturally diverse work teams. It finds that the presence of foreign workers does increase firm-level performance: NHL teams that employed a higher proportion of European players performed better. However, the results also indicate that teams perform better when their European players come from the same country rather than being spread across many European countries. When teams have players from a wide array of European countries, integration costs associated with language and cultural differences may start to override any gains from diversity. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Costs, Demand, and Producer Price Changes

 The Review of Economics and Statistics---2013----Claire Loupias, Patrick Sevestre

Using business survey data, we estimate an ordered probit model to explain the occurrence of producer price increases and decreases in the French manufacturing industry. Our results show that changes in intermediate input prices are the main driver of producer price changes. Changes in firms' labor costs, their production level, or the producer price index of their industry contribute less to the occurrence of price changes. Moreover, when they face a change in their costs, firms adjust their prices upward more often and more rapidly than they do it downward, especially when the shock is perceived as permanent. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Solving Linear Rational Expectations Models with Predictable Structural Changes

The Review of Economics and Statistics---2013--- Adam Cagliarini, Mariano Kulish

Standard solution methods for linear stochastic models with rational expectations presuppose a time-invariant structure. Consequently, credible announcements that entail future changes of the structure cannot be handled by standard solution methods. This paper develops the solution for linear stochastic rational expectations models in the face of a finite sequence of anticipated structural changes. These events encompass anticipated changes to the structural parameters and also anticipated additive shocks. We apply the solution

to some examples of practical relevance to monetary policy. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Pension Benefit Insurance and Pension Plan Portfolio Choice

The Review of Economics and Statistics---2013-- Thomas Crossley, Mario Jametti

Pension benefit guarantees have been introduced in several countries to protect private plan members from the loss of income associated with the termination of an underfunded plan. Most such schemes face financial difficulty. Consequently, policy reforms are being contemplated. Economic theory suggests that such schemes will suffer moral hazard problems. We test a specific theoretical prediction: insured plans will invest more heavily in risky assets. Our test exploits policy differences across Canadian jurisdictions. We find that insured plans invest about 5% more in equities than do similar plans without benefit guarantees. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Is Protectionism on the Rise? Assessing National Trade Policies during the Crisis of 2008

 The Review of Economics and Statistics---2013---Hiau Looi Kee, Ileana Neagu Constantinescu, Alessandro Nicita

This paper quantifies trade policy changes and the associated trade impacts for about 100 countries between 2008 and 2009. Results show that there has been no widespread increase in protectionism. Only a few countries, including Russia, Argentina, Turkey, and China, have increased tariffs on major imported products. The United States and the EU, by contrast, rely mainly on antidumping duties to shield domestic industries. Overall, while the rise in tariffs and antidumping duties may have jointly caused global trade to drop by US\$43 billion, it explains less than 2% of the collapse in world trade during the crisis period. © 2013 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Schooling, Political Participation, and the Economy

• The Review of Economics and Statistics---2012---Filipe Campante, Davin Chor

We investigate how the link between individual schooling and political participation is affected by country characteristics. Using individual survey data, we find that political participation is more responsive to schooling in land-abundant countries and less responsive in human capital-abundant countries, even while controlling for country political institutions and cultural attitudes. We find related evidence that political participation is less responsive to schooling in countries with a higher skill premium, as well as within countries for individuals in skilled occupations. The evidence motivates a theoretical explanation in which patterns of political participation are influenced by the opportunity cost of engaging in political rather than production activities. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Public Information and Inflation Expectations: Microeconometric Evidence from a Natural Experiment

• The Review of Economics and Statistics---2012---Paul Carrillo, M. Shahe Emran

Governments provide public information to reduce information imperfections. Do households rely on public signals to inform themselves about market conditions? To identify the importance of public information in households' price expectations, we take advantage of a unique natural experiment in Ecuador where the published inflation rate had been different from the correct rate over a period of fourteen months due to a software error. We find that the public signal about prices plays an important role in households' price expectations, and the change in price expectations affects their savings choices. The effect is stronger for better-educated and older people. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Fiscal Stimulus with Spending Reversals

 The Review of Economics and Statistics---2012---Giancarlo Corsetti, Andre Meier, Gernot Müller

The short-run effects of fiscal policy depend not only on current tax and spending choices, but also on expectations about future policy adjustment. While general equilibrium models typically restrict medium-term adjustment to taxation, we highlight the importance of government spending dynamics. First, we provide time series evidence for the United States suggesting that an exogenous increase in government spending prompts a rise in public debt, followed over time by a reduction in spending below trend. Second, we show how expected spending reversals alter the short-run impact of fiscal policy in a new Keynesian model, bringing it closer in line with the evidence. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Estimating the Effect of the Age Distribution on Cyclical Output Volatility Across the United States

The Review of Economics and Statistics---2012-- Steven Lugauer

I exploit the variation in demographic change across the United States to estimate the relationship between the age distribution in the population and the magnitude of cyclical output volatility. According to panel regression estimates, the relative supply of young workers, or youth share, has a statistically significant effect on the volatility of state-by-state GDP. Moreover, changes to the age distribution can account for up to 58% of the recent reduction in business cycle fluctuations, indicating a critical link between the youth share and output volatility. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Lightning, IT Diffusion, and Economic Growth Across U.S. States

The Review of Economics and Statistics---2012-- Thomas Andersen, Jeanet Bentzen, Carl-Johan Dal-

gaard, Pablo Selaya

Empirically, a higher frequency of lightning strikes is associated with slower growth in labor productivity across the 48 contiguous U.S. states after 1990; before 1990, there is no correlation between growth and lightning. Other climate variables (e.g., temperature, rainfall, and tornadoes) do not conform to this pattern. A viable explanation is that lightning influences IT diffusion. By causing voltage spikes and dips, a higher frequency of ground strikes leads to damaged digital equipment and thus higher IT user costs. Accordingly, the flash density (strikes per square kilometer per year) should adversely affect the speed of IT diffusion. We find that lightning indeed seems to have slowed IT diffusion, conditional on standard controls. Hence, an increasing macroeconomic sensitivity to lightning may be due to the increasing importance of digital technologies for the growth process. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Brazilian Payroll Lending Experiment

 The Review of Economics and Statistics---2012----Christiano A. Coelho, Joao De Mello, Bruno Funchal

In December 2003, the Brazilian Congress passed a law that led to a natural personal lending experiment. The law allows banks to offer loans with repayment through automatic payroll deduction, which, in effect, turns future income into collateral. We estimate the impact of the new law using auto loans as a control group. The law has caused a reduction in interest rates and an increase in the volume of personal credit. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Propagation of Regional Recessions

The Review of Economics and Statistics---2012--- James Hamilton, Michael Owyang

This paper develops a framework for inferring common Markov-switching components in panel data sets with large cross-section and time series dimensions. We study similarities and differences across U.S. states in the timing of business cycles. We hypothesize that there exists a small number of cluster designations, with individual states in a given cluster sharing certain business cycle characteristics. We find that although oil-producing and agricultural states can sometimes experience a separate recession from the rest of the United States, for the most part, differences across states appear to be a matter of timing, with some states entering recession or recovering before others. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Factor Demand Linkages, Technology Shocks, and the Business Cycle

 The Review of Economics and Statistics---2012----Sean Holly, Ivan Petrella

This paper argues that factor demand linkages can be important for the transmission of both sectoral and aggregate shocks. We show this using a panel of highly disaggregated manufacturing sectors together with sectoral structural VARs. When sectoral interactions are explicitly accounted for, a contemporaneous technology shock to all manufacturing sectors implies a positive response in both output and hours at the aggregate level. Otherwise there is a negative correlation, as in much of the existing literature. Furthermore, we find that technology shocks are important drivers of the business cycle. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Foreign Direct Investment and Export Upgrading

• The Review of Economics and Statistics---2012---Torfinn Harding, Beata Javorcik

This study presents evidence suggesting that attracting foreign direct investment (FDI) offers potential for raising the quality of exports in developing countries. Our analysis relates unit values of exports at the four-digit SITC level to data on sectors treated by investment

promotion agencies as a priority in their efforts to at- Institute of Technology. tract FDI. The sample covers 105 countries from 1984 to 2000. The findings are consistent with a positive effect of FDI on unit values of exports in developing countries. The evidence for high-income economies is ambiguous. There is no indication that FDI increases the similarity of export structure of developing and developed economies. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Foreign Investment, Corporate Ownership, and **Development: Are Firms in Emerging Markets** Catching Up to the World Standard?

• The Review of Economics and Statistics---2012---Klara Sabirianova Peter, Jan Svejnar, Katherine Terrell

Economic development implies that the efficiency of firms in developing countries starts approaching that of firms from advanced economies. Various development policies have been pursued to achieve this convergence. We test for this convergence in two economies that represent alternative models of implementing marketoriented development policies: the Czech Republic and Russia. Using 1992–2000 panel data on virtually all medium and large industrial firms in each country and accounting for endogeneity of ownership, we find that foreign ownership markedly improved the efficiency of firms, whereas domestic private ownership did not; domestic firms are not catching up to the (world) efficiency standard given by foreign-owned firms. This is due in part to a slower growth of efficiency in domestic firms over time. However, foreigners' acquisitions of more efficient domestic firms are also contributing to the gap. Domestic firms closer to the frontier are not more likely to catch up than firms farther from the frontier, although foreign firms do exhibit this behavior. The distance of Russian firms to the efficiency frontier is much larger than that of Czech firms. Nevertheless, after nearly a decade of reforms, neither model of development has resulted in convergence of domestic firms to the world standard. © 2012 The President and Fellows of Harvard College and the Massachusetts

An Area-Wide Real-Time Database for the Euro

• The Review of Economics and Statistics---2012---Domenico Giannone, Jerome Henry, Magdalena Lalik, Michele Modugno

This paper describes how we constructed a real-time database for the euro area. The database covers more than 200 series regularly published in the European Central Bank Monthly Bulletin, as made available to the Governing Council members for their first monthly meeting. We study the properties of the real-time data flow and data revisions in the euro area, also providing comparisons with the United States and Japan. We illustrate how revisions contribute to the uncertainty surrounding key macroeconomic ratios and the nonaccelerating inflation rate of unemployment. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

A Quasi-Maximum Likelihood Approach for Large, Approximate Dynamic Factor Models

• The Review of Economics and Statistics---2012---Catherine Doz, Domenico Giannone, Lucrezia Reichlin

Is maximum likelihood suitable for factor models in large cross-sections of time series? We answer this question from both an asymptotic and an empirical perspective. We show that estimates of the common factors based on maximum likelihood are consistent for the size of the cross-section (n) and the sample size (T), going to infinity along any path, and that maximum likelihood is viable for n large. The estimator is robust to misspecification of cross-sectional and time series correlation of the idiosyncratic components. In practice, the estimator can be easily implemented using the Kalman smoother and the EM algorithm as in traditional factor analysis. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Assessing Competition with the Panzar-Rosse Model: The Role of Scale, Costs, and Equilibrium

The Review of Economics and Statistics---2012--- Jacob Bikker, Sherrill Shaffer, Laura Spierdijk

The Panzar-Rosse test has been widely applied to assess competitive conduct, often in specifications controlling for firm scale or using a price equation. We show that neither a price equation nor a scaled revenue function yields a valid measure for competitive conduct. Moreover, even an unscaled revenue function generally requires additional information about costs and market equilibrium to infer the degree of competition. Our theoretical findings are confirmed by an empirical analysis of competition in banking, using a sample containing more than 100,000 bank-year observations on more than 17,000 banks in 63 countries during the years 1994 to 2004. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Capital Structure and Sustainability: An Empirical Study of Microfinance Institutions

The Review of Economics and Statistics---2012--- Vicki L. Bogan

The capital structure of lending institutions has become an increasingly prominent issue in the world of finance. Contemporaneously, microfinance institutions (MFIs) have risen to the forefront as invaluable lending institutions in the development process. Since capital constraints have hindered the expansion of microfinance programs and microfinance organizations have had various degrees of sustainability, the question of how best to finance these organizations is a key issue. This paper explores how changes in capital structure could improve MFI efficiency and financial sustainability. I find causal evidence supporting the assertion that increased use of grants by large MFIs decreases operational self-sufficiency. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Sunk Costs, Depreciation, and Industry Dynamics

The Review of Economics and Statistics---2012--- Adelina Gschwandtner, Val Lambson

Two of the most robust results from dynamic competitive models of industrial organization suggest that higher-sunk-cost industries should exhibit higher intertemporal variability in the market value of their firms and lower intertemporal variability in the size of their industries. These predictions have done well empirically. This paper argues on theoretical and empirical grounds that depreciation generates countervailing effects. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Multivariate Forecast Evaluation and Rationality Testing

The Review of Economics and Statistics---2012--- Ivana Komunjer, Michael Owyang

In this paper, we propose a new family of multivariate loss functions to test the rationality of vector forecasts without assuming independence across variables. When only one variable is of interest, the loss function reduces to the flexible asymmetric family proposed by Elliott, Komunjer, and Timmerman (2008). Following their methodology, we derive~a GMM test for multivariate forecast rationality that allows the forecaster's loss to be nonseparable across variables and takes into account forecast estimation uncertainty. We use our test to study the joint rationality of macroeconomic forecasts in the growth rate of nominal output, CPI inflation rate, and short-term interest rate. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Disagreement Among Forecasters in G7 Countries

 The Review of Economics and Statistics---2012----Jonas Dovern, Ulrich Fritsche, Jiri Slacalek

We investigate determinants of disagreement—cross-sectional dispersion of individual forecasts—about key

tivity, in particular about GDP growth, has a distinct dynamic from disagreement about prices: inflation and interest rates. Disagreement about GDP growth intensifies strongly during recessions. Disagreement about prices rises with their level, declines under independent central banks, and both its level and its sensitivity to macroeconomic variables are larger in countries where central banks became independent only around the mid-1990s. Our findings suggest that credible monetary policy contributes to anchoring of expectations about inflation and interest rates. Disagreement for both groups of indicators increases with uncertainty about the actual series. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

A Century of Inflation Forecasts

• The Review of Economics and Statistics---2012---Antonello D'Agostino, Paolo Surico

We investigate inflation predictability in the United States across the monetary regimes of the twentieth century. The forecasts based on money growth and output growth were significantly more accurate than the forecasts based on past inflation only during the regimes associated with neither a clear nominal anchor nor a credible commitment to fight inflation. These include the years from the outbreak of World War II in 1939 to the implementation of the Bretton Woods Agreements in 1951 and from Nixon's closure of the gold window in 1971 to the end of Volcker's disinflation in 1983. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Does Temporary Affirmative Action Produce Persistent Effects? A Study of Black and Female **Employment in Law Enforcement**

Amalia Miller, Carmit Segal

comes of employment discrimination lawsuits against trepreneurial cycle is positively affected by the national

economic indicators. Disagreement about economic ac- U.S. law enforcement agencies to estimate the cumulative and persistent employment effects of temporary externally imposed affirmative action (AA). We find that AA increased black employment at all ranks by 4.5 to 6.2 percentage points relative to national trends. We also find no erosion of these employment gains in the fifteen years following AA termination, although black employment growth was significantly lower in departments after AA ended than in departments whose plans continued. For women, in contrast, we find only marginal employment gains at lower ranks. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Innovative Capability and Financing Constraints for Innovation: More Money, More Innovation?

• The Review of Economics and Statistics---2012---Hanna Hottenrott, Bettina Peters

This study presents a novel empirical approach to identify financing constraints for innovation based on the concept of an ideal test (Hall, 2008). Firms were offered a hypothetical payment and asked to choose between alternatives of use. If they selected additional innovation projects, they must have had some unexploited investment opportunities that were not profitable using more costly external finance. We attribute constraints for innovation not only to lacking financing, but also to firms' innovative capability. Econometric results show that financial constraints do not depend on the availability of internal funds per se but that they are driven by innovative capability. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Entrepreneurship and the Business Cycle

• The Review of Economics and Statistics---2012---Philipp Koellinger, Roy Thurik

• The Review of Economics and Statistics---2012--- We find new empirical regularities in the business cycle in a cross-country panel of 22 OECD countries for the period 1972 to 2007; entrepreneurship Granger-causes This paper exploits variation in the timing and out- the cycles of the world economy. Furthermore, the enunemployment cycle. We discuss possible causes and The Variance of Non-Parametric Treatment Effect implications of these findings. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Investments in Pharmaceuticals Before and After **TRIPS**

• The Review of Economics and Statistics---2012---Margaret Kyle, Anita M. McGahan

The TRIPS Agreement, which specifies minimum levels of intellectual property protection for countries in the WTO, has increased levels of patent protection around the world. Using variation across countries in the timing of patent laws and the severity of disease, we test the hypothesis that increased patent protection results in greater drug development effort. We find that patent protection in wealthy countries is associated with increases in R&D effort. However, the introduction of patents in developing countries has not been followed by greater R&D investment in the diseases that are most prevalent there. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Height and Leadership

• The Review of Economics and Statistics---2012---Erik Lindqvist

This paper studies the relationship between height and leadership. Using data from a representative sample of Swedish men, I document that tall men are significantly more likely to attain managerial positions. An increase in height by 10 centimeters (3.94 inches) is associated with a 2.2 percentage point increase in the probability of holding a managerial position. Selection into managerial positions explains about 15% of the unconditional height-wage premium. However, about half of the height-leadership correlation is due to a positive correlation between height and cognitive and noncognitive ability. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Estimators in the Presence of Clustering

 The Review of Economics and Statistics---2012---Samuel G. Hanson, Adi Sunderam

Nonparametric estimators of treatment effects are often applied in settings where clustering may be important. We provide a general methodology for consistently estimating the variance of a large class of nonparametric estimators, including the simple matching estimator, in the presence of clustering. Software for implementing our variance estimator is available in Stata. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Plight of Mixed-Race Adolescents

• The Review of Economics and Statistics---2012---Roland G. Fryer, Lisa Kahn, Steven Levitt, Jörg Spenkuch

Since 1970, the fraction of mixed-race black-white births has increased nearly ninefold. This paper describes basic facts about the behaviors and outcomes of black-white mixed-race individuals. Unsurprisingly, on a host of background and achievement characteristics, as well as adult outcomes, mixed-race individuals fall in between whites and blacks. When it comes to engaging in risky and antisocial adolescent behavior, however, mixed-race adolescents are stark outliers compared to both blacks and whites. We argue that these behavioral patterns are most consistent with a two-sector Roy model, in which mixed-race adolescents, not having a predetermined peer group, engage in more risky behaviors in order to be accepted. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Estimating Heterogeneity in the Benefits of **Medical Treatment Intensity**

The Review of Economics and Statistics---2012---William Evans, Craig Garthwaite

We exploit increases in postpartum length of stay generated by legislative changes in the late 1990s to identify

borns. Using all births in California over the 1995–2000 period, two-stage least-square estimates show that increased treatment intensity had a modest impact on readmission probabilities for the average newborn. Allowing the treatment effect to vary by two objective measures of medical need demonstrates that the law had large impacts for those with the greatest likelihood of a readmission. The results suggest that the returns to average and marginal patients vary considerably in this context. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Trust, Regulation and Market Failures

• The Review of Economics and Statistics---2012---Paolo Pinotti

Government regulation of firms is associated with more negative externalities and unofficial activity across countries. I argue that this correlation mainly reflects causality going from concerns about market failures to demand for government intervention. Using trust in others as a proxy for such concerns, I show that differences in trust explain a great deal of variation in entry regulations. Then, controlling for trust in the regression of market failures on regulation, the latter is no longer associated with worse economic outcomes. The same result is confirmed when I exploit country population as an alternative source of variation in regulation. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Identification With Imperfect Instruments

• The Review of Economics and Statistics---2012---Aviv Nevo, Adam Rosen

Dealing with endogenous regressors is a central challenge of applied research. The standard solution is to use instrumental variables that are assumed to be uncorrelated with unobservables. We instead allow the instrumental variable to be correlated with the error term, but we assume the correlation between the instrumental variable and the error term has the same sign as

the impact of greater hospital care on the health of new-the correlation between the endogenous regressor and the error term and that the instrumental variable is less correlated with the error term than is the endogenous regressor. Using these assumptions, we derive analytic bounds for the parameters. We demonstrate that the method can generate useful (set) estimates by using it to estimate demand for differentiated products. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Local Electoral Incentives and Decentralized Program Performance

• The Review of Economics and Statistics---2012---Alain de Janvry, Frederico Finan, Elisabeth Sadoulet

This paper analyzes how electoral incentives affected the performance of a major decentralized conditional cash transfer program intended on reducing school dropout rates among children of poor households in Brazil. We show that while this federal program successfully reduced school dropout by 8 percentage points, the program's impact was 36% larger in municipalities governed by mayors who faced reelection possibilities compared to those with lame-duck mayors. First-term mayors with good program performance were much more likely to be reelected. These mayors adopted program implementation practices that were not only more transparent but also associated with better program outcomes. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Paying to Learn: The Effect of Financial **Incentives on Elementary School Test Scores**

• The Review of Economics and Statistics---2012---Eric Bettinger

Policymakers and academics are increasingly interested in applying financial incentives to individuals in education. This paper presents evidence from a pay-forperformance program taking place in Coshocton, Ohio. Since 2004, Coshocton has provided cash payments to students in grades 3 through 6 for successful completion

of their standardized testing. Coshocton determined eligibility for the program using randomization. Using this randomization, this paper identifies the effects of the program on students' academic behavior. We find that math scores improved about 0.15 standard deviations but that reading, social science, and science test scores did not improve. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

College Cost and Time to Complete a Degree: Evidence from Tuition Discontinuities

The Review of Economics and Statistics---2012---Pietro Garibaldi, Francesco Giavazzi, Andrea Ichino, Enrico Rettore

University tuition typically remains constant throughout the years of enrollment while delayed degree completion is increasingly a problem for academic institutions around the world. Theory suggests that if continuation tuition were raised, the probability of late graduation would be reduced. Using a regression discontinuity design on data from Bocconi University in Italy, we show that a 1,000 euro increase in continuation tuition reduces the probability of late graduation by 5.2% when the benchmark probability is 80%. This decline is not associated with an increase in the dropout rate or a fall in the quality of students performance. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Effects of Affirmative Action Bans on College Enrollment, Educational Attainment, and the Demographic Composition of Universities

The Review of Economics and Statistics---2012-- Peter Hinrichs

I estimate the effects of affirmative action bans on college enrollment, educational attainment, and college demographic composition by exploiting time and state variation in bans. I find that bans have no effect on the typical student and the typical college, but they decrease underrepresented minority enrollment and increase white enrollment at selective colleges. In

addition, I use the case study methods of Abadie and Gardeazabal (2003) and Abadie, Diamond, and Hainmueller (2010) and find that the affirmative action ban in California shifted underrepresented minority students from more selective campuses to less selective ones at the University of California. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Traveling Agents: Political Change and Bureaucratic Turnover in India

 The Review of Economics and Statistics---2012----Lakshmi Iyer, Anandi Mani

We develop a framework to empirically examine how politicians with electoral pressures control bureaucrats with career concerns and the consequent implications for bureaucrats' career investments. Unique microlevel data on Indian bureaucrats support our key predictions. Politicians use frequent reassignments (transfers) across posts of varying importance to control bureaucrats. High-skilled bureaucrats face less frequent political transfers and lower variability in the importance of their posts. We find evidence of two alternative paths to career success: officers of higher initial ability are more likely to invest in skill, but caste affinity to the politician's party base also helps secure important positions. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Global Sourcing under Imperfect Capital Markets

The Review of Economics and Statistics---2012--- Juan Carluccio, Thibault Fally

We develop a simple model to study the interactions between a supplier's financial constraints and contract incompleteness in a vertical relationship. Applied to the analysis of multinational firms' sourcing strategies, the model predicts: (i) that complex and specific inputs are more likely to be sourced from financially developed countries and (ii) that multinationals are more likely to integrate suppliers located in countries with poor financial institutions, especially when trade involves validated using firm-level trade data on multinational firms with operations in France. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Female Entrepreneurship, Agglomeration, and a **New Spatial Mismatch**

• The Review of Economics and Statistics---2012---Stuart Rosenthal, William Strange

Female entrepreneurs may be less networked than their male counterparts and so derive less benefit from agglomeration. They may also have greater domestic burdens and therefore have higher commuting costs. This paper develops a theoretical model showing that either of these forces can lead to the segregation of male- and female-owned businesses, with female entrepreneurs choosing locations farther from agglomerations and commuting shorter distances. Empirical analysis is consistent with these predictions. Femaleowned businesses are segregated, often to a degree similar to black-white residential segregation. Femaleowned enterprises are less exposed to agglomeration, with 10% to 20% less own-industry employment nearby. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Background Risk and University Endowment Funds

The Review of Economics and Statistics---2012---Stephen Dimmock

This paper tests the effect of background risk on university endowment portfolios, where background risk is defined as the volatility of universities' nonfinancial income. The results show that higher background risk is associated with lower portfolio standard deviations. Universities with higher background risk invest significantly more in fixed income and less in alternative assets. A 1 standard deviation increase in background risk increases the allocation to fixed income by approximately 15% relative to the mean. There is also evidence that wealthier, highly selective universities hold

complex goods. These predictions are examined and riskier portfolios. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Surprising Comparative Properties of Monetary Models: Results from a New Model Database

• The Review of Economics and Statistics---2012---John Taylor, Volker Wieland

In this paper, we investigate the comparative properties of empirically estimated monetary models of the U.S. economy using a new database of models designed for such investigations. We focus on three representative models due to Christiano, Eichenbaum, and Evans (2005), Smets and Wouters (2007), and Taylor (1993a). Although these models differ in terms of structure, estimation method, sample period, and data vintage, we find surprisingly similar economic impacts of unanticipated changes in the federal funds rate. However, optimized monetary policy rules differ across models and lack robustness. Model averaging offers an effective strategy for improving the robustness of policy rules. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Examiner Characteristics and Patent Office Outcomes

• The Review of Economics and Statistics---2012---Mark A. Lemley, Bhaven Sampat

In this paper, we show that there are important differences across patent examiners at the U.S. Patent and Trademark Office. We show that more experienced examiners cite less prior art, are more likely to grant patents, and are more likely to grant patents without any rejections. These results suggest that the most important decisions made by the patent office are significantly affected by the happenstance of which examiner gets an application. They also point to human resource policies as potentially important levers, hitherto neglected, in patent system reform. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Minimum Wages and Alcohol-Related Traffic Fatalities among Teens

 The Review of Economics and Statistics---2012----Scott Adams, McKinley Blackburn, Chad Cotti

Using cross-state variation in minimum wages, we observe a positive relationship between the minimum wage and the number of alcohol-related accidents involving teen drivers. A similar effect is not observed when examining accidents among adults. The results are consistent with a positive income elasticity for alcoholic beverages and driving activities among young people, in particular for consumption out of discretionary income accorded by higher minimum wages. Evidence of a sizable impact of beer taxes on alcohol-related accidents among youths suggests that beer taxes are one avenue for policymakers to consider in counteracting this unintended consequence of minimum wages. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Recent Trends in Top Income Shares in the United States: Reconciling Estimates from March CPS and IRS Tax Return Data

Although most U.S. income inequality research is based on public use March CPS data, a new wave of research using IRS tax return data reports substantially faster inequality growth for recent years. We show that these apparently inconsistent estimates are largely reconciled when the income distribution and inequality are defined the same way. Using internal CPS data for 1967 to 2006, we show that CPS-based estimates of top income shares are similar to IRS data-based estimates reported by Piketty and Saez (2003). Our results imply that income inequality changes since 1993 are largely driven by changes in incomes of the top 1%. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Oil Price Shocks, Income, and Democracy

 The Review of Economics and Statistics---2012----Markus Brückner, Antonio Ciccone, Andrea Tesei

We examine the effect of oil price fluctuations on democratic institutions over the 1960–2007 period. We also exploit the very persistent response of income to oil price fluctuations to study the effect of persistent (oilprice-driven) income shocks on democracy. Our results indicate that countries with greater net oil exports over GDP see improvements in democratic institutions following upturns in international oil prices. We estimate that a 1 percentage point increase in per capita GDP growth due to a positive oil price shock increases the Polity democracy score by around 0.2 percentage points on impact and by around 2 percentage points in the long run. The effect on the probability of a democratic transition is around 0.4 percentage points. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Liquidity, Economic Activity, and Mortality

The Review of Economics and Statistics---2012--- William Evans, Timothy Moore

We document a within-month mortality cycle where deaths decline before the first day of the month and spike after the first. This cycle is present across a wide variety of causes and demographic groups. A similar cycle exists for a range of economic activities, suggesting the mortality cycle may be due to short-term variation in levels of economic activity. We provide evidence that the within-month activity cycle is generated by liquidity. Our results suggest a causal pathway whereby liquidity problems reduce activity, which in turn reduces mortality. These relationships may help explain the procyclical nature of mortality. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Asymmetric Learning in Repeated Contracting: An Empirical Study

• The Review of Economics and Statistics---2012---Alma Cohen This paper uses a unique panel data set of an insurer's transactions with repeat customers. Consistent with the asymmetric learning hypothesis that repeated contracting enables sellers to obtain an informational advantage over their rivals, I find that the insurer makes higher profits in transactions with repeat customers who have a good claims history with the insurer, the insurer reduces the price charged to these repeat customers by less than the reduction in expected costs associated with such customers, and repeat customers with bad claim histories are more likely to flee their record by switching to other insurers. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Good, Bad, and Ugly Colonial Activities: Do They Matter for Economic Development?

The Review of Economics and Statistics---2012-- Miriam Bruhn, Francisco Gallego

Levels of development vary widely within countries in the Americas. We argue that part of this variation has its roots in the colonial era, when colonizers engaged in different economic activities in different regions of a country. We present evidence consistent with the view that "bad" activities (those that depended heavily on labor exploitation) led to lower economic development today than "good" activities (those that did not rely on labor exploitation). Our results also suggest that differences in political representation (but not in income inequality or human capital) could be the intermediating factor between colonial activities and current development. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Enjoying the Quiet Life under Deregulation? Evidence from Adjusted Lerner Indices for U.S. Banks

The Review of Economics and Statistics---2012---Michael Koetter, James W. Kolari, Laura Spierdijk

The quiet life hypothesis posits that firms with market power incur inefficiencies rather than reap monopolis-

tic rents. We propose a simple adjustment to Lerner indices to account for the possibility of forgone rents to test this hypothesis. For a large sample of U.S. commercial banks, we find that adjusted Lerner indices are significantly larger than conventional Lerner indices and trending upward over time. Instrumental variable regressions reject the quiet life hypothesis for cost inefficiencies. However, Lerner indices adjusted for profit inefficiencies reveal a quiet life among U.S. banks. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

A Practical Asymptotic Variance Estimator for Two-Step Semiparametric Estimators

The Review of Economics and Statistics---2012--- Daniel Ackerberg, Xiaohong Chen, Jinyong Hahn

The goal of this paper is to develop techniques to simplify semiparametric inference. We do this by deriving a number of numerical equivalence results. These illustrate that in many cases, one can obtain estimates of semiparametric variances using standard formulas derived in the well-known parametric literature. This means that for computational purposes, an empirical researcher can ignore the semiparametric nature of the problem and do all calculations as if it were a parametric situation. We hope that this simplicity will promote the use of semiparametric procedures. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Product Recalls, Imperfect Information, and Spillover Effects: Lessons from the Consumer Response to the 2007 Toy Recalls

The Review of Economics and Statistics---2012-- Seth Freedman, Melissa Kearney, Mara Lederman

In 2007, the Consumer Product Safety Commission issued 212 recalls of toys and other children's products, a sizable increase from previous years. We investigate changes in toy sales following these recalls. We find that for manufacturers that had recalls, unit sales of the types of toys involved in the recall fell relative to their sales of toys in other categories. We do not find

ilar toys. We do, however, find large industry-wide spillovers in the form of sales losses to manufacturers that did not experience any recalls. Our results shed light on how consumers may draw inferences from information about product safety. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Policy Uncertainty and Household Savings

• The Review of Economics and Statistics---2012---Francesco Giavazzi. Michael McMahon

Using German microdata and a quasi-natural experiment, we provide evidence on how households respond to an increase in uncertainty. We find that household saving increases significantly following the increase in political uncertainty observed in the run-up to the 1998 German general election. We also find evidence of a labor supply response by workers who can use the margin offered by part-time employment. Our results are suggestive of the economic effects of "wars of attrition": when political disagreement leads to delays in adopting a reform or the possibility that earlier reforms may be revoked, the increased uncertainty could slow the economy. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Credit Constraints, Job Mobility, and **Entrepreneurship: Evidence from a Property** Reform in China

• The Review of Economics and Statistics---2012---Shing-Yi Wang

This paper provides new evidence on the impact of private property rights and employer-provided housing on entrepreneurship. I find an increase in self-employment following a reform in urban China that allowed state employees who were renting state-owned housing the opportunity to buy their homes at subsidized prices. I develop a model of job choice to test two mechanisms that might explain how the reform increased en-

evidence of within-manufacturer spillovers to dissim- labor mobility costs and alleviated credit constraints by allowing households to capitalize on the value of the real estate. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Gender Bias in Intrahousehold Allocation: **Evidence from an Unintentional Experiment**

• The Review of Economics and Statistics---2012---Luis Braido, Pedro Olinto, Helena Perrone

We use data from a Brazilian social program to investigate the existence of gender bias in intrahousehold allocations of resources. The program makes cash transfers to mothers and pregnant women in poor households. Bureaucratic mistakes, beyond the control of the applicants, have inadvertently excluded many households that had applied and were accepted to the program. This unintentional natural experiment is used to identify the impact of an exogenous variation in female nonlabor income over household consumption. We find that program participation led to an increase in food expenditure, but this effect is not due to women being the benefit recipients. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Determinants of Economic Growth: A Bayesian Panel Data Approach

• The Review of Economics and Statistics---2012---Enrique Moral-Benito

Model uncertainty hampers consensus on the key determinants of economic growth. Some recent cross-country cross-sectional analyses have employed Bayesian model averaging to tackle the issue of model uncertainty. This paper extends that approach to panel data models with country-specific fixed effects in order to simultaneously address model uncertainty and endogeneity issues. The empirical findings suggest that in a panel setting, the most robust growth determinants are the price of investment goods, distance to major world cities, and trepreneurship. I find evidence that the reform reduced political rights. © 2012 The President and Fellows of Technology.

Age Effects and Heuristics in Decision Making

 The Review of Economics and Statistics---2012---Tibor Besedes, Cary Deck, Sudipta Sarangi, Mikhael Shor

Using controlled experiments, we examine how individuals make choices when faced with multiple options. Choice tasks are designed to mimic the selection of health insurance, prescription drug, or retirement savings plans. In our experiment, available options can be objectively ranked, allowing us to examine optimal decision making. First, the probability of a person selecting the optimal option declines as the number of options increases, with the decline being more pronounced for older subjects. Second, heuristics differ by age, with older subjects relying more on suboptimal decision rules. In a heuristics validation experiment, older subjects make worse decisions than younger subjects. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Cost of Grade Retention

• The Review of Economics and Statistics---2012---Marco Manacorda

This paper uses administrative longitudinal microdata on junior high school students in Uruguay to measure the effect of grade failure on students' subsequent school outcomes. Exploiting the discontinuity induced by a rule establishing automatic grade failure for pupils with more than three failed subjects, I show that grade failure leads to substantial dropout and lower educational attainment even four to five years after grade failure occurred. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Role of Copulas in the Housing Crisis

• The Review of Economics and Statistics---2012---David Zimmer

Harvard College and the Massachusetts Institute of Due to its simplicity and familiarity, the Gaussian copula is popular in calculating risk in collaterized debt obligations, but it imposes asymptotic independence such that extreme events appear to be unrelated. This restriction might be innocuous in normal times, but during extreme events, such as the housing crisis, the Gaussian copula might be inappropriate. This paper explores various copula specifications and finds that the degree to which housing prices are related based on the Gaussian copula is too small compared with real housing price data. © 2012 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Economies of Density versus Natural Advantage: Crop Choice on the Back Forty

• The Review of Economics and Statistics---2012---Thomas J. Holmes, Sanghoon Lee

We estimate the factors determining specialization of crop choice at the level of individual fields, distinguishing between the role of natural advantage (soil characteristics) and economies of density (scale economies achieved when farmers plant neighboring fields the same). Using rich geographic data from North Dakota, including new data on crop choice collected by satellite, we estimate a model of how a farmer plants adjacent fields under the farmer's control. We find planting decisions on a field are heavily dependent on the soil characteristics of adjacent fields. Through this relationship, we back out the structural parameters of economies of density. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Ruggedness: The Blessing of Bad Geography in **Africa**

The Review of Economics and Statistics---2012---Nathan Nunn, Diego Puga

We show that geography, through its impact on history, can have important effects on economic development today. The analysis focuses on the historic interaction between ruggedness and Africa's slave trades. Although

rugged terrain hinders trade and most productive ac- Institute of Technology. tivities, negatively affecting income globally, rugged terrain within Africa afforded protection to those being raided during the slave trades. Since the slave trades retarded subsequent economic development, ruggedness within Africa has also had a historic indirect positive effect on income. Studying all countries worldwide, we estimate the differential effect of ruggedness on income for Africa. We show that the differential effect of ruggedness is statistically significant and economically meaningful, it is found in Africa only, it cannot be explained by other factors like Africa's unique geographic environment, and it is fully accounted for by the history of the slave trades. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Power of the Pill for the Next Generation: Oral Contraception's Effects on Fertility, **Abortion, and Maternal and Child Characteristics**

• The Review of Economics and Statistics---2012---Elizabeth Oltmans Ananat, Daniel Hungerman

This paper considers how the diffusion of oral contraception to young unmarried women affected the number and parental characteristics of children born to these women. In the short term, pill access caused declines in fertility and increases in both the share of children born with low birthweight and the share born to poor households. In the long term, access led to negligible changes in fertility while increasing the share of children with college-educated mothers and decreasing the share with divorced mothers. The short-term effects appear to be driven by upwardly mobile women opting out of early childbearing, while the long-term effects appear to be driven by a retiming of births to later ages. These effects differ from those of abortion legalization, although we find suggestive evidence that pill diffusion lowered abortions. Our results suggest that abortion and the pill are on average used for different purposes by different women, but on the margin, some women substitute from abortion toward the pill when both are available. © 2011 The President and Fellows of Harvard College and the Massachusetts

Global Income Distributions and Inequality, 1993 and 2000: Incorporating Country-Level Inequality **Modeled with Beta Distributions**

The Review of Economics and Statistics---2012---Duangkamon Chotikapanich, William Griffiths, D.S. Prasada Rao, Vicar Valencia

Using a method-of-moments estimator, flexible threeparameter beta distributions are fitted to aggregate country-level income data to overcome an untenable assumption of previous studies that persons within each income group receive the same income. Regional and global income distributions are derived as weighted mixtures of country-specific distributions. Analytical expressions for Gini and Theil's measures of inequality at country, regional, and global levels are derived in terms of the parameters of the beta distributions. Application to data for 91 countries in 1993 and 2000 reveals a high degree of global inequality, with evidence of declining inequality, largely attributable to growth in China. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Value of a Statistical Life: Evidence from **Panel Data**

• The Review of Economics and Statistics---2012---Thomas Kniesner, W Viscusi, Christopher Woock, James Ziliak

We address long-standing concerns in the literature on compensating wage differentials: the econometric properties of the estimated value of statistical life (VSL) and the wide range of such estimates. We confront prominent econometric issues using panel data, a more accurate fatality risk measure, and systematic application of panel data estimators. Controlling for measurement error, endogeneity, latent individual heterogeneity possibly correlated with regressors, state dependence, and sample composition yields VSL estimates of \$4 million to \$10 million. The comparatively narrow range clarifies the cost-effectiveness of regulatory decisions. Most

important econometrically is controlling for latent het- benchmark to one that conditions on cyclical extererogeneity; less important is how one does it. © 2011 nal imbalances. © 2011 The President and Fellows of The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

An Alternative Asymptotic Analysis of **Residual-Based Statistics**

 The Review of Economics and Statistics---2012---Elena Andreou, Bas J. M. Werker

This paper presents an alternative method to derive the limiting distribution of residual-based statistics. Our method does not impose an explicit assumption of (asymptotic) smoothness of the statistic of interest with respect to the model's parameters and thus is especially useful in cases where such smoothness is difficult to establish. Instead, we use a locally uniform convergence in distribution condition, which is automatically satisfied by residual-based specification test statistics. To illustrate, we derive the limiting distribution of a new functional form specification test for discrete choice models, as well as a runs-based tests for conditional symmetry in dynamic volatility models. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Predictive Information Content of External Imbalances for Exchange Rate Returns: How Much Is It Worth?

• The Review of Economics and Statistics---2012---Pasquale Della Corte, Lucio Sarno, Giulia Sestieri

This paper examines the exchange rate predictability stemming from the equilibrium model of international financial adjustment developed by Gourinchas and Rey (2007). Using predictive variables that measure cyclical external imbalances for country pairs, we assess the ability of this model to forecast out-of-sample four major U.S. dollar exchange rates using various economic criteria of model evaluation. The analysis shows that the model provides economic value to a risk-averse investor, delivering substantial utility gains when switching from a portfolio strategy based on the random walk

Harvard College and the Massachusetts Institute of Technology.

Bargaining and the Role of Expert Agents: An **Empirical Study of Final-Offer Arbitration**

• The Review of Economics and Statistics---2012---Orley Ashenfelter, Gordon Dahl

Expert agents, such as lawyers, play a prominent role in conflict resolution, yet little is known about how they affect outcomes. We construct a model that permits us to estimate the influence of agents and test whether the parties in a dispute face prisoner's dilemma incentives. Using eighteen years of final-offer arbitration data from New Jersey, we find the parties do significantly better when they retain agents and that the parties learn about this benefit over time. However, we also find that the gain to using an agent is fully offset when the opposing party also hires an agent. Since agents are costly, this noncooperative equilibrium is Pareto inferior. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Distributional Tests in Multivariate Dynamic Models with Normal and Student-t Innovations

• The Review of Economics and Statistics---2012---Javier Mencia, Enrique Sentana

We derive Lagrange multiplier and likelihood ratio specification tests for the null hypotheses of multivariate normal and Student-t innovations using the generalized hyperbolic distribution as our alternative hypothesis. We decompose the corresponding Lagrange multipliertype tests into skewness and kurtosis components. We also obtain more powerful one-sided Kuhn-Tucker versions that are equivalent to the likelihood ratio test, whose asymptotic distribution we provide. Finally, we conduct detailed Monte Carlo exercises to study the size and power properties of our proposed tests in finite samples. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Estimating the Effects of Length of Exposure to Instruction in a Training Program: The Case of Job Corps

• The Review of Economics and Statistics---2012---Carlos A. Flores, Alfonso Flores-Lagunes, Arturo Gonzalez, Todd C. Neumann

We semiparametrically estimate average causal effects of different lengths of exposure to academic and vocational instruction in the Job Corps (JC) under the assumption that selection into different lengths is based on a rich set of observed covariates and time-invariant factors. We find that the estimated effects on future earnings increase in the length of exposure and that the marginal effects of additional instruction decrease with length of exposure. We also document differences in the estimated effects across demographic groups, which are particularly large between males and females. Finally, our results suggest an important lock-in effect in JC training. No rights reserved. This work was authored as part of the Contributor's official duties as an Employee of the United States Government and is therefore a work of the United States Government. In accordance with 17 U.S.C. 105, no copyright protection is available for such works under U.S. law..

Forecasting The Path of U.S. CO₂ Emissions Using State-Level Information

 The Review of Economics and Statistics---2012----Maximilian Auffhammer, Ralf Steinhauser

We compare the most common reduced-form models used for emissions forecasting, point out shortcomings, and suggest improvements. Using a U.S. state-level panel data set of CO_2 emissions, we test the performance of existing models against a large universe of potential reduced-form models. We find that leading models in the literature, as well as models selected based on an emissions per capita loss measure or different in-sample selection criteria, perform significantly worse compared to the best model chosen based directly on the out-of-sample loss measure defined over aggregate emissions. © 2011 The President and Fellows

of Harvard College and the Massachusetts Institute of Technology.

The Consequences of Industrialization: Evidence from Water Pollution and Digestive Cancers in China

The Review of Economics and Statistics---2012--- Avraham Ebenstein

China's rapid industrialization has led to a severe deterioration in water quality in the country's lakes and rivers. By exploiting variation in pollution across China's river basins, I estimate that a deterioration of water quality by a single grade (on a six-grade scale) increases the digestive cancer death rate by 9.7%. The analysis rules out other potential explanations such as smoking rates, dietary patterns, and air pollution. I estimate that doubling China's levy rates for wastewater dumping would save roughly 17,000 lives per year but require an additional [dollar]500 million in annual spending on wastewater treatment. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Charity and Favoritism in the Field: Are Female Economists Nicer (To Each Other)?

The Review of Economics and Statistics---2012--- Jason Abrevaya, Daniel Hamermesh

Using a very large sample of matched author-referee pairs, we examine how referees' and authors' genders affect the referees' recommendations. Relying on changing author-referee matches, we find no evidence of gender differences among referees in charitableness, nor is there any effect of the interaction between the referees' and authors' genders. With substantial laboratory research showing gender differences in fairness, the results suggest that outside the laboratory, an ethos of objectivity can overcome possible tendencies toward same-group favoritism or opposite-group discrimination. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Asymmetric Business Cycle

The Review of Economics and Statistics---2012--- James Morley, Jeremy Piger

The business cycle is a fundamental yet elusive concept in macroeconomics. In this paper, we consider the problem of measuring the business cycle. First, we argue for the output-gap view that the business cycle corresponds to transitory deviations in economic activity away from a permanent, or trend, level. Then we investigate the extent to which a general model-based approach to estimating trend and cycle for the U.S. economy leads to measures of the business cycle that reflect models versus the data. We find empirical support for a nonlinear time series model that produces a business cycle measure with an asymmetric shape across NBER expansion and recession phases. Specifically, this business cycle measure suggests that recessions are periods of relatively large and negative transitory fluctuations in output. However, several close competitors to the nonlinear model produce business cycle measures of widely differing shapes and magnitudes. Given this model-based uncertainty, we construct a modelaveraged measure of the business cycle. This measure also displays an asymmetric shape and is closely related to other measures of economic slack such as the unemployment rate and capacity utilization. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Volatility Spillovers in East Asian Financial Markets: A Mem-Based Approach

 The Review of Economics and Statistics---2012----Robert Engle, Giampiero Gallo, Margherita Velucchi

We model the interrelations of equity market volatility in eight East Asian countries before, during, and after the Asian currency crisis. Using a new class of asymmetric volatility multiplicative error models based on the daily range, we find that dynamic propagation of volatility shocks occurs through a network of interdependencies, and shocks originating in Hong Kong may be amplified in their transmission throughout the

system, posing greater risks to the region than shocks originating elsewhere. Although this partly explains the severity of the currency crisis, we also find evidence that parameters shifted, making the system more unstable during the crisis. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Clash of the Titans: Does Internet use Reduce Television Viewing?

The Review of Economics and Statistics---2012--- Stan Liebowitz, Alejandro Zentner

We examine the impact of the Internet on the leading American recreation activity: watching television. We run a panel regression using television viewing, Internet penetration, and socioeconomic variables for a large number of American cities starting before the birth of the Web. We find that the Internet's effect on television viewing varies by age group, reducing it by a moderate amount for the youngest Americans but having no impact on the viewing of the oldest Americans. We hypothesize that the overall effect is likely to increase over time as older age groups have more experience with the Internet's recreational opportunities. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Can Observers Predict Trustworthiness?

The Review of Economics and Statistics---2012--- Michèle Belot, V Bhaskar, Jeroen van de Ven

We investigate whether experimental subjects can predict behavior in a prisoner's dilemma played on a TV show. Subjects report probabilistic beliefs that a player cooperates, before and after the players communicate. Subjects correctly predict that women and players who make a voluntary promise are more likely to cooperate. They are able to distinguish truth from lies when a player is asked about her intentions by the host. Subjects are to some extent able to predict behavior; their beliefs are 7~percentage points higher for cooperators than for defectors. We also study their Bayesian updating. Beliefs do not satisfy the martingale property

and display mean reversion. © 2011 The President Too Much Pay-Performance Sensitivity? and Fellows of Harvard College and the Massachusetts Institute of Technology.

Plausibly Exogenous

• The Review of Economics and Statistics---2012---Timothy Conley, Christian Hansen, Peter Rossi

Instrumental variable (IV) methods are widely used to identify causal effects in models with endogenous explanatory variables. Often the instrument exclusion restriction that underlies the validity of the usual IV inference is suspect; that is, instruments are only plausibly exogenous. We present practical methods for performing inference while relaxing the exclusion restriction. We illustrate the approaches with empirical examples that examine the effect of 401(k) participation on asset accumulation, price elasticity of demand for margarine, and returns to schooling. We find that inference is informative even with a substantial relaxation of the exclusion restriction in two of the three cases. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Financial Development, Entrepreneurship, and **Job Satisfaction**

The Review of Economics and Statistics---2012---Milo Bianchi

This paper shows that utility differences between the self-employed and employees increase with financial development. This effect is explained not by increased profits but by an increased value of nonmonetary benefits, in particular job independence. We interpret these findings by building a simple occupational choice model in which financial constraints may impede the creation of firms and depress labor demand, thereby pushing some individuals into self-employment for lack of salaried jobs. In this setting, financial development favors a better matching between individual motivation and occupation, thereby increasing entrepreneurial utility despite increasing competition and so reducing profits. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

• The Review of Economics and Statistics---2012---Ivan E. Brick, Oded Palmon, John K. Wald

We examine the relation between pay-performance sensitivity (PPS), the convexity of managerial compensation (Vega), and future stock risk and returns for a large sample of firms between 1992 and 2004. Higher PPS and Vega are both associated with lower future stock returns. Part of this negative relation can be explained by risk-averse managers decreasing equity risk in response to increases in PPS and Vega. However, even after correcting for lower future risk, future stock returns are negatively associated with the magnitude of option sensitivity. This finding is consistent with previous studies that link high option compensation to manager-owner agency problems. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Adjusting to Trade Policy: Evidence from U.S. **Antidumping Duties on Vietnamese Catfish**

• The Review of Economics and Statistics---2012---Irene Brambilla, Guido Porto, Alessandro Tarozzi

In 2003, after claims of dumping, the United States imposed heavy tariffs on Vietnamese catfish, which led to a collapse of imports. We use panel data to explore household responses in the catfish-producing Mekong delta between 2002 and 2004 and find that income growth was significantly slower among households relatively more involved in catfish farming in 2002. This is explained by a relative decline in both catfish income and revenues from other miscellaneous farm activities. Labor supply did not adjust, most likely because of off-farm employment limitations. Households more exposed to the shock reduced the share of investment assigned to catfish while substituting into agriculture. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Strategic Citation

• The Review of Economics and Statistics---2012---Ryan Lampe

strategically withhold citations to material prior art. Citation data suggest that applicants withhold between 21% and 33% of relevant citations. Variation in withholdings is explained by patent portfolio size and indicators of patent value. These data also highlight important differences across technology classes. In particular, firms are significantly less likely to withhold a citation when applying for chemical and drug patents. Robustness checks confirm that these results are not explained by inventor and attorney familiarity with citations, patent examiner heterogeneity, or the nationality of the inventor. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Choosing the Field of Study in Postsecondary **Education: Do Expected Earnings Matter?**

• The Review of Economics and Statistics---2012---Magali Beffy, Denis Fougere, Arnaud Maurel

This paper examines the determinants of the choice of the college major when the length of studies and future earnings are uncertain. We estimate a threestage schooling decision model, focusing on the effect of expected earnings on major choice. We control for dynamic selection through the use of mixture distributions. Exploiting variations across the French business cycle in the relative returns to the majors, our results yield a very low, though significant, elasticity of major choice to expected earnings. This suggests that at least for the French university context, nonpecuniary factors are a key determinant of schooling choices. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Effect Of Immigration On Productivity: **Evidence From U.S. States**

• The Review of Economics and Statistics---2012---Giovanni Peri

In this paper we analyze the long-run impact of immigration on employment, productivity, and its skill bias. We use the existence of immigrant communities

This paper investigates whether patent applicants across U.S. states before 1960 and the distance from the Mexican border as instruments for immigration flows. We find no evidence that immigrants crowded out employment. At the same time, we find that immigration had a strong, positive association with total factor productivity and a negative association with the high skill bias of production technologies. The results are consistent with the idea that immigrants promoted efficient task specialization, thus increasing TFP, and also promoted the adoption of unskilled-efficient technologies. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Impact of Price Discrimination on Revenue: **Evidence from the Concert Industry**

• The Review of Economics and Statistics---2012---Pascal Courty, Mario Pagliero

Concert tickets can be sold at the same price or at different prices that reflect different seating categories. Price discrimination generates about 5% greater revenues than single-price ticketing. The return to price discrimination is higher in markets with greater demand heterogeneity, as predicted by price discrimination theory. The return to an increase from three to four concert seat categories is roughly half that of an increase from one to two. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

A Test of Conspicuous Consumption: Visibility and Income Elasticities

• The Review of Economics and Statistics---2011---Ori Heffetz

This paper shows that, consistent with a signaling-byconsuming model à la Veblen, income elasticities can be predicted from the visibility of consumer expenditures. We outline a stylized conspicuous consumption model where income elasticity is endogenously predicted to be higher if a good is visible and lower if it is not. We then develop a survey-based measure of expenditure visibility, ranking different expenditures by how noticeable

they are to others. Finally, we show that our visibility measure predicts up to one-third of the observed variation in elasticities across consumption categories in U.S. data. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Well-Being across America

The Review of Economics and Statistics---2011-- Andrew Oswald, Stephen Wu

This paper uses Behavioral Risk Factor Surveillance System data to study life satisfaction and mental health across the geography of the United States. The analysis draws on a sample of 1.3 million citizens. Initially we control for people's personal characteristics (though not income). There is no correlation between states' regression-adjusted well-being and their GDP per capita. States like Louisiana, plus Washington, D.C., have high psychological well-being levels; California and West Virginia have low well-being. When we control for incomes, satisfaction with life is lower in richer states, just as compensating-differentials theory would predict. Nevertheless, some puzzles remain. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

International Evidence on Sticky Consumption Growth

 The Review of Economics and Statistics---2011---Christopher Carroll, Jiri Slacalek, Martin Sommer

This paper estimates the degree of stickiness in aggregate consumption growth (sometimes interpreted as reflecting consumption habits) for thirteen advanced economies. We find that after controlling for measurement error, consumption growth has a high degree of autocorrelation, with a stickiness parameter of about 0.7 on average across countries. The sticky consumption growth model outperforms the random walk model of Hall (1978) and typically fits the data better than the popular Mankiw (1989) model, though in a few countries, the sticky consumption growth and Campbell-Mankiw models work about equally well. ©

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Voting after the Bombings: A Natural Experiment on the Effect of Terrorist Attacks on Democratic Elections

 The Review of Economics and Statistics---2011----José G. Montalvo

Can terrorist attacks be timed to change the outcome of democratic elections? In this paper, we analyze the electoral impact of the terrorist attacks of March 11, 2004, in Madrid. Studies using individual level postelectoral survey data reach contradictory conclusions. We propose an alternative approach. Since the bombings took place only three days before the 2004 congressional election, we can find a control group of individuals who cast their vote before the terrorist attacks. The results indicate that the attacks had an important electoral impact, rejecting the hypothesis that the identity of the winner was unaffected by the terrorist attacks. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Long-Run Convergence in Manufacturing and Innovation-Based Models

The Review of Economics and Statistics---2011--- Jakob Madsen, Isfaaq Timol

Most studies of comparative productivities fail to find evidence of convergence in OECD manufacturing despite major economic growth theories predicting convergence. Using manufacturing data for nineteen OECD countries over the period from 1870 to 2006, this study finds strong evidence of unconditional β -convergence as well as σ -convergence. Panel data estimates suggest that the convergence has been driven by domestic R&D, international R&D spillovers, and financial development as predicted by Schumpeterian growth theories. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Does Daylight Saving Time Save Energy? Evidence from a Natural Experiment in Indiana

 The Review of Economics and Statistics---2011---Matthew Kotchen, Laura Grant

We take advantage of a natural experiment in the state of Indiana to estimate the effect of daylight saving time (DST) on residential electricity consumption. Our main finding is that, contrary to the policy's intent, DST increases electricity demand. The findings are consistent with simulation results that identify a trade-off between reducing demand for lighting and increasing demand for heating and cooling. We estimate a cost to Indiana households of \$9 million per year in increased electricity bills. We also estimate social costs of increased pollution emissions between \$1.7 to \$5.5 million per year. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Identifying the Sources of Instabilities in Macroeconomic Fluctuations

 The Review of Economics and Statistics---2011---Atsushi Inoue, Barbara Rossi

This paper investigates the sources of the substantial decrease in output growth volatility in the mid-1980s by identifying which of the structural parameters in a representative New Keynesian and structural VAR models changed. Overturning conventional wisdom, we show that the Great Moderation was due not only to changes in shock volatilities but also to changes in monetary policy parameters, as well as in the private sector's parameters. The Great Moderation was previously attributed to good luck because the alternative sources of instabilities appear to have offsetting effects on output volatility and therefore were impossible to detect using existing techniques. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Do Consumer Price Subsidies Really Improve Nutrition?

 The Review of Economics and Statistics---2011----Robert T. Jensen, Nolan H. Miller

Many developing countries use food-price subsidies or controls to improve nutrition. However, subsidizing goods on which households spend a high proportion of their budget can create large wealth effects. Consumers may then substitute toward foods with higher nonnutritional attributes (such as taste) but lower nutritional content per unit of currency, weakening or perhaps even reversing the subsidy's intended impact. We analyze data from a randomized program of large price subsidies for poor households in two provinces of China and find no evidence that the subsidies improved nutrition. In fact, they may have had a negative impact for some households. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Enforcement Spillovers

• The Review of Economics and Statistics---2011---Johannes Rincke, Christian Traxler

This paper identifies spillovers from law enforcement. Our approach makes use of microdata on compliance with TV license fees that allow us to distinguish between households that were subject to enforcement and those that were not. Using snowfall as an instrument for local inspections, we find a striking response of households to increased enforcement in their vicinity: on average, three detections make one additional household comply with the law. As compliance rises significantly among those who had no exposure to field inspections, our findings establish a sizable externality in enforcement. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Household Portfolios and Implicit Risk Preference

• The Review of Economics and Statistics---2011---Alessandro Bucciol, Raffaele Miniaci ance in a representative sample of U.S. households. Our measure is deduced from the willingness to bear risk as indicated by the variance of returns of each household's observed portfolio. The estimates, obtained assuming constraints on portfolio composition, show substantial heterogeneity across households. We find that risk tolerance falls with age and increases with wealth. Other variables, such as education, gender, race, and household size, do not have a significant relation to risk attitude. Our findings are robust to changes in portfolio definition, asset returns, and sample composition. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Weakly Relative Poverty

• The Review of Economics and Statistics---2011---Martin Ravallion, Shaohua Chen

Prevailing measures of relative poverty are unchanged when all incomes grow or contract by the same proportion. This property stems from seemingly implausible assumptions about the disutility of relative deprivation and the cost of social inclusion. We propose "weakly relative" lines that relax these assumptions. On calibrating our measures to national poverty lines and survey data, we find that half the population of the developing world in 2005 lived in poverty, only half of whom were absolutely poor. The total number of poor rose over 1981 to 2005 despite falling numbers of absolutely poor. With sustained economic growth, the incidence of relative poverty became less responsive to further growth. The number of relatively poor rose, just as the numbers of absolutely poor fell. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Multilateral Debt Relief through the Eyes of **Financial Markets**

• The Review of Economics and Statistics---2011---Claudio Raddatz

This paper conducts an event study of the impact of multilateral debt relief initiatives announcements

We derive the distribution of a proxy for the risk toler- on the stock prices of South African companies with subsidiaries in countries benefited by these initiatives. It shows that these prices increase significantly above those of other firms, especially around the launching of the Multilateral Debt Relief Initiative. These price increases are consistent with lower expected levels of future taxation in the benefited countries and provide evidence of the economic consequences of multilateral debt relief that is robust to reverse causality between economic performance and the decision to grant debt relief. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Expert Opinion and the Demand for Experience Goods: An Experimental Approach in the Retail Wine Market

• The Review of Economics and Statistics---2011---James Hilger, Greg Rafert, Sofia Villas-Boas

The effect of expert opinion on demand for experience goods is difficult to quantify, as the relationship between purchases and reviews may be driven by product quality. Further, it is unclear whether a review-based demand effect is due to providing quality or existence information. Using a retail field experiment to overcome these obstacles, we find a significant positive average consumer response to expert opinion labels for wine. Demand decreases for low-scoring wines and increases for wines scoring average or higher. Results indicate that expert opinion labels transmit quality information as opposed to solely shelf visibility. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Impacts of International Migration on Remaining Household Members: Omnibus **Results from a Migration Lottery Program**

• The Review of Economics and Statistics---2011---John Gibson, David McKenzie, Steven Stillman

We use a migration lottery program to overcome the double-selectivity problems posed by migration. We compare a wide range of outcomes for the remaining household members of Tongan emigrants with those of members of similar households who were unsuccessful in the lottery, with the policy rules determining which household members can move. Multiple hypothesis testing procedures are used to examine robustness. The overall impact on households left behind is largely negative in terms of resource availability, and both sources of selectivity matter, leading studies that fail to address them adequately to misrepresent the impact of migration on households. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Pattern-Based Expectations: International Experimental Evidence and Applications in Financial Economics

 The Review of Economics and Statistics---2011---Tobias F. Rötheli

We study how subjects extrapolate simple patterns in financial time series in order to develop a descriptive model of actual agent behavior. The laboratory experiment for this analysis was conducted in Germany and Japan. Statistical analyses indicate considerable similarity in expectations formation across cultures and document that agents' expectations are at variance with the notion of standard trend extrapolation. The paper then proposes a method for computing expectations for any economic time series based on the experimental data. Such pattern-based expectations are shown to explain stock prices and the dynamics of the forward discount on the foreign exchange market. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

An Embarrassment of Riches: Confronting Omitted Variable Bias and Multi-Scale Capitalization in Hedonic Price Models

 The Review of Economics and Statistics---2011---Joshua K. Abbott, Henry Klaiber

Many researchers have addressed concerns of omitted variable bias in hedonic price models through the use of spatial fixed effects. We argue that this approach does not consider the biases introduced by effects that overlap the zone of capitalization for nonmarket goods. We show this bias can dominate the usual omitted variable bias using data on developer-provided open space. We control for multiscale capitalization and omitted variables simultaneously by extending the Hausman-Taylor estimator where the panel component of the estimator is defined over repeated transactions within neighborhoods rather than the traditional definition following a unique cross-sectional unit through time. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Are Credit Unions Too Small?

 The Review of Economics and Statistics---2011---David Wheelock, Paul Wilson

U.S. credit unions serve 93 million members, hold 10% of U.S. savings deposits, and make 13.2% of all nonrevolving consumer loans. Since 1985, the share of U.S. depository institution assets held by credit unions has nearly doubled, and the average (inflation-adjusted) size of credit unions has increased over 600%. We use a local-linear estimator, dimesion-reduction techniques, and bootstrap methods to estimate and make inference about ray scale and expansion-path scale economies. We find substantial evidence of increasing returns to scale among credit unions of all sizes, suggesting that further consolidation and growth among credit unions are likely. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Can Second-Generation Endogenous Growth Models Explain the Productivity Trends and Knowledge Production in the Asian Miracle Economies?

 The Review of Economics and Statistics---2011----James Ang, Jakob Madsen

Using data for six Asian miracle economies over the period from 1953 to 2006, this paper examines the extent to which growth has been driven by R&D and tests which second-generation endogenous growth model is most consistent with the data. The results give strong

support to Schumpeterian growth theory but only limited support to semi-endogenous growth theory. Furthermore, it is shown that R&D has played a key role for growth in the Asian miracle economies. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

How Bad Is Antidumping? Evidence from Panel Data

The Review of Economics and Statistics---2011-- Peter Egger, Douglas Nelson

Current research on antidumping suggests a number of channels through which antidumping affects the volume of world trade. This paper uses a structural approach to the gravity model framework to evaluate these hypotheses using data on trade volume over the period 1948 to 2001. We conclude that the volume and welfare effects have been negative but quite modest. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Effect of Power Plants on Local Housing Values and Rents

• The Review of Economics and Statistics---2011---Lucas Davis

This paper uses restricted census microdata to examine housing values and rents for neighborhoods in the United States where power plants were opened during the 1990s. Compared to neighborhoods with similar housing and demographic characteristics, neighborhoods within 2 miles of plants experienced 3%–7% decreases in housing values and rents, with some evidence of larger decreases within 1 mile and for large-capacity plants. In addition, there is evidence of taste-based sorting, with neighborhoods near plants associated with modest but statistically significant decreases in mean household income, educational attainment, and the proportion owner-occupied. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Consumption Risk Sharing over the Business Cycle: The Role of Small Firms' Access to Credit Markets

 The Review of Economics and Statistics---2011---Mathias Hoffmann, Iryna Stewen

Consumption risk sharing among U.S. states increases in booms and decreases in recessions. These business cycle fluctuations in interstate risk sharing are driven mainly by states in which small businesses account for a large share of income or employment. State-level banking deregulation during the 1980s loosened the dependence of interstate risk sharing on the business cycle, mainly through its impact on states with many small firms. Our results establish a major benefit from bank deregulation: small firms' access to credit and, with it, interstate risk sharing have improved mainly when it is most urgently needed: in nationwide economic downturns. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Price Points and Price Rigidity

• The Review of Economics and Statistics---2011---Daniel Levy, Dongwon Lee, Haipeng (Allan) Chen, Robert J. Kauffman, Mark Bergen

We study the link between price points and price rigidity using two data sets: weekly scanner data and Internet data. We find that "9" is the most frequent ending for the penny, dime, dollar, and ten-dollar digits; the most common price changes are those that keep the price endings at "9"; 9-ending prices are less likely to change than non-9-ending prices; and the average size of price change is larger for 9-ending than non-9-ending prices. We conclude that 9-ending contributes to price rigidity from penny to dollar digits and across a wide range of product categories, retail formats, and retailers. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

International Convergence of Copyright Production

 The Review of Economics and Statistics---2011---Jin-Hyuk Kim

The production of copyrighted materials varies widely across countries, and how it evolves over time has important policy implications. I propose a simple dynamic model of copyrights and the public domain, which predicts conditional convergence of per capita copyright production among countries. Using book and film production data for the period 1975 to 1995, I test and confirm the model's prediction that copyright-poor countries tend to grow faster than copyright-rich countries in terms of per capita copyright production. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Markups and the Euro

 The Review of Economics and Statistics---2011---David Cook

This paper reports evidence that OECD economies adopting fixed exchange rates in the process of forming the European currency union experienced declines in labor share of income at the industry level. This occurs most sharply among countries that experienced the biggest changes in their exchange rate policy. An implication of New Keynesian sticky price theory is that monetary policy has a first-order impact on labor share through the interaction of business cycle uncertainty and the choice of optimal markups. However, there is also evidence that goods market integration encouraged by the euro had a negative impact on the bargaining position of labor. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Causal Diagrams for Treatment Effect Estimation with Application to Efficient Covariate Selection

• The Review of Economics and Statistics---2011---Halbert White,Xun Lu

Careful examination of the structure determining treatment choice and outcomes, as advocated by Heckman (2008), is central to the design of treatment effect estimators and, in particular, proper choice of covariates. Here, we demonstrate how causal diagrams developed in the machine learning literature by Judea Pearl and his colleagues, but not so well known to economists, can play a key role in this examination by using these methods to give a detailed analysis of the choice of efficient covariates identified by Hahn (2004). © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

How Reliable Are Local Projection Estimators of Impulse Responses?

• The Review of Economics and Statistics---2011---Lutz Kilian, Yun Jung Kim

We compare the finite-sample performance of impulse response confidence intervals based on local projections (LPs) and vector autoregressive (VAR) models in linear stationary settings. We find that in small samples, the asymptotic LP interval often is less accurate than the bias-adjusted bootstrap VAR interval, notwithstanding its excessive average length. Although the asymptotic LP interval has adequate coverage in sufficiently large samples, its average length still far exceeds that of biasadjusted bootstrap VAR intervals with comparable accuracy. Bootstrap LP intervals (with or without bias correction) and asymptotic VAR intervals are shorter on average, but they often lack coverage accuracy in finite samples. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Causal Effects of Monetary Shocks: Semiparametric Conditional Independence Tests with a Multinomial Propensity Score

 The Review of Economics and Statistics---2011---Joshua Angrist, Guido Kuersteiner

We develop semiparametric tests for conditional independence in time series models of causal effects. Our approach is motivated by empirical studies of monetary policy effects and is semiparametric in the sense that we model the process determining the distribution of treatment—the policy propensity score—but leave the model for outcomes unspecified. A conceptual innovation is that we adapt the cross-sectional potential outcomes framework to a time series setting. We also develop root-T consistent distribution-free inference methods for full conditional independence testing, appropriate for dependent data and allowing for first-step estimation of the (multinomial) propensity score. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

\$100 Bills on the Sidewalk: Suboptimal Investment in 401(k) Plans

The Review of Economics and Statistics---2011--- James Choi, David Laibson, Brigitte Madrian

We identify employees at seven companies whose 401(k) investment choices are dominated because they are contributing less than the employer matching contribution threshold despite being vested in their match and being able to make penalty-free 401(k) withdrawals for any reason because they are older than $59\frac{1}{2}$. At the average firm, 36% of match-eligible employees over age $59\frac{1}{2}$ forgo arbitrage profits that average 1.6% of their annual pay, or \$507. A survey educating employees about the free lunch they are forgoing raised contribution rates by a statistically insignificant 0.67% of income among those completing the survey. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Subjective Health Assessments and Active Labor Market Participation of Older Men: Evidence from a Semiparametric Binary Choice Model with Nonadditive Correlated Individual-specific Effects

• The Review of Economics and Statistics---2011---Jürgen Maurer,Roger Klein,Francis Vella

We use panel data from the U.S. Health and Retirement Study, 1992–2002, to estimate the effect of self-assessed

health limitations on the active labor market participation of older men. Self-assessments of health are likely to be endogenous to labor supply due to justification bias and individual-specific heterogeneity in subjective evaluations. We address both concerns. We propose a semiparametric binary choice procedure that incorporates nonadditive correlated individual-specific effects. Our estimation strategy identifies and estimates the average partial effects of health and functioning on labor market participation. The results indicate that poor health plays a major role in labor market exit decisions. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Causal Effects of Perceived Immutable Characteristics

The Review of Economics and Statistics---2011-- D. James Greiner, Donald B. Rubin

Despite their ubiquity, observational studies to infer the causal effect of a so-called immutable characteristic, such as race or sex, have struggled for coherence, given the unavailability of a manipulation analogous to a "treatment" in a randomized experiment and the danger of posttreatment bias. We demonstrate that a shift in focus from actual traits to perceptions of them can address both of these issues while facilitating articulation of other critical concepts, particularly the timing of treatment assignment. We illustrate concepts by discussing the designs of various studies of the role of race in trial court death penalty decisions. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Short-Term and Localized Effect of Gun Shows: Evidence from California and Texas

 The Review of Economics and Statistics---2011----Mark Duggan, Randi Hjalmarsson, Brian A. Jacob

We examine the effect of more than 3,400 gun shows using data from Gun and Knife Show Calendar and vital statistics data from California and Texas. Considering the one month following each show and a surrounding area ranging from 80 to 2,000 square miles, we find no

evidence that gun shows increase either gun homicides or suicides. The similarity of our estimates for California and Texas suggests that the much tighter California gun show regulations do not substantially reduce the number of firearms-related deaths in that state. Using incident-level crime data for Houston, Texas, we also find no evidence of an effect on other crime categories. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Commodity Price Volatility and World Market Integration since 1700

• The Review of Economics and Statistics---2011---David Jacks, Kevin O'Rourke, Jeffrey G. Williamson

Poor countries are more volatile than rich countries, and this volatility impedes their growth. Furthermore, commodity prices are a key source of that volatility. This paper explores price volatility since 1700 to offer three stylized facts: commodity price volatility has not increased over time, commodities have always shown greater price volatility than manufactures, and world market integration breeds less commodity price volatility. Thus, economic isolation is associated with much greater commodity price volatility, while world market integration is associated with less. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

History and Industry Location: Evidence from German Airports

 The Review of Economics and Statistics---2011----Stephen Redding, Daniel Sturm, Nikolaus Wolf

A central prediction of a large class of theoretical models is that industry location is not uniquely determined by fundamentals. Despite the theoretical prominence of this idea, there is little systematic evidence in support of its empirical relevance. This paper exploits the division of Germany after World War II and the reunification of East and West Germany as an exogenous shock to industry location. Focusing on a particular economic activity, an air hub, we develop a body of

evidence that the relocation of Germany's air hub from Berlin to Frankfurt in response to division is a shift between multiple steady states. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Common Trends and Shocks to Top Incomes: A Structural Breaks Approach

 The Review of Economics and Statistics---2011----Jesper Roine, Daniel Waldenström

We use newly compiled top income data and structural breaks techniques to estimate common trends and breaks in inequality across countries over the twentieth century. Our results both confirm earlier findings and offer new insights. In particular, the division into an Anglo-Saxon and a Continental European experience is not as clear-cut as previously suggested. Some Continental European countries seem to have, experienced increases in top income shares, just as Anglo-Saxon countries have, but typically with a lag. Most notably, Nordic countries display a marked Anglo-Saxon pattern, with sharply increased top income shares, especially when including realized capital gains. Our results help inform theories about the causes of the recent rise in inequality. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Aggregate Income Shocks and Infant Mortality in the Developing World

 The Review of Economics and Statistics---2011----Sarah Baird, Jed Friedman, Norbert Schady

Health and income are strongly correlated both within and across countries, yet the extent to which improvements in income have a causal effect on health status remains controversial. We investigate whether short-term fluctuations in aggregate income affect infant mortality using an unusually large data set of 1.7 million births in 59 developing countries. We show a large, negative association between per capita GDP and infant mortality. Female infant mortality is more

sensitive than male infant mortality to negative eco- rescuer remains significant after controlling for ease-ofnomic shocks, suggesting that policies that protect the health status of female infants may be especially important during economic downturns. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Offshoring Jobs? Multinationals and U.S. **Manufacturing Employment**

• The Review of Economics and Statistics---2011---Ann Harrison, Margaret McMillan

Using firm-level data collected by the U.S. Bureau of Economic Analysis, we estimate the impact on U.S. manufacturing employment of changes in foreign affiliate wages. We show that the motive for offshoring and, consequently, the location of offshore activity, significantly affects the impact of offshoring on parent employment. In general, offshoring to low-wage countries substitutes for domestic employment. However, for firms that do significantly different tasks at home and abroad, foreign and domestic employment are complements. These offsetting effects may be combined to show that offshoring by U.S.-based multinationals is associated with a quantitatively small decline in manufacturing employment. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Does Higher Income Make You More Altruistic? Evidence from the Holocaust

• The Review of Economics and Statistics---2011---Mitchell Hoffman

This paper considers the decision of Gentiles whether to rescue Jews during the Holocaust, a situation of altruistic behavior under life-or-death stakes. I examine the role to which economic factors may have influenced the decision to be a rescuer. Using cross-country data and detailed individual-level data on rescuers and nonrescuers, I find that richer countries had many more rescuers than poorer ones, and within countries, richer people were more likely to be rescuers than poorer people. The individual-level effect of income on being a rescue variables, such as the number of rooms in one's home, suggesting that the correlation of income and rescue is not solely driven by richer people having more resources for rescue. Given that richer people might be thought to have more to lose by rescuing, the evidence is consistent with the view that altruism increases with income. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Economics and Policy Preferences: Causal Evidence of the Impact of Economic Conditions on Support for Redistribution and Other Ballot **Proposals**

• The Review of Economics and Statistics---2011---Eric Brunner, Stephen Ross, Ebonya Washington

Using California ballot proposition returns and exogenous shifts to labor demand, we provide the first large-scale causal evidence of the impact of economic conditions on policy preferences. Consistent with economic theory, we find that positive economic shocks decrease support for redistributive policies. More notably, we find evidence of a need for cognitive consistency in voting behavior as economic shocks have a smaller significant impact on voting on noneconomic ballot issues. While we also demonstrate that positive shocks decrease turnout, we present evidence that our results reflect changes in the electorate's preferences and not simply to its composition. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Ideology and the Growth of Government

• The Review of Economics and Statistics---2011---Andrew Pickering, James Rockey

We analyze the impact of ideology on the size of government. In a simple model, the government sets redistribution and provision of public services according to the preferences of the median voter. Ideology is defined in terms of preferences for public services, and the impact of ideology on the size of government is shown to increase with mean income. This idea

is tested using measures of ideology based on party manifestos. We show that the interaction of ideology and mean income has a major role in explaining the increase and divergence in government size observed across OECD countries. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Strategic Interaction among Heterogeneous Price-Setters in an Estimated DSGE Model

 The Review of Economics and Statistics---2011---Olivier Coibion, Yuriy Gorodnichenko

We consider a dynamic stochastic general equilibrium model (DSGE) in which firms follow one of four price-setting regimes: sticky prices, sticky information, rule of thumb, or full-information flexible prices. The parameters of the model, including the fraction of each type of firm, are estimated by matching the moments of the observed variables of the model to those found in the data. We find that sticky price firms and sticky information firms jointly account for over 80% of firms in the model. We compare the performance of our hybrid model to pure sticky price and sticky information models along various dimensions, including monetary policy implications. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Politics and Monetary Policy

• The Review of Economics and Statistics---2011---Michael Ehrmann, Marcel Fratzscher

How and why do politicians' preferences about monetary policy differ from the interest rates set by independent central banks? Looking at the European Central Bank (ECB), this paper shows that politicians, on average, favor significantly lower interest rates. Three factors explain the different preferences. First, politicians put relatively less weight on inflation (and more on output) in their preferred monetary policy reaction function. Second, their preferences are affected by political economy motives. Third, different preferences are also, and largely, due to different constituencies,

as politicians primarily focus on national economic objectives rather than the euro area as a whole. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Ticket to Easy Street? The Financial Consequences of Winning the Lottery

The Review of Economics and Statistics---2011--- Scott Hankins, Mark Hoekstra, Paige Marta Skiba

This paper examines whether giving large cash transfers to financially distressed people causes them to avoid bankruptcy. A comparison of Florida Lottery winners who randomly received \$50,000 to \$150,000 to small winners indicates that such transfers only postpone bankruptcy rather than prevent it, a result inconsistent with the negative shock model of bankruptcy. Furthermore, the large winners who subsequently filed for bankruptcy had similar net assets and unsecured debt as small winners. Thus, our findings suggest that skepticism regarding the long-term impact of cash transfers may be warranted. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Climate Shocks and Sino-nomadic Conflict

The Review of Economics and Statistics---2011--- Ying Bai, James Kung

Employing droughts and floods to proxy for changes in precipitation, this paper shows nomadic incursions into settled Han Chinese regions over a period of more than two thousand years—the most enduring clash of civilizations in history—to be positively correlated with less rainfall and negatively correlated with more rainfall. Consistent with findings that economic shocks are positively correlated with conflicts in modern sub-Saharan Africa when instrumented by rainfall, our reduced-form results extend this relationship to a very different temporal and geographical context, the Asian continent, and long historical period. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

A Simple Correction to Remove the Bias of the Gini Coefficient due to Grouping

 The Review of Economics and Statistics---2011---Tom Van Ourti, Philip Clarke

We propose a first-order bias correction term for the Gini index to reduce the bias due to grouping. It depends on only the number of individuals in each group and is derived from a measurement error framework. We also provide a formula for the remaining second-order bias. Both Monte Carlo and EU and U.S. empirical evidence show that the first-order correction reduces a considerable share of the bias, but that some remaining second-order bias is increasing in the variance. We propose a procedure that addresses the remaining second-order bias by using additional information. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Trade Liberalization and Firm Productivity: The Case of India

• The Review of Economics and Statistics---2011---Petia Topalova, Amit Khandelwal

This paper exploits India's rapid, comprehensive, and externally imposed trade reform to establish a causal link between changes in tariffs and firm productivity. Pro-competitive forces, resulting from lower tariffs on final goods, as well as access to better inputs, due to lower input tariffs, both appear to have increased firm-level productivity, with input tariffs having a larger impact. The effect was strongest in import-competing industries and industries not subject to excessive domestic regulation. While we find no evidence of a differential impact according to state-level characteristics, we observe complementarities between trade liberalization and additional industrial policy reforms. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Migration and Economic Mobility in Tanzania: Evidence from a Tracking Survey

• The Review of Economics and Statistics---2011---Kathleen Beegle, Joachim De Weerdt, Stefan Dercon

This study explores to what extent migration has contributed to improved living standards of individuals in Tanzania. Using a thirteen-year panel survey, we find that migration between 1991 and 2004 added 36 percentage points to consumption growth. Although moving out of agriculture resulted in much higher growth than staying in agriculture, growth was always greater in any sector if the individual physically moved. As to why more people do not move given the high returns to geographical mobility, analysis finds evidence consistent with models in which exit barriers set by home communities prevent the migration of some categories of people. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Varying Heterogeneity among U.S. Firms: Facts and Implications

 The Review of Economics and Statistics---2011---Hyunbae Chun, Jung-Wook Kim, Randall Morck

U.S. firms' stock return volatility rose fivefold from 1971 through 2000 and then reverted to near 1971 levels by 2006. This was driven mainly by a rise and fall in the firm-specific, rather than systematic, component of volatility. Firm-level total factor productivity growth volatility exhibited a similar pattern. We hypothesize that firm heterogeneity, reflected in firm-specific volatility, rises as a new general purpose technology (GPT) propagates across the economy and then ebbs once the GPT is widespread. Measuring GPT adoption by information technology capital intensity, we find robust cross-industry empirical evidence supporting the hypothesis. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Divisions within Academia: Evidence from Faculty Hiring and Placement

 The Review of Economics and Statistics---2011----Marko Terviö

I look for divisions to clusters among academic departments in three disciplines: economics, mathematics, and comparative literature. I define clusters as subsets of departments with unexpectedly little hiring across the cluster lines. The division within economics is by far the strongest, is consistent with anecdotal evidence about "freshwater" and "saltwater" schools of thought and has been stable over time. There is also a significant division within comparative literature, but the hiring patterns among top mathematics departments are consistent with random matching. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Misclassification between Patent Offices: Evidence from a Matched Sample of Patent Applications

The Review of Economics and Statistics---2011---Alfons Palangkaraya, Elizabeth Webster, Paul Jensen

In this paper, we estimate the extent of misclassification in patent examination decisions between the European Patent Office (EPO) and the Japanese Patent Office (JPO), that is, applications that are incorrectly refused a patent or incorrectly granted a patent. Using a proxy for inventive step as the predictor of the correct decision, we find that the probability that a "true grant" application is refused is 6.1%, while the probability that a "true refusal" application is granted is 9.8%. However, we find no evidence of an increasing trend of granting "bad" patents at the EPO and JPO. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Convenient Prices and Price Rigidity: Cross-Sectional Evidence

• The Review of Economics and Statistics---2011---Edward Knotek

This paper provides cross-sectional evidence of convenient prices—prices that simplify and expedite transactions, reducing the time costs from physically making a transaction. Firms may wish to set convenient prices for items that are typically purchased with cash, are sold alone or with a few similar items, and are high-traffic transactions, that is, that require queuing or are frequently purchased. I collect a new data set and find broad support for the use of convenient prices in locations where making a rapid transaction is important. Convenience also appears to predominantly affect goods and services with above-average price rigidity. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Survey Design and the Analysis of Satisfaction

• The Review of Economics and Statistics---2011---Gabriella Conti, Stephen Pudney

We analyze the effect of survey design on reported job satisfaction by exploiting two quasi-experiments in the British Household Panel Survey: a change in question design and parallel use of different interview modes. We show that apparently minor differences in survey design lead to substantial biases in econometric results, particularly on gender differences. The common empirical finding that women care less about wages and prefer to work fewer hours than men appears largely an artifact of survey design rather than a true behavioral difference. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Changes in Consumption at Retirement: Evidence from Panel Data

• The Review of Economics and Statistics---2011---Emma Aguila, Orazio Attanasio, Costas Meghir

Previous empirical literature has found a sharp decline in consumption during the first years of retirement, implying that individuals do not save enough for their retirement. This phenomenon is called the retirement consumption puzzle. We find no evidence of the retirement consumption puzzle using panel data from 1980 to 2000. Consumption is defined as nondurable expenditure, a more comprehensive measure than only food used in many of the previous studies. We find that food expenditure declines at retirement, which is consistent with previous studies. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Inside the War on Poverty: The Impact of Food Stamps on Birth Outcomes

 The Review of Economics and Statistics---2011---Douglas Almond, Hilary Hoynes, Diane Whitmore Schanzenbach

This paper evaluates the health impacts of a signature initiative of the War on Poverty: the introduction of the modern Food Stamp Program (FSP). Using variation in the month FSP began operating in each U.S. county, we find that pregnancies exposed to FSP three months prior to birth yielded deliveries with increased birth weight, with the largest gains at the lowest birth weights. We also find small but statistically insignificant improvements in neonatal mortality. We conclude that the sizable increase in income from FSP improved birth outcomes for both whites and African Americans, with larger impacts for African American mothers. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

From Separate and Unequal to Integrated and Equal? School Desegregation and School Finance in Louisiana

 The Review of Economics and Statistics---2011----Sarah J. Reber

School desegregation might have induced unintended behavioral responses of white families as well as state and local governments. This paper examines these responses and is the first to study the effects of desegregation on the finances of school districts. Desegregation induced white flight from blacker to whiter public school districts and to private schools, but the local property tax base and local revenue were not

adversely affected. The state legislature directed significant new funding to districts where whites were particularly affected by desegregation. Desegregation therefore appears to have achieved its intended goal of improving resources available in schools that blacks attended. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Achievement and Behavior in Charter Schools: Drawing a More Complete Picture

• The Review of Economics and Statistics---2011---Scott Imberman

I use a long panel with broad grade coverage to establish whether charter schools affect cognitive and noncognitive skill formation. Schools that begin as charters generate large improvements in discipline and attendance but not test scores, with the exception of math in middle schools. This suggests improvements in noncognitive but not cognitive skills, although these improvements do not persist if students return to regular public schools. Charters that convert from regular public schools have little impact on either skill type. These results are robust to potential biases from selection off of precharter trends, attrition, and persistence. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Help or Hindrance? The Effects of College Remediation on Academic and Labor Market Outcomes

 The Review of Economics and Statistics---2011----Paco Martorell, Isaac McFarlin

Providing remedial (also known as developmental) education is the primary way colleges cope with students who do not have the academic preparation needed to succeed in college-level courses. Remediation is widespread, with nearly one-third of entering freshmen taking remedial courses at an annual cost of at least \$\$1 billion. Despite its prevalence, there is uncertainty surrounding its short- and longer-run effects. This paper presents new evidence on this question using

longitudinal administrative data from Texas and a re- and Fellows of Harvard College and the Massachusetts gression discontinuity research design. We find little indication that remediation improves academic or labor market outcomes. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Too Young to Leave the Nest? The Effects of **School Starting Age**

• The Review of Economics and Statistics---2011---Sandra Black, Paul Devereux, Kjell G Salvanes

Using Norwegian data, we examine effects of school starting age (SSA). Unlike much recent literature, we can separate SSA from test age effects using scores from IQ tests taken outside school at about age 18. We find a small, negative effect of starting school older but much larger positive effects of age at test. Also, starting older leads to lower earnings until about age 30. We find little impact of SSA on educational attainment, but boys who start older are less likely to have poor mental health at age 18. Additionally, starting school older has a negative effect on the probability of teenage pregnancy. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Falling Time Cost of College: Evidence from Half a Century of Time Use Data

• The Review of Economics and Statistics---2011---Philip Babcock, Mindy Marks

Using multiple data sets from different time periods, we document declines in academic time investment by full-time college students in the United States between 1961 and 2003. Full-time students allocated 40 hours per week toward class and studying in 1961, whereas by 2003, they were investing about 27 hours per week. Declines were extremely broad based and are not easily accounted for by framing effects, work or major choices, or compositional changes in students or schools. We conclude that there have been substantial changes over time in the quantity or manner of human capital production on college campuses. © 2011 The President

Institute of Technology.

Recovering Distributions in Difference-in-Differences Models: A Comparison of Selective and Comprehensive Schooling

• The Review of Economics and Statistics---2011---Stéphane Bonhomme, Ulrich Sauder

We compare the effects of selective and nonselective secondary education on children's test scores, using British data from the National Child Development Study. Test scores are modeled as the output of an additive production function. An important input is the child's unobserved initial endowment, which may be correlated with the education system attended. In this model, we generalize the difference-in-differences approach and identify the entire counterfactual distribution of potential outcomes. Our results suggest that the better performance of selective schools relative to nonselective ones is essentially due to differences in pupils' composition. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Misclassified Treatment Status and Treatment Effects: An Application to Returns to Education in the United Kingdom

• The Review of Economics and Statistics---2011---Erich Battistin, Barbara Sianesi

We study the impact of misreported treatment status on the estimation of causal treatment effects, focusing on applications where no additional information or repeated measurements are available. We first characterize the bias introduced by misclassification on the average treatment effect on the treated (ATT) under a conditional independence assumption, in both a binary and a multiple-treatment setting. We find that the bias of matching-type estimators computed from misclassified data cannot in general be signed. We subsequently provide easily implementable methods to bound the ATT of interest semiparametrically, in particular allowing for very general forms of impact heterogeneity

and of the no-treatment outcome equations, as well as for some dependence of the misreporting probabilities on individual characteristics. The empirical problem that motivates our paper is the estimation of the wage returns to a number of educational qualifications in the United Kingdom, allowing for misreporting in attainment. We investigate the sensitivity of the raw estimates to the presence of misclassification and explore the identification power of plausible restrictions on the nature and extent of misclassification. We show that the resulting bounds are sometimes wide but generally point to reasonable ranges of positive values for average returns to schooling among the schooled. For the range of educational qualifications considered, we further show that the claim sometimes made that measurement error bias roughly cancels out selection bias is not supported. More generally, our results show that under relatively mild restrictions, we can obtain strong conclusions regarding our questions of interest. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Teaching Entrepreneurship: Impact of Business Training on Microfinance Clients and Institutions

 The Review of Economics and Statistics---2011---Dean Karlan, Martín Valdivia

Most academic and development policy discussions about microentrepreneurs focus on credit constraints and assume that subject to those constraints, the entrepreneurs manage their business optimally. Yet the self-employed poor rarely have any formal training in business skills. A growing number of microfinance organizations are attempting to build the human capital of microentrepreneurs in order to improve the livelihood of their clients and help further their mission of poverty alleviation. Using a randomized control trial, we measure the marginal impact of adding business training to a Peruvian group lending program for female microentrepreneurs. Treatment groups received thirty- to sixty-minute entrepreneurship training sessions during their normal weekly or monthly banking meeting over a period of one to two years. Control groups remained as they were before, meeting at the same frequency but solely for making loan and savings payments. We find little or no evidence of changes in key outcomes such as business revenue, profits, or employment. We nevertheless observed business knowledge improvements and increased client retention rates for the microfinance institution. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

ICT and Productivity in Developing Countries: New Firm-Level Evidence from Brazil and India

The Review of Economics and Statistics---2011---Simon Commander, Rupert Harrison, Naercio Menezes-Filho

This paper uses a unique new data set on manufacturing firms in Brazil and India to estimate production functions, augmented by information and communications technology (ICT). We find a strong positive association between ICT capital and productivity in both countries that is robust to several different specification tests. The paper also breaks new ground when using the Indian data to investigate the effect of the institutional and policy environment on ICT capital investment and productivity. We find that poorer infrastructure quality and labor market policy are associated with lower levels of ICT adoption, while poorer infrastructure is also associated with lower returns to investment. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

On the Cyclicality of R&D

 The Review of Economics and Statistics---2011----Min Ouyang

We explore the link between short-run cycles and long-run growth by examining the cyclicality of R&D. Existing theories propose that R&D is concentrated when output is low, but aggregate data repeatedly show that R&D appears procyclical. We estimate the relationship between R&D and output using an annual panel of twenty U.S. manufacturing industries from 1958 to

cal, but, interestingly, estimates using demand-shift instruments suggest that it responds asymmetrically to demand shocks. We propose that liquidity constraint is an important cause for the observed procyclicality of R&D. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Technological Adaptation, Cities, and New Work

• The Review of Economics and Statistics---2011---Jeffrey Lin

Where does adaptation to innovation take place? I present evidence on the role of agglomeration economies in the application of new knowledge to production. All else equal, workers are more likely to be observed in new work in locations initially dense in college graduates and industry variety. This pattern is consistent with economies from the geographic concentration of factors and markets related to technological adaptation. A main contribution is a new measure, based on revisions to occupation classifications, that characterizes cross-sectional differences across cities in technological adaptation. Worker-level results also provide new evidence on the skill bias of recent innovations. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Economic Growth Impact of Hurricanes: **Evidence from U.S. Coastal Counties**

• The Review of Economics and Statistics---2011---Eric Strobl

I estimate the impact of hurricane strikes on local economic growth rates. To this end, I assemble a panel data set of U.S. coastal counties' growth rates and construct a novel hurricane destruction index that is based on a monetary loss equation, local wind speed estimates derived from a physical wind field model, and local exposure characteristics. The econometric results suggest that a county's annual economic growth rate falls on average by 0.45 percentage points, 28%% of it due to richer individuals moving away from affected counties. I also find that the impact of hurricanes is

1998. The results indicate that R&D is in fact procyclinetted out in annual terms at the state level and does not affect national economic growth rates at all. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Export Diversification: What's behind the Hump?

• The Review of Economics and Statistics---2011---Olivier Cadot, Celine Carrere, Vanessa Strauss-Kahn

The paper explores the evolution of export diversification patterns along the economic development path. Using a large database with 156 countries over 19 years at the HS6 level of disaggregation (4,991 product lines), we look for action at the intensive and extensive margins. We find a hump-shaped pattern of export diversification similar to what Imbs and Wacziarg (2003) found for production. Diversification and subsequent reconcentration take place mostly along the extensive margin. This hump-shaped pattern is consistent with the conjecture that countries travel across diversification cones, as discussed in Schott (2003, 2004) and Xiang (2007). © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Structure of Protection and Growth in the **Late Nineteenth Century**

• The Review of Economics and Statistics---2011---Sibylle Lehmann-Hasemeyer, Kevin O'Rourke

Many papers have explored the relationship between average tariff rates and economic growth when theory suggests that the structure of protection is what should matter. We therefore explore the relationship between economic growth and agricultural tariffs, industrial tariffs, and revenue tariffs for a sample of relatively well-developed countries between 1875 and 1913. Industrial tariffs were positively correlated with growth, and agricultural tariffs were generally negatively correlated with growth, although the results are not robust. Revenue tariffs were not related to growth at all. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The U.S. Money Market and the Term Auction Facility in the Financial Crisis of 2007—2009

• The Review of Economics and Statistics---2011---Tao Wu

The interbank money market in the United States and Europe became turbulent during the financial crisis of 2007-2009, with the counterparty default risk premiums and liquidity premiums of short-term financing among major financial institutions rising sharply to unprecedented levels. Using various measures of macroeconomic and financial risks, I find that the surges in counterparty risk premiums were predominantly driven by heightened uncertainties about the macroeconomy and financial market, as well as underlying mortgage default risks. The new liquidity facility that the Federal Reserve established, the Term Auction Facility, significantly relieved the strains in the money market, primarily through lowering banks' liquidity concerns. Its effect on the counterparty risk premiums, however, has been quite limited. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

New Evidence on Outlet Substitution Effects in Consumer Price Index Data

The Review of Economics and Statistics---2011-- John S. Greenlees, Robert McClelland

In this paper we provide new evidence on the impact on the U.S. CPI of the appearance and growth of new types of product outlets. Our CPI food microdata permit a more detailed categorization of outlet types than in previous studies, and we can adjust for numerous differences in item characteristics. We also examine the effects of changes in outlet mix not only across outlet categories but also within those categories. In our sample, we find that the upward impact on price from increased item quality has offset most, but not all, of the downward impact of lower-priced outlets.

Efficient Prediction of Excess Returns

• The Review of Economics and Statistics---2011---Jon Faust, Jonathan H. Wright

It is well known that augmenting a standard linear regression model with variables that are correlated with the error term but uncorrelated with the original regressors will increase the asymptotic efficiency of the original coefficients. We argue that in the context of predicting excess returns, valid augmenting variables exist and are likely to yield substantial gains in estimation efficiency and, hence, predictive accuracy. The proposed augmenting variables are expost measures of an unforecastable component of excess returns: ex post errors from macroeconomic survey forecasts, the surprise components of asset price movements around macroeconomic news announcements, or even the weather. These ""surprises"" cannot be used directly in forecasting-—they are not observed at the time that the forecast is made-—but can nonetheless improve forecasting accuracy by reducing parameter estimation uncertainty. We derive formal results about the benefits and limits of this approach and apply it to standard examples of forecasting excess bond and equity returns. We find substantial improvements in out-of-sample forecast accuracy for standard excess bond return regressions; gains for forecasting excess stock returns are much smaller. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Do Energy Prices Respond to U.S. Macroeconomic News? A Test of the Hypothesis of Predetermined Energy Prices

 The Review of Economics and Statistics---2011----Lutz Kilian, Clara Vega

We propose a formal test of the hypothesis that energy prices are predetermined with respect to U.S. macroe-conomic aggregates. The test is based on regressing changes in daily energy prices on daily news from U.S. macroeconomic data releases. Using a wide range of macroeconomic news, we find no compelling evidence of feedback at daily or monthly horizons, contradicting the view that energy prices respond instantaneously to macroeconomic news and consistent with the commonly used identifying assumption that there is no feedback from U.S. macroeconomic aggregates to monthly

innovations in energy prices. © 2011 The President Estimation of a Generalized Fishery Model: A and Fellows of Harvard College and the Massachusetts Two-Stage Approach Institute of Technology.

The Speed of Gasoline Price Response in Markets with and without Edgeworth Cycles

• The Review of Economics and Statistics---2011---Matthew Lewis, Michael Noel

Retail gasoline prices are known to respond fairly slowly to wholesale price changes. This does not appear to be true for markets with Edgeworth price cycles. Recently many retail gasoline markets in the midwestern United States and other countries have been shown to exhibit price cycles in which competition generates rapid cyclical retail price movements. We show that cost changes in cycling markets are passed on two to three times faster than in markets without cycles. We argue that the constant price movement inherent within the Edgeworth cycle eliminates price frictions and allows firms to pass on cost fluctuations more easily. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Conditional Moment Restrictions and Triangular Simultaneous Equations

• The Review of Economics and Statistics---2011---Jinyong Hahn, Geert Ridder

It is shown that in a nonparametric nonseparable triangular system, the conditional moment restriction (CMR) does not identify the average structural function (ASF). The CMR identifies the ASF only if the model is structurally separable in observable covariates and unobservable random errors. This excludes, for instance, random coefficient models in which the CMR in general does not identify the average response. An implication of our results is that empirical researchers should use methods other than CMR if they want to estimate the average response in models that are not additively separable. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

• The Review of Economics and Statistics---2011---Junjie Zhang, Martin D. Smith

U.S. federal law calls for an end to overfishing, but measuring overfishing requires knowledge of bioeconomic parameters. Using microlevel economic data from the commercial fishery, this paper proposes a two-stage approach to estimate these parameters for a generalized fishery model. In the first stage, a fishery production function is consistently estimated by a within-period estimator treating the latent stock as a fixed effect. The estimated stock is then substituted into an equation of fish stock dynamics to estimate all other biological parameters. The bootstrap approach is used to correct the standard errors in the two-stage model. This method is applied to the reef-fish fishery in the northeastern Gulf of Mexico. The traditional method, which uses catch-per-unit-effort as a stock proxy, significantly overstates the optimal harvest level. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Credit Card Redlining

• The Review of Economics and Statistics---2011---Ethan Cohen-Cole

This paper evaluates the presence of racial disparities in the issuance of consumer credit. Using a database of credit histories, I link location-based information on race with individual credit files. After controlling for place-specific factors such as housing vacancy rates and general population demographics, I find qualitatively large differences in the amount of credit offered to similarly qualified applicants living in black versus white areas. High data quality allows distinguishing between issuer-provision (supply) and utilization of credit (demand). Additional estimates using information on payday lending provide support for idea that issuers condition lending on location. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Credit Card Redlining Revisited

• The Review of Economics and Statistics---2011---Kenneth Brevoort

Using a proprietary data set of credit bureau records, Cohen-Cole (2011) finds evidence that lenders are using the racial composition of a borrower's neighborhood to set credit limits on revolving accounts. Using the same credit bureau data, I revisit this work and reach two main findings. First, an undocumented decision in constructing the variables appears to have introduced a distortion that is highly correlated with neighborhood racial composition and appears to increase the size of the reported disparity. Second, when neighborhood income is controlled for, the results presented as evidence of redlining disappear.

Mortality Risk and Human Capital Investment: The Impact of HIV/AIDS in Sub-Saharan Africa

The Review of Economics and Statistics---2011-- Jane G Fortson

Over the past several decades, the HIV/AIDS epidemic has dramatically altered patterns of morbidity and mortality in sub-Saharan Africa, with potential consequences for human capital investment and economic growth. Using data from Demographic and Health Surveys for fifteen countries in sub-Saharan Africa, I estimate the relationship between regional HIV prevalence and the change in individual human capital investment over time. Consistent with a simple model of human capital investment incorporating mortality risk, I find that areas with higher levels of HIV experienced relatively larger declines in schooling. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Do Small Businesses Create More Jobs? New Evidence for the United States from the National Establishment Time Series

• The Review of Economics and Statistics---2011---David Neumark,Brandon Wall,Junfu Zhang

We use the National Establishment Time Series (NETS) to revisit the debate about the role of small businesses in job creation (Birch, 1987; Davis, Haltiwanger, & Schuh, 1996a). Using the NETS data, we examine evidence for the overall economy, as well as for different sectors. The results indicate that small firms and small establishments create more jobs, on net, although the difference is much smaller than Birch's methods suggest. Moreover, in the recent period we study, a negative relationship between establishment size and net job creation holds for both the manufacturing and services sectors. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Racial Disparity in Unemployment

 The Review of Economics and Statistics---2011---Joseph Ritter, Lowell J Taylor

In the United States, black workers earn less than their white counterparts and have higher rates of unemployment. Empirical work indicates that most of this wage gap is accounted for by differences in cognitive skills that emerge at an early age. In this paper, we demonstrate that the same is not true for blackwhite disparity in unemployment. A large unexplained unemployment differential motivates the paper's second contribution—a potential theoretical explanation. This explanation is built around a model that embeds statistical discrimination into the subjective worker evaluation process that lies at the root of the efficiencywage theory of equilibrium unemployment. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Gender, Source Country Characteristics, and Labor Market Assimilation among Immigrants

The Review of Economics and Statistics---2011-- Francine Blau, Lawrence Kahn, Kerry Papps

Using 1980–2000 Census data to study the impact of source country characteristics on married adult immigrants' labor supply assimilation profiles, we find that immigrant women from countries with high female labor supply persistently work more than those

from low-female-supply countries. While both groups of women work less than comparable natives on arrival, women from high-female-participation countries eventually close the gap with natives entirely, and women from low-female-labor supply countries eliminate most of it. Men's labor supply is unaffected by source country female participation, suggesting that the findings on women reflect notions of gender roles. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Effect of Changes in the U.S. Wage Structure on Recent Immigrants' Earnings

• The Review of Economics and Statistics---2011---Darren Lubotsky

Since recent immigrants tend to earn less than natives, their relative earnings have been adversely affected by an increase in the return to labor market skills over the past three decades. Using longitudinal Social Security records matched to cross-sections of the SIPP and CPS, I estimate the return to skills rose by 41% between 1980 and 1997. This reduced the relative earnings of immigrants who arrived in the 1980s and early 1990s by 10 to 15 percentage points. Examining solely the earnings of recent immigrants may lead to an overly pessimistic picture of their actual labor market skills. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

New Evidence on Emigrant Selection

• The Review of Economics and Statistics---2011---Jesús Fernández-Huertas Moraga

This paper examines the extent to which Mexican emigrants to the United States are negatively selected. Previous studies have been limited by the lack of nationally representative longitudinal data. This one uses a newly available household survey, that identifies emigrants before they leave. On average, U.S.-bound Mexican emigrants from 2000 to 2004 earn lower wages and have less (more for females) schooling than nonmigrant Mexicans, evidence of negative selection. This argues against Chiquiar and Hanson's (2005) findings. be constructed using test statistic inversion. © 2011

The discrepancy is primarily due to an undercount of unskilled migrants in U.S. sources and secondarily to the omission of unobservables in their methodology. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Welfare Payments and Crime

• The Review of Economics and Statistics---2011---C. Fritz Foley

Analysis of daily reported incidents of major crimes in twelve U.S. cities reveals an increase in crime over the course of monthly welfare payment cycles. This increase reflects an increase in crimes that are likely to have a direct financial motivation as opposed to other kinds of crime. Temporal patterns in crime are observed in jurisdictions in which disbursements are focused at the beginning of monthly welfare payment cycles and not in jurisdictions in which disbursements are relatively more staggered. These findings indicate that welfare beneficiaries consume welfare-related income quickly and then attempt to supplement it with criminal income. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Inference with "Difference in Differences" with a **Small Number of Policy Changes**

• The Review of Economics and Statistics---2011---Timothy Conley, Christopher R. Taber

In difference-in-differences applications, identification of the key parameter often arises from changes in policy by a small number of groups. In contrast, typical inference assumes that the number of groups changing policy is large. We present an alternative inference approach for a small (finite) number of policy changers, using information from a large sample of nonchanging groups. Treatment effect point estimators are not consistent, but we can consistently estimate their asymptotic distribution under any point null hypothesis about the treatment. Thus, treatment point estimators can be used as test statistics, and confidence intervals can

Massachusetts Institute of Technology.

What Happens When Firms Patent? New **Evidence from U.S. Economic Census Data**

The Review of Economics and Statistics---2011---Natarajan Balasubramanian, Jagadeesh Sivadasan

We build a new concordance between the NBER Patent Data and U.S. Census microdata and use it to examine what happens when firms patent. We find strong evidence that increases in patent stock are associated with increases in firm size, scope, and skill and capital intensity. We find somewhat weaker evidence that changes in patenting are positively correlated with changes in total factor productivity. We also analyze firsttime patentees and find similar effects following initial patent application. Together, these results suggest that patenting is indeed associated with real changes within firms, in particular with growth through increases in scope. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Patent Protection, Market Uncertainty, and R&D Investment

• The Review of Economics and Statistics---2011---Dirk Czarnitzki, Andrew A. Toole

The main reason governments grant patent protection is to spur innovation. However, the size of the R&D stimulus from patent protection is far from clear because it depends on how effective patents are as a mechanism for appropriating returns. Drawing on real options investment theory, this paper highlights one mechanism through which patents may improve appropriability and stimulate R&D investment: patents reduce the effect of market uncertainty on the firm' s investment decision. We find that firm-level R&D investment falls in response to higher levels of uncertainty, but that patent protection partially mitigates the influence of uncertainty. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The President and Fellows of Harvard College and the From Free Entry to Patent Protection: Welfare Implications for the Indian Pharmaceutical Industry

• The Review of Economics and Statistics---2011---Antara Dutta

There has been fierce debate over the imposition of stronger intellectual property rights laws for pharmaceutical products in developing countries. This paper uses data from the Indian pharmaceutical industry to develop a structural model of demand, supply and entry. The estimation yields demand and supply parameters that indicate significant heterogeneity among firms both within and across different therapeutic segments. The estimated parameters are used to simulate patent enforcement and price deregulation for 43 drugs, which predicts large losses for consumers and relatively small gains in profits for the global patent holders. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Economies of Density and Productivity in Service Industries: An Analysis of Personal Service Industries Based on Establishment-Level Data

• The Review of Economics and Statistics---2011---Masayuki Morikawa

This study aims to empirically investigate the determinants of service industry productivity, such as economies of scale and economies of density. By using establishment-level data related to personal service industries in Japan, the study estimates the production functions for both value-added and physical output measures. In almost all the service industries examined, significant economies of scale and economies of density are observed, wherein productivity increases by 7%% to 15%% when the municipality population density doubles. These findings are confirmed by an estimation in which the measures of physical output are considered instead of value added. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Flat-Rate Pricing Paradox: Conflicting Effects of " "All-You-Can-Eat" Buffet Pricing

 The Review of Economics and Statistics---2011---David Just, Brian Wansink

Are price and consumption independent in flat-rate price service contexts? A field experiment at an all-you-can-eat pizza restaurant shows that a 50%% discount on the price of the meal led customers to consume 27.9%% less pizza (2.95 versus 4.09 pieces). A second analysis indicated that individual taste ratings of this pizza tended to be inversely related to how much is consumed. One possible interpretation of these two findings is that individuals in a flat-rate (or fixed-price) context may consume the amount that enables them to get their money's worth rather than consuming until their marginal utility of consumption is 0. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Effects of Competition on the Price for Cable Modem Internet Access

 The Review of Economics and Statistics---2011----Yongmin Chen, Scott J Savage

Theory suggests that a firm facing competition will raise prices as consumer preferences become more diverse, and with high enough diversity, a duopolist under product differentiation may price higher than a monopolist. Focusing on the price for cable modem Internet access, with or without DSL competition, and using the standard deviation of education attainment as a proxy for preference diversity, we find empirical support for these results. In markets where cable competes with DSL, the cable Internet price increases with preference diversity. Moreover, the cable Internet price under DSL competition can exceed that without competition when preferences are sufficiently diverse. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Incentive Mechanisms for Safe Driving: A Comparative Analysis with Dynamic Data

The Review of Economics and Statistics---2011---Georges Dionne, Jean Pinquet, Mathieu Maurice, Charles Vanasse

Road safety policies often use incentive mechanisms based on traffic violations to promote safe driving for example, fines, experience rating, and point-record driver's licenses. We analyze the effectiveness of these mechanisms in promoting safe driving. We derive their theoretical properties with respect to contract time and accumulated demerit points. These properties are tested empirically with data from the Quebec public insurance plan. We find evidence of moral hazard, which means that drivers who accumulate demerit points become more careful because they are at risk of losing their license. An insurance rating scheme introduced in 1992 reduced the frequency of traffic violations by 15\%%. We use this result to derive monetary equivalents for traffic violations and license suspensions. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Pension Plan Characteristics and Framing Effects in Employee Savings Behavior

 The Review of Economics and Statistics---2011---David Card, Michael Ransom

Defined contribution pensions in many postsecondary institutions are funded by a combination of an employer premium and a mandatory employee premium. Individuals can also contribute to a supplemental savings account. Holding constant total compensation, standard reasoning suggests that supplemental savings should depend negatively on the sum of the employer and employee pension contributions. Contrarily, we find that the supplementary savings of professors are significantly more sensitive to employee contributions than to employer contributions. This asymmetry is consistent with different marginal propensities to save out of the salary and pension components of compensation. Nevertheless, impacts on lifetime utility are relatively modest. © 2011 The President and Fellows

of Harvard College and the Massachusetts Institute of differential changes in investment opportunities, differ-Technology.

Do Older Investors Make Better Investment **Decisions?**

• The Review of Economics and Statistics---2011---George M Korniotis, Alok Kumar

This paper examines the investment decisions of older individual investors. We find that older and experienced investors are more likely to follow rules of thumb that reflect greater investment knowledge. However, older investors are less effective in applying their investment knowledge and exhibit worse investment skill, especially if they are less educated, earn lower income, and belong to minority racial/ethnic groups. Overall, the adverse effects of aging dominate the positive effects of experience. These results indicate that older investors' portfolio decisions reflect greater knowledge about investing, but investment skill deteriorates with age due to the adverse effects of cognitive aging. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Dividend Taxes and International Portfolio Choice

• The Review of Economics and Statistics---2011---Mihir A Desai, Dhammika Dharmapala

This paper investigates how dividend taxes influence portfolio choices, using the response to the distinctive treatment of a subset of foreign dividends in the Jobs and Growth Tax Relief Reconciliation Act (JGTRRA) of 2003. An open-economy after-tax capital asset pricing model is used to derive the hypothesis that JGTRRA should lead to a portfolio reallocation by U.S. investors toward equities in tax-favored countries. A difference-in-difference analysis that compares U.S. equity holdings in affected and unaffected countries finds a substantial portfolio reallocation toward the former. This effect cannot be explained by several potential alternative hypotheses, including differential changes to the preferences of American investors, Using U.S. Census trade data, we demonstrate that

ential time trends in investment, changed tax evasion behavior, or changes in stock prices associated (or contemporaneous) with JGTRRA. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Is Labor Mobility a Channel for Spillovers from **Multinationals? Evidence from Norwegian** Manufacturing

• The Review of Economics and Statistics---2011---Ragnhild Balsvik

Does hiring workers with experience from multinationals (MNEs) increase productivity in non-MNEs? Tracing worker flows between plants in Norwegian manufacturing during the 1990s, I find a positive correlation between the share of workers with MNE experience in non-MNEs and the productivity of these plants. Workers with MNE experience contribute 20%% more to the productivity of their plant than workers without such experience, even after controlling for differences in unobservable worker characteristics. The private return to mobility is smaller than the productivity effect at the plant level, which suggests that labor mobility from MNEs to non-MNEs represents a true knowledge externality. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Adaptation and the Boundary of Multinational **Firms**

 The Review of Economics and Statistics---2011---Arnaud Costinot, Lindsay Oldenski, James Rauch

This paper offers the first empirical analysis of the impact of adaptation on the boundary of multinational firms. To do so, we develop a ranking of sectors in terms of " "routineness"" by merging two sets of data: ratings of occupations by their intensities in solving problems from the U.S. Department of Labor's Occupational Information Network and U.S. employment shares of occupations by sectors from the Bureau of Labor Statistics Occupational Employment Statistics. the share of intrafirm trade tends to be higher in less routine sectors. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Business Environment, Exports, Ownership, and Firm Performance

The Review of Economics and Statistics---2011--- Simon Commander, Jan Svejnar

We use two large samples of firms to assess the effects of business environment constraints, competition, export orientation, and ownership on firm performance. We deal with omitted variables, errors in variables, and endogeneity, and find that few business constraints affect performance. Replicating the analysis with Doing Business and Heritage Foundation indicators of the business environment yields similar results. In fact, country fixed effects, reflecting time-invariant differences in the business environment as well as other factors such as health care and education, matter more for firm performance than differences in the business environment across firms within countries. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Venture Capital, Entrepreneurship, and Economic Growth

 The Review of Economics and Statistics---2011----Sampsa Samila, Olav Sorenson

Using a panel of U.S. metropolitan areas, we find that increases in the supply of venture capital positively affect firm starts, employment, and aggregate income. Our results remain robust to a variety of specifications, including ones that address endogeneity. The estimated magnitudes imply that venture capital stimulates the creation of more firms than it funds, which appears consistent with two mechanisms: First, would-be entrepreneurs anticipating financing needs more likely start firms when the supply of capital expands. Second, funded companies may transfer know-how to their employees, thereby enabling spin-offs, and may encourage others to become entrepreneurs through demonstration

effects. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Convergence and Anchoring of Yield Curves in the Euro Area

The Review of Economics and Statistics---2011---Michael Ehrmann, Marcel Fratzscher, Refet S
 Güürkaynak, Eric Swanson

We study the convergence of European bond markets and the anchoring of inflation expectations in the euro area from 1993 to 2008, using high-frequency bond yield data for France, Germany, Italy, and Spain; some smaller euro-area countries; and a control group comprising the United Kingdom, Denmark, and Sweden. We find that Economic and Monetary Union (EMU) led to substantial convergence in euro-area sovereign bond markets in terms of interest rate levels, unconditional daily fluctuations, and conditional responses to major macroeconomic announcements. Our findings also suggest a substantial increase in the anchoring of long-term inflation expectations since EMU, particularly for Italy and Spain. Finally, we present evidence that the elimination of exchange rate risk and the adoption of a common monetary policy were the primary drivers of bond market convergence in the euro area, as opposed to fiscal policy and the loose exchange rate peg of the 1990s. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Democracy, Market Liberalization, and Political Preferences

 The Review of Economics and Statistics---2011----Pauline Grosjean, Claudia Senik

We estimate the impact of market development and democratization on subjective political preferences. We rely on the specific situation of frontier zones and the considerable regional variations in culture and economic development in the countries of the former socialist bloc for identification. Using a survey conducted in 2006, we find a positive and significant effect of democracy on support for a market economy, but no

effect of market liberalization on support for democracy. Hence, in contrast with the conventional wisdom concerning the sequencing of political and economic reforms, democratization may become a necessary condition to obtain public support for further economic liberalization. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

License to Sell: The Effect of Business Registration Reform on Entrepreneurial Activity in Mexico

The Review of Economics and Statistics---2011-- Miriam Bruhn

This paper estimates the economic effects of a recent reform that simplified business entry regulation in Mexico. The reform was introduced in different municipalities at different points in time. Using microlevel data, I find that the reform increased the number of registered businesses by 5%%. This increase was due to former wage earners' opening businesses. Former unregistered business owners were not more likely to register their business after the reform. The reform also increased wage employment by 2.2%%. Finally, the results imply that the competition from new entrants decreased the income of incumbent businesses by 3%%. © 2011 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Direct versus Indirect Colonial Rule in India: Long-Term Consequences

 The Review of Economics and Statistics---2010----Lakshmi Iyer

This paper compares economic outcomes across areas in India that were under direct British colonial rule with areas that were under indirect colonial rule. Controlling for selective annexation using a specific policy rule, I find that areas that experienced direct rule have significantly lower levels of access to schools, health centers, and roads in the postcolonial period. I find evidence that the quality of governance in the colonial

effect of market liberalization on support for democracy. Hence, in contrast with the conventional wisdom concerning the sequencing of political and economic of Harvard College and the Massachusetts Institute of Technology.

Long-Run Health Impacts of Income Shocks: Wine and Phylloxera in Nineteenth-Century France

The Review of Economics and Statistics---2010---Abhijit Banerjee, Esther Duflo, Gilles Postel-Vinay, Tim Watts

Between 1863 and 1890, phylloxera destroyed 40% of French vineyards. Using the regional variation in the timing of this shock, we identify and examine the effects on adult height, health, and life expectancy of children born in the years and regions affected by the phylloxera. The shock decreased long-run height, but it did not affect other dimensions of health, including life expectancy. We find that those born in affected regions were about 1.8 millimeters shorter than others at age 20, a significant effect since average heights grew by only 2 centimeters in the entire nineteenth century. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Inequality and Redistribution: Evidence from U.S. Counties and States, 1890-1930

 The Review of Economics and Statistics---2010----Rodney Ramcharan

Does economic inequality affect redistributive policy? This paper turns to U.S. county data on land inequality over the period 1890 to 1930 to help address this fundamental question in political economy. Redistributive policy was primarily decided at the local level during this period, making county-level data particularly informative. Examining within-state variation also reduces the potential impact of latent institutional and political variables. The paper also uses a variety of identification strategies, including historic variables as well as county weather and crop characteristics, as instruments for land inequality. The evidence consistently suggests that greater inequality is significantly

associated with less redistribution. This negative re- the historical period, but it no longer does so today. lationship is especially large in heavily rural counties, where concentrated landownership implied that landed elites also controlled the majority of economic production. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Global Trade and the Maritime Transport Revolution

• The Review of Economics and Statistics---2010---David Jacks, Krishna Pendakur

What is the role of transport improvements in globalization? We argue that the nineteenth century is the ideal testing ground: maritime freight rates fell on average by 50% while global trade increased 400% from 1870 to 1913. We estimate the first indices of bilateral freight rates and directly incorporate these into a standard gravity model. We also take the endogeneity of bilateral trade and freight rates seriously and propose an instrumental variables approach. The results are striking: we find no evidence that the maritime transport revolution was the primary driver of the late-nineteenth-century global trade boom. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Financial Integration, Investment, and Economic **Growth: Evidence from Two Eras of Financial** Globalization

• The Review of Economics and Statistics---2010---Moritz Schularick, Thomas Steger

Does international financial integration boost economic growth? The empirical literature has not yet established a robust link between openness to the international capital market and economic growth. In this paper, we turn to the economic history of the first era of financial globalization (1880-1914) for new insights. Using identical empirical models and techniques as contemporary studies, we find a significant growth effect in the historical period. A key difference between now and then is that opening up to the international market led to net capital movements and higher investment in

(c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Why Does Capital Flow to Rich States?

 The Review of Economics and Statistics---2010---Sebnem Kalemli-Ozcan, Ariell Reshef, Bent Sorensen, Oved Yosha

The magnitude and the direction of net international capital flows do not fit neoclassical models. The fifty U.S. states comprise an integrated capital market with very low barriers to capital flows, which makes them an ideal testing ground for neoclassical models. We develop a simple frictionless open economy model with perfectly diversified ownership of capital and find that capital flows among the states are consistent with the model. Therefore, the small size and "wrong" direction of net international capital flows are likely due to frictions associated with national borders, not to inherent flaws in the neoclassical model. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Stock Market Development and Cross-Country Differences in Relative Prices

• The Review of Economics and Statistics---2010---Borja Larrain

We document a positive correlation between stock market capitalization and price levels (wages) within the group of countries with poorly developed stock markets and a negative correlation between these two variables within the group of countries with more developed stock markets. This paper argues that there is a causal relationship behind these correlations. Stock markets initially stimulate growth, pushing the demand for nontradables and increasing prices and wages. Stock markets also promote a shift toward more capital-intensive technologies in the tradable sector, increasing the migration of workers to services and eventually putting downward pressure on wages and prices. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Great Mexican Emigration

 The Review of Economics and Statistics---2010----Gordon Hanson, Craig McIntosh

In this paper, we examine net emigration from Mexico over the period 1960 to 2000. The data are consistent with labor supply shocks having made a substantial contribution to Mexican emigration, accounting for two-fifths of Mexican labor flows to the United States over the last two decades of the twentieth century. Net emigration rates by Mexican state birth year cohort display a strong positive correlation with the initial size of the Mexican cohort relative to the corresponding U.S. cohort. In states with long histories of emigration, the effects of cohort size on emigration are relatively strong, consistent with the existence of preexisting networks. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Self-Selection Patterns in Mexico-U.S. Migration: The Role of Migration Networks

The Review of Economics and Statistics---2010--- or Evasion?
 David McKenzie, Hillel Rapoport

This paper examines the role of migration networks in determining self-selection patterns of Mexico-U.S. migration. A simple theoretical framework shows the impact of networks on migration incentives at different education levels and how this affects the composition of migrant skills. Empirically, we find positive or education-neutral selection in communities with weak migrant networks but negative self-selection in communities with stronger networks. This is consistent with high migration costs driving positive or intermediate self-selection, as advocated by Chiquiar and Hanson (2005), and with negative self-selection being driven by lower returns to education in the United States than in Mexico, as advocated by Borjas (1987). (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Exporting and Firm Performance: Chinese Exporters and the Asian Financial Crisis

The Review of Economics and Statistics---2010--- Albert Park, Dean Yang, Xinzheng Shi, Yuan Jiang

We ask how export demand shocks associated with the Asian financial crisis affected Chinese exporters. We construct firm-specific exchange rate shocks based on the precrisis destinations of firms' exports. Because the shocks were unanticipated and large, they are a plausible instrument for identifying the impact of exporting on firm productivity and other outcomes. We find that firms whose export destinations experience greater currency depreciation have slower export growth and that export growth leads to increases in firm productivity and other firm performance measures. Consistent with "learning-by-exporting," the productivity impact of export growth is greater when firms export to more developed countries. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Corruption and Bilateral Trade Flows: Extortion or Evasion?

The Review of Economics and Statistics---2010--- Pushan Dutt, Daniel Traca

We analyze the impact of corruption on bilateral trade, highlighting its dual role in terms of extortion and evasion. Corruption taxes trade, when corrupt customs officials in the importing country extort bribes from exporters (extortion effect); however, with high tariffs, corruption may be trade enhancing when corrupt officials allow exporters to evade tariff barriers (evasion effect). We derive and estimate a corruption-augmented gravity model, where the effect of corruption on trade flows is ambiguous and contingent on tariffs. Empirically, corruption taxes trade in the majority of cases, but in high-tariff environments (covering 5% to 14% of the observations) their marginal effect is trade enhancing. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Do Foreign Firms Crowd Out Domestic Firms? Evidence from the Czech Republic

 The Review of Economics and Statistics---2010----Renáta Kosová

I examine how foreign presence affects the growth and survival of domestic firms. Separating a negative crowding out and positive technology spillovers, I analyze whether the crowding out effect is dynamic, that is, domestic firms cut production over time as foreign firms grow, or a static effect realized on foreign entry into the industry. Using 1994-2001 firm-level Czech data, I find evidence of both technology spillovers and crowding out. However, crowding out is only short term; after initial entry shakeout, growing foreign sales increase domestic firm growth and survival, indicating domestic demand creation effect. However, I find no such benefits from domestic competition. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Consequences of Child Soldiering

• The Review of Economics and Statistics---2010---Christopher Blattman, Jeannie Annan

Little is known about the impacts of military service on human capital and labor market outcomes due to an absence of data as well as sample selection: recruits are self-selected, screened, and selectively survive. We examine the case of Uganda, where rebel recruitment methods provide exogenous variation in conscription. Economic and educational impacts are widespread and persistent: schooling falls by nearly a year, skilled employment halves, and earnings drop by a third. Military service seems to be a poor substitute for schooling. Psychological distress is evident among those exposed to severe war violence and is not limited to ex-combatants. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Asymmetric Crime Cycles

• The Review of Economics and Statistics---2010---Naci Mocan, Turan G. Bali

Recent theoretical models underscore the potential asymmetric response of various behaviors, ranging from criminal activity to smoking. In this paper, we use state-level panel and individual-level panel data to document the previously unnoticed asymmetric response of crime to changes in the unemployment rate. The results have policy implications, and they have potentially widespread ramifications because similar asymmetries may also be prevalent in other domains, ranging from the relationship between income and health to peer quality and student outcomes. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Universal Vouchers and Racial and Ethnic Segregation

The Review of Economics and Statistics---2010--- Eric Brunner, Jennifer Imazeki, Stephen Ross

We use data on vote outcomes from a universal voucher initiative to examine whether white households with children in public schools will use vouchers to leave predominantly nonwhite schools, thereby contributing to more racially and ethnically segregated schools. We find that white households are more likely to support vouchers when their children attend schools with larger concentrations of nonwhite schoolchildren, an effect that is absent for nonwhite households and households without children. This result may be driven less by race or ethnicity and more by other characteristics, such as student performance, that are correlated with race or ethnicity. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

School Quality and Residential Property Values: Evidence from Vancouver Rezoning

 The Review of Economics and Statistics---2010----John Ries, Craig Somerville

This study utilizes changes in the catchment areas of public schools in Vancouver, British Columbia, to measure the residential price capitalization of school quality. Specifications that employ repeat sales methods to control for time-invariant neighborhood effects and disaggregated price indexes to capture time-varying neighborhood price appreciation reveal significant effects of secondary school performance on residential prices. However, when we add controls for long-run price trends in rezoned areas, only prices of residences likely to be purchased by high-income families appear to have been affected by changes in school quality induced by rezoning. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Minimum Wage Effects Across State Borders: Estimates Using Contiguous Counties

The Review of Economics and Statistics---2010--- Arindrajit Dube, T. William Lester, Michael Reich

We use policy discontinuities at state borders to identify the effects of minimum wages on earnings and employment in restaurants and other low-wage sectors. Our approach generalizes the case study method by considering all local differences in minimum wage policies between 1990 and 2006. We compare all contiguous county pairs in the United States that straddle a state border and find no adverse employment effects. We show that traditional approaches that do not account for local economic conditions tend to produce spurious negative effects due to spatial heterogeneities in employment trends that are unrelated to minimum wage policies. Our findings are robust to allowing for long-term effects of minimum wage changes. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Evidence on the Insurance Effect of Redistributive Taxation

 The Review of Economics and Statistics---2010----Charles Grant, Christos Koulovatianos, Alexander Michaelides, Mario Padula

If households face uninsurable idiosyncratic earnings risk, theory predicts that redistributive tax and transfer systems have both an insurance and a distortionary effect. Exploiting the substantial variation of tax and

transfer systems across U.S. states and over time, we investigate the necessary traces of these two effects in the data: that state-level measures of redistributive taxation should correlate negatively with the standard deviation and the mean of the within-state consumption distribution. We find that the first correlation is robust, supporting strongly the presence of an insurance effect. The distortionary effect can also be detected in the data, but it is less precisely estimated. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Investment Under Uncertainty: Testing the Options Model with Professional Traders

The Review of Economics and Statistics---2010--- John List, Michael S. Haigh

An important class of investment decisions is characterized by unrecoverable sunk costs, resolution of uncertainty through time, and the ability to invest in the future as an alternative to investing today. The options model provides guidance in such settings, including an investment decision rule called the bad news principle: the downside investment state influences the investment decision, whereas the upside investment state is ignored. This study takes a new approach to examining predictions of the options model by using the tools of experimental economics. Our evidence, drawn from student and professional trader subject pools, is broadly consonant with the options model. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Credit Chains and Sectoral Comovement: Does the Use of Trade Credit Amplify Sectoral Shocks?

 The Review of Economics and Statistics---2010----Claudio Raddatz

This paper provides evidence of the presence and relevance of the credit chain propagation and amplification mechanism described by Kiyotaki and Moore (1997) by looking at its implications for the correlation of industries. In particular, it tests the hypothesis that an increase in the use of trade credit, along the input-output chain linking two industries, results in an increase in their output correlation using detailed data on the correlations and input-output relations of 378 manufacturing industry pairs across 43 countries with different degrees of use of trade credit. The results provide strong support for this hypothesis and indicate that the mechanism is quantitatively relevant. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Determining the Number of Factors from Empirical Distribution of Eigenvalues

The Review of Economics and Statistics---2010--- Alexei Onatski

We develop a new estimator of the number of factors in the approximate factor models. The estimator works well even when the idiosyncratic terms are substantially correlated. It is based on the fact, established in the paper, that any finite number of the largest "idiosyncratic" eigenvalues of the sample covariance matrix cluster around a single point. In contrast, all the "systematic" eigenvalues, the number of which equals the number of factors, diverge to infinity. The estimator consistently separates the diverging eigenvalues from the cluster and counts the number of the separated eigenvalues. We consider a macroeconomic and a financial application. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Regression Coefficient Identification Decay in The Presence of Infrequent Classification Errors

• The Review of Economics and Statistics---2010---Brent Kreider

Recent evidence from Bound, Brown, and Mathiowetz (2001) and Black, Sanders, and Taylor (2003) suggests that reporting errors in survey data routinely violate all of the classical measurement error assumptions. The econometrics literature has not considered the consequences of fully arbitrary measurement error for identification of regression coefficients. This paper highlights the severity of the identification problem

given the presence of even infrequent arbitrary errors in a binary regressor. In the empirical component, health insurance misclassification rates of less than 1.3% generate double-digit percentage point ranges of uncertainty about the variable's true marginal effect on the use of health services. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

New Eurocoin: Tracking Economic Growth in Real Time

The Review of Economics and Statistics---2010---Filippo Altissimo, Riccardo Cristadoro, Mario Forni, Marco Lippi, Giovanni Veronese

Removal of short-run dynamics from a stationary time series to isolate the medium- to long-run component can be obtained by a bandpass filter. However, bandpass filters are infinite moving averages and can therefore deteriorate at the end of the sample. This is a well-known result in the literature isolating the business cycle in integrated series. We show that the same problem arises with our application to stationary time series. In this paper, we develop a method to obtain smoothing of a stationary time series by using only contemporaneous values of a large data set, so that no end-of-sample deterioration occurs. Our method is applied to the construction of New Eurocoin, an indicator of economic activity for the euro area, which is an estimate, in real time, of the medium- to long-run component of GDP growth. As our data set is monthly and most of the series are updated with a short delay, we are able to produce a monthly real-time indicator. As an estimate of the medium- to long-run GDP growth, Eurocoin performs better than the bandpass filter at the end of the sample in terms of both fitting and turning-point signaling. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Poverty and Civil War: Revisiting the Evidence

 The Review of Economics and Statistics---2010----Simeon Djankov, Marta Reynal-Querol Previous research has interpreted the correlation between per capita income and civil war as evidence that poverty is a main determinant of conflict. In this paper, we find that the relationship between poverty and civil war is spurious and is accounted for by historical phenomena that jointly determine income evolution and conflict. In particular, the statistical association between poverty and civil wars disappears once we include country fixed effects. Also, using cross-section data for 1960 to 2000, we find that once historical variables like European settler mortality rates and the population density in 1500 are included in civil war regressions, poverty does not have an effect on civil wars. These results are confirmed using longer time series from 1825 to 2000. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Multiproduct Firms and Product Turnover in the Developing World: Evidence from India

 The Review of Economics and Statistics---2010----Pinelopi Goldberg, Amit Khandelwal, Nina Pavc-nik, Petia Topalova

This paper provides evidence on the patterns of multiproduct firm production in a large developing country, India, during a period that spans market reforms. In the cross-section, multiproduct firms in India look remarkably similar to their U.S. counterparts. The time-series patterns, however, exhibit important differences. In contrast to evidence from the United States, product churning, particularly product rationalization, is far less common in India. We find no link between product rationalization and output tariff declines following India's 1991 trade liberalization. The lack of "creative destruction" is consistent with the role of industrial regulation in preventing an efficient allocation of resources. (c) 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

A Product-Quality View of the Linder Hypothesis

• The Review of Economics and Statistics---2010---Juan Hallak

The Linder hypothesis has attracted substantial empirical research over decades. However, the evidence has failed to provide consistent support for it. This paper explains the failure. Building a theoretical framework in which, as in Linder's theory, product quality plays the central role, I show that the Linder hypothesis is formally derived but holds only when formulated as a sector-level prediction. This prediction is then estimated using a sample of 64 countries in 1995. The results support the sectoral Linder hypothesis: controlling for the effect of intersectoral determinants of trade, countries of similar income per capita trade more intensely with one another. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Trade Policy, Income Risk, and Welfare

The Review of Economics and Statistics---2010-- Tom Krebs, Pravin Krishna, William Maloney

This paper develops a framework to study empirically the relationship between trade policy and individual income risk and to evaluate the associated welfare consequences. The analysis proceeds in three steps. First, longitudinal data on workers are used to estimate time-varying individual income risk parameters in various manufacturing sectors. Second, the estimated income risk parameters and data on trade barriers are used to analyze the relationship between trade policy and income risk. Finally, a simple dynamic incomplete-market model is used to assess the corresponding welfare costs. In the implementation of this methodology using Mexican data, we find that trade policy changes have a significant short-run effect on income risk. Further, while the tariff level has an insignificant mean effect, it nevertheless changes the degree to which macroeconomic shocks affect income risk. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Trends in Tariff Reforms and in the Structure of Wages

 The Review of Economics and Statistics---2010----Sebastian Galiani, Guido Porto

trade reforms on wages. We first introduce a model of trade that combines a noncompetitive wage-setting mechanism due to unions with a factor abundance hypothesis. The predictions of the model are then econometrically investigated using Argentine data. Instead of achieving identification by comparing industrial wages before and after one episode of trade liberalization, our strategy exploits the recent historical record of policy changes adopted by Argentina: from significant protection in the early 1970s, to the first episode of liberalization during the late 1970s, then back to a slowdown of reforms during the 1980s, and finally to the second episode of liberalization in the 1990s. These swings in trade policy represent broken trends in trade reforms that we can compare with observed trends in wages and wage inequality. We use unusual historical data sets of trends in tariffs, wages, and wage inequality to examine the structure of wages in Argentina and explore how it is affected by tariff reforms. We find that trade liberalization, ceteris paribus, reduces wages; industry tariffs reduce the industry skill premium; and conditional on the structure of tariffs at the industry level, the average tariff in the economy is positively associated with the aggregate skill premium. These findings suggest that the observed trends in wage inequality in Latin America can be reconciled with the Stolper-Samuelson predictions in a model with unions. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Persistence of Innovation in Dutch Manufacturing: Is It Spurious?

 The Review of Economics and Statistics---2010---Wladimir Raymond, Pierre Mohnen, Franz Palm, Sybrand Schim van der Loeff

This paper studies the persistence of innovation in Dutch manufacturing using an unbalanced panel of firm data from four waves of the Community Innovation Survey between 1994 and 2002. We estimate by maximum likelihood a dynamic type 2 tobit model accounting for individual effects and handling the initial conditions problem. We find true persistence in the

This paper provides new evidence on the impacts of trade reforms on wages. We first introduce a model industries and spurious persistence in the low-tech category of industries and spurious persistence in the low-tech category. Furthermore, past innovation output intensity affects, albeit to a small extent, current innovation output intensity in the high-tech category. Furthermore, past innovation output intensity affects, albeit to a small extent, current innovation output intensity in the high-tech category of industries and spurious persistence in the low-tech category. Furthermore, past innovation output intensity affects, albeit to a small extent, current innovation output intensity in the high-tech category. Furthermore, past innovation output intensity affects, albeit to a small extent, current innovation output intensity in the high-tech category. Furthermore, past innovation output intensity affects, albeit to a small extent, current innovation output intensity in the high-tech category. Furthermore, past innovation output intensity affects, albeit to a small extent, current innovation output intensity in the high-tech category. Furthermore, past innovation output intensity affects, albeit to a small extent, current innovation output intensity in the high-tech category. Furthermore, past innovation output intensity affects, albeit to a small extent, current innovation output intensity in the high-tech category. Furthermore, past innovation output intensity affects, albeit to a small extent, current innovation output intensity in the high-tech category. Furthermore, past innovation output intensity affects, albeit to a small extent, current innovation output intensity affects, albeit to a small extent, current innovation output intensity affects, albeit to a small extent, current innovation output intensity affects, albeit to a small extent, current innovation output intensity affects, albeit to a small extent, current innovation output intensity affects, albeit to a small extent, current innovation out

Economic Determinants of Land Invasions

 The Review of Economics and Statistics---2010---F. Daniel Hidalgo, Suresh Naidu, Simeon Nichter, Neal Richardson

This study estimates the effect of economic conditions on redistributive conflict. We examine land invasions in Brazil using a panel data set with over 50,000 municipality-year observations. Adverse economic shocks, instrumented by rainfall, cause the rural poor to invade and occupy large landholdings. This effect exhibits substantial heterogeneity by land inequality and land tenure systems, but not by other observable variables. In highly unequal municipalities, negative income shocks cause twice as many land invasions as in municipalities with average land inequality. Cross-sectional estimates using fine within-region variation also suggest the importance of land inequality in explaining redistributive conflict. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Global Inflation

 The Review of Economics and Statistics---2010----Matteo Ciccarelli, Benoit Mojon

This paper shows that inflation in industrialized countries is largely a global phenomenon. First, inflations of 22 OECD countries have a common factor that accounts for nearly 70% of their variance. This comovement is due not only to the trend components of inflation (up from 1960 to 1980 and down thereafter) but also to fluctuations at business cycle frequencies. Second, there is a robust error correction mechanism

that brings national inflation rates back to global in- that there exist exceptional shape-invariant demands flation. A simple model that accounts for this feature consistently beats standard benchmarks in forecasting inflation four to eight quarters ahead across samples and countries. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

For Better, For Worse: Intrahousehold Risk-Sharing over the Business Cycle

• The Review of Economics and Statistics---2010---Stephen H. Shore

Marriage allows couples to diversify labor income risks and dynamically coordinate labor supply decisions in response to shocks. This paper argues that these risksharing benefits of marriage are countercyclical; husbands' and wives' income changes are more positively correlated when the economy is growing rapidly. As a result, while individuals face more idiosyncratic income risk in bad times than in good, households do not. I exploit variation in the cross-sectional covariance of husbands' and wives' incomes to infer the covariance of past income changes. Couples with marriages spanning periods of greater economic expansion have more positively correlated incomes in the cross-section. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Shape-Invariant Demand Functions

• The Review of Economics and Statistics---2010---Arthur Lewbel

Shape invariance is a property of demand functions that is widely used for parametric and semiparametric modeling and is associated with a commonly employed class of equivalence scale models used for welfare calculations. This paper derives the set of all shape-invariant demand functions and associated preferences. All previously known shape-invariant demands were derived from utility functions that, up to monotonic transformation, are called IB/ESE (independent of baseequivalence scale exact) utility functions, because they yield IB/ESE equivalence scales. This paper shows that are not derived from a transform of IB/ESE utility and provides some simple tests for these exceptions. In particular, all the exceptions have rank 2, so any rank 3 or higher demand system is shape invariant if and only if it is derived from a transform of IB/ESE utility. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Two-Sample Instrumental Variables Estimators

• The Review of Economics and Statistics---2010---Atsushi Inoue, Gary Solon

Following an influential article by Angrist and Krueger (1992) on two-sample instrumental variables (TSIV) estimation, numerous empirical researchers have applied a computationally convenient two-sample twostage least squares (TS2SLS) variant of Angrist and Krueger's estimator. In the two-sample context, unlike the single-sample situation, the IV and 2SLS estimators are numerically distinct. We derive and compare the asymptotic distributions of the two estimators and find that the commonly used TS2SLS estimator is more asymptotically efficient than the TSIV estimator. We also resolve some confusion in the literature about how to estimate standard errors for the TS2SLS estimator. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Cognitive and Noncognitive Peer Effects in Early Education

• The Review of Economics and Statistics---2010---Matthew Neidell, Jane Waldfogel

We examine peer effects in early education by estimating value-added models with school fixed effects that control extensively for individual, family, peer, and teacher characteristics to account for the endogeneity of peer group formation. We find statistically significant and robust spillover effects from preschool on math and reading outcomes, but statistically insignificant effects on various behavioral and social outcomes. We also find that peer externalizing problems, which

most likely capture classroom disturbance, hinder cog- © 2010 The President and Fellows of Harvard College nitive outcomes. Our estimates imply that ignoring spillover effects significantly understates the social returns to preschool. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Must Try Harder: Evaluating the Role of Effort in **Educational Attainment**

• The Review of Economics and Statistics---2010---Gianni De Fraja, Tania Oliveira, Luisa Zanchi

The efforts exerted by children, parents, and schools affect the outcome of the education process. We build this idea into a theoretical model where the effort exerted by the three groups of agents is simultaneously determined as a Nash equilibrium. The empirical analysis tests the model using the British National Child Development Study and finds support for this idea. We identify which factors affect educational attainment directly and which indirectly through effort. From a policy perspective, the paper indicates that affecting effort directly would have a positive impact on attainment. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Does Cheaper Mean Better? The Impact of Using **Adjunct Instructors on Student Outcomes**

• The Review of Economics and Statistics---2010---Eric Bettinger, Bridget Long

Higher education has increasingly relied on part-time, adjunct instructors. Critics argue that adjuncts reduce educational quality because they often have less education than full-time professors. On the other hand, by specializing in teaching or being concurrently employed, adjuncts could enhance learning experiences. This paper quantifies how adjuncts affect subsequent student interest and course performance relative to full-time faculty using an instrumental variable strategy that exploits variation in the composition of a department's faculty over time. The results suggest that adjuncts often have a small, positive effect on enrollment patterns, especially in fields related to particular occupations.

and the Massachusetts Institute of Technology.

Male Incarceration, the Marriage Market, and **Female Outcomes**

The Review of Economics and Statistics---2010---Kerwin Kofi Charles, Ming-Ching Luoh

This paper studies how rising male incarceration has affected women through its effect on the marriage market. Variation in marriage-market shocks arising from incarceration is isolated using two facts: the tendency of people to marry within marriage markets defined by the interaction of race, location, and age and the fact that increases in incarceration have been very different across these three characteristics. Using a variety of estimation strategies, including difference and fixed effects models and TSLS models in which we use policy parameters to instrument for within-marriage market changes in incarceration, we find evidence that is, on the whole, consistent with the implications of the standard marriage-market model. In particular, higher male imprisonment appears to have lowered the likelihood that women marry, modestly reduced the quality of their spouses when they do marry, and shifted the gains from marriage away from women and toward men. The evidence suggests that women in affected markets have increased their schooling and labor supply in response to these changes. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Rents Have Been Rising, Not Falling, in the **Postwar Period**

• The Review of Economics and Statistics---2010---Theodore M. Crone, Leonard Nakamura, Richard Voith

Until the end of 1977, the U.S. consumer price index (CPI) for rents tended to omit rent increases when units had a change of tenants or were vacant, biasing inflation estimates downward. Beginning in 1978, the Bureau of Labor Statistics (BLS) implemented a series

sponse bias, but substantial bias remained until 1985. We set up a model of nonresponse bias, parameterize it, and test it using BLS microdata. From 1940 to 1985, the official BLS CPI for urban wage earners and clerical workers (CPI-W) price index for tenant rents rose 3.6% annually; we argue that it should have risen 5.0% annually. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Is Firm Pricing State or Time Dependent? **Evidence from U.S. Manufacturing**

• The Review of Economics and Statistics---2010---Virgiliu Midrigan

If pricing is state dependent, firms are more likely to adjust whenever aggregate and idiosyncratic shocks reinforce each other and trigger desired price changes in the same direction. Using measures of technology shocks derived from production function estimates for four-digit U.S. manufacturing industries, I find that sectoral inflation rates are more sensitive to negative, as opposed to positive, technology disturbances in periods of higher economy-wide inflation, commodity price increases, and expansionary monetary policy shocks. I argue, using a state-dependent sticky price model that matches salient features of the U.S. microprice data, that these results suggest that pricing is statedependent in U.S. manufacturing. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Integrating Sticky Prices and Sticky Information

 The Review of Economics and Statistics---2010---Bill Dupor, Tomiyuki Kitamura, Takayuki Tsuruga

Understanding the relationship between nominal and real variables, most notably inflation and cyclical output, is one of the fundamental questions of economics. Toward this understanding, we develop a model that integrates sticky prices and sticky information-a dualstickiness model. We find that both rigidities are

of methodological changes that reduced this nonre- present in U.S. data. We also show that the dualstickiness model's closest competitor is the hybrid New Keynesian model. For both models, current inflation depends in part on last period's inflation. The former model achieves this dependence endogenously through the interaction of the two rigidities rather than through backward-looking behavior. U.S. data support the dualstickiness model over the hybrid model because lagged expectations terms appear in the former's inflation Euler equation. Finally, we show that it is quantitatively important to distinguish between the two by simulating a dynamic equilibrium model under each of the two inflation equations.

Customer Discrimination

• The Review of Economics and Statistics---2010---Jonathan Leonard, David Levine, Laura Giuliano

We test for customer discrimination with data from more than 800 retail stores employing over 70,000 individuals matched to census data on the demographics of each store's community. While our tests detect some increase in sales when the workforce more closely resembles potential customers, the effects we find are modest in magnitude. Customer discrimination is neither strong nor pervasive. We find little payoff to matching employee demographics to those of potential customers except when the customers do not speak English. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Habit Persistence, Nonseparability between Consumption and Leisure, or Rule-of-Thumb **Consumers: Which Accounts for the Predictability of Consumption Growth?**

The Review of Economics and Statistics---2010---Michael Kiley

Consumption growth is predictable, a basic violation of the permanent-income hypothesis. This paper examines three possible explanations: rule-of-thumb behavior, in which households allow consumption to track per period income flows rather than permanent income; habit persistence; and nonseparability in preferences

over consumption and leisure. The results illustrate that weak instruments make the results highly sensitive to some arbitrary choices common in the literature. Using a technique that is robust to instrument choice, the analysis shows support for habit persistence and rule-of-thumb behavior and little support for nonseparability between consumption and leisure.

Direct Evidence on Risk Attitudes and Migration

 The Review of Economics and Statistics---2010----David Jaeger, Thomas Dohmen, Armin Falk, David Huffman, Uwe Sunde, Holger Bonin

It has long been hypothesized that individuals' migration propensities depend on their risk attitudes, but the empirical evidence has been limited and indirect. We use newly available data from the German Socio-Economic Panel to measure directly the relationship between migration and risk attitudes. We find that individuals who are more willing to take risks are more likely to migrate. Our estimates are substantial compared to unconditional migration probabilities, as well the effects of conventional determinants of migration, and are robust to controlling for a variety of demographic characteristics. We find no evidence that our results are the result of reverse causality. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Testing Contest Theory: Evidence from Best-of-Three Tennis Matches

 The Review of Economics and Statistics---2010----David Malueg, Andrew Yates

We study strategic choice of effort in best-of-three contests between equally skilled players. Economic theory predicts such contests are more likely to end in two rounds than in three. If, however, a contest reaches a third round, each player is equally likely to win. We test these predictions with data from professional tennis matches, using betting odds to identify equally skilled opponents. The empirical results support the theoretical predictions, suggesting players strategically adjust efforts during a best-of-three contest. © 2010

The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Daughters and Left-Wing Voting

The Review of Economics and Statistics---2010--- Andrew Oswald, Nattavudh Powdthavee

What determines human beings' political preferences? Using nationally representative longitudinal data, we show that having daughters makes people more likely to vote for left-wing political parties. Having sons leads people to favor right-wing parties. The paper checks that our result is not an artifact of family stopping rules, discusses the predictions from a simple economic model, and tests for possible reverse causality. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Historical Origins of Schooling: The Role of Democracy and Political Decentralization

• The Review of Economics and Statistics---2010---Francisco Gallego

Why does schooling attainment vary widely across countries? Why are differences in schooling attainment highly persistent? I show that cross-country differences in schooling are related to political institutions, such as democracy and local democracy (political decentralization), which are affected by colonial factors. By using the number of native cultures before colonization as an instrument for political decentralization, I show that after controlling for the causal effect of income on schooling, the degree of democratization positively affects the development of primary education, whereas political decentralization has a positive and significant impact on more advanced levels of schooling. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The American High School Graduation Rate: Trends and Levels

• The Review of Economics and Statistics---2010---James Heckman, Paul LaFontaine This paper applies a unified methodology to multiple data sets to estimate both the levels and trends in U.S. high school graduation rates. We establish that (a) the true rate is substantially lower than widely used measures, (b) it peaked in the early 1970s, © majority-minority differentials are substantial and have not converged for 35 years, (d) lower post-1970 rates are not solely due to increasing immigrant and minority populations, (e) our findings explain part of the slowdown in college attendance and rising college wage premiums, and (f) widening graduation differentials by gender help explain increasing male-female college attendance gaps. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Left Behind by Design: Proficiency Counts and Test-Based Accountability

The Review of Economics and Statistics---2010-- Derek Neal, Diane Whitmore Schanzenbach

We show that within the Chicago Public Schools, both the introduction of NCLB in 2002 and the introduction of similar district-level reforms in 1996 generated noteworthy increases in reading and math scores among students in the middle of the achievement distribution but not among the least academically advantaged students. The stringency of proficiency requirements varied among the programs implemented for different grades in different years, and our results suggest that changes in proficiency requirements induce teachers to shift more attention to students who are near the current proficiency standard. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Beyond the Classroom: Using Title IX to Measure the Return to High School Sports

• The Review of Economics and Statistics---2010---Betsey Stevenson

Between 1972 and 1978 U.S. high schools rapidly increased their female athletic participation rates in order to comply with Title IX. This paper examines the

causal implications of this expansion by using variation in the level of boys' athletic participation across states before Title IX to instrument for change in girls' athletic participation. Analysis of differences in outcomes across states in changes between pre- and postcohorts reveals that a 10 percentage point rise in state-level female sports participation generates a 1 percentage point increase in female college attendance and a 1 to 2 percentage point rise in female labor force participation. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Are Earnings Inequality and Mobility Overstated? The Impact of Nonclassical Measurement Error

The Review of Economics and Statistics---2010--- Peter Gottschalk, Minh Huynh

Measures of inequality and mobility based on selfreported earnings reflect attributes of both the joint distribution of earnings across time and the joint distribution of measurement error and earnings. While classical measurement error would increase measures of inequality and mobility, there is substantial evidence that measurement error in earnings is not classical. In this paper, we present the analytical links between nonclassical measurement error and some summary measures of inequality and mobility. The empirical importance of nonclassical measurement error is explored using the Survey of Income and Program Participation (SIPP) matched to tax records. We find that the effects of nonclassical measurement error are large. However, these nonclassical effects are largely offsetting when estimating mobility, as measured by the intertemporal correlation in earnings. As a result, SIPP estimates of the correlation are similar to estimates based on tax records, though SIPP estimates of inequality are smaller than estimates based on tax records. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Taxation with Representation: Intergovernmental Grants in a Plebiscite Democracy

• The Review of Economics and Statistics---2010---Byron Lutz Economic theory suggests that intergovernmental grants are equivalent to private income. A large empirical literature, however, contradicts this prediction. A school finance reform in New Hampshire, where local public goods decisions are made by a form of direct democracy, provides an unusually compelling test of the theory. The results, which suggest that approximately ninety cents per grant dollar are spent on tax reduction, provide support for equivalence. The paper's findings have important policy implications for the financing of local public goods in general and for school finance reform in particular.

Using Hedonic Models of Solar Radiation and Weather to Assess the Economic Effect of Climate Change: The Case of Mosel Valley Vineyards

The Review of Economics and Statistics---2010-- Orley Ashenfelter, Karl Storchmann

In this paper we use two alternative methods to assess the effects of climate change on the quality of wines from the vineyards of the Mosel Valley in Germany. In the first, structural approach we use a physical model of solar radiation to measure the amount of energy collected by a vineyard and then to establish the econometric relation between energy and vineyard quality. Coupling this hedonic function with the physics of heat and energy permits a calculation of the impact of any temperature change on vineyard quality (and prices). In a second approach, we measure the effect of year-toyear changes in the weather on land or crop values in the same region and use the estimated hedonic equation to measure the effect of temperature change on prices. The empirical results of both analyses indicate that the vineyards of the Mosel Valley will increase in value under a scenario of global warming, and perhaps by a considerable amount. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Trends in Rainfall and Economic Growth in Africa: A Neglected Cause of the African Growth Tragedy

The Review of Economics and Statistics---2010--- Salvador Barrios, Luisito Bertinelli, Eric Strobl

We examine the role of rainfall trends in poor growth performance of sub-Saharan African nations relative to other developing countries, using a new cross-country panel climatic data set in an empirical economic growth framework. Our results show that rainfall has been a significant determinant of poor economic growth for African nations but not for other countries. Depending on the benchmark measure of potential rainfall, we estimate that the direct impact under the scenario of no decline in rainfall would have resulted in a reduction of between around 15% and 40% of today's gap in African GDP per capita relative to the rest of the developing world. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Prebisch-Singer Hypothesis: Four Centuries of Evidence

 The Review of Economics and Statistics---2010---David I. Harvey, Neil Kellard, Jakob Madsen, Mark Wohar

We employ a unique data set and new time-series techniques to reexamine the existence of trends in relative primary commodity prices. The data set comprises 25 commodities and provides a new historical perspective, spanning the seventeenth to the twenty-first centuries. New tests for the trend function, robust to the order of integration of the series, are applied to the data. Results show that eleven price series present a significant and downward trend over all or some fraction of the sample period. In the very long run, a secular, deteriorating trend is a relevant phenomenon for a significant proportion of primary commodities. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Factor Adjustments after Deregulation: Panel Evidence from Colombian Plants

The Review of Economics and Statistics---2010---Marcela Eslava, John Haltiwanger, Adriana Kugler, Maurice Kugler

We analyze nonlinear adjustments of capital and labor using plant data from the Colombian Annual Manufacturing Survey, allowing for interdependence in adjustments of the two factors. We find nonlinear employment and capital adjustments. We also find that capital shortages reduce hiring, and labor surpluses reduce capital shedding. Moreover, we find that job destruction and capital formation increased after factor market deregulation in Colombia. Finally, we find that completely eliminating frictions in factor adjustment would yield a substantial increase in aggregate productivity through improved allocative efficiency, but that the actual impact of the Colombian deregulation on productivity was modest. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Sensitivity of the CPI to Exchange Rates: Distribution Margins, Imported Inputs, and Trade Exposure

The Review of Economics and Statistics---2010--- Linda Goldberg, José Manuel Campa

This paper quantifies the relative importance of the different channels of CPI responsiveness to exchange rates and import prices across 21 industrialized economies. The paper provides new and rich cross-country and cross-industry details on the sensitivity to exchange rates of distribution margins; the extent of imported inputs use in different categories of consumption goods; and on their role in consumption of nontradables, home-produced tradables, and imported goods. The dominant channel for CPI sensitivity is through the costs arising from imported input use in goods production. This channel is more important than changes in prices of imported goods directly consumed. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Commitment, Risk, and Consumption: Do Birds of a Feather Have Bigger Nests?

 The Review of Economics and Statistics---2010----Stephen H. Shore, Todd Sinai

Consumption commitments-goods like housing for which adjustment is costly-change the relationship between risk and consumption. Commitment provides a motive to reduce consumption when possible future losses are too small to warrant adjustment but not when losses are large enough that adjustment would be worthwhile. This implies conditions under which mean-preserving increases in risk can increase housing consumption. Our empirical evidence exploits the interaction of these conditions with a novel proxy for unemployment risk: couples sharing an occupation. Consistent with our model, same-occupation couples consume more housing only when adjustment costs are high and potential losses are sufficiently large. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Effect of Inheritance Receipt on Retirement

• The Review of Economics and Statistics---2010---Jeffrey Brown, Courtney Coile, Scott J. Weisbenner

This paper provides new evidence on how wealth shocks influence retirement behavior. Economic theory generally posits that leisure is a normal good, yet it is difficult to obtain reliable empirical estimates of the wealth effect because wealth is correlated with numerous unobservable characteristics that affect labor supply. We use inheritance receipt as a wealth shock and find that it is associated with a significant increase in the probability of retirement, especially when the inheritance is unexpected. This evidence has important implications for how public policies, such as pension or tax reform, may influence retirement behavior through the wealth effect. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Crashes, Volatility, and the Equity Premium: Lessons from S&P 500 Options

• The Review of Economics and Statistics---2010---Pedro Santa-Clara, Shu Yan

We use a novel pricing model to imply time series of diffusive volatility and jump intensity from S&P 500 index options. These two measures capture the ex ante risk assessed by investors. Using a simple general equilibrium model, we translate the implied measures of ex ante risk into an ex ante risk premium. The average premium that compensates the investor for the ex ante risks is 70% higher than the premium for realized volatility. The equity premium implied from option prices is shown to significantly predict subsequent stock market returns. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Age and Great Invention

• The Review of Economics and Statistics---2010---Benjamin F. Jones

Great achievements in knowledge are produced by older innovators today than they were a century ago. Nobel Prize winners and great inventors have become especially unproductive at younger ages. Meanwhile, the early life cycle decline is not offset by increased productivity beyond middle age. The early life cycle dynamics are closely related to age when the PhD was received, and I discuss a theory where knowledge accumulation across generations leads innovators to seek more education over time. More generally, the narrowing innovative life cycle reduces, other things equal, aggregate creative output. This productivity drop is particularly acute if innovators' raw ability is greatest when young. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Ugly Criminals

• The Review of Economics and Statistics---2010---Naci Mocan, Erdal Tekin

Being very attractive reduces a young adult's propensity for criminal activity and being unattractive increases it. Being very attractive is also positively associated with wages and with adult vocabulary test scores, which implies that beauty may have an impact on human capital formation. The results suggest that a labor market penalty provides a direct incentive for unattractive individuals toward criminal activity. The level of beauty in high school is associated with criminal propensity seven to eight years later, which seems to be due to the impact of beauty in high school on human capital formation, although this avenue seems to be effective for females only. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Estimating Treatment Effects from Contaminated Multiperiod Education Experiments: The Dynamic Impacts of Class Size Reductions

The Review of Economics and Statistics---2010--- Weili Ding, Steven Lehrer

This paper introduces an empirical strategy to estimate dynamic treatment effects in randomized trials that provide treatment in multiple stages and in which various noncompliance problems arise, such as attrition and selective transitions between treatment and control groups. Our approach is applied to the highly influential four-year randomized class size study, Project STAR. We find benefits from attending small classes in all cognitive subject areas in kindergarten and first grade. We do not find any statistically significant dynamic benefits from continuous treatment versus never attending small classes following grade 1. Finally, statistical tests support accounting for both selective attrition and noncompliance with treatment assignment. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

General Education versus Vocational Training: Evidence from an Economy in Transition

• The Review of Economics and Statistics---2010---Ofer Malamud, Cristian Pop-Eleches This paper examines the relative benefits of general education and vocational training during Romania's transition to a market economy. We examine a 1973 educational reform that shifted a large proportion of students from vocational training to general education. Using census and household survey data, we analyze the effect of this policy with a regression discontinuity design. We find that men affected by the policy are significantly less likely to work in manual or craft-related occupations but have similar levels of labor market participation and earnings compared to their counterparts unaffected by the policy. We conclude that differences in labor market returns between graduates of vocational and general schools are largely driven by selection. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Importance of Business Owners in Assessing the Size of Precautionary Savings

• The Review of Economics and Statistics---2010---Erik Hurst, Annamaria Lusardi, Arthur Kennickell, Francisco Torralba

Not properly accounting for differences between business owners and nonbusiness owners in studies of household wealth can lead to erroneous conclusions about the significance of different saving motives. Using data from the Panel Study of Income Dynamics from the 1980s and 1990s, we show that within samples of both business owners and non-business owners, the amount of precautionary savings with respect to labor income risk is modest and accounts for less than 10% of total household wealth. Previous large estimates of the size of precautionary balances resulted from pooling these two groups together. Such pooling is inappropriate given that business owners face higher labor risk and accumulate more wealth than non-business owners for reasons unrelated to precautionary motives. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Mental Accounting Effects of Income Tax Shifting

• The Review of Economics and Statistics---2010---Naomi Feldman

This paper analyzes a 1992 decrease in U.S. federal income tax withholding that shifted the timing of income tax payments while leaving ultimate tax burdens unchanged. Consequently income typically received as a lump-sum refund on filing a tax return was shifted into the previous year's monthly income. This paper considers the impact of the withholding change in the context of mental accounting and finds a decrease in the probability that households contributed to a tax-preferred retirement account. Additional robustness tests show that short-term saving did not simultaneously increase and that the main findings are not driven by liquidity constraints. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Testing the Sticky Information Phillips Curve

The Review of Economics and Statistics---2010---Olivier Coibion

I consider the empirical evidence for the sticky information model relative to the basic sticky price model, conditional on historical measures of inflation forecasts. The estimated structural parameters are inconsistent with an underlying sticky information model and the sticky information Phillips curve is statistically dominated by the new Keynesian Phillips curve. I find that the poor performance of the sticky information approach is driven by two key elements. First, the sticky information model underestimates inflation in the 1970s and overestimates inflation since the 1980s. Second, predicted inflation from the sticky information model is excessively smooth. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Collateral Damage: Trade Disruption and the Economic Impact of War

• The Review of Economics and Statistics---2010---Reuven Glick, Alan Taylor

Conventional wisdom in economic history suggests that conflict between countries can be enormously disruptive of economic activity, especially international trade. We study the effects of war on bilateral trade with available data extending back to 1870. Using the gravity model, we estimate the contemporaneous and lagged effects of wars on the trade of belligerent nations and neutrals, controlling for other determinants of trade, as well as the possible effects of reverse causality. We find large and persistent impacts of wars on trade, national income, and global economic welfare. We also conduct a general equilibrium comparative statics exercise that indicates costs associated with lost trade might be at least as large as the conventionally measured direct costs of war, such as lost human capital, as illustrated by case studies of World Wars I and II. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Trade Growth under the African Growth and Opportunity Act

 The Review of Economics and Statistics---2010----Garth Frazer, Johannes Van Biesebroeck

This paper investigates whether one of the most important U.S. policies toward Africa of the past few decades achieved its desired result. In 2000, the United States dropped trade restrictions on a broad list of products through the African Growth and Opportunity Act (AGOA). Since the act was applied selectively to both countries and products, we can estimate the impact with a triple difference-in-differences estimation, controlling for both country and product-level import surges at the time of onset. This approach allows us to better address the endogeneity-of-policy critique of standard difference-in-differences estimation than if either a country- or a product-level analysis was performed separately. Despite the fact that the AGOA product list was chosen to not include import-sensitive products and despite the general challenges of transaction costs in African countries, we find that AGOA had a large and robust impact on apparel imports into the United States, as well as on the agricultural and manufactured products covered by AGOA. These im-

port responses grew over time and were the largest in product categories where the tariffs removed were large. AGOA did not result in a decrease in exports to Europe in these product categories, suggesting that the AGOA exports were not merely diverted from other destinations. We discuss how the effects vary across countries and the implications of these findings for aggregate export volumes. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Market Access and Individual Wages: Evidence from China

The Review of Economics and Statistics---2010--- Laura Hering, Sandra Poncet

We consider the effect of geography on wages using individual data from 56 Chinese cities. We present a simple new economic geography model that links wages to individual characteristics and market access. The latter is calculated as a transport cost weighted sum of surrounding locations' market capacity. After controlling for individual skills and local factor endowments, we find that a significant fraction of the interindividual differences in returns to labor can be explained by the geography of market access. We further find greater wage sensitivity to market access for highly skilled workers and for workers in private and, particularly, foreign-owned firms. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Location Decisions of Foreign Investors in China: Untangling the Effect of Wages Using a Control Function Approach

There is almost no support for the proposition that capital is attracted to low wages from firm-level studies. We examine the location choices of 2,884 firms investing in China between 1993 and 1996 to offer two main contributions. First, we find that the location of labor-intensive activities is highly elastic to

provincial wage differences. Generally, investors' wage sensitivity declines as the skill intensity of the industry increases. Second, we find that unobserved location-specific attributes exert a downward bias on estimated wage sensitivity. Using a control function approach, we estimate a downward bias of 50% to 90% in wage coefficients estimated with standard techniques. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Trading on Time

The Review of Economics and Statistics---2010--- Simeon Djankov, Caroline Freund, Cong Pham

We determine how time delays affect trade, using newly collected data on the days it takes to move standard cargo from the factory gate to the ship in 98 countries. We estimate a difference gravity equation and find that each additional day that a product is delayed prior to being shipped reduces trade by more than 1%. Put differently, each day is equivalent to a country distancing itself from its trade partners by about 70 km on average. We also find that delays have a relatively greater impact on exports of time-sensitive goods, such as perishable agricultural products. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Institutional Quality and Economic Crises: Legal Origin Theory versus Colonial Strategy Theory

• The Review of Economics and Statistics---2010---Julan Du

In a natural experiment among former colonies between 1970 and 1999, weak institutions reflected in high settler mortality and French legal origin often increase the likelihood and intensity of local currency and real crises (i.e., those resulting in a drop in real output) amid six global crises. The effects of institutions on crises are often mediated through macroeconomic policies, but they are often not primary channels. Persistent institutions (i.e., those reflected in the legal origins and settler mortality) predict the occurrence and intensity of crises better than time-varying institutions do. ©

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Friend or Foe? Cooperation and Learning in High-Stakes Games

The Review of Economics and Statistics---2010---Felix Oberholzer-Gee, Joel Waldfogel, Matthew W.
White

Why do people frequently cooperate in defiance of their immediate incentives? One explanation is that individuals are conditionally cooperative. As an explanation of behavior in one-shot settings, such preferences require individuals to be able to discern their opponents' preferences. Using data from a television game show, we provide evidence about how individuals implement conditionally cooperative preferences. We show that contestants forgo large sums of money to be cooperative; they cooperate at heightened levels when their opponents are predictably cooperative; and they fare worse when their observable characteristics predict less cooperation because opponents avoid cooperating with them. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Explaining Women's Success: Technological Change and the Skill Content of Women's Work

 The Review of Economics and Statistics---2010----Sandra Black, Alexandra Spitz-Oener

In this study, we explore a new approach for analyzing changes in the gender pay gap that uses direct measures of job tasks and gives a comprehensive characterization of how work for men and women has changed in recent decades. Using data from West Germany, we find that women have witnessed relative increases in nonroutine analytic and interactive tasks. The most notable difference between the genders is, however, the pronounced relative decline in routine task inputs among women, driven, at least in part, by technological change. These changes explain a substantial fraction of the closing of the gender wage gap. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

On the International Effects of Inflation Targeting

• The Review of Economics and Statistics---2010---Shu Lin

This study empirically examines the international effects of inflation targeting. Employing a variety of propensity score matching methods, we find strong evidence that inflation targeting has significantly different impacts on exchange rate volatility and international reserves in different country groups. It significantly increases real and nominal exchange rate stability and international reserves in developing countries but lowers them in industrial countries. On average, inflation targeting increases (lowers) reserves roughly by the size of 1.3 (1.8) months of imports values in developing (industrial) countries. The treatment effects on targeting countries' current accounts are found to be insignificant in both country groups. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Relationships among Expected Inflation, Disagreement, and Uncertainty: Evidence from Matched Point and Density Forecasts

• The Review of Economics and Statistics---2010---Robert Rich, Joseph Tracy

This paper examines matched point and density forecasts of inflation from the Survey of Professional Forecasters to analyze the relationships among expected inflation, disagreement, and uncertainty. We undertake the empirical analysis within a seemingly unrelated regression framework and derive measures of uncertainty using a decomposition proposed by Wallis (2004, 2005) and by drawing on the concept of entropy. The results offer little evidence that disagreement is a useful proxy for uncertainty and mixed evidence that increases in expected inflation are accompanied by heightened uncertainty. Conversely, we document a quantitatively and statistically significant positive association between disagreement and expected inflation. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.

Government Oversight of Public Universities: Are Centralized Performance Schemes Related to Increased Quantity or Quality?

The Review of Economics and Statistics---2010--- A. Abigail Payne, Joanne Roberts

Universities are engaged in many activities, primarily research and teaching. Many states have instituted performance measures that focus on evaluating a university's success in teaching. We suggest that multitasking may be important in this context, and we consider research outcomes after adoption. We find striking results that depend on university status. Research activity is higher at flagship institutions after the adoption of performance measures. Most of this increase in activity is with respect to the level of research funding and the number of articles produced. In contrast, research funding and the number of publications is dramatically lower at nonflagship institutions. There is some evidence that citations per publication at nonflagship institutions are higher after the adoption of performance standards. The evidence suggests that universities have become more specialized since the introduction of these programs. © 2010 The President and Fellows of Harvard College and the Massachusetts Institute of Technology.