8th World Congress of Cliometrics

July 4-7, 2017

Strasbourg, France

Information, Schedule, and Abstracts

Register to attend at:

http://www.cliometrie.org/en/conferences/world-congress-of-cliometrics

Sponsors of the 8th World Congress of Cliometrics

The Cliometric Society

The National Science Foundation (United States)

The University of Strasbourg

AFC | FRENCH CLIOMETRIC ASSOCIATION

UNIVERSITÉ DE LORRAINE

University of Hawaii Economic Research Organization

Centre national de la recherche scientifique

Bureau d'économie théorique et appliquée (BETA)
UMR 7522

REVUE D'ECONOMIE FINANCIERE

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The 8th World Congress of Cliometrics Organization, Program and Administration

Congress Organizers

Claude Diebolt, CNRS and University of Strasbourg

Michael Haupert, University of Wisconsin, La Crosse

Sumner La Croix, University of Hawaii

Carolyn Moehling, Rutgers University

Program Committee

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Carolyn Moehling, Rutgers University

Cormac Ó Gráda, University College Dublin

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Charlotte Le Chapelain, University Lyon III

Tapas Mishra, Southampton University

Marion Oswald, University of Strasbourg

Faustine Perrin, Lund University

Financial Support for Graduate Students Provided by:

The National Science Foundation Grant Number SES 1061697

NSF Grant Principal Investigators: Sumner La Croix and Carolyn Moehling

Conference Administrator and Book Editor: Montinee (Mint) Chaksirinont

Financial Administrator: Kai Zhou

Local Arrangements Administrator: Marion Oswald

EH.NET Support: Lana Sooter

CONGRESS PAPER TITLES

Tuesday July 4: 9:40-10:25

Backtesting Systemic Risk Measures during Historical Bank Runs

Linguistic Barriers to State Capacity and Ideology: Evidence from the Cultural Revolution

The Not-So-Hot Melting Pot: The Persistence of Outcomes for Descendants of the Age of Mass Migration

More than One-Hundred Years of Improvements in Living Standards: The Case of Colombia

Tuesday July 4: 11:00-11:45

International Well-being Inequality in the Long Run

The Reichsbank, central banking competition and monetary stability in Germany in 1876-1890

The Purchase of British Army Commissions: Signaling in a Dynamic Model of Appointment and Promotion

Long-Run Consequences of Exposure to Influenza at Birth: Zurich 1889/1890

Tuesday July 4: 11:50-12:35

Colonial Virginia's Paper Money Regime, 1755-1774: Value Decomposition and Performance

Unreal Wages? Real Income and Economic Growth in England, 1260-1850

From National Welfare State to Multicultural Market Economy: The Case of Denmark 1870-2011

The Geographical Origins of Early State Formation

Tuesday July 4: 14:05-14:50

The People, not the Place: The Decline of the North of England 1918-2017: A Surname Investigation

Identifying Historical Shocks to the Marriage Decisions: The age at marriage of the Koreans from the late 11^{th} to early 20^{th} century

The Hand of the Past and the Railway Networks of the Present

The contribution of infrastructure investment to Britain's urban mortality decline, 1861-1900

Tuesday July 4: 14:55-15:40

Currency Regimes and the Carry Trade

Technical Change and Human Capital Investment: Evidence from the Industrial Revolution

The History of Violence over the Past Two Millennia: Archaeological Bone Traumata as a Source for European Violence History

Taking off and slowing down like China

Tuesday July 4: 16:05-16:50

Australian Squatters, Convicts, and Capitalists: Dividing Up a Fast-Growing Frontier Pie, 1821-1871
The Effect of Immigration Quotas on Wages, the Great Black Migration, and Industry Development
Social Mobility in the Long Run – Evidence from the City of Zurich
Why 1990 international Geary-Khamis dollars cannot be a foundation for reliable long run comparisons of GDP

Tuesday July 4: 17:00-17:45

Danger to the Old Lady of Threadneedle Street? The Bank Restriction Act and the Regime Shift to Paper Money, 1797-1821
Collectivization of Soviet agriculture and the 1932–1933 famine.
Breaking from Colonial Institutions: Haiti's Idle Land, 1928-1950
Officer Retention and Military Spending – The Rise of the Military Industrial Complex during the Second World War

Wednesday July 5: 9:00-9:45

The Dawes Bonds: Selective Default and International Trade
The Marginal Child throughout the Life Cycle: Evidence from Early Law Variation
Unions and the Great Compression of American Inequality, 1940-1960
What Did Civil Examination Do for Korea?

Wednesday July 5: 9:50-10:35

Escaping Europe: Health and Human Capital of Holocaust Refugees
The Evolution of Bank Lending Behavior in Post-WWII Britain: Evidence from a New Narrative Measure
Prices and Informed Trading
The Impact of Institutions on Innovation

Wednesday July 5: 11:00-11:45

Uncertainty and Hyperinflation: European Inflation Dynamics after World War I
The Mortality Effects of Local Boards of Health in England, 1848-70
Rainfall Patterns and Human Settlement in Tropical Africa and Asia Compared: Did African Farmers Face Greater Insecurity?
Gender Wage Inequality in Western Europe, 1400-1800

Wednesday July 5: 11:50-12:35

Foreclosed Real Estate and the Supply of Mortgage Credit by Building and Loans during the 1930s
Gender Differences in Absenteeism in Nineteenth-Century US Manufacturing
Atmospheric Pollution and Child Health in Late Nineteenth Century Britain
The Road Home: The role of ethnicity in Soviet and post-Soviet migration

Wednesday July 5: 14:05-14:50

Estimating the Impact of Local Conditions on Asset Preferences in Adulthood
Threat of Revolution, Peasant Movement and Redistribution: The Colombian Case
Casualties of the Cold War: Fallout, Irradiated Dairy, and the Mortality Effects of Nuclear Testing
"Now She Is Martha, then She Is Mary": The Influence of Beguinages on Attitudes Toward Women

Wednesday July 5: 14:55-15:40

The Gold Pool (1961-1968) and the fall of the Bretton Woods system: Lessons for central bank cooperation
A Gift of Health: The Duke Endowment's Impact on Health Care in the Carolinas: 1925-1940
Rents and Welfare in the Second Industrial Revolution: Evidence from New York City
Risk mitigation and selection under forward contracts: 19th-century Indian indentureship

Wednesday July 5: 16:05-16:50

Monetary Policy and Counterparty Risk Management at Banque de France in late 19th Century
Was there a marriage premium in late nineteenth-century manufacturing? Evidence from Sweden
The Old Men in the Census: Inequality and Mobility in 18th Century Murcia
An Updated Global Dataset on Education Quality (1965-2015)

Wednesday July 5: 17:00-18:00

Plenary Session: Globalization and the New World Order

Moderator: Carolyn Moehling, Rutgers University

Panel Participants

Jeffrey Williamson, Harvard University and University of Wisconsin, Madison
Kevin Hjortshøj O'Rourke, Oxford University
Gregory Clark, University of California-Davis

Thursday July 6: 9:00-9:45

Industrialization as a Deskilling Process? Steam Engines and Human Capital in XIXth Century France
Loving Day: Interracial Marriages and Intergenerational Mobility in the United States
The Great Moderation of Grain Price Volatility: Market Integration vs. Climate Change, Germany, 1650-1790
Monetary and Fiscal Policy in England during the French Wars (1793-1821)

Thursday July 6: 9:50-10:35

An Economic Conversion? Rural Cooperative Banking in the Netherlands at the Turn of the Twentieth Century
The origins of the Italian regional divide: Evidence from real wages, 1861-1913
Long run changes in the body mass index of adults in three food abundant settler societies: Australia, Canada and New Zealand
Disease and child growth in industrialising Japan: Assessing instantaneous changes in growth and changes in the growth pattern, 1911-1939

Thursday July 6: 11:00-11:45

The impact of commuting and mass transport on the London labour market: Evidence from the New Survey of London Life and Labour
Economic shocks and crime in 19th-century Sweden
A City of Trades and Networks: Spanish and Italian Immigrants in Late Nineteenth Century Buenos Aires, Argentina
Greece in a Monetary Union: Lessons from 100 Years of Exchange-Rate Experience

Thursday July 6: 11:50-12:35

When Britain turned inward: Protection and the shift towards Empire in interwar Britain
Government-made bank distress: industrialization policies and the 1899-1902 Russian financial crisis
500 Years of Urban Rents, Housing Quality and Affordability in Europe
Technological choice and urban agglomeration: Steam vs water power in French industrialisation

Friday July 7: 9:00-9:45

Banking Networks and Financial Market Integration: A Case of Japan during the Late 19th Century
A Land ‘of Milk and Butter’: The Role of Elites for the Economic Development of Denmark
Commercial Expansion and Churning: Business Organization in Egypt between 1911 and 1948

Friday July 7: 9:50-10:35

Refinancing short-term debt with a fixed monthly interest rate into funded *juros* under Philip II: an *asiento* with the Maluenda brothers
News Media and Stock Market Returns over the Long Run
Towards A Quantitative Assessment of the Transformation of Workforce in the Course of China’s Industrialization and Urbanization, 1912-2012
Church building and the economy during Europe’s ‘Age of the Cathedrals’, 700–1500

Friday July 7: 11:00-11:45

Active versus Speculative Monitoring: Evidence from pre-WWI Paris-Listed Firms
Trade Agreements, Democracy and Political Alliances: Understanding the evolution of the global institutional system during the First Globalization
Productivity growth in Meiji Japan: the structural and regional dynamics
The Volatility of Money: The New York Call Money Market and Monetary Policy Regime Change

Friday July 7: 11:50-12:35

Asset Pricing in Old Regime France
Long run trails of global poverty, 1925-2010
Railroads, Technology Adoption, and Modern Economic Development: Evidence from Japan
Of Mice and Merchants: Trade and Growth in the Iron Age

GENERAL INFORMATION ABOUT THE 8TH WORLD CONGRESS OF CLIOMETRICS

Congress Website

Information about accommodations, directions to the Strasbourg Convention Center, the full program for the Congress, and special events can be found at the Congress website:

http://www.cliometrie.org/en/conferences/world-congress-of-cliometrics

Congress Venue

All Congress sessions and the Congress plenary session will be held at the Strasbourg Convention Center/Palais de la Musique et des Congrès

Place de Bordeaux, 67082 Strasbourg, France. Looking for directions on how to get to the Convention Center or where to park at the Center? Please go to:

http://www.strasbourg-events.com/en/useful-information/finding-us-and-parking

There is free wifi at the Convention Center for Congress participants. Log-in and password will be distributed at the July 4 orientation session.

Congress Dates

Welcome coffee and registration open at 8 am on Tuesday, 4 July 2017, in Marie Curie B at the Convention Center. The Congress orientation session is at 9 am, with the first paper session starting at 9:40 am. The final paper session of the Congress will conclude on Friday, 7 July 2017 a little after 12:35 pm. You must be registered to attend paper sessions and the Congress plenary. At the Congress, we will provide you with a name badge which is to be worn at all times during the Congress and to all official Congress events.

Language

The official language of the Congress is English.

Climate

July in Strasbourg is generally hot and sunny. Temperatures range between 20°C (68°F) to 30°C (86°F).

Distribution of Congress Program and Papers.

We will file-drop (to the email address you provided to us) the Congress program and all papers to be discussed at the Congress. The Congress program – but not the papers -- will also be on-line at:

http://www.cliometrie.org/en/conferences/world-congress-of-cliometrics

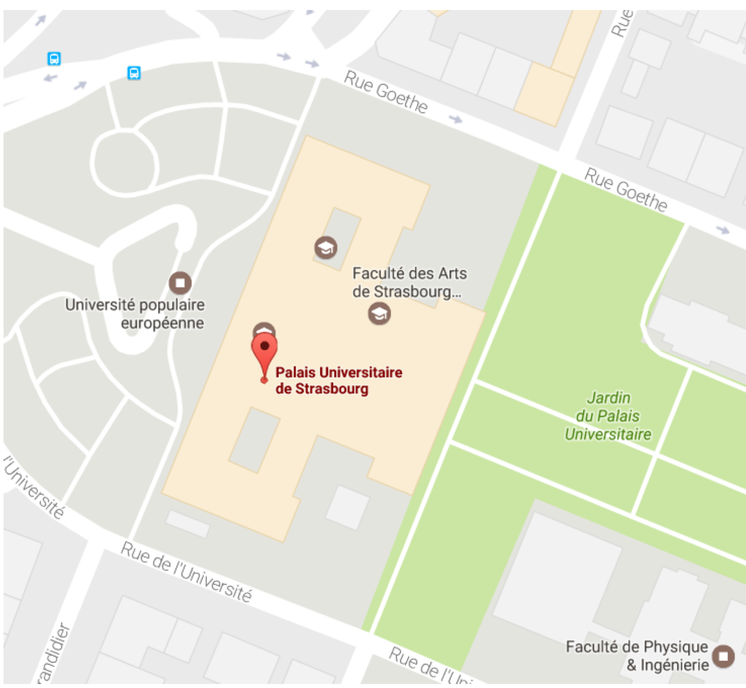
On-line posting or other distribution of Congress papers is strictly prohibited.

Policy Regarding Laptops, Tablets and Cell Phones at Congress Sessions

We allow participants to bring tablets, laptops or printed papers to the Congress sessions. We ask that you pledge to use your tablet or laptop during paper sessions for **ONE AND ONLY ONE** purpose: To reference the papers discussed at the sessions. We ask that participants **NEVER** connect with the internet or use their cell phones during conference sessions. This means that the Congress booklet has been downloaded to your laptop or tablet. Free wifi is available at the Convention Center before and after the sessions.

Tuesday, July 4th: Reception at the Palais Universitaire from 7:00 to 9:00 PM

Address: 9 place de l'Université, 67000 Strasbourg



For more information on the Palais Universitaire:
http://130anspalaisu.unistra.fr/index.php?id=21181.

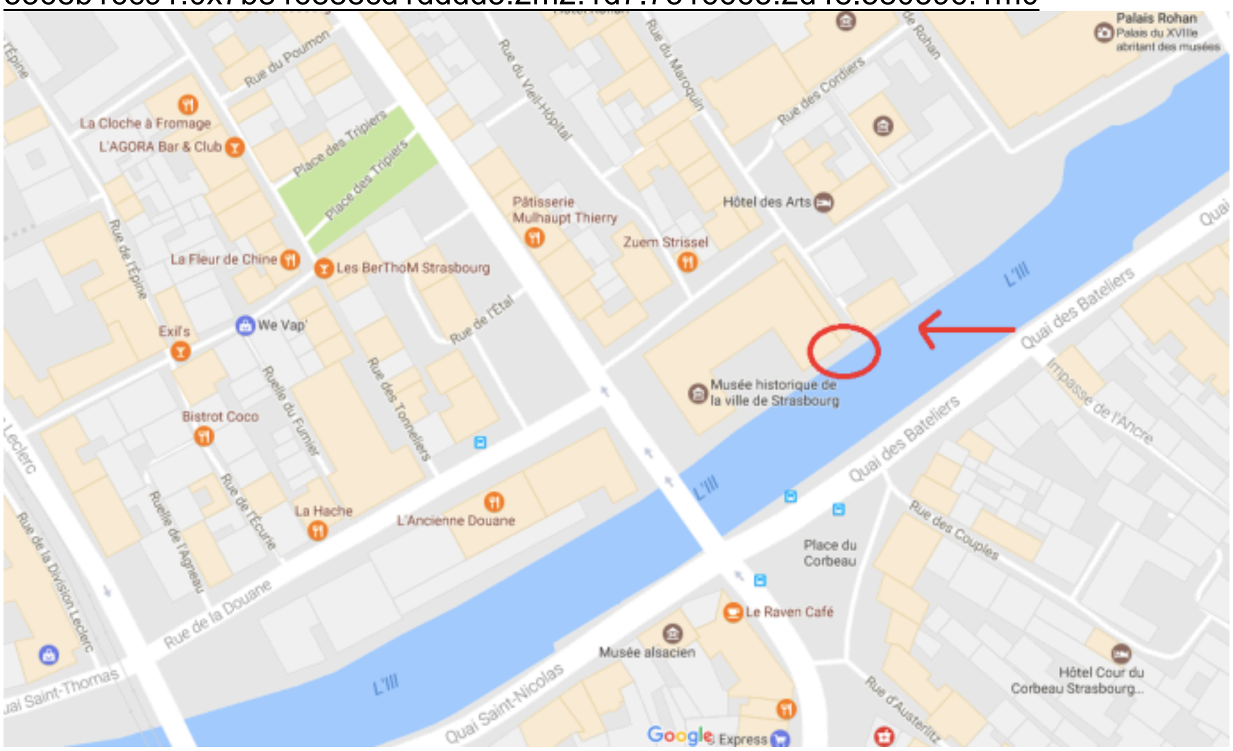
And for a video tour, go to
https://www.youtube.com/watch?v=YuPWPbfoUU8&spfreload=10.

Thursday, July 6th: Social Activity: Boat Tour from 5:30 to 6:45 pm

Meeting Point: 5:00 pm at Quay Palais Rohan

Address:
Quay Palais Rohan
Place du Marché aux Poissons
67000 STRASBOURG

https://www.google.fr/maps/dir/Place+du+March%C3%A9+aux+Poissons,+67000+Strasbourg//@48.5804283,7.7515061,247m/data=!3m1!1e3!4m8!4m7!1m5!1m1!1s0x4796c8536eb16c91:0x7b84688ecd1dddd3!2m2!1d7.7516665!2d48.580396!1m0



For further information about the boat trip, please go to http://www.batorama.com/

Thursday, July 6th: World Congress Dinner at Maison Kammerzell from 7:00 -10:00 pm

Address: 16, place de la Cathédrale, 67000 Strasbourg

For further information about the restaurant for the conference dinner, please go to http://www.maison-kammerzell.com/en/.

Transportation from Airport/Central Train Station to Congress Venue

Travelling to Strasbourg:

http://www.strasbourg-events.com/en/why-strasbourg/travelling-strasbourg

By Train:

From the Central Train Station (Gare Centrale): take tram C (direction Neuhof, Rodolphe Reuss), change at République and take tram B (direction Hoenheim Gare) or E (direction Robertsau Boecklin), stop at station Wacken. You can also take a taxi, for instance the company "taxi 13", phone: + 33 (0)3 88 36 13 13 (http://www.taxi13.fr). For more details: https://www.cts-strasbourg.eu/en/

By plane:

From Paris Charles De Gaulle Airport, Basel-Mulhouse Airport or Frankfurt International Airport with correspondence by train or bus to Strasbourg.

From Karlsruhe Baden Airpark: take bus line 205 to Baden-Baden train station and take train to Strasbourg Gare Centrale. Shuttles are also available from Baden-Baden Airpark to Strasbourg - Place Austerlitz.

From Strasbourg-Entzheim Airport: take the train from the airport to the Central Train Station (Gare Centrale).

Visas

Participants from certain countries may require a visa in order to travel to France. It is the responsibility of the participant to obtain a visa if necessary.

Liability and Insurance

The Congress secretariat and organizers cannot accept any liability for personal accidents or loss of or damage to private property of participants of the 8th World Congress of Cliometrics.

Dress Code

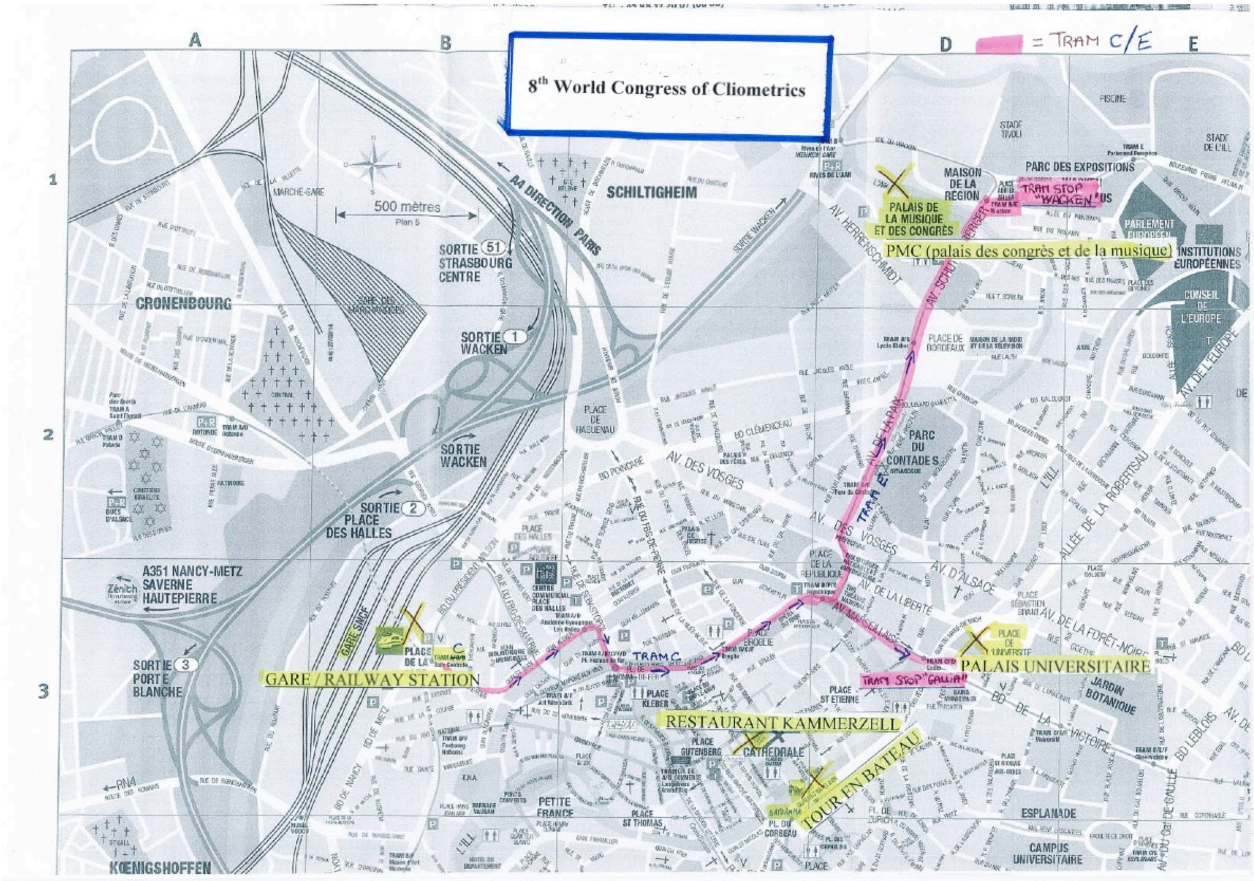
Business casual for all occasions.

Questions about Strasbourg and local arrangements for the Congress?

Please contact Ms. Marion Oswald
Phone: + 33 (0)3 68 85 49 40
Fax: + 33 (0)3 68 85 49 41
Email: marion.oswald@unistra.fr

Questions about the program for the Congress?

Please contact Sumner La Croix at lacroix@hawaii.edu or clio2017@hawaii.edu.


8th World Congress of Cliometrics
= TRAM C/E
TRAM STOP "WACKEN"
PALAIS DE LA MUSIQUE ET DES CONGRÈS
PMC (palais des congrès et de la musique)
PALAIS UNIVERSITAIRE
TRAM STOP "GALLIA"
GARE / RAILWAY STATION
RESTAURANT KAMMERZELL
TOUR EN BATEAU
TRAM C
TRAM E
CATHEDRALE
SCHILTIGHEIM
CRONENBOURG
PARC DES EXPOSITIONS
PARC DU CONTADES
ESPLANADE
CAMPUS UNIVERSITAIRE
PETITE FRANCE
KOENIGSHOFFEN
500 mètres
A351 NANCY-METZ SAVERNE HAUTEPIERRE
A4 DIRECTION PARIS

Rules of Engagement

The Cliometrics Congress seeks to promote scholarly discussion of research in progress. We have 87 sessions in which particular papers in progress are discussed. We send all of the papers out to Congress participants to be read in advance of the sessions. The paper presenter at each session has only five minutes to make an opening statement, and then the floor is opened for 40 minutes of discussion.

We allow participants to bring tablets, laptops or printed papers to the Congress sessions. We ask that you pledge to use your tablet or laptop during paper sessions for one and only one purpose: To reference the papers discussed at the sessions. We ask that participants **NEVER** connect with the internet or use their cell phones during conference sessions. This means that the Congress booklet has been downloaded to your laptop or tablet. Free wifi is available at the Convention Center before and after the sessions.

Paper presenters

Paper presenters have five minutes to make an opening statement and the floor is then opened for discussion. The most effective strategy has been to identify the key issue the paper addresses, and perhaps raise a couple of interesting questions that might be worth addressing and quickly state the leading conclusions drawn from the study. If you wish, you may bring handouts. Absolutely no powerpoint slides.

Here are some strategies that have not worked so well. Some have tried to jam a complete summary of the paper into a 5-minute period. Usually the speaker speaks so quickly that the more hard-of-hearing members of the audience hear every fifth word, which certainly lends a surreal feeling to the presentation. In one case of speed talking, several participants still swear that they heard the Book of Revelations. Other presenters have tried to guide the discussion by laying out the list of issues that they would like to discuss and those that were not worth discussing. The participants generally completely ignored the presenter's suggested organization of the discussion. Finally, others have tried to ignore the 5-minute time limit. These miscreants were summarily chastised by the chair and the participants.

Chairs

The Chair introduces the paper presenter(s) and the session, and monitors the discussion and ensures presenters answer the question in a timely manner. The Chair has three vital functions. First, the paper presenter has only five minutes to make their initial presentation. If the presenter goes over the five minute mark, you must cut them off and open the floor for discussion.

Second, you are in charge of determining who gets to speak when. The tradition is to have people signal their interest in talking by raising their hand. In some cases, people have turned their name placards so that they are standing on their side. Keep a list and try to acknowledge to the participants that they are on the list. Expect to see people signaling to speak as early as the opening of the presentation. Occasionally during the session, you might want to read out the next few names so people have a sense of where they sit in the queue.

Third, don't let people make a laundry list of points when it is their turn to speak. Confine them to one point or issue and maybe a follow-up question. If they wish to say more, politely let them know that they have the opportunity to make their next point after the other participants who are now in the queue, and that you have put their name at the end of the queue.

If you run out of names in the queue, go ahead and start asking questions or raising issues yourself until more people start volunteering to speak up.

Participants

Participants who are interested in contributing to the discussion should signal to the chair that they would like to speak. Veteran attendees have been known to do this as soon as the session begins. The chair keeps a list and calls on people as their turn comes up. You will probably have several things to say about a paper, but you should focus only on one when it is your turn to speak. When your turn arrives, pick the issue you believe to be most important and raise that issue or question. If you have more issues that you would like to raise, after you finish speaking, you should signal to the chair that you would like another chance to speak and she will place you at the end of the list. Remember that you have at least 40 other colleagues with expertise here at the conference and there are only 55 minutes for discussion of each paper. Leave your colleagues some room to make their points. If some of what you have to say does not come up in the open discussion, we encourage you to speak to the paper presenters individually.

If you have a point to be made that is specific to the current issue under discussion, you can signal to the chair your interest in making this point. Usually, it is effective to signal with the name placard. In that case if you are in the queue, you should expect that you will be moved to the end of the exiting queue, should you want to make another point.

Tuesday 4 July 2017 World Congress Schedule

Welcome Coffee and Registration ____________8:00 – 9:00 am

Congress Orientation in Marie Curie B ____________9:00 – 9:30 am

- Marie Curie B Chair: Farley Grubb ____________**9:40 – 10:25 am**
  Christian Brownlees, *Ben Chabot*, Eric Ghysels, and Christopher Kurz
  Backtesting Systemic Risk Measures during Historical Bank Runs

- Salon Dresde Chair: Susan Wolcott
  Susan Ou and *Heyu Xiong*
  Linguistic Barriers to State Capacity and Ideology: Evidence from the Cultural Revolution

- Salon Ramat Gan Chair: Vincent Bignon
  Zachary Ward
  The Not-So-Hot Melting Pot: The Persistence of Outcomes for Descendants of the Age of Mass Migration

- Salon Leicester Chair: Les Oxley
  Juliana Jaramillo-Echeverri, *Adolfo Meisel-Roca,* and María Teresa Ramírez-Giraldo
  More than One-Hundred Years of Improvements in Living Standards: The Case of Colombia

Coffee/Tea Break ____________10:25 – 11:00 am

- Marie Curie B Chair: Jan Luiten van Zanden______**11:00 - 11:45 am**
  Leandro Prados de la Escosura
  International Well-being Inequality in the Long Run

- Salon Dresde Chair: Carolyn Moehling
  Ousmène Jacques Mandeng
  The Reichsbank, central banking competition and monetary stability in Germany in 1876-90

- Salon Ramat Gan Chair: Paul Sharp
  Esther Redmount, Arthur Snow, and Ronald S. Warren, Jr.
  The Purchase of British Army Commissions: Signaling in a Dynamic Model of Appointment and Promotion

- Salon Leicester Chair: David Chambers
  Joël Floris, Sonja Glaab-Seucken, and *Ulrich Woitek*
  Long-Run Consequences of Exposure to Influenza at Birth: Zurich 1889/1890

- Marie Curie B Chair: Stephan Ernst Maurer _____**11:50 am - 12:35 pm**
  Farley Grubb
  Colonial Virginia's Paper Money Regime, 1755-1774: Value Decomposition and Performance

- Salon Dresde Chair: Bin Xie
  Jane Humphries and *Jacob Weisdorf*
  Unreal Wages? Real Income and Economic Growth in England, 1260-1850

- Salon Ramat Gan Chair: Alexandra de Pleijt
  Niels Kærgaard
  From National Welfare State to Multicultural Market Economy: The Case of Denmark 1870-2011

- Salon Leicester Chair: Matthijs Korevaar
  Luisito Bertinelli and *Anastasia Litina*
  The Geographical Origins of Early State Formation

Lunch ____________**12:35 – 14:05 pm**

- Marie Curie B Chair: Sumner La Croix__________**14:05 - 14:50 pm**
  Gregory Clark
  The People, not the Place. The Decline of the North of England 1918-2017: A Surname Investigation.

- Salon Dresde Chair: Kostadis Papaioannou
  Sun Go and Heejin Park
  Identifying Historical Shocks to the Marriage Decisions: The age at marriage of the Koreans from the late 11th to early 20th century

- Salon Ramat Gan Chair: Michelangelo Vasta
  Douglas J. Puffert
  The Hand of the Past and the Railway Networks of the Present

- Salon Leicester Chair: Hakon Albers
  Jonathan Chapman
  The contribution of infrastructure investment to Britain's urban mortality decline, 1861-1900

- Marie Curie B Chair: Pamfili Antipa __________**14:55 – 15:40 pm**
  Olivier Accominotti, Jason Cen, *David Chambers*, and Ian Marsh
  Currency Regimes and the Carry Trade

- Salon Dresde Chair: Alessandro Nuvolari
  Alexandra M. de Pleijt, Chris Minns, and Patrick Wallis
  Technical Change and Human Capital Investment: Evidence from the Industrial Revolution

- Salon Ramat Gan Chair: Liam Brunt
  Jörg Baten and Richard H. Steckel
  The History of Violence over the Past Two Millennia: Archaeological Bone Traumata as a Source for European Violence History

- Salon Leicester Chair: Ousmène Jacques Mandeng
  Eric Girardin and Harry X. Wu
  Taking off and slowing down like China

Coffee/Tea Break ___________**15:40 – 16:05 pm**

- Marie Curie B Chair: Leandro Prados de la Escosura _____**16:05 - 16:50 pm**
  Laura Panza and *Jeffrey G. Williamson*
  Australian Squatters, Convicts, and Capitalists: Dividing Up a Fast-Growing Frontier Pie 1821-1871

- Salon Dresde Chair: Sun Go
  Bin Xie
  The Effect of Immigration Quotas on Wages, the Great Black Migration, and Industry Development

- Salon Ramat Gan Chair: Michael Haupert
  Giacomin Favre, Joël Floris, and Ulrich Woitek
  Social Mobility in the Long Run – Evidence from the City of Zurich

- Salon Leicester Chair: Benjamin Chabot
  Liam Brunt and Antonio Fidalgo
  Why 1990 international Geary-Khamis dollars cannot be a foundation for reliable long run comparisons of GDP

- Marie Curie B Chair: Ulrich Woitek **16:55 - 17:40 pm**
  Patrick K. O'Brien and *Nuno Palma*
  Danger to the Old Lady of Threadneedle Street? The Bank Restriction Act and the Regime Shift to Paper Money, 1797-1821

- Salon Dresde Chair: William Collins
  Natalya Naumenko
  Collectivization of Soviet agriculture and the 1932–1933 famine.

- Salon Ramat Gan Chair: Èric Roca Fernández
  Craig Palsson
  Breaking from Colonial Institutions: Haiti's Idle Land, 1928-1950

- Salon Leicester Chair: Cihan Artunç
  Ahmed Rahman
  Officer Retention and Military Spending – The Rise of the Military Industrial Complex during the Second World War

Tuesday, July 4th: Reception at the Palais Universitaire from 19:00 to 21:00 PM

Address: 9 place de l'Université, 67000 Strasbourg

For more information on the Palais Universitaire: http://130anspalaisu.unistra.fr/index.php?id=21181.

And for a video tour, go to https://www.youtube.com/watch?v=YuPWPbfoUU8&spfreload=10.

Wednesday 5 July 2017 World Congress Schedule

- Marie Curie B Chair: Kris James Mitchener _____**9:00 - 9:45 am**
  Olivier Accominotti, *Philipp Kessler, and* Kim Oosterlinck
  The Dawes Bonds: Selective Default and International Trade

- Salon Dresde Chair: Maxime Wavasseur
  Joanna N. Lahey, *Marianne H. Wanamaker*, and Elizabeth Oltmans Ananat
  The Marginal Child throughout the Life Cycle: Evidence from Early Law Variation

- Salon Ramat Gan Chair: Rowena Gray
  William J. Collins and Gregory T. Niemesh
  Unions and the Great Compression of American Inequality, 1940-1960

- Salon Leicester Chair: Erin McGuire
  Myung Soo Cha, Junseok Hwang, and Heejin Park
  What Did Civil Examination Do for Korea?

- Marie Curie B Chair: Thor Berger ____________ **9:50 - 10:35 am**
  Matthias Blum and *Claudia Rei*
  Escaping Europe: Health and Human Capital of Holocaust Refugees

- Salon Dresde Chair: Alain Naef
  Oliver Bush
  The Evolution of Bank Lending Behavior in Post-WWII Britain: Evidence from a New Narrative Measure

- Salon Ramat Gan Chair: Maria del Pilar Lopez-Uribe
  Graeme G. Acheson, *Christopher Coyle*, David Jordan, and John D. Turner
  Prices and Informed Trading

- Salon Leicester Chair: Sebastian Fleitas
  Alexander Donges, Jean-Marie A. Meier, Rui C. Silva
  The Impact of Institutions on Innovation

Coffee/Tea Break ____________**10:35 – 11:00 am**

- Marie Curie B Chair: Ahmed Rahman ______**11:00 - 11:45 am**
  Jose A. Lopez and *Kris James Mitchener*
  Uncertainty and Hyperinflation: European Inflation Dynamics after World War I

- Salon Dresde Chair: Heyu Xiong
  Maxwell Kiniria
  The Mortality Effects of Local Boards of Health in England, 1848-70

- Salon Ramat Gan Chair: Alexander Persaud
  Kostadis Papaioannou and Ewout Frankema
  Rainfall Patterns and Human Settlement in Tropical Africa and Asia Compared. Did African Farmers Face Greater Insecurity?

- Salon Leicester Chair: Giovanni Federico
  Alexandra M. de Pleijt and *Jan Luiten van Zanden*
  Gender Wage Inequality in Western Europe, 1400-1800

- Marie Curie B Chair: Myung Soo Cha ______**11:50 am - 12:35 pm**
  Price Fishback, Sebastian Fleitas, Jonathan Rose, and Ken Snowden
  Foreclosed Real Estate and the Supply of Mortgage Credit by Building and Loans during the 1930s

- Salon Dresde Chair: Junichi Yamasaki
  Joyce Burnette
  Gender Differences in Absenteeism in Nineteenth-Century US Manufacturing

- Salon Ramat Gan Chair: Emilie Bonhoure
  Roy E. Bailey, *Timothy J. Hatton*, and Kris Inwood
  Atmospheric Pollution and Child Health in Late Nineteenth Century Britain

- Salon Leicester Chair: Adolfo Meisel-Roca
  Young-ook Jang
  The Road Home: the role of ethnicity in Soviet and post-Soviet migration

Lunch ____________**12:35 – 14:05 pm**

- Marie Curie B Chair: Masato Shizume ______**14:05 - 14:50 pm**
  Erin McGuire
  Estimating the Impact of Local Conditions on Asset Preferences in Adulthood

- Salon Dresde Chair: Caroline Fohlin
  Maria del Pilar Lopez-Uribe
  Threat of Revolution, Peasant Movement and Redistribution: The Colombian Case

- Salon Ramat Gan Chair: Montinee Chaksirinont
  Keith Meyers
  Casualties of the Cold War: Fallout, Irradiated Dairy, and the Mortality Effects of Nuclear Testing

- Salon Leicester Chair: Franz Zobl
  Annalisa Frigo and Èric Roca Fernández
  "Now She Is Martha, then She Is Mary": The Influence of Beguinages on Attitudes Toward Women

- Marie Curie B Chair: Chris Minns ____________**14:55 - 15:40 pm**
  Michael Bordo, Eric Monnet, and *Alain Naef*
  The Gold Pool (1961-1968) and the fall of the Bretton Woods system. Lessons for central bank cooperation

- Salon Dresde Chair: Jacob Weisdorf
  Alex Hollingsworth and *Melissa A. Thomasson*
  A Gift of Health: The Duke Endowment's Impact on Health Care in the Carolinas: 1925-1940

- Salon Ramat Gan Chair: Nadir Altinok
  Rowena Gray
  Rents and Welfare in the Second Industrial Revolution: Evidence from New York City

- Salon Leicester Chair: Tim Luger
  Alexander Persaud
  Risk mitigation and selection under forward contracts: 19th-century Indian indentureship

Coffee/Tea Break ____________**15:40 - 16:05 pm**

- Marie Curie B   Chair: Timothy Hatton   ______**16:05 - 16:50 pm**
  Maylis Avaro and *Vincent Bignon*
  Monetary Policy and Counterparty Risk Management at Banque de France in late 19th Century

- Salon Dresde   Chair: Anastasia Litina
  Maria Stanfors
  Was there a marriage premium in late nineteenth-century manufacturing? Evidence from Sweden

- Salon Ramat Gan   Chair: Jörg Baten
  Jose-Antonio Espin-Sanchez, Salvador Gil-Guirado, and *Chris Vickers*
  The Old Men in the Census: Inequality and Mobility in 18th Century Murcia

- Salon Leicester   Chair: Eric Schneider
  Nadir Altinok, Noam Angrist, Harry Patrinos
  An Updated Global Dataset on Education Quality (1965-2015)

Plenary Session: Globalization and the New World Order

- Marie Curie B   ________________**17:00 - 18:00 pm**

  Moderator: Carolyn Moehling, Rutgers University

  Panelists:

  Jeffrey Williamson
  Harvard University and University of Wisconsin, Madison

  Kevin O'Rourke
  Oxford University

  Gregory Clark
  University of California, Davis

Panelist Bios

Jeffrey G. Williamson

Jeffrey Williamson is the Laird Professor of Economics, *emeritus*, Harvard University and Honorary Fellow in the Department of Economics at the University of Wisconsin, Madison. He is past president of the Economic History Association and a Fellow of the Cliometric Society. Over his illustrious career, Professor Williamson has written many books and articles on globalization and its consequences. Professor Williamson is currently working on several research projects examining long run trends in factor prices, economic growth, inequality, and living standards around the world.

Kevin Hjortshøj O'Rourke

Kevin O'Rourke is Chichele Professor of Economic History and Fellow, All Souls College, University of Oxford. He has served as Trustee of the Cliometric Society and Vice President of the Economic History Association. Professor O'Rourke works at the intersection of economic history and international economics and has written extensively on the history of globalization and deglobalization. His book, *Globalization and History,* co-authored with fellow panelist, Jeffrey Williamson, won the 1999 American Association of Publishers/PSP Award for the best scholarly book in economics. Professor O'Rourke's current research focuses on interwar trade and trade policy and the relationships between trade and war.

Gregory Clark

Gregory Clark is Professor of Economics at University of California, Davis. He served as Editor of the *European Review of Economic* History from 2011 to 2015. Professor Clark is a renowned scholar of the Industrial Revolution. His most recent book, *The Son Also Rises: Surnames and the History of Social Mobility* (with Neil Cummins, Yu Hao, Daniel Diaz Vidal, et al.) won the Gyorgy Ranki Prize from the Economic History Association in 2015 and was one of Vox's "Best Books We Read in 2014." Professor Clark's current research explores social mobility and inequality in England from 1170 to the present.

Wednesday evening: no Congress events scheduled.

Enjoy Strasbourg!

Thursday 6 July 2017 World Congress Schedule

- Marie Curie B Chair: _Blanca Sánchez-Alonso_____**9:00 - 9:45 am**
  Claude Diebolt, *Charlotte Le Chapelain*, and Audrey-Rose Menard
  Industrialization as a Deskilling Process? Steam Engines and Human Capital in XIXth Century France

- Salon Dresde Chair: Melissa Thomasson
  Jacky S. Charles
  Loving Day: Interracial Marriages and Intergenerational Mobility in the United States

- Salon Ramat Gan Chair: Montinee Chaksirinont
  Hakon Albers, Ulrich Pfister, and Martin Uebele
  The Great Moderation of Grain Price Volatility: Market Integration vs. Climate Change, Germany, 1650-1790

- Salon Leicester Chair: Matthias Morys
  Pamfili Antipa and Christophe Chamley
  Monetary and Fiscal Policy in England during the French Wars (1793-1821)

- Marie Curie B Chair: Michael Haupert _________**9:50 - 10:35 am**
  Christopher L. Colvin, Stuart Henderson, and John D. Turner
  An Economic Conversion? Rural Cooperative Banking in the Netherlands at the Turn of the Twentieth Century

- Salon Dresde Chair: Lee Alston
  Giovanni Federico, *Alessandro Nuvolari*, and Michelangelo Vasta
  The origins of the Italian regional divide: evidence from real wages, 1861-1913

- Salon Ramat Gan Chair: Jean-Pascal Bassino
  John Cranfield, Kris Inwood, *Les Oxley*, and Evan Roberts
  Long run changes in the body mass index of adults in three food abundant settler societies: Australia, Canada and New Zealand

- Salon Leicester Chair: Jacky Charles
  Eric B. Schneider and Kota Ogasawara
  Disease and child growth in industrialising Japan: Assessing instantaneous changes in growth and changes in the growth pattern, 1911-39

Coffee/Tea Break ____________**10:35 - 11:00 am**

- Marie Curie B		Chair: Joyce Burnett ____________ **11:00 - 11:45 am**

  Jessica Bean, *Andrew Seltzer*, and Jonathan Wadsworth

  The impact of commuting and mass transport on the London labour market: Evidence from the New Survey of London Life and Labour

- Salon Dresde		Chair: Jonathan Fox

  Thor Berger

  Economic shocks and crime in 19th-century Sweden

- Salon Ramat Gan		Chair: Nuno Palma

  Leticia Arroyo Abad and *Blanca Sánchez-Alonso*

  A City of Trades and Networks. Spanish and Italian Immigrants in Late Nineteenth Century Buenos Aires, Argentina

- Salon Leicester		Chair: Eric Girardin

  Matthias Morys

  Greece in a Monetary Union: Lessons from 100 Years of Exchange-Rate Experience

- Marie Curie B		Chair: Sumner La Croix__________**11:50 am - 12:35 pm**

  Alan de Bromhead, Alan Fernihough, Markus Lampe, and *Kevin Hjortshøj O'Rourke*

  When Britain turned inward: Protection and the shift towards Empire in interwar Britain

- Salon Dresde		Chair: Alexander Donges

  Nikita Lychakov

  Government-made bank distress: industrialization policies and the 1899-1902 Russian financial crisis

- Salon Ramat Gan		Chair: Zachary Ward

  Piet Eichholtz, *Matthijs Korevaar*, and Thies Lindental

  500 Years of Urban Rents, Housing Quality and Affordability in Europe

- Salon Leicester		Chair: Craig Palsson

  Franz Xaver Zobl

  Technological choice and urban agglomeration: Steam vs water power in French industrialisation

There are no sessions on Thursday afternoon – Enjoy Strasbourg!

<u>Thursday, July 6th: Social Activity: Boat Tour from 17:30 to 18:45 pm</u>

Meeting Point: 17:00 pm at Quay Palais Rohan

Address:
Quay Palais Rohan
Place du Marché aux Poissons
67000 STRASBOURG

https://www.google.fr/maps/dir/Place+du+March%C3%A9+aux+Poissons,+67000+Strasbourg//@48.5804283,7.7515061,247m/data=!3m1!1e3!4m8!4m7!1m5!1m1!1s0x4796c8536eb16c91:0x7b84688ecd1dddd3!2m2!1d7.7516665!2d48.580396!1m0

Thursday, July 6th: World Congress Dinner at Maison Kammerzell from 19:00 -22:00 PM

Address: 16, place de la Cathédrale, 67000 Strasbourg

For further information about the restaurant for the conference dinner, please go to http://www.maison-kammerzell.com/en/.

Friday 7 July 2017 World Congress Schedule

- Marie Curie B Chair: Keith Meyers ___________**9:00 - 9:45 am**
  Masato Shizume
  Banking Networks and Financial Market Integration: A Case of Japan during the Late 19th Century

- Salon Dresde Chair: Andrew Seltzer
  Peter Sandholt Jensen, Markus Lampe, *Paul Sharp*, and Christian Skovsgaard
  A Land 'of Milk and Butter': The Role of Elites for the Economic Development of Denmark

- Salon Leicester Chair: Douglas Puffert
  Cihan Artunç
  Commercial Expansion and Churning: Business Organization in Egypt between 1911 and 1948

- Marie Curie B Chair: Jessica Bean ___________**9:50 - 10:35 am**
  Carlos Alvarez-Nogal and Christophe Chamley
  Refinancing short-term debt with a fixed monthly interest rate into funded *juros* under Philip II: an *asiento* with the Maluenda brothers

- Salon Dresde Chair: Florian Ploeckl
  Alan Hanna, John D. Turner, *Clive B. Walker*
  News Media and Stock Market Returns over the Long Run

- Salon Ramat Gan Chair: Junichi Yamasaki
  Harry X. Wu
  Towards A Quantitative Assessment of the Transformation of Workforce in the Course of China's Industrialization and Urbanization, 1912-2012

- Salon Leicester Chair: Maria Stanfors
  Eltjo Buringh, Bruce Campbell, *Auke Rijpma,* and Jan Luiten van Zanden
  Church building and the economy during Europe's 'Age of the Cathedrals', 700–1500

Coffee/Tea Break ______10:35 - 11:00 am

- Marie Curie B Chair: Masato Shizume ______**11:00 - 11:45 am**
  Emilie Bonhoure, Laurent Germain, David Le Bris
  Active versus Speculative Monitoring: Evidence from pre-WWI Paris-Listed Firms

- Salon Dresde Chair: Susan Wolcott
  Rui Pedro Esteves and *Florian Ploeckl*
  Trade Agreements, Democracy and Political Alliances: Understanding the evolution of the global institutional system during the First Globalization

- Salon Ramat Gan Chair: Carolyn Moehling
  Jean-Pascal Bassino, Kyoji Fukao, and Tokihiko Settsu
  Productivity growth in Meiji Japan: the structural and regional dynamics

- Salon Leicester Chair: Charlotte Le Chapelain
  Caroline Fohlin
  The Volatility of Money: The New York Call Money Market and Monetary Policy Regime Change

- Marie Curie B Chair: Jonathan Chapman ______**11:50 am - 12:35 pm**
  David le Bris, William Goetzmann, Sebastien Pouget, and *Maxime Wavasseur*
  Asset Pricing in Old Regime France

- Salon Dresde Chair: Chris Colvin
  Michail Moatsos
  Long run trails of global poverty, 1925-2010

- Salon Ramat Gan Chair: Audrey-Rose Menard
  Junichi Yamasaki
  Railroads, Technology Adoption, and Modern Economic Development: Evidence from Japan

- Salon Leicester Chair: Clive Walker
  Stephan Ernst Maurer, Jörn-Steffen Pischke, Ferdinand Rauch
  Of Mice and Merchants: Trade and Growth in the Iron Age

The Congress is Closed. Bon Voyage!

Abstracts for 87 Papers to be Presented at the

8th World Congress of Cliometrics

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For more information on attending the World Congress, please go to:

http://www.cliometrie.org/en/conferences/world-congress-of-cliometrics

The Great Moderation of Grain Price Volatility: Market Integration vs. Climate Change, Germany, 1650-1790

Hakon Albers, Ulrich Pfister, Martin Uebele

Abstract

This paper discusses the determinants of economic (i.e. population) growth in a Malthusian economy, especially market integration and climate change, through the lens of grain prices. In particular, it analyzes Germany, the fourth most populous economy of 18th century Europe, during the period 1650-1790. This period features a remarkable increase in the population size from 13.5 million in 1618 (pre-War level) to 19 million in 1800. For a population increase like this in a closed economy Malthusian equilibrium either aggregate factor input of land or total factor productivity (TFP) in agriculture must have increased. The explanatory power of increasing factor input is limited because of diminishing returns.

There are several ways how agricultural TFP could have increased in Germany prior to 1800. We focus on grain market integration and discuss its relevance compared to other factors such as institutional and technical changes. Market integration increases allocative efficiency of production factors and likely the allocation of grain for consumption.

We compile a new data set of rye prices from 15 German cities in the period 1650-1790. In Europe, bread from grain epitomized the major spending share in consumer baskets for the pre-industrial period, and rye was the most important food grain in Germany.

One possible explanation for converging prices apart from market integration is climate change; here in particular the end of the Little Ice Age (LIA) around 1700. One could argue that a decline of weather shocks may have reduced local crop failures that would have been reflected in lower price volatility independent of the state of market integration.

To address the problem of measuring price convergence robust to weather shocks and climate change, we formally analyze the coefficient of variation (CoV), an often applied measure to test the law of one price (LOOP). The main insight of our formal analysis is that the CoV is neither robust to weather shocks nor to climate change. We thus apply cross-sectional standard deviations instead of the CoV to deflated five-year-mean prices and work with sub-regions defined based on climatological research.

Our results bear out two stylized facts: (1) cross-sectional price convergence at the national level and (2) a decline of the temporal volatility of an aggregate price series. Our methodological approach allows the conclusion that price convergence is measured robust to weather shocks. In North-Western Germany, price convergence is also robust to climate change. A major fraction of the price convergence, however, appeared between North-Western and South-Eastern Germany.

We further discuss the relevance of our findings in the context of growth theory. The price volatility moderation coincided with a decrease in the level of aggregate mortality. Lower grain price volatility likely increased survival probability and possibly life expectancy, both of which are part of relevant growth models. Thus, we consider the decline of temporal volatility so relevant and new that we term it *The Great Moderation of Grain Price Volatility*.

An Updated Global Dataset on Education Quality (1965-2015)

Nadir Altinok*, Noam Angrist, Harry Patrinos (1)

Abstract

The aim of this paper is to propose a new database allowing for comparative evaluation of the relative performance of schooling systems around the world between 1965 and 2015. We measure this performance through pupils' achievement in standardized tests (PISA, TIMSS, SACMEQ, ELCE, PIRLS, PASEC). Our results are quite surprising. The ranking of the best performing countries is quite stable over time, suggesting for little expectations about the policies which are focused on the increase of education quality. However, the performance of specific countries proves that specific trends are still possible (like South Africa or Qatar). Moreover, based on specific thresholds instead of global mean scores, our dataset shows that a significant increase has been observed in specific countries while this trend is not highlighted in standard mean score analysis.

Refinancing short-term debt with a fixed monthly interest rate into funded *juros* under Philip II: an *asiento* with the Maluenda brothers

Carlos Álvarez-Nogal
Departament of Social Science
Universidad Carlos III de Madrid

Christophe Chamley
Department of Economics
Boston University

Abstract

In the fragmented geographical, fiscal and financial state that Philip II of Spain had inherited, while the public debt reached an unprecedented level (50-60 percent of GDP), the critical refinancing of unfunded *asientos* into funded *juros* was operated by merchant-bankers who signed the *asientos*. This process is illustrated, with an abundant archival documentation, by an *asiento* with the Maluenda brothers, in 1595, that delivered to the Crown steady monthly cash payments for a year with, for two thirds of the credit, options to sell *juros*, and a monthly rate of one percent on the interim balance. Other examples are provided.

The Maluenda contract is a textbook contract with an abundant documentation that confirms the interpretation of the flexibility for the Crown's payments subject to a fixed monthly rate of one per cent on the balance due, as in a modern credit line.
The analysis of the contract and its attachments demonstrates that the understanding of the finances of Philip II requires a careful reading of a number of contracts and of their attachments in the archives of Simancas. This is especially true because the terms of the payments are not detailed in many contracts.

The expertise of the merchant-bankers proved to be essential for one of the most interesting features of the contracts, the option to convert part of the *asiento* into *juros.* Such routine conversions, delegated to private agents, took place well before the state conversion in 18th century England.

In addition, the contracts repeatedly acknowledge the financial intermediation of the merchant-bankers who raise funds in the credit markets in order to finance the *asientos*. The texts of many contracts show that the *asientos* transformed for the Crown multiple and dispersed sources of revenues, in this pre-modern stage, into one steady stream of cash at specified places. In this transformation, the merchant-bankers' were experts in the details of the public finance of the Crown and in the markets for the long-term debt.

Monetary and Fiscal Policy in England during the French Wars (1793-1821)

Pamfili Antipa (Banque de France and Paris School of Economics)

Christophe Chamley (Boston University)

Abstract

How do you finance a world war or any costly crisis? What role should the central bank play in financing public expenditures? And once public debt has accumulated and inflation occurred, how do you exit from such a situation? We answer these questions by studying the French Wars (1793-1815). As the wars exerted unprecedented pressures on Britain's budget, they offer a unique case study of the interactions between fiscal and monetary policies.

Our analysis is of historical interest as the French Wars ushered in Pax Britannica and shaped the political and financial landscape for the century to come. The wars also served as a blueprint for financing WWI. We also inform the policy choice between maintaining a fixed exchange rate and restructuring an outstanding debt overhang, as under discussion in certain member countries of the euro area. Finally, we contribute to the analytical debate concerned with the conditions under which the variations of a central bank's balance sheet affect prices (Chamley and Polemarchakis 1984).

Throughout the wars, policy makers adjusted monetary and fiscal policies to meet increasing needs of war finance. This meant implementing necessary monetary and fiscal policy innovations, such suspending the gold standard and instituting Britain's first and very successful income tax—60 percent of the extra cost incurred by the wars would be covered by tax revenues (O'Brien 1988). These adjustments signaled the government's commitment to undertake the necessary to win the war, without jeopardizing fiscal sustainability.

Drawing on new hand-collected data, we also show that the Bank of England played an essential role in two successive phases of the wars by purchasing large amounts of private bills at first, and then of public debt. While the Bank's balance sheet increased substantially, its composition may have mattered more than its growth. To resume the gold standard, the Bank needed to restore a balance sheet that was similar to the one before the suspension. The counterpart to note circulation being the holdings of public securities, resumption hinged on the Treasury reimbursing the Bank. The size of the gold reserve was not elementary for maintaining or returning to convertibility with gold; fiscal policy was (Sargent 1982).

Reversing the war stimulus came with high economic and social costs. The rate of unemployment increased from 5 to 17 percent in the post-war depression (Feinstein 1998). The costs of resuming the gold standard remained unaccounted for since public manifestations of social discontent were rendered illegal and the electoral system entailed an under-representation of the citizens most affected.

The mistakenly perceived ease with which the resumption was undertaken in 1821 shaped British monetary orthodoxy and the global financial system for the century to follow (Fetter, 1965). It also ushered in the gold standard's second resumption after WWI, an event that prolonged and aggravated the Great Depression (Eichengreen and Temin 2000). This is a relevant lesson for the current policy choice between maintaining a fixed exchange rate and restructuring outstanding public debt, as under discussion in certain euro area countries.

Commercial Expansion and Churning:
Business Organization in Egypt between 1911 and 1948

Cihan Artunç

University of Arizona

Abstract

This paper explores business expansion and contraction in Egypt between 1910 and 1949 in response to the changes in the macroeconomic environment. I show that partnership formations and dissolutions was pro-cyclical but partnership size and capitalization were counter-cyclical. Corporation entry and exit had no strong association with the business cycle conditions but their startup capitalization was substantially pro-cyclical. I draw three broader conclusions. First, most commercial expansion took place on the extensive margin; booms led to the creation of more firms, which typically had lower capitalization and fewer partners. This is consistent with the theory of costly entry in the presence of financial frictions. Expansionary periods lowered the productivity threshold for entry, increasing the number of entrant by overwhelmingly selecting on low-productivity firms that were smaller and frailer. Second, pro-cyclical churning was a consequence of fast attrition among partnerships, most of which broke up within two years. Third, the different dynamics of corporations were consequences of the concessionary system of incorporation, which required special permission from the government.

Productivity growth in Meiji Japan:

The structural and regional dynamics

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Abstract

There is no doubt that macroeconomic conditions and living standards improved steadily in Japan during the Meiji era (1868-1912). However, since the major quantitative evidence was based on country level per capita GDP estimates by Ohkawa and Shinohara (1979) starting in 1885, the degree and exact nature of the economic transformation had remained a matter of discussion, particularly for the initial period from 1868 to the 1880s. Furthermore, the structural and spatial dimension of the economic transformation of the late 19th century has not been investigated in a systematic manner.

The paper proposes a quantitative analysis of the structural change occurring during Meiji Japan economic growth, while accounting for its regional dimension. Building on new GDP estimates at the prefecture level for the benchmark years 1874, 1890 and 1909 (Fukao et al. 2015), we constructed estimates of labour force and labour productivity by sector, and of prefecture level migration.

In order to convert into international GK$ of 1990, instead of Maddison's (2001) series, we rely on estimates by Mizoguchi and Noshima (1993) to link real GDP in 1940 and 1955. The result of our calculation indicates that Japan was still a poor country by European standards, but our estimates of per capita GDP at the country level is

1013 international GK$ of 1990. This is significantly higher than the 756 $ figure extrapolated by Maddison (2010) on the basis GDP growth estimates by Ohkawa and Shinohara (1979).

On the basis of this new dataset, we identified differences and similarities in economic trends in the sub-periods 1874-1890 (Meiji I) and 1890-1909 (Meiji II). The results obtained enable to qualify the Meiji economic development and the main findings can be summarized as follows.

- First, Japan was already a higher income country by Asian standards, and living standards were well above subsistence levels in all prefectures ca. 1874. The new GDP figure for 1874 implies a downward revision of the growth rate of the Japanese economy in first part of the Meiji period.
- Second, the Meiji era was associated to a rapid change in the industrial structure in a process that can be described as a shift to Modern Economic Growth.
- Third, income and labour productivity gap across regions increased markedly in the period 1874-1890. However, in Meiji II, labour productivity gap across regions remained stable.
- Fourth, the expansion of high labour productivity manufacturing activities was mostly concentrated in large cities.

Although the narrative of the economic transformation of the Meiji era is usually associated with the heroic endeavour of Japanese entrepreneurs who successfully appropriated western technology, the macroeconomic evidence indicates that the expansion of manufacturing in Meiji I was mostly based on indigenous technologies associated with low labour productivity and played overall a limited role in the rise in living standards. It is only in Meiji II that high labour productivity manufacturing activities started to play a significant role, mostly in the most urbanized prefectures.

The History of Violence over the Past Two Millennia: Archaeological Bone Traumata as a Source for European Violence History

Jörg Baten* and Richard H. Steckel**

*Univ. Tuebingen/CEPR/CESifo, **Ohio State Univ. and NBER

Abstract

How did the intensity of interpersonal violence change over the last two millennia? Can we measure it, at least approximatively, and what might have caused changes over time, as well as differences between regions and social groups? The relevance of such a study hardly needs to be stressed – personal security has always been one of the most important aspects of human welfare.

Moreover, the absence of violence is a precondition for the development of social capital and hence, economic growth. Taking a long-run perspective provides crucial insights about the propensity of humans to act violently against others. The major challenge of a study that covers two millennia is finding indicators that are sufficiently informative, reliable and representative. Obviously, any single indicator will contain biases or measurement error if it used for such a long period, so the validity of the archaeological evidence is assessed carefully. We also compare the observed trends with other indicators of interpersonal violence.

Cranial traumata observed in skeletons are often caused by interpersonal violence, as are traumata that can be identified as weapon wounds. The share of individuals with weapon wounds or cranial traumata relative to all individuals with sufficiently well-preserved skeletal remains serves as the main indicator of interpersonal violence in this study.

One of our main findings is that interpersonal violence did not decline dramatically during the first fifteen hundred years of the last two millennia. In fact, violence even actually increased during the late medieval period. Secondly, we find generally lower shares of people subjected to interpersonal violence in the northwestern part of Europe, with a minimum value at the continental North Sea coast (today's Netherlands and parts of NW Germany). Frisian traders created a trading empire in this region during the early medieval period. Apparently, trade-averse violence was controlled as incomes from trade allowed certain level of autonomy. In

general, the Mediterranean, and central, eastern and southeastern Europe had higher levels of violence. We find that the cross-sectional patterns also confirm a human capital interpretation of early violence reduction: There were lower violence levels in urban areas from the High Medieval period onwards – and the decline of violence started earlier behind city walls. Among the rural populations, no downward trend could be identified before the early modern period. We find a tentative and preliminary negative interregional correlation between human capital indicators (such as the number of manuscripts written in medieval monasteries) and violence. Areas with higher human capital tended to have lower violence, which is compatible with earlier research on post-14th-century homicide rates (Eisner 2014).

Economic shocks and crime in 19th-century Sweden

Thor Berger

Abstract

This paper examines the impact of economic shocks on criminal activity and whether an increase in trade openness serves to exacerbate or mitigate this link. Analyzing the impact of harvest failures in 19th-century Sweden using a newly constructed county-level dataset with annual observations on criminal activity and harvest outcomes, I show that property crimes almost doubled in the wake of a localized harvest failure while violent crimes decreased significantly, which I corroborate by examining the direct effects of food prices and wages on criminal activity. As the railroad network spread, however, the responsiveness of crime to local agricultural shocks fully disappeared, as the increased openness of local economies reduced the volatility of prices and real incomes. These findings suggest that investments in transportation infrastructure that promote trade integration are an important margin to shield rural citizens from adverse productivity shocks.

Monetary Policy and Counterparty Risk Management at Banque de France in late 19th Century

Maylis Avaro
Graduate Institute – Geneva

Vincent Bignon
Banque de France

The last financial crises highlight the importance of operational procedures used by central banks to cool down financial distress. Critics insist on the potential negative consequences on risk-taking behavior of broadening access to lender of last resort. We study the risk management used by Bank of France to limit its exposure to of counterparty credit risk in late 19th century. We use archives from the head office and the local branches of the Bank of France to detail the procedures of supervision of the quality and wealth of counterparties. Moral hazard was contained by the collection of very precise pieces of information on wealth and attitude towards risk of those agents.

To show this, we construct the cross-section of all counterparties monitored during 1898 by the Banque de France supervisory reports. Our dataset has 1,665 individual presenters to the discount window of one of the 94 local branches in 1898 with information on their identity, occupation, economic and social situations, wealth and financial position with the Bank.

We establish that the Bank operated a very wide discount window by granting access to banks, shadow banks and non-banks. The Bank used this information to discipline against counterparties by reducing refinancing to risky counterparties. This is shown by using the individual information on all counterparties and testing whether rediscounting was negatively correlated with the assessment of the central bank on risk-taking behavior. We also document systematic differences in terms of the type of collateral pledged by banks or non-banks. To secure their lending with the Banque de France, banks relied on techniques akin to micro-finance such as personal guarantees while non-banks pledged mostly liquid securities. Yet we did not find any evidence of insider lending, or cronyism in the choice of the volume of discount by the Banque de France. We conclude that this sophisticated information system was set to protect its profits from the risks of default of counterparties.

We contribute to the historical literature by adding on Nishimura (1995) in demonstrating that the Bank did not took credit risk with its presenters to discount window. We also add on Goodhart and Capie (1994), as our quantitative measures show that the Banque de France already act as the bank of banks in late 19th century France. Indeed financial intermediaries accounted for 84% of the total discounted volume and 30% of all banks operated in France presented discounts

with the Bank of France. Together with the fact that the Bank was the bank of the government, this establishes its role as the central bank.

Active versus Speculative Monitoring: Evidence from pre-WWI Paris-Listed Firms

Emilie Bonhoure, Laurent Germain, David Le Bris

Abstract

The corporate statutes of the five hundred firms listed on the unofficial Paris market before WWI stated the amount of dividends as a fixed percentage of profits: as a result, managers could not use dividends as a market signal. This setting offers the opportunity to study the agency explanation of dividends, while clearly excluding the signaling theory. Moreover, we investigate speculative (active) monitoring costs as proxied by distance between investors and the company's main activities (or head office). We confirm the effect of agency costs and find that speculative monitoring costs are more important in explaining dividend yield.

Why 1990 international Geary-Khamis dollars cannot be a foundation for reliable long run comparisons of GDP

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Abstract

Using a large, new dataset of agricultural prices and quantities for 70 countries and regions, we create five new international Geary-Khamis (GK) pounds – for 1870, 1845, 1775, 1705, as well as a superior chained series. We show that estimated levels and changes in output per worker look more extreme using 1705 international pounds and 1990 international dollars, compared to all other series. Growth rates appear substantially higher using 1990 international dollars. In short, out-of-sample baskets and/or prices create extremely unreliable estimates of changes in real output. We further show that using individual country price indices can generate substantially different estimated growth rates, compared to using international prices. Hence it is no surprise that researchers using different approaches reach different conclusions regarding relative performance of countries in the long run: the differences are likely driven largely by methodological differences. In order to make progress in understanding historical development, and avoid further confusion, we need to implement the most theoretically well-founded methodology.

The most theoretically well-founded approach to comparing real income across countries is to use a common set of “international” prices to value outputs in all countries (or, alternatively, to deflate total expenditure on each output). The Penn World Tables follow this approach, using data collected for the World Bank’s International Comparison Program. They have used GK prices, which are *de facto* weighted average prices, where the shares of each country in the total output of each product act as weights. But how do you then deal with *changes* in real income over time? Calculate the change in the price index from date *t* to *t+1* and then use this to deflate the change in nominal output; to cover multiple years, chain together changes in the price index from one year to another. In the same way, we should ideally chain international prices to make cross-country comparisons.

The problem is that you need data on output (or expenditure) shares of all countries *for every year in which you construct GK prices*. Whilst we have many historical price series, we have few historical output series and therefore no one has attempted to construct historical GK prices. Instead, a standard approach has been to value outputs for every year using 1990 international dollars (as in Maddison, 2001), all the way back to the time of Christ. This solves the cross section problem (i.e. we are using "international prices", which is less biased than an arbitrary set of prices from one country). But it introduces a time series problem (i.e. both the correct weighting of each price, and the relative prices, have changed drastically between the crucifixion and the 2008 financial crisis); this will likely lead to biased estimates of changes in real output. Theoretically, the bias can go either way, so its effect can only be estimated empirically: we provide the first such assessment.

The Evolution of Bank Lending Behavior in Post-WWII Britain: Evidence from a New Narrative Measure

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Abstract

What is the role of bank lending behavior in business cycles? Did its cyclical properties change after retail banking was liberalized in the 1970s? Did it primarily propagate shocks or was it also a source of shocks to the economy? To answer these questions, we need to measure bank lending supply. Just as central bank money is a poor indicator of monetary policy in countries where the central bank targets a policy rate, so bank lending is a poor indicator of the loan supply when banks offer flexible facilities such as overdrafts.

The use of narrative measures of policy was a major breakthrough in measuring the impact of macroeconomic policy (eg Romer and Romer, 1989, drawing on Friedman and Schwartz, 1963). These narrative measures are not infected by fluctuations in the demand for money. Recognizing that the same logic applies to measuring the bank loan supply, the major contribution of this paper is a new narrative measure of bank lending policy. This is based on archival records of major British banks from the 1950s until the 1980s. Their archives have preserved near-complete records of messages sent on a daily basis from head offices to branches called ‘circulars’. These circulars contain instructions relating to bank lending policy, including the borrowing sector affected and often the rationale for the change. The relevant instructions are weighted by bank and sector to construct an aggregate narrative bank lending policy. While this would be a nigh-on impossible task for the US banking system as there were so many banks, in Britain the largest five banks accounted for around half of total UK bank lending and a higher proportion of UK bank lending to residents.

A second contribution is to estimate the impact of bank lending policy on the macroeconomy. Controlling for contemporaneous macroeconomic forecasts and policy, I find that a loosening in bank lending policy had a significant positive impact on bank lending and manufacturing output. Evidence is presented suggesting that bank lending policy depressed output through an aggregate supply channel.

A final contribution is to assess the drivers of bank lending policy and its role in the business cycle. Narrative and statistical evidence suggests bank lending policy responded to official credit policy and to developments in bank balance sheets, particularly the ratio of advances to deposits. Despite the major banking liberalisation in the middle of the sample, the behaviour and effects of bank lending policy were broadly comparable in both halves of this time period. Curiously, there is somewhat more evidence of procyclical behaviour before the liberalisation. Evidence from forecast error variance decompositions suggests that as well as propagating other shocks, the banking system was a quantitatively important source of variation in the UK economy in this period, with an overall impact similar to monetary policy.

Gender Differences in Absenteeism in Nineteenth-Century US Manufacturing

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Abstract

I use two different data sources to examine gender differences in absence rates in the nineteenth-century US. First, I use state surveys from the 1890s that asked workers how many days of work they "lost" in the year. Ignoring days lost due to lack of work, the simple averages suggest that women were absent 10.5 day per year and men only 9.7 days. Controlling for state fixed effects, women had lower absences, but not significantly so. The number of dependents, however, had a significantly different effect on male and female absences. Dependents reduced male absences, but increased female absences. I also use wage books from cotton textile firms to measure the absence rates of weavers. Female weavers had higher absence rates than male weavers, and in most cases absence rates were higher than current absence rates. Among female weavers, absence rates ranged from 5 to 10 percent of work days. Absence rates at Lyman Mills fell between 1850 and 1883, and were lower at Lyman than at Pepperell Mfrg. Co. in 1883, perhaps because Lyman paid higher wages. Absences were higher in the summer than in the winter, and were slightly higher on Saturdays than on other days of the week. Absences were higher near holidays, suggesting that at least some absences were taken for leisure.

Backtesting Systemic Risk Measures during Historical Bank Runs

Christian Brownlees, Ben Chabot, Eric Ghysels, Christopher Kurz

Abstract

In the wake of the 2008 financial crisis a number of systemic risk measures were proposed to identify systemically risky institutions and monitor risk in the financial sector. A major hurdle in evaluating of the efficacy of predictors of financial distress is the limited availability of financial crisis data. Bank balance sheet and stock return data is only available in the FDIC era when financial crises are exceedingly rare.

In this work we employ a new dataset containing individual firm level balance sheet and stock return information of the New York banking system before the introduction of FDIC insurance. Our new data allow us to evaluate the performance of two popular systemic risk measures, CoVaR and SRISK, during the frequent panics of the pre-FDIC era.

Our evaluation exercise focuses on assessing if systemic risk measures are able to detect systemically important banks as well as providing early warnings of aggregate financial sector turbulence. Results show that during panic the proposed systemic risk measures performed well. Both CoVar and SRISK improve prediction even after controlling for other popular measures of firm risk such as valuation and liquidity ratios or market based Value at Risk measures. The new measures are particularly useful for the ex-ante detection of systemically risk institutions.

Currency Regimes and the Carry Trade

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David Chambers (University of Cambridge)
Ian Marsh (City, University of London)

Abstract

This paper exploits the time-series and cross-sectional variation in exchange rate regimes, between fixed and floating, over the last century and studies the relationship between exchange rate regime and carry trade returns. In order to motivate our empirical analysis, we extend the Lustig, Roussanov, and Verdelhan (2014) model such that it allows risk compensation in foreign exchange markets to depend on currency regimes. Specifically, the pricing kernels of countries in the fixed regime are characterised by symmetric exposures to a global risk factor and as such we show that carry returns based on fixed currency pairs should be near-zero. Conversely, the pricing kernels of countries in the floating regime are asymmetrically exposed to the global risk factor such that currencies with high interest rates command a larger risk premium. Consistent with our model, the empirical analysis demonstrates that the outsized unconditional return to the carry trade is almost exclusively driven by the floating currency pairs in our sample. Furthermore, our model also allows regime shocks to affect carry returns. Empirically we find that the collapse of a currency peg on average spills over into floating currency pairs resulting in negative shocks to carry trade returns. Such currency regime shifts may offer an explanation for the positive mean return to the carry trade over the long-run.

Keywords: Exchange rate regime, Carry trade

JEL classification: F31, G12

The contribution of infrastructure investment to Britain's urban mortality decline 1861-1900

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Abstract

Between 1851 and 1900 mortality rates in Britain declined by almost 20%. Over the same period, local government expenditure on urban infrastructure increased rapidly, so that by 1890 spending by local authorities accounted for over 41% of total public expenditure, with much of the money used for water supply and sewers (Lizzeri and Persico, 2004). This simple pattern leads to the natural conclusion that government sanitation expenditure was the driving force behind the improvement in life expectancy. Yet the role of public health in explaining British mortality decline in the nineteenth century remains disputed. The classic explanation of the dramatic fall in mortality rates after 1850, due to McKeown (1976), has emphasized the importance of better nutrition rather than improvements in the sanitary environment. More recent studies (Williamson, 2002; Szreter, 2005), however, have questioned his conclusion without ending the debate or pinning down the precise quantitative impact that sanitary investment had on mortality.

This paper analyzes the relative importance of government public health investments to Britain's mortality decline using a new panel dataset identifying town-level infrastructure investment across England and Wales between 1861 and 1900. The stock of infrastructure investment is measured using the per capita value of loans outstanding reported in town council annual reports. This town-level data is then linked to information on decadal mortality at the level of Registration district, collected from the *Registrar General's Decennial Supplements*.

The resulting dataset is used in two main analyses. First, ordinary least squares regressions establish the fact that infrastructure expenditure had a negative impact on overall mortality. Once demographic control variables or town fixed effects are included in the specifications, there is a clear evidence that infrastructure investment led to significant declines in mortality rates. In particular, infrastructure investment is estimated to explain between 22% and over 100% of the decline in mortality between 1861 and 1900, with the range determined largely by whether time trends are accounted for. Importantly, these findings are robust to controlling for the ratable value of each district, indicating that the effects are not merely capturing the effects of growing wealth (and hence potentially improved nutrition).

Since simple OLS regressions may not fully account for the endogoneity between investment and mortality, additional specifications are estimated using lagged investment as an instrument for current investment. The results of the instrumental variables regressions show that infrastructure investment was the major contributor to urban mortality decline in the second half of the nineteenth century. The main results indicate that between 54% and 60% of the decline in total mortality is explained by infrastructure investment. Only considering the period before 1890, before new infrastructure such as tramways and electricity supply appeared in town accounts, 88% of the total urban mortality decline is explained by infrastructure investment. Additional results indicate that investment in urban infrastructure led to declines in mortality from both waterborne and airborne diseases. Together, these results support an explanation of Britain’s mortality decline based predominantly on investment in public infrastructure.

Loving Day: Interracial Marriages and Intergenerational Mobility in the United States

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ABSTRACT

The post-abolition period in the United States experienced a sequence of events restricting the civil rights of freed slaves and their descendants well into the twentieth century. One such right was the freedom to choose whom to marry. Anti-miscegenation laws prohibiting black-white marriages were common and lasted well into the 20th century. Overtime these laws also applied to Asians, particularly in western states. By 1967 anti-miscegenation laws were still existent in 16 southern states until they were permanently repealed following a ruling in the United States Supreme Court case *Loving vs Virginia*, when the Supreme Court viewed such laws as unconstitutional. Prior to 1967, interracial marriages were rare, however, during the period 1980-2000 interracial marriages have been on a significant upward trend doubling every decade.

In this paper, I examine whether anti-miscegenation laws hindered unions that would have resulted in higher incomes and social standing for minorities and their offspring using individual data from the Integrated Public Use Microdata Series (IPUMS) one-percent samples of the United States population from 1940 to 2000. The results show a negative relationship between anti-miscegenation laws and interracial marriage rates, and also show that inter-married minorities have higher earnings and social status. Anti-miscegenation laws were therefore a binding constraint on individuals in some states as well as individuals belonging to some birth cohorts (for example, blacks born during the 1920s and 1930s in the U.S. south).

In order to study the relationship between interracial marriages and intergenerational mobility, I link fathers to sons and compare Intergenerational Elasticity (IGE) estimates for sons born to interracial couples compared to sons whose parents were in an endogamous marriage. The results suggest that interracial marriage is an important determinant of intergenerational upward mobility among African Americans and other minorities. I also found that there is lower mobility for individuals belonging to families where both parents are black. Thus an African American child can expect lower mobility in their life chances than a child born to one parent who is black and the other is white. Given that non-white incomes in the United States are on average less than that of white incomes, one can expect that higher elasticities (that is, higher IGE estimates), can translate into the potential persistence of great disadvantage to children from low income families.

The findings in the paper take initial steps in understanding plausible long-run consequences of interracial marriages. Future research can examine the relationship between intergenerational mobility and inequality with interracial marriage as a transmission mechanism impacting levels of inequality. Other possible extensions to this study could be to analyse education differentials of the offspring of persons in exogamous and endogamous marriages, as well as, to analyse the relationship between intermarriage and the black-white

income gap. Thus if social barriers are reduced or if there is increased social integration in the United States will black-white convergence in income occur at faster rates?

The People, not the Place. The Decline of the North of England 1918-2017: A Surname Investigation

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Abstract

The North of England in recent years has been poorer, less healthy, and less educated than the South. For example, the chance of an 18 year old matriculating in Oxford or Cambridge was only about half that for the north as in the South in 2013. Value added per person in the North is 25% less than in the South. Life expectancy in the North is nearly two years less.

The decline of the North has two possible sources. The first is that when the classic industries of the Industrial Revolution – cotton textiles, shipbuilding, coal and iron – declined in the twentieth century, the north then had a locational disadvantage compared to the South in the new economy of the twentieth century. Accidents of geography determine peoples' life chances. The second is that the decline was a product of selective outmigration of those with talent and ability out of the North, an outmigration that helped speed the industrial decline of the North.

In this paper we show, using surnames, that the decline of the north was largely the product of the second mechanism - selective outmigration of talent. But further this outmigration began even in the heart of the Industrial Revolution, before the North experienced adverse shocks to its industries after WWI. Further migrants to the North before 1914, when the net migration was positive, tended to be negatively selected.

Many surnames in England had very specific origins in the North, Wales or the South. Thus circa 1840 near 100% of *Ainscoughs*, *Birtwistles* and *Calderbanks* lived in the North, near 100% of *Northcotts* and *Vanstones* lived in the South, and near 100% of *Morgans* lived in Wales. If adverse geography mattered, then the Northern surnames, still concentrated in the North, should in the aggregate show worse social outcomes now. If selective migration is the source, then Northern surnames globally should show no net disadvantage. Further Northern surname holders located in the South should represent a social elite.

Using the surnames that were originally regionally distributed we show that the hypothesis of a talent drain from the North is supported. Surnames associated with the north in 1837 show no disadvantage relative to those associated with the south in terms of wealth, educational attainment, occupation, and political status in 2017 in England as a whole. Further holders of Northern surnames in the South were wealthier than the Southern population as a whole, while holders of Southern surnames in the North were poorer than the Southern population as a whole.

The paper thus supports the primary role of ability and talent in explaining regional differences in living standards and economic outputs. It also implies that policies designed to aid the population in the North of England in the form of regional regeneration investments, or encouragement of migration south, are likely to be ineffective in boosting outcomes for the remaining northern population.

Unions and the Great Compression of American Inequality, 1940-1960

William J. Collins and Gregory T. Niemesh

Abstract

The widening and polarization of the U.S. wage structure since the 1970s has motivated an extensive literature that studies inequality's changing patterns and root causes. In contrast, earlier in the twentieth century, the U.S. experienced a large decline in wage inequality, especially during the 1940s, in what Goldin and Margo (1992) termed "the Great Compression." This event has received far less attention from scholars than the late twentieth-century rise in inequality despite its magnitude and persistence well into the 1960s.

We investigate whether changes in labor market institutions—specifically the rise of organized labor—contributed to the mid-century narrowing of inequality and, if so, whether that contribution left an imprint on labor markets beyond the 1940s. We develop new evidence based on changes in inequality and union density at the level of local labor markets. In essence, we test whether places exposed to larger exogenous increases in union density tended to have larger declines in wage inequality, conditional on many other factors that may have simultaneously affected local economies. To accomplish this, we make use of new and large micro-level datasets for the 1940 and 1960 censuses in combination with the 1-percent public use sample for the 1950 census (Ruggles et al. 2015). We combine local-level information on the distribution of workers over industries in 1940 with national-level industry-specific measures of *changes* in unionization during the 1940s to measure cross-place differences in exposure to unionization. This variation in exposure to unionization forms the basis of the identification strategy. From the census microdata, it is straightforward to derive local measures of wage inequality.

The 1940s were a tumultuous time for the U.S. economy due to World War II. Therefore, isolating the role of unions apart from the many other influences on local wage structures poses a challenge and merits caution in interpreting regression results based on differences in changes across places. Nonetheless, we find evidence that places that were more exposed to increases in unionization due

to their pre-existing industrial structure experienced sharper declines in wage inequality after 1940 when controlling for potentially confounding factors such as the value of wartime contracts to local producers, the shift in the relative demand for skilled versus unskilled workers, the pre-existing skill level of the local workforce, and state or regional trends. Although preliminary, evidence does not suggest that this pattern was underpinned by the sorting of skilled workers or firms out of locations that experienced sharp increases in union density. Finally, the imprint of unionization on wage structures was persistent at the local level. Long-difference regressions show that places intensively exposed to changes in unionization in the 1940s tended to have smaller changes in inequality between 1940 and 2000.

An Economic Conversion? Rural Cooperative Banking in the Netherlands at the Turn of the Twentieth Century

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Abstract

Rural Raiffeisen banks entered the market for household finance in the Netherlands at the turn of the twentieth century, at a time when a variety of other formal incumbents already existed. These new entrants were novel in many respects, especially in their unique cooperative organisational form and in their dual emphasis on saving and loans. Yet, the precise role they fulfilled, and the exact reasons for their existence, are still not fully understood.

In this paper, we address this functional puzzle in a quantitative framework that is motivated by three hypotheses which have been advanced in various parts of the existing literature, to explain the timing of their entry: (1) to meet untapped market demand for financial services from the unbanked and underbanked; (2) as an organisational response to agricultural depression and technological change; and (3) as a means of extending and consolidating the influence of confessional, pillarised, sociopolitical organisations across Dutch society. By considering these alternative explanations, we aim to deduce the factors that precipitated entry, and to understand whether those factors influenced subsequent performance.

To test these hypotheses, we a compile a dataset using information collated in annual reports produced by the Netherlands' statistical agencies and supplement this with topographical and demographic data from other sources. We direct our attention to the years 1898, 1904 and 1909, as over this horizon the early entry of Raiffeisen banks occurs. Our empirical approach takes two stages. First, we address the factors which precipitated the entry of Raiffeisen banks. We begin by using bank age as a dependent variable to ascertain the conditions most critical to the entry of the first Raiffeisen banks. Following this, we employ the presence in an area, in 1904, of a Raiffeisen bank, and then the presence of a Raiffeisen bank which entered between 1905 and 1909, as dependent variables. This perspective differs from the bank age

approach in that it adopts a municipality-level viewpoint as opposed to a bank-level perspective, and thus likely reflects the initial catalyst(s) less acutely, but instead helps to reveal whether the early drivers of entry remained important over time. Subsequently, we test whether the factors that induced entry are similar to those which drive post-entry performance.

Overall, our results suggest that the existence of Raiffeisen banks, in the Dutch context at least, should be understood as a response to both social and economic demands. Yes, a sustained period of agricultural crisis in the late-nineteenth century and an absence of (appropriate) incumbent financiers may have provided an economic rationale for their existence, but it seems unlikely to have been a sufficient precondition. Rather, the Catholic Church, by taking advantage of its religious network, could provide the necessary impetus for the initial diffusion phase. However, once the banks had been established, the organisational model of Raiffeisen banks was then able to benefit from efficiencies accrued from religion-related social collegiality, with the function of religion ultimately transitioning from philanthropy to economy.

Prices and Informed Trading

Graeme G. Acheson (University of Stirling), Christopher Coyle (Queens University Belfast), David Jordan (Queens University Belfast) and John D. Turner (Queens University Belfast)

Abstract

Various information-based theories have identified links between the level of information traders possess and the liquidity of stocks. This literature states that stock illiquidity should increase with increased levels of informed trading. However, there are substantial difficulties in testing this relationship as traders' information sets are almost never observable. As a result, studies have attempted to overcome this issue by assuming that investors that trade in certain ways are informed, or by examining small subsets of informed investors when data becomes available, for example following illegal insider trading cases. Interestingly, these studies generally do not find evidence that illiquidity and bid-ask spreads increase with informed trading. In addition to the fundamental difficulty of identifying informed and uninformed investors, there are further complications when testing this relationship due to the nature of modern trading. Investors can trade strategically and disguise their intentions, making the signal coming from any individual trade uncertain.

In this paper, we attempt to overcome these issues by using a unique historical case study to evaluate the fundamental relationship between information and prices. We use a unique hand-collected dataset from the North British and Mercantile Insurance Company, now part of the AVIVA Group, in which we can identify all traders and their trades in the shares of the company over a 38-year period. This allows us to build a novel and comprehensive measure of the volume of informed trading and to study how this affects measures of liquidity. Specifically, our measure of informed trading includes all company insiders and professional investors that bought or sold shares during the period 1882-1920. In contrast to many recent empirical studies which are limited by the number of traders they can identify, we find consistent evidence that increases in the volume of informed trading are associated with statistically and economically significant increases in the effective spread. This supports the

classical microstructure theories of informed trading which suggest that stock illiquidity should increase with increased information asymmetry.

In addition, we are able to exploit the disclosure of trades by executors of wills following the death of a shareholder to identify a large sample of uninformed trades and evaluate their impact on bid-ask spreads. We show that increases in the level of uninformed volume relative to informed volume are associated with decreases in the effective bid-ask spread, suggesting that the impact of informed trading can be limited if it is timed to periods of high uninformed volume. We also show that while the London Stock Exchange closed at the beginning of the World War I, trading activity continued, albeit with a large decrease in liquidity.

Technical Change and Human Capital Investment: Evidence from the Industrial Revolution

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Abstract

In this paper we examine how the arrival of a new production technology affected education choices in late 18th century England. The period studied between 1760 and 1800 is at the beginning of the largest shift in history from hand to machine powered production, through the invention and spread of the steam engine that powered the British Industrial Revolution. The research combines detailed evidence on the location and timing of the adoption of steam engines with the records of over 300,000 English apprenticeships from the rolls of the Commissioner of Stamps. Unlike previous studies that focus on the cross-sectional relationship between human capital formation and the density of technology, we are able to observe the effects of the arrival of new technology on forward-looking human capital investment decisions in panels of English counties and towns.

Our main finding is that the arrival of steam power changed the willingness of young people to pursue apprenticeships, which for centuries had been the main way route to acquiring the skills required for the production of manufactured goods. In our first set of results, we find that counties experienced a 30 percent fall in the share of population entering into textile apprenticeship once a steam engine was present. Despite the possible association with machine design and maintenance, mechanical apprenticeship also saw a decline of 15 percent following the arrival of steam. Merchant and professional apprentices, who were trading the goods produced by craft or industry, were mostly unaffected. The county results are supported by analysis of flows into apprenticeship at a more local level that exploits more detailed information on the location of steam engines. Here we find a negative relationship between proximity to steam and apprenticeship rates: raising the distance between a town and the closest steam engine by 25 kilometres is predicted to raise apprenticeship rates by 6 to 7 percent.

These findings show that the population responded to the emergence of technology that would dramatically change the nature of production and work in the future, and that much of the response was local. Apprenticeship fell first in Northern countries where industrial towns and cities with factory-based production emerged earlier. A similar decline in how workers were trained was not seen in Southern and Eastern England in the early part of the Industrial Revolution.

The Impact of Institutions on Innovation

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Rui C. Silva (London Business School)

ABSTRACT

Innovation is one of the most critical engines of growth and prosperity. However, there are still large gaps in our understanding of what drives innovation and the relative importance of the different economic forces. In this paper, we study the long-run impact of institutional quality on innovation. Using a novel hand-collected county-level data set on the German Empire, we find an economically large impact of the inclusiveness of local institutions on innovation. Regions with more inclusive institutions were significantly more innovative than regions with extractive institutions.

We use the timing and geography of the French occupation of different regions after the French Revolution of 1789 as an exogenous shock to the institutions of those regions. Based on a novel county-level data set for Imperial Germany, we provide evidence that counties whose institutions were more inclusive as a result of the French occupation became more innovative in the long-run. In our model, the institutional reforms that are associated with moving from a county with no occupation to a county with the longest occupation result on average in a 132% increase in the number of patents per capita.

Additionally, we investigate whether the impact of institutional reforms is weaker in counties where potential impediments for the effective implementation of such reforms existed. Our results show a weaker effect in counties that were part of ecclesiastical states before the German mediatisation of 1803. By contrast, we observe a stronger effect of reforms in counties where large cities already existed before the French occupation and in counties with good access to finance. These results provide additional insights into the way institutions can unleash innovative activity. Our findings suggest that inclusive institutions, access to finance

and culture do not enter additively in the production function of patents. Instead, they enter multiplicatively.

Our results are robust to different model specifications including various geographical subsamples and different reform measures. Furthermore, we discuss and test a series of alternative channels that could explain why counties that had been occupied by the French became more innovative in the nineteenth century. In particular, we rule out the concern that our results are driven by differences in the local availability of natural resources (especially coal) and differences in the degree of industrialization. Market integration could be another channel that fostered innovativeness since the French occupation triggered the territorial reorganization of German states by the dissolution of small, formerly political independent territories. However, the effect of reforms remains strong if we include proxies for market integration. Further tests take regional differences in human capital and the local provision of financial services into account. Moreover, we rule out that past differences in the patent law explain our results.

The findings of this paper point to institutions as a first order determinant of innovation and highlight the role of innovation as a key mechanism through which institutions may lead to economic growth.

Social Mobility in the Long Run – Evidence from the City of Zurich

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Abstract

We analyse intergenerational mobility in Zurich over the course of the 19th and the beginning of the 20th century. Social mobility is closely related to economic inequality. Hence, studying the determinants of mobility is central to understanding inequality. In this paper, we focus on changes in the level of mobility, the influence of grandfathers on the economic status of individuals, and covariates of mobility.

Zurich was the most important city in the industrialising north-eastern part of Switzerland. The data available are unique and allow studying the issues raised above in detail. We use data on citizens originating from the citizens' directories (*Bürgerbuch*) of 1794 to 1926. The directories list all male citizens with their occupation, military ranks, public offices, and a detailed link to their family members. The link enables us to assign fathers and paternal grandfathers directly to related individuals. This is a major advantage when analysing social mobility, as one does not need any linking mechanism. We combine this database with data on wealth from the municipality tax directories (*Gemeindesteuerregister*) available for 1858, 1893, 1904, 1912, and 1929.

Our data show that the overall distribution across socio-economic positions (SEPs) changed strongly over time, with a concentration towards medium SEP[1]. Mobility

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[1] We measure SEP depending on an individual's occupation at the age of 40.

tables show that social mobility was comparatively low and even decreased in some dimensions over the observed period. We find evidence for a direct effect of paternal grandfathers on the individuals' outcomes. Finally, we regress the SEP of individuals in an ologit model on the SEP of their fathers (controlling for several socio-economic characteristics) and the family structure. Paternal networks, geographic mobility, and (on a smaller scale) wealth facilitated social advancement of an individual. Family structure, on the other hand, did not have an economically significant impact. If the father could increase his SEP over the course of his life, the son was more likely to achieve an even higher SEP. Among all the determinants we look at, SEP of the father had by far the largest effect on the economic status of an individual.

Foreclosed Real Estate and the Supply of Mortgage Credit by Building and Loans during the 1930s

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Jonathan Rose (Board of Governors of the Federal Reserve)[a]
Ken Snowden (UNC Greensboro and NBER)[a]

Abstract

Since Bernanke (1983) demonstrated that bank failures had real impacts on economic activity during the 1930s, there has been general recognition that disruptions in credit channels contributed to the deflationary forces that were at work during the Great Depression. This project takes a first look at the source and impacts of credit disruptions within the mortgage market during the severe housing crisis that accompanied the Depression. We examine the impact that foreclosed real estate owned (REO) on the balance sheet had on new lending activity within the Building & Loan (B&L) industry. B&Ls were the nation's most important institutional home mortgage lender in 1930. As foreclosure rates rose during the 1930s, REO increased to unprecedented levels as a share of B&L assets and decreased their capacity to generate new loans. To assess the magnitude of the credit restriction, detailed annual balance sheet and new lending activity were collected for 653 B&Ls operating in Iowa, New York, North Carolina, and Wisconsin during the 1930s. We examine the panel in models that include detailed measures of each institution's assets and liabilities, B&L, county, year and county-by-year fixed effects to control for institution-specific characteristics and for factors such as changes in county income and local shocks within housing markets. The results show that REO had a statistically significant negative impact on new lending by B&Ls during the 1930s. A one standard deviation in the REO share variable caused a decrease of 4.7 percentage points in new loans as a share of total assets, which is roughly about one-third of the mean value at the time. Between 1930 and 1935 the rapid rise in mean REO share of assets contributed to over 80 percent of the reduction in the mean value of new loans as a percentage of assets.

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The Volatility of Money: The New York Call Money Market and Monetary Policy Regime Change

Caroline Fohlin

Abstract

This paper presents and analyzes a new database of daily call loan rates in New York from 1900 to 1930, covering the financial crises of 1901, 1907, 1914, 1920/1, and 1929 as well as the rapid changes in the financial markets from World War I to the Great Depression. I augment these data with NYSE transaction volume and with the weekly volume of call loans starting in 1919.

The call money (or broker loan) market provides renewable overnight loans to brokers to fund operations in financial markets, often speculative trading using margin purchases. In the 19th and early 20th centuries, rates on call loans fluctuated widely and usually followed a seasonal pattern due to the heavy use of correspondent bank funds, often from agricultural regions of the country. Contemporary observers and economic historians have pointed to this volatility—and the rate spikes that characterized the market—as drivers or amplifiers of financial crises in the National Banking Era. After the regulatory blitz of the mid-1930s, call loans became more closely controlled and lending rates dropped to low and stable levels. Past researchers have debated the timing of this shift, and in particular, whether rates became more stable and less seasonal after the opening of the Federal Reserve System in November 1914. Some have posited that the implementation of the Aldrich-Vreeland Act, which provided for 'emergency currency' to be provided in case of crisis, as the turning point. Using my newly gathered daily data, I show that call loan rates actually stabilized even earlier—immediately following the Panic of 1907, many months before Aldrich-Vreeland and almost seven years prior to the opening of the Fed. Moreover, using the new daily data, I show that despite the stabilization efforts of the Fed, call money rates returned to a similar boom and bust pattern during both the post-WWI mini-bubble (1919-21) and the more dramatic bubble of the late 1920s—albeit with slightly less volatility and none of the enormous spikes of the era before the Panic of 1907. Only after the regulatory interventions of the mid-1930s, did the call loan market fully stabilize.

"Now She Is Martha, then She Is Mary": the Influence of Beguinages on Attitudes Toward Women

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Abstract

When 12th-century young women in the Low Countries decided to live together and care for themselves in communities without male intervention, they triggered a change in attitudes toward women. They led a religious life of contemplation and prayer while earning a living as labourers or teachers. Contrary to nuns, they never took formal vows nor lived cloistered. Hence, the beguine status granted women the possibility of deliberately delaying marriage, weakening the trade-off between family and professional choices, either lay or religious.

This study follows the cultural legacy of these ``feminist'' forerunners, called beguines, until the 19th century and shows the long-lasting effects they had on gender-related economic outcomes, even in places where they had disappeared a long time ago. We claim that the self-same values that put women in higher regard were transmitted across generations leading to a more gender-equal society. Our empirical analysis documents that, almost 5 centuries after the advent of beguines, the intensity of beguinage presence left an important imprint on comparative gender gap across Belgian towns. Building a novel dataset featuring the exact location of each beguine community in Belgium combined with 19th century census data, we show that wage and literacy differentials between men and women were smaller in those municipalities exposed to the presence of a beguinage in the past. An instrumental variable strategy supports the robustness of our findings. In particular, using changes in the political organisation through which some villages became more attractive to beguines, we establish that the variation in gender literacy and wages is indeed related to the presence of beguinages. Our results contribute to the extensive economic literature documenting the persistence of gender norms and religious institutions.

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Taking off and slowing down like China

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Abstract

Are China's post-reform great industrial spurt and the subsequent substantial growth slowdown unique events, or do they conform to a pattern set previously by similar late industrializers, Japan or Russia/USSR, and by China's own history? We answer this question with an empirical reassessment relying on three pillars: a focus on factory industrial output based on data reconstruction, benchmarking against China's two peers and time-series modelling of growth regimes over a uniquely long time-span from the late 19th century.

We reconstruct annual data on (per capita) factory industrial activity for China in order to avoid the distorting mismeasurement biases in official data. We then model the factory industrial growth experience of similar latecomers, Japan and Russia/USSR, since the late 19th century, so as to detect the features of their great spurts and slowdown episodes. This enables us to benchmark the experience of China, comparing with its peers, on as long a sample, the great spurts and stable growth episodes detected with alternative industrial output series. We estimate growth regimes with a Markov-switching model à la Hamilton (1989) in a multi-regime framework suited to emerging economies, augmented to allow for a regime of recovery from crisis.

We obtain three main results. First, industrial growth in these latecomer economies, at a very high speed during "great spurts" (Gerschenkron, 1962), is short. In the case of China it lasted for a period of slightly over a half a decade after WTO entry, rather than the officially-claimed three decades from the 1980s. This short duration was similar to the great industrial spurts in Japan in the 1960s, and the Soviet Union in its first two five-year plans. Second, a prior, first, great spurt took place simultaneously in the late 19th century not only in Japan and Russia, but also in China, where it had a similar speed and duration as during its second spurt. Third, what makes China unique is the exceptionally high speed and resilience of its stable growth regime, which arose in the early 20th century, in the interwar period, and re-established itself in the first two decades after the reforms. However the recent slowdown pertains to stagnation, Japanese style, not to stable growth.

Identifying Historical Shocks to the Marriage Decisions: The age at marriage of the Koreans from the late 11th to early 20th century

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Abstract

The timing of marriage has been a key factor of population dynamics in world history from the earliest times. Previously, few estimates of the long-run trend of age at marriage have been available due to data limitations. We tackle this problem by constructing a unique new countrywide data set spanning an unusually long period from the late 11th to early 20th century. The data consist of 1,717 records of Korean male and female nobles, who were born in 1068-1938 and married in 1091-1954. Collected from epitaphs, marriage letters, and literary collections, the data contain individual information about birth, death, marriage, government positions, and family members.

Using the data set, we nonparametrically estimate the long-run trend of the age at first marriage of Korean men and women from the 11th century by local mean smoothing. Our trend estimates show that the males' and females' ages at first marriage initially moved together with about a two-year gap by the early 15th century, when the divergence of the gender-specific trends began. Men's age at marriage continued to decline, whereas women's age at marriage remained almost constant after 1500, leading to a cross of the gender-specific trends in the second half of the 18th century and popularization of young men marrying older women.

To explain the differential trends of age at marriage by gender, we examined the effect of historical events, such as war, rebellion, epidemics, disaster, political regime change, and drafting unmarried women, on the hazard of marriage. We found that the forcible drafts of young unmarried women and rebellion considerably raised the hazard of early marriage of both male and female, whereas war, epidemics, and disaster did not reveal a clear effect on the age at marriage. Our estimation results show that age at marriage was reduced by about 6 percent when rebellion happened. The incidence of *Gongnyeo*, a forced draft of women for Mongol, Ming, and Qing China, also reduced age at marriage by about 20 percent. This is consistent with previous literature in Korean history, presenting various anecdotes about early marriage instigated by a forced draft of women or an unstable political situation. However, we failed to find any significant gender differences in the effects of the historical events on age at marriage, especially after controlling for the yearly trend.

Rents and Welfare in the Second Industrial Revolution: Evidence from New York City

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Abstract

This paper presents a new dataset of rental prices for New York City housing for the period 1880-1910, drawn from advertisements found in 5 historical newspapers. This address-level rental information is geocoded on a historical map of Manhattan Island and thus linked to a very detailed set of locational characteristics. The main challenge in completing the geocoding task was where public housing projects (or private developments such as at Stuyvesant Town) or other major new buildings (Penn Station, for example) have been constructed since 1910 which may have changed the street map substantially. The data was manually checked several times to ensure that units are located correctly and some regressions restrict to observations that could be coded with full confidence. The paper then uses hedonic regression techniques, a standard in the housing literature, to generate a quality-adjusted rental index for those years and to investigate the value of each apartment characteristic and locational amenity/disamenity in the rental market. The aim is to devise new estimates of the urban housing cost and quality around the turn of the twentieth century and to inform measures of the urban standard of living more generally at that time. We can further explore how the housing market functioned in response to substantial changes in building regulation and transportation and how costs evolved for consumers at different income levels and living in different neighborhoods.

COLONIAL VIRGINIA'S PAPER MONEY REGIME, 1755-1774: VALUE DECOMPOSITION AND PERFORMANCE

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Abstract

The British North American colonies were the first Western economies to emit sizable amounts of non-banknote paper money. These paper monies served as a circulating medium for domestic transactions within each colony. In 1755, Virginia became the last to emit paper money. The performance of Virginia's paper money contributed to the conflict with the British Crown over colonial monetary powers and provided Parliament justification for passing the Currency Act of 1764. This conflict contributed to revolutionary sentiments. Irregular activities by Virginia's treasurer also occupied a substantial amount of local political attention. Virginia's administrative structure was altered as a result, with the positions of Treasurer and Speaker of the House no longer held by the same person.

Paper money was created by the Virginia legislature and directly spent by that legislature through its treasury. Legislature-issued, colony-specific paper monies were the only paper monies in circulation. No public or private incorporated banks issuing paper banknotes existed in colonial America. Prior to emitting paper money, Virginia's media of exchange consisted of barter, typically involving book credit transactions and tobacco—often in the form of claims to tobacco or tobacco notes; personal bills of exchange and promissory notes; and foreign specie coins. The composition of this media is unknown, though specie coins were considered relatively scarce.

I apply my decomposition model for inside monies to Virginia's paper money to track the determinants of the paper money's value over time. I measure whether and to what extent this paper money functioned as "money" as opposed to just being a barter asset. I establish the

timing and estimate the magnitude of the risk attached to this money when monetary troubles were suspected. I also construct the quantitative monetary data needed to execute this approach.

The application of this decomposition-of-money model shows that Virginia's paper money was predominantly a barter asset. It functioned as a zero-coupon bond and not a fiat currency. It had a small transaction premium in normal years—enough to make it the preferred medium of exchange for domestic transactions. This transaction premium was positively related to the quantity of paper money in circulation. As the quantity increased, it gained ubiquity and familiarity of use, leading citizens to pay a premium above its real-asset present value. This association siphoned off price inflation pressures coming from increases in the paper money supply, leaving little association between the quantity of paper money and prices. Virginia's paper money traded below face value due to time-discounting, not depreciation. Scholars of colonial American paper money have habitually confused time-discounting for depreciation. In years with monetary troubles, the paper money experienced a moderate risk discount to its real-asset present value. Counterfeiting, however, was not a major trouble. The legislature had the tools and used them to effectively mitigate the effects of counterfeiting on the value of its paper money.

Atmospheric Pollution and Child Health in Late Nineteenth Century Britain

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ABSTRACT

In this paper we investigate the effects atmospheric pollution on the health and development of children growing up amid the environmental consequences of the industrial revolution that was founded upon coal. We estimate the effects of emissions from coal combustion on child development by analysing the heights on enlistment during the First World War of 2,235 men born in England and Wales in the 1890s. In Britain, emissions of black smoke were on the order of fifty times as high as they were a century later. While a growing literature has identified the adverse health outcomes of atmospheric pollution in recent times, less attention has been paid to the much heavier pollution of the past. Indeed, the focus of studies of the nineteenth and early twentieth century has been almost exclusively on the effects of investment in water and sewage systems. And while these studies have estimated the effects of local conditions on mortality, much less attention has been paid to the ongoing health outcomes, as represented by the heights of those that survived polluted environments during childhood.

We use the occupational structure of a diverse range of localities in Britain at the turn of the twentieth century to derive an indicator for local industrial coal combustion. Our results indicate that this proxy for local atmospheric pollution had significant negative effects on the adult heights of those that grew up in crowded industrial cities where the presence of black smoke was orders of magnitude greater than today. Although our measure of industrial pollution is indirect, the results are plausible and they survive a number of robustness checks. In particular, we show that the results are not simply due to occupational selection or geographic mobility. In addition we find evidence consistent with the channel of influence running from coal intensity to respiratory illness and thence to height. The effect that we estimate amounts to difference of almost an inch between the most and least polluted localities. The subsequent reduction of emissions from coal combustion is one factor contributing to the improvement in health (and the increase in height) during the twentieth century.

The Road Home:

The role of ethnicity in Soviet and post-Soviet migration

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Abstract

The conventional wisdom in the migration literature is that potential migrants decide to move when the destination can offer better economic opportunities than the source. However, in the Soviet and post-Soviet context, I argue that ethnic identity was as important as economic conditions in determining migrations decision and destination choice. To support this argument, I first construct a novel dataset as to the regional net migration rates of major ethnic groups and then regress them on ethnic and economic variables.

The USSR had been home to over 100 different ethnic groups, including 15 titular nationals (e.g. ethnic Russians, Ukrainians, Kazakhs, etc.) and many ethnic minorities (Germans, Jews, Tatars, etc.). The Soviet leaders' efforts for balanced regional development and "ethnic mixing" left these different ethnic groups spread across its vast territories. The sudden collapse of the Soviet Union, however, brought many changes to these ethnic groups. Many of them had to face the nationalist policies of independent former Soviet Union (FSU) republics arising during the state-building process in the 90s. Also, the policymakers have incentives to increase ethnic homogeneity by attracting their co-ethnics abroad to avoid the negative impact of ethnic fragmentation. These formed push and pull factors and may have worked to reverse the trend of "ethnic mixing" toward "ethnic un-mixing".

This reverse is clearly seen in the dataset newly constructed using a residual method based on the Soviet and post-Soviet census data and administrative vital records. The dataset shows that many titular nationalities which had been distributed across the Soviet territories moved towards their own titular FSU states, e.g. Kazakhs to Kazakhstan or Ukrainians to Ukraine after the collapse. This implies that the potential migrants did consider the ethnic affinity when they decide to move or choose the destination.

Furthermore, econometric analyses also confirm the influence of the ethnic variable on

migration decision. The OLS and Heckman 2-step estimations consistently show a positive and significant effect of the share of an ethnic group in a region on their net migration rates. This means that the migrants are more likely to decide to move out of a region when they have fewer co-ethnics in the region and/or they tend to choose the destinations where the proportion of their co-ethnics in the regional population is high. The results are robust to the changes in the combination of other control variables, such as wages, housing space, weather, crime rates, the number of medical staff, etc.

In sum, I argue that the ethnic identity worked as a crucial factor shaping the migration patterns during the transition period. The construction of data regarding ethnic migration was entirely new in the literature and the quantitative analysis significantly improved from some econometric studies dealing with an ethnic aspect of post-Soviet migration. The closer look at the ethnically driven Soviet and post-Soviet migration is expected to explain the recent rise of soil-and-blood type nationalism which has been conspicuous in the worldwide anti-immigrants atmosphere, notably Brexit and Trumpism.

From a national welfare state to multicultural market economy: The case of Denmark, 1870-2011

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Abstract

The Danish welfare state has been characterized by universality – all citizens have the right to free medical help, free hospital, free education and a pension even without saving and employment on the labour market. The general social safety level is public arranged and high. All this is financed by taxes and this means that progressive income tax is high. This model can be seen as rather ideal considered in a Rawlsian perspective; the strong shoulders are carrying the heavy burdens and the possibilities for weak persons are higher than in most other countries.

It has often been argued that such a welfare state is a social democratic project, and no doubt the social democratic party has played an important role in the development. But two other forces seem to have played a role in the early stages of the development in the 1870s. The first is the change in economic theory from classical to neoclassical economics; this was a change from Malthus' and Ricardo's iron law of wages to a new theory which accepted the possibility of better conditions for the poorest part of the population. The second is a number of Christian participants in the public debate, who argued for a more humane social policy and for a higher degree of protection of the weak members of the society.

But the creation of the welfare state was not mainly a matter of attitude and ideology. It seems a necessary foundation for the development that Denmark from 1864, where the German parts of the Kingdom were lost in a war, until the 1970s was a very homogeneous society; ethnical, linguistic and religious. Almost all in the country were Danish speaking inhabitants with historical roots going almost back to the Vikings. 99 per cent of the population were until after World War II member of the public Evangelical-Lutheran church. It was in fact in all dimensions a very homogeneous society with a very high degree of internal solidarity.

It seems as if the globalisation since the 1970s has threatened this welfare system. The immigration of foreign workers and refugees has created considerable minorities of very different ethnic, religious and linguistic groups. The solidarity among the different groups in the society seems because of this weakened. The weakest people are now often from the ethnic minorities. Minimal wages result in unemployment among the unskilled workers, and the strongest and best educated people have the possibilities of escaping the high taxes by taking jobs in low-tax countries. Globalisation is positive for the educated high-income classes and negative for the unskilled. New populistic political parties have success among the normally social democratic unskilled workers.

The conclusion of the investigation is that globalisation and multiculturalism have created difficulties for the homogeneous, universal welfare state of the Scandinavian type, but the problems are not created by values, religion and attitudes but mainly by pure economic forces and class conflicts.

The Dawes Bonds: Selective Default and International Trade

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Abstract

Trade sanctions are often presented as a powerful mechanism to force sovereigns to reimburse their debts but their effectiveness is hard to establish empirically. This paper relies on a unique historical example, Germany's external default of 1933 and 1934, in order to analyze the relationship between sovereign defaults and international trade. After defaulting on its external loans, the German government negotiated separate settlements with various creditor countries that differed in the degree to which they sanctioned trade with Germany. The settlement reached between Germany and Britain was the most favorable for bilateral trade, while other European creditor countries opted for clearing agreements that turned out to have a negative effect on trade. Using daily prices of the sterling Dawes bonds traded in Amsterdam, London, Paris and Zurich between 1930 and 1938 we assess how market participants valued these different deals. We find that there is evidence of market segmentation as of mid-1934 as investors started

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expecting differential treatment of creditors. From this point onwards the price of the bond in London was persistently higher than on any other market, even during an initial period when the effective cash-flows from the bond were still the same in all markets. This means that investors did not perceive trade sanctions and clearing systems as useful tools to obtain repayment from Germany. By contrast, they expected that creditor countries which had granted Germany favorable trade conditions would obtain better debt settlement terms than others. Therefore, guaranteeing the defaulting country a certain capacity to earn foreign exchange by increasing bilateral trade was perceived as a viable solution to obtain a favorable debt settlement. However, this view stands in sharp contrast with the trade sanctions approach in the literature. In fact, creditor countries at the time actually had little incentives to sanction Germany with trade restrictions. Moreover, the clearing agreements created distributional struggles within creditor countries, which the German government exploited in order to play out different groups of creditors against each other and minimize its debt burden. This strategy was crucially facilitated by a general trend towards international bilateralism that stifled attempts to maintain a united creditor front in the first place.

The Mortality Effects of Local Boards of Health in England, 1848-70

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Abstract

The Public Health Act of 1848 was England's first attempt at systematic sanitation improvement. Between 1848 and 1870, it oversaw the adoption of more than 600 local boards of health (comprising roughly one quarter of the English population), each of which it endowed with the power to improve infrastructure, provide street cleaning services, regulate new construction, tax its inhabitants, and borrow from the Exchequer. Since the jurisdictions of local boards were not coterminous with most other administrative, statistical, or natural boundaries, the mortality effects of local boards have been largely unexplored. In this paper, I introduce a new panel dataset that matches the jurisdictions of local boards of health to the jurisdictions of poor law unions. I then leverage variation in both the timing and extent of board adoption across unions in order to estimate the cumulative effect of local boards on mortality rates 1, 2, 3, and 4 years after adoption. My estimates suggest that local boards reduced mortality by 14.2 percent after four years. Accounting for incomplete take-up, this amounts to a 3.7 percent reduction in mortality by 1870 in England as a whole. I calculate that local boards "saved" approximately 225,000 lives over 23 years, nearly ten times the number of British casualties during the Crimean War.

500 Years of Urban Rents, Housing Quality and Affordability in Europe

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Abstract

Housing affordability remains a significant concern in modern cities. Despite a century of government interference in housing markets, few information is available on how housing affordability has evolved during this period. At the same time, many historical studies have analysed the cost of housing in earlier centuries. Unfortunately, an overview of these studies is missing and the wide range of used methodologies makes it difficult draw comparisons among them.

To fill these gaps in the literature, this paper studies urban rents, housing quality, and affordability in seven European cities; Amsterdam, London, Paris and the four Belgian cities Antwerp, Bruges, Brussels and Ghent; all the way from 1500 to the present. We compile existing historical studies and our own archival data collection into a database of around a quarter million of housing rents, which we use to construct quality-controlled rent indices for each city. After combining these indices with contemporary statistics on rental prices, we compare them to developments in wages and the prices of other consumption goods, using both existing and newly-constructed indices. Last, we decompose housing expenditures in a market component and a quality component, in order to measure long-run changes in (implied) housing quality.

The indices reveal that real housing rents in European cities have developed similarly in the long run, but reflect differences in local economic and political conditions in the shorter run. While real rents have increased in most cities, long-run growth in real rents is limited. At the same time, wage growth has outpaced growth in quality-controlled market rents, implying that housing affordability has improved significantly, particularly during the 20th century. In addition, we suggest that the share of income spend on (urban) housing might have been higher and more variable than assumed in existing cost-of-living studies.

However, in more recent eras the increased share of income that is spend on housing does not match the significant improvements in rental affordability. To understand these differences, it is essential to look at measures of housing quality. Our indices reveal that implied housing quality has increased manifold, and was already expanding as early as the 16th century. Although the timing of these upgrades varies across cities, in the long run implied housing quality has increased by similar amounts in each city. This also suggests that studies which could not control for housing quality likely significantly overstated growth in the cost of housing. Our study shows that in the long run, most increases in housing expenditures can be attributed to increasing housing quality, rather than rising real market rents.

Industrialization as a Deskilling Process?
Steam Engines and Human Capital in XIXth Century France

Claude Diebolt, Charlotte Le Chapelain, Audrey-Rose Menard

Abstract

The relationship between technological change and human capital is ambiguous. In the contemporary period, a consensus surrounds the idea that technological change is skill-biased, that it favors skilled over unskilled labor. Paradoxically, the industrialization process of the XVIIIth-XIXth centuries is usually regarded as a deskilling process. The view that has prevailed until very recently is that, in the first stage of industrialization, technological advances increases relative demand for unskilled labor and therefore that technological innovation and skills were not complementary (see, for instance, Nicholas and Nicholas 1992, Mokyr 1993, Mitch 1999). According to Goldin and Katz (1998), the complementarity took place in the early XXth century when the technological shift from steam power to electricity occurred. The view that the process of industrialization –in the time of the steam machine– was deskilling has recently prompted renewed attention. It gives rise to contrasting results. Feldman and Van der Beek (2016) claim that technological progress was conducive to skills acquisition in eighteenth century England by showing that the number of apprentices and their share in the cohort of the fifteen year-olds increased in response to inventions. Franck and Galor's (2016) analysis also supports the 'skill-biased technological change' hypothesis for the French case in the early nineteenth century. For De Pleijt, Nuvolari and Weisdorf (2016), the effect of industrialization on human capital is mixed. They show that technological adoption was skill demanding since it improved the average skills of workers. But they also highlight that adopting new technologies was not conducive to elementary education (approximated by literacy rates and enrolment rates). Contrastingly, De Pleijt and Weisdorf (2017) show a large decrease in average skills in agriculture and industry from the end of the sixteenth century to the beginning of the nineteenth century in England. They claim that deskilling globally occurred with technological progress, despite a modest increase in the share of 'high-quality' workers. This finding gives support to the view, already defended by Mokyr (1990, 2005) and, more recently for the French case, by Squicciarini and Voigtländer (2015), that upper-tail knowledge played a prominent role in early industrialization.

Our paper contributes to this open debate by providing analysis of the effects of the French industrialization process on human capital accumulation throughout the nineteenth century. The novelty of the research is twofold: (i) we explore the deskilling hypothesis not only for the very first phase of the French industrialization, but also for the subsequent stages of the process by implementing a panel analysis; (ii) we introduce a disaggregated human capital perspective so as to examine changes in skills demand at these different stages.

The Geographical Origins of Early State Formation

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Abstract

This research advances the hypothesis that in early stages of development, the emergence of states was expedited in more diverse geographical environments. A high degree of land variability accentuated the incentives to develop social, political and physical infrastructure that could facilitate interregional interaction. To explore the hypothesis the analysis exploits exogenous sources of variation in land variability across virtual countries. For the virtual countries analysis, a novel measure of statehood for the period 1-2000 CE is constructed that is available at the grid level. The research establishes that the advent of statehood was expedited in regions characterized by a higher degree of variability in land suitability for agriculture.

Threat of Revolution, Peasant Movement and Redistribution: The Colombian Case 1957-1985

Maria del Pilar Lopez-Uribe

Abstract

I examine the link between a democratic reform that empowered the peasants and both types of redistribution, broad and targeted, and study how effective this reform was at avoiding a potential revolution in the context of the National peasant movement (ANUC) and the threat of a Communist revolution in Colombia during 1957-1985. Using a new data set of the Colombian rural sector and the Diff in Diff and IV strategies, I exploit the variation at municipal level of the timing of obtaining legal entitlement of the peasant movement as a mechanism to empowering the peasantry when there is a threat of revolution coming from this group.

I find that this reform did not lead to a higher redistribution towards the peasantry as a group since land tax revenues and social expenditure decreased. However, it led to an increase in targeted redistribution: given the size of the peasantry, the movement was a mechanism to restrain the Communist threat by co-opting and giving benefits to peasant leaders. In those places where the peasants were empowered, the elite distributed private goods such as jobs and lands to their leaders. They experienced an increase in bureaucratic expenditure, in the number of employees in administrative jobs and more public lands were granted to the peasant leaders. Finally, I find that the empowerment exacerbated the potential peasant revolution (land invasions during the years following the end of government support (1972-1978) and the rebel activity of the Revolutionary Armed Forces of Colombia during the first stage of conflict (1974-1985)) but empowerment and co-optation appeased it.

Gender Wage Inequality in Western Europe, 1400-1800

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Abstract

One of the explanations for the particular pre-industrial growth of regions such as Holland and England is the “European Marriage Pattern” (EMP) – i.e. in this particular region of the world women married relatively late, there was a small spousal age gap, and a high share of single women (cf. Hajnal 1965). Following the ideas developed by de Moor and van Zanden (2010) this favourable demographic regime emerged in the North Sea region in the late Medieval period as a result of the preaching of the Catholic Church promoting consensus based marriage, the rise of well-functioning labour markets, and institutions of property transfers between parents and their offspring that promoted wage labour by women.

A central part of the hypothesis stresses the importance of wage labour by women: in order to bring about the favourable conditions of the EMP, women should have had access to the labour market and have earned a decent wage. This may translate itself in a smaller gender wage gap and the possibility that women earn their own living and have the option to remain single.

But so far little is known about how much women earned in the past. In this paper we therefore provide evidence on the wages of unskilled women for 7 European countries between 1300 and 1800, incorporating amongst others the paper by Humphries and Weisdorf (2015) on female wages in England. In order to keep our female wage series comparable to previous work on male wages (e.g. Allen 2001), we focus on unskilled occupations and on daily wages only.

Our dataset shows that the gender wage gap was relatively high in Central and Southern Europe: In Italy and Spain (and France), the gap was ca. 50% after the Black Death. In the North Sea Region

(England, Holland and Flanders, Sweden) quite the opposite was true: the daily wages of unskilled women were ca. 80-90% of those of men. However, from the 16th century onwards the gender wage gap increased rapidly, and in England in the 18th century, for example, women earned less than half the wage of men.

Were single women able to generate enough income to survive? We also have estimated how many days of work were needed for women to earn the barebones basket (see Allen and Weisdorf 2011). The picture that emerges from this is that there was a 'golden age of labour' in the countries bordering the North Sea. Before the Black Death 80 to 100 days of work were required for the barebones basket, whereas this had declined to only 40 days of work after the arrival of the plague. After 1500, when the population level climbed back to pre-plague levels, this again increased to 80 to 100 days.

Overall our analysis shows that women were much more marginal at the labour market in Southern and Central Europe than in the Northern and Western parts of Europe, confirming the Girlpower-hypothesis.

Government-made bank distress:
Industrialization policies and the 1899-1902 Russian financial crisis

Nikita Lychakov

Abstract

Can real economy policy mistakes lead to bank distress? In the 1890s, the Russian Empire was undergoing rapid state-led industrialization. Growth was propelled by foreign capital inflow and government procurement of private sector industrial output. Concurrently, state policies stimulated industrialists to expand their operations and incentivized, although not compelled, commercial banks to finance industry. In 1899, the inflow of foreign capital fell sharply, initiating a financial and industrial crisis. This resulted in a rapid stock market decline, a reduction in heavy industry output, and widespread corporate bankruptcies – together culminating in overwhelming losses among banks. Because banks supplied over half of all financing received by the industrial sector, banking distress put the successes of the 1890s at stake.

The aim of my paper is to uncover whether, and to what extent government policies contributed to bank losses in the crisis of 1899-1902. The importance of this enquiry comes from the fact that the influence of the state on a banking system is often immense and can be negative. As a consequence of the 2007-2008 financial crisis, the current policy debate has focused on toughening bank regulation and oversight. Nevertheless, by concentrating on banking policies, it is easy to forget that policies aimed at the development of non-financial sectors can also lead to bank failures.

In order to determine the passage of distress from the state to the banking sector, I capture personal connections, or more formally interlocks, between banks, government organizations, and non-financial companies. In particular, I have collected and digitized two types of data: (1) names of government officials, board members at non-financial companies, and board members

at banks, and (2) bank financial statements. Collectively, I identify 416 bankers, 3,378 corporate board members, and 7,596 government officials.

Next I determine how the presence of government and industrial connections affected bank performance. Bank distress is measured in the form of (1) net losses banks sustained on their investment portfolios over the entire crisis period, and in the form of (2) the percentage change in the bank share price from the maximum to the minimum level over the first year of the crisis.

I find that banks that experienced greater distress in the crisis had more personal connections to government officials who were close to the epicenter of policymaking. The conclusion is that banks that had been influenced most by the industrialization policies exposed themselves financially to heavy industrial companies and, as a result, experienced greater losses during the crisis.

Moreover, banks that suffered more acute distress had more personal ties to companies that were highly stimulated by state policies to expand production, namely heavy industrial companies. The interpretation is that banks that suffered greater losses had greater exposure, either via direct loan financing or securities underwriting, to companies most stimulated by state policies. Taken together, these two perspectives point to a destabilizing impact of national development policies on bank performance and ultimately on industry output.

The Reichsbank, central banking competition and monetary stability in Germany in 1876-90

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Abstract:

Germany's monetary and central bank reforms in 1871-75 established one of the most successful monetary unions of the nineteenth century amid high economic growth and stable bank note issuance. It exhibited unique features with the foundation of a mixed central banking system with the German Imperial Bank (Reichsbank), predecessor of the Bundesbank and European Central Bank (ECB), at federal level and continuation of various private banks of issue (Privatnotenbanken) at regional level. The reforms comprised adoption of a currency union and the gold standard in 1871-73. The 1875 bank act (Bankgesetz) introduced strict regulation for the operations of the Reichsbank and Privatnotenbanken, uniform bank note reserve requirements and issuance ceilings amid a proliferation of Privatnotenbanken, rapid expansion of notes in circulation and poor minting standards.

The mixed central banking system aimed to induce through inter-institutional competition—preservation and expansion of market shares in lending—more conservative bank note issuance behaviour. The notion of central banking competition as fundamental to the architecture of the central banking system has been generally discarded. Reform intent and impact on the central banking system have rarely been analysed.

The contribution of the paper is to demonstrate and test statistically the importance of competition among the Reichsbank and the Privatnotenbanken for the stability conditions of the central banking system in 1876-90. The paper offers a new monthly dataset of main balance sheet items of the Reichsbank and the Privatnotenbanken for 1876-90. These data

allow a detailed statistical analysis of the central bank operations during the early years of the bank act. The paper argues that competition played a fundamental role to address modern central banking concerns of credibility and incentives in monetary policy and strategic delegation. To analyse competition, the paper uses a competitive reactions approach from industrial organisation. With emphasis on the decentralised reform elements the paper aims to offer a more complete assessment of reform intent and outcome, assess whether reform intent was achieved and the reform was effective. The study intends to differentiate Germany from dominant period central banking trends and serve as a reminder of alternative approaches to central banking in monetary unions during the formative stages of modern central banking.

The paper uses a structural vector-auto-regression model with exogenous variables to analyse the dynamic interactions among the Reichsbank and Privatnotenbanken. Competition is tested through the responses of the Privatnotenbanken to monetary impulses from the Reichsbank where competition is assumed to exist where the responses are significant. Stabilisation is assessed through the pattern and duration of the responses of the Privatnotenbanken to monetary impulses from the Reichsbank where stability is seen as consistent with a rapid reversion of the responses to monetary impulses. The results are supportive of the presence of and stabilising impact from competition.

The analysis illustrates that nineteenth century Germany offers an important alternative approach to central banking in monetary unions and that decentralised central banking systems can be stable. Germany had shown that monetary union must not mean a single central bank.

Of Mice and Merchants: Trade and Growth in the Iron Age

Stephan Ernst Maurer, Jörn-Steffen Pischke, Ferdinand Rauch

Abstract

We investigate to what degree trading opportunities affect economic development. The causal connection between trade and development is typically obscured by reverse causality, the endogenous location of economic activities, and confounding factors like institutions. In order to circumvent many of these problems, we focus on one of the earliest trade expansions in pre-history: the systematic crossing of open seas in the Mediterranean at the time of the Phoenicians. We relate trading opportunities, which we capture through the connectedness of points along the coast, to early development as measured by the presence of archaeological sites. We find that locational advantages for sea trade matter for the foundation of Iron Age cities and settlements, and thus helped shape the development of the Mediterranean region, and the world.

A location with more potential trading partners should have an advantage if trade is important for development. As long as ships sail mainly close to the coast, the particular shape of a coast does not influence how many neighboring points can be reached from a starting location within a certain distance. However, once sailors began to cross open seas, coastal geography becomes important: a sailor starting at a coastal stretch where the sea is convex can reach more destinations within a certain distance than one starting at a stretch of concave coast. The location of islands also matters. We capture these geographic differences by dividing the Mediterranean coast into grid cells, and calculating how many other cells can be reached within a certain distance. We relate our measure of connectivity to the number of archaeological sites found near any particular coastal grid point. This is our proxy for economic development. It is based on the assumption that more human economic activity leads to more settlements and particularly towns and cities. While these expand and multiply, there are more traces in the archaeological record.

We find a pronounced relationship between connectivity and development in our data set for the Iron Age around 750 BC, when the Phoenicians had begun to systematically traverse the open sea, using various different data sources for sites. We find a weaker and less consistent relationship between connectivity and sites for earlier periods. This is consistent with the idea that earlier voyages occurred, maybe at intermediate distances, at some frequency already during the Bronze Age. Our best evidence suggests that the relationship between coastal geography and settlement density, once established in the Iron Age, persists through the classical period. This is consistent with a large literature in economic geography on the persistence of city locations. While our main results pertain to the Mediterranean, where we have good information on archaeological sites, we also corroborate our findings at a world scale using population data for 1 AD.

Estimating the Impact of Local Conditions on Asset Preferences in Adulthood

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Abstract

The financial crisis of 2008 renewed researchers' interest in the long-run impact of economic shocks on individual decision-making. Current evidence suggests that experiencing a volatile or depressed economy has a significant impact on long-term health, human capital attainment, career outcomes, and investment. However, the results in many of these studies rely on measures of economic conditions using national aggregates. This makes it difficult to differentiate birth cohort effects and life cycle effects from the impact of economic experiences.

In this article, I use state-level variation in economic conditions over the course of the 20th century to investigate the impact of economic downturns during childhood on investment decisions in adulthood. The research design enables me to control for location, year, birth year, and life cycle effects simultaneously. I also investigate whether observations of the economy at a particular age range in childhood matter more than at other points. I find that there is variation in investment decisions within birth cohorts based on variation in economic conditions in the state in which they grew up and that conditions during late childhood (age 13-18) matter more than conditions during the rest of childhood.

During an individual's teen years, my preliminary results show that the magnitude of the impact of the Depression on later risk-taking is substantive. State macroeconomic conditions lead to lower investment in stocks in adulthood (controlling for adult income). An increase of $1,000 in average state income during the teenage years will increase the percentage of liquid assets held in stocks by about 8 percentage points after controlling for national trends, regional attitudes, and life cycle fluctuations in asset allocation. Individuals who begin their lives by observing an economic downturn remain pessimistic and risk averse over the course of their lifetime. I find that individuals put more weight on experiences from their teenage years than earlier periods of childhood, but earlier experiences may hold some positive weight in decision-making. This change in attitude continues to retirement, as my estimates from the Health and Retirement Study sample are similar to those from the Panel Study of Income Dynamics and Survey of Income and Program Participation.

To investigate whether other investment preferences are impacted, I also estimate the impact on business ownership and home ownership. These are some of the most significant investments that individuals make over the course of their lives. I find a significant effect on business ownership in middle age, but not for people who are close to retirement. As one gets older and has more experience, it is perceived as less risky to open a business. Surprisingly, home ownership rates are not affected by state income per capita during childhood. However, I do find that home equity investment and timing of home purchases are impacted by conditions during childhood.

More than One-Hundred Years of Improvements in Living Standards: The Case of Colombia

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Abstract

The purpose of this paper is to examine the long-term trends observed in the standard of living of the Colombian population during the past one hundred years. In particular, this paper provides evidence of how well-being evolved over time, focusing specifically on health. Following the work of Prados de la Escosura (2014 and 2015), we construct a historical index of human development for Colombia (HIHDC) by gender for the 19th and 20th centuries. We find that there were no major advances in the index during the nineteenth century, probably due to the stagnation of Colombia's GDP per capita in that century as a result of the lack of dynamism in exports. On the contrary, significant advances in all components of the HIHDC were seen during the twentieth century, especially in the second half. Progress was made especially on income, education, and health. During the first half of the century, improvements in the quality of life were mainly driven by higher per capita income, while improvements after the 1950s were driven by greater public investments, as in the case of education and health. It is worth highlighting that improvements in women's HIHDC were substantial in the last sixty years, mainly due to large gains in life expectancy and to educational achievements.

Next, we focus on the analysis of health achievements that have taken place in the last one hundred years, since health is one of the components of the HIHDC that has been less studied in the case of Colombia. To this end, we construct a new dataset using statistics reported by the Colombian government, which included annual information on the main diseases and causes of mortality during the period 1916-2014 disaggregated by departments (the main subnational territorial units). The data shows that the percentage of deaths from tuberculosis, pneumonia, and gastrointestinal diseases decreased significantly throughout the century. On the contrary, deaths due to cancer and heart diseases have increased considerably in recent decades. By gender, some differences are likely to exist in the prevalence of causes of deaths. For example, there are differences in chronic diseases such as cancer or cardiovascular diseases, where genetics plays a major role in contrast to infectious diseases.

Results from difference-in-difference models show that the decline in mortality rates and in the prevalence of some waterborne diseases was related with the expansion in the provision of public goods. Particularly, we find that that advances in the provision of sewerage systems accounted for more than 14% of the decline in gastrointestinal deaths,

and that aqueducts reduced it by 9%. As expected, the effect on gastrointestinal disease mortality rates from water and sewerage access is larger than the one on total mortality rate and respiratory disease mortality especially in the case of sewerage services.

Casualties of the Cold War: Fallout, Irradiated Dairy, and the Mortality Effects of Nuclear Testing

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Abstract

During the Cold War, the United States detonated over one thousand atomic weapons. Prior to 1963, many of these nuclear tests were conducted above ground and released tremendous amounts of radioactive pollution into the environment. The domestic literature studying the effects of this radioactive fallout has focused primarily upon persons living in the few counties surrounding the Nevada Test Site (NTS). These studies, however, have not quantified the full geographic or temporal extent of the harm caused by these tests. This paper combines a new dataset measuring annual county level fallout patterns for the continental U.S. with public health data to analyze the health effects of atmospheric nuclear testing at the NTS. Fallout exposure measured at the county level resulted in persistent and substantial increases in gross mortality. The cumulative death toll attributable to nuclear testing is 8 to 10 times larger than previous estimates. The empirical results of this paper suggest that nuclear testing contributed to hundreds of thousands of premature deaths in the United States between 1951 and 1972. The social costs of these deaths range between $400 billion to over $3.8 trillion dollars in 2016$. These losses dwarf the $2 billion in payments the Federal Government had made to domestic victims of nuclear testing through the Radiation Exposure Compensation Act.

The contemporary scientific and medical literature focuses on the effects of atmospheric testing on populations residing in Downwind counties in Arizona, Nevada, and Utah. Counter intuitively, the areas where fallout had the largest impact on the crude death rate was not in the region surrounding the test site, but rather in areas with moderate levels of radioactive fallout deposition in the interior of the country. Due to pasturing practices, large quantities of fallout wound up in local dairy supplies in these regions but not in the Downwind regions. Because of this exposure mechanism, deposition measures for the most irradiated areas serve as a less accurate proxy for exposure than deposition measures for less arid regions of the country.[4]

JEL classification: I18; N32; Q50
Keywords: Nuclear Testing; Environmental Quality; Pollution; Public Health

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Uncertainty and Hyperinflation: European Inflation Dynamics after World War I

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Abstract

We examine inflation dynamics in Europe immediately after the end of World War I. We analyze how policy uncertainty influenced commitments to credible fiscal paths, and how pronounced uncertainty in a subset of European countries pushed them into hyperinflation shortly after the end of the war. Our contribution is to provide a new empirical methodology for analyzing why hyperinflation is unleashed in some situations but not others, and then to test this in the canonical setting of post-World War I Europe. Our methodology is general – since it can be applied across countries to distinguish the ex ante likelihood of subsequently experiencing hyperinflation – as well as specific – in that it any one country's likelihood of experiencing hyperinflation is based on country-specific "news." Our methodology constructs a measure of policy uncertainty using a new data set of high-frequency exchange rates for ten European countries. From these daily data, we construct country-specific measures of uncertainty using the monthly, realized volatility (RV).

Although realized volatility measures were high across Europe after World War I, we show that they were particularly pronounced in Germany, Austria, Poland, and Hungary (GAPH) *prior* to their hyperinflations. For example, Germany's RV was several hundred times larger than that of Holland. Using narrative collected from contemporary news sources and government publications, we then show that the high degree of measured uncertainty in GAPH was correlated with weak fiscal capacity, protracted political negotiations over reparations payments, and unresolved disputes over borders and the apportionment of the

Austro-Hungarian Imperial debt. By contrast, other parts of Europe saw spikes in RV that are identified with policy uncertainty, but these were considerably smaller as was the level of uncertainty.

Our measure of uncertainty appears to capture the inability of policymakers in GAPH to formulate and commit to credible fiscal policies, and thus suggests a causal link between uncertainty and inflation dynamics. To test for causality more formally, we embed our measure of uncertainty into a small, VAR macroeconomic modeling framework that includes inflation, industrial production, and notes outstanding at a monthly frequency, and present results using Smoothed Local Projections. We assess the effects of uncertainty on macroeconomic conditions prior to the start of hyperinflation for each GAPH country as well as for six other countries that did not tip into hyperinflation.

These results show that increased uncertainty causes a rise in inflation contemporaneously and for several months afterward in the GAPH countries that tipped into hyperinflation. For other European countries with lower RV measures, uncertainty's affect on inflation is absent or near zero. These findings demonstrate the utility of our methodology as it allows us to make comparisons between countries, such as Germany and France, which were on either side of the reparations imbroglio as a payer and recipient, respectively, but then distinguish how the fight over reparations translated into greater uncertainty and then hyperinflation in Germany. Further, it allows one to incorporate many country-specific narratives of the period, which detail how uncertainty over reparations drove expectations further into a negative spiral.

Long run trails of global poverty, 1925-2010

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Abstract

What use has a poverty line when we don't know what it allows for? I exploit the weaknesses of the seriously contested methodology behind the dollar-a-day approach to motivate a consistent alternative in global poverty measurement. Poverty lines targeting well defined welfare levels are constructed as consumption baskets. Those baskets are priced locally and separately for each year, and account for basic nutrition, heating, housing, health, education and other expenses. This transparent method is here applied on long run poverty measurement for a group of eight countries, most of which are western. In this draft a number of methodological issues have been simplified. Later versions will relax these simplifications, and drastically expand the number of countries covered. A notable contribution is the error accounting approach using Monte Carlo technique for pseudo-experiments. This is in line with recommendation 5 for ``total error'' accounting, published in the recent Commission on Global Poverty report. Thus statistical analysis of global poverty, beyond the usual point estimates, is now possible. The evolution of the poverty profile in five key western countries, seen from a broader global perspective, allows for a comparative analysis. Among this small group of countries, the Netherlands appear to be the champions in fighting absolute poverty with all 3 types of poverty measured here becoming zero since 1987.

Greece in a Monetary Union: Lessons from 100 Years of Exchange-Rate Experience

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Abstract

We add a historical and regional dimension to the debate on the Greek debt crisis. Analysing Greece, Romania, Serbia/Yugoslavia and Bulgaria from political independence to WW II, we find surprising parallels to the present: repeated cycles of entry to and exit from monetary unions, government debt build-up and default, and financial supervision by West European countries. Gold standard membership was more short-lived than in any other part of Europe due to fiscal dominance. Granger causality tests and money growth accounting show that the prevailing pattern of fiscal dominance was only broken under international financial control, when strict conditionality scaled back the treasury’s influence; only then were central banks able to conduct a rule-bound monetary policy and stabilize their exchange-rates. The long-run record of Greece suggests that the perennial economic and political objective of monetary union membership can only be maintained and secured if both monetary and fiscal policy remains firmly anchored in a European institutional framework.

What Did Civil Examination Do for Korea?

Myung Soo Cha
Junseok Hwang
Heejin Park

Abstract

Civil service examination, first designed in ancient China, remains a puzzle, because it represents an oxymoron, i.e. open competition for rent-seeking. Imported into Korea in CE 958, the institution remained *de jure* open to both elite and non-elite, which raises a series of issues. Why did the elite not prevent rents from being dissipated by banning commoners from taking civil examination? Did non-elite passers represent mere exceptions or caused enough upward mobility to threaten the stability of status order? Despite being criticized for encouraging rote learning of a retrograde ideology and diverting energy to directly unproductive activities, did the tradition of open competition based on scholarship foster human capital accumulation and thereby technological development?

This paper explores the economic, political, and social consequences of civil service examination in Korea under Chosŏn dynasty (1392-1910), none of which makes much sense on its own. To do so, we analyze the roster of civil examination passers, linking it with the list of high-ranking officials and elite presence in pre-colonial Korea and also with indicators of economic development in colonial Korea including literacy and the spread of high-yield seed varieties.

We compare the geography of elite presence and examination success made by apparently plebeian background to confirm that a substantial number of commoners passed upper civil examination to be selected as officials. The commoner encroachment took place, because in an attempt to control the nobility the throne intervened in the process of upper examination distributing examination success in a more or less balanced way across different regions. Despite being weakened by the upward mobility, status order persisted, because elite enjoyed privileged access to officialdom, and because elite took control of local community by dominating the success in lower examination, a non-compulsory preliminary to upper examination. The developmental consequences of civil examination varied depending on the strength of elite dominance, with examination success encouraging individuals to learn to read and write and to adopt high-yield rice seed varieties, when it fostered upward mobility, but discouraging literacy and technological learning, when reinforced elite dominance.

On balance, civil service examination could have helped the twentieth century Korea achieve faster growth and make smoother transition to democracy, but the putative

benefits should be balanced by incurred costs, which included wasted talents, energy diverted to directly non-productive activities, the ascendancy of a backward-looking ideology.

The Gold Pool (1961-1968) and the fall of the Bretton Woods system: Lessons for central bank cooperation

Michael Bordo (Rutgers University, Hoover Institution and NBER), Eric Monnet (Bank of France, Paris School of Economics and CEPR), Alain Naef (Cambridge University)

Abstract

We study one of the most ambitious cases of central bank cooperation in history, the London Gold Pool, and investigate why it failed. To stabilize the dollar price of gold, major central banks pooled their gold interventions from 1961 to 1968, sharing profits and losses. Based on new data and archives from the Bank for International Settlements, Bank of France and Bank of England, we confirm contemporaries' claim that the Gold Pool was fatally damaged by the fate of sterling – the second international reserve currency after the dollar. From the early 1964 sterling troubles to the 1967 sterling devaluation, the dollar-price of gold and, then Gold Pool interventions, were influenced by the sterling forward exchange rate as well as by US domestic factors. Moreover, the November 1967 sterling devaluation spurred speculation on the dollar price of gold and, through Gold Pool interventions, delivered a serious blow to US gold reserves.

The collapse of the Gold Pool in 1968 led to a two-tiered gold market system and anticipated the closing of the gold window. The Gold Pool is a rare example in history of central bank cooperation that lasted almost a decade, implied monthly transactions and clearing between central banks and allowed for autonomous monetary policy stance across countries. Literature on Bretton Woods usually mentions and discusses the Gold Pool but there is only limited research on the rise and fall of this unique cooperation syndicate. Our findings are in line with previous literature in downplaying the role of France non cooperative behaviour in the fall of the Gold Pool. Unlike previous literature, however, we emphasize the role of European balance of payment problems in the fall of the Gold Pool. In particular, we show the importance of the sterling crisis in 1967 leading to an important drain of US gold reserves and to the fall of the gold syndicate. The Gold Pool reinforced the transmission of the sterling crisis to the US gold reserves.

We document mechanisms and explain why the contagion from sterling to the dollar occurred largely because US policies were also deemed inflationary and insufficiently credible. Two important conclusions stand out, which are still relevant to today's debates on cooperation and the international monetary system. First, central bank cooperation – even when well-designed and conducted on a large scale – fails if countries follow non-credible domestic policies undermining confidence in their currency. Second, the end of the Gold Pool provides an interesting case of potential negative externalities – reinforced by cooperation – between reserve currencies.

Collectivization of Soviet agriculture and the 1932–1933 famine

Natalya Naumenko

Abstract

Collectivization of agriculture is the largest economic experiment in the 20th century. In the course of just a decade, from 1929 to 1939, the entire structure of the economy and economic relationships changed for more than 100 million Soviet peasants: from individual independent producers and free markets to large collective farms and imposed plans of production. Later agriculture was also collectivized in the Baltic states occupied by the Soviet Union, in communist China and in North Korea. All in all, collectivization affected the lives of hundreds of millions of people. Its consequences and implications, however, are still not well studied.

In this work I show that in the short run collectivization of agriculture in the Soviet Union contributed to the 1932–1933 famine that killed seven to ten million people[2]. More importantly, I demonstrate that collectivization increased mortality mainly due to a drop in grain production on collective farms. Essentially, I argue that collective farms disrupted the link between effort and reward, and consequently peasants reduced the effort put into production, production dropped and a famine followed.

This work concentrates on Soviet Ukraine for three reasons. First, Ukraine lost the highest proportion of its population[3]. According to one of the most conservative estimates, it suffered a direct population loss of 2.6 million out of 30 million. Second, Ukraine was the “grain basket” of the Soviet Union, supplying up to 40% of all grain collections. Thus, all the excesses and imbalances of Soviet agricultural policies must have been present in Ukraine. And third, Ukraine kept and published excellent statistical data. During the 1920s the Central Statistical Office of Ukraine published extremely detailed statistical data that I make extensive use of.

I build my argument as follows. To begin, I demonstrate that areas that were more collectivized in 1930 had higher mortality rates in 1933. To account for potential sources of endogeneity, I control for factors that could have affected both collectivization and mortality: wealth (proxied by the value of agricultural equipment per capita and rural literacy rate), livestock per capita, urbanization rate, and population density. In addition, I offer instrumental variable estimates using the differential effect of Stalin’s 1930 “Dizzy with success article.”[4] After Stalin’s publication in the spring of 1930, peasants started massively leaving collective farms. I argue that peasants in the areas where spring of 1930 started unexpectedly earlier had less time to get land allotments from collective farms before the spring sowing, and therefore were stuck in collectives. Thus, the unexpectedly warmer spring effectively increased the collectivization rate.

My IV estimates of the effect of collectivization are higher than OLS estimates, suggesting that the government tried to collectivize wealthier districts first. Finally, I also run placebo tests using 1927 mortality rates and show that there is no relationship between mortality in 1927 and collectivization rate in 1930.

Next, I try to understand why collectivization increased mortality: was it due to grain collections, drop in production, or other factors? Only very aggregated data on grain production and collections are available for the famine years, so I have to rely on indirect evidence. First, I confirm the Meng et al. (2015) finding studying the Great Chinese Famine and show that areas usually producing more grain per capita had higher famine mortality. Presumably, a higher proportion of grain was extracted from more productive areas. Therefore, I use 1925 grain production per capita as a proxy for grain collections.

Second, I show that both collectivization rate and pre-famine grain production per capita simultaneously increased mortality, but that the interaction term between collectivization and grain production was negative. If collectivization increased mortality because of too much extraction of grain from collective farms, the interaction coefficient would have been positive. It was much easier to take grain from a single collective farm granary instead of searching hundreds of individual households. Given that the government overextracted from grain producing areas, it must have overextracted even more from collective farms in grain producing areas. But this is not what I observe in the data. Either collective farms were able to signal low harvest more credibly than individual households, or the government deliberately put more pressure on individual peasants. In either case, collectivization increased mortality not due to higher grain collections. Therefore, there must have been an actual shortage of produced food.

Third, I demonstrate that, controlling for collectivization rate, a higher number of households per collective farm increased mortality. I argue that the larger the collective farm was, the higher the monitoring costs were and the more difficult coordination was, leading to a drop in production.

Finally, I examine all other factors that could have increased famine mortality: killing of livestock, deportation of kulaks (the richest and most productive peasants), political zealousness and preference for collectivization, human capital (ability to cooperate), inequality, availability of tractors, and government control over the territory. Some of these factors do affect mortality, but the effect sizes are much smaller and the main result does not change: a higher number of households per collective farm increased mortality, and the interaction coefficient between grain production and collectivization is negative. Thus, I conclude that the main reason there was an increase of mortality in more collectivized areas was a drop in grain production on collective farms.

THE ORIGINS OF THE ITALIAN REGIONAL DIVIDE: EVIDENCE FROM REAL WAGES, 1861-1913

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Abstract

The historical origins of the long lasting Italian North-South divide have always been controversial, but the scholarly debate has been hampered by the dearth of actual data on the size of the gap and its historical evolution. In this paper, we fill this gap by estimating a new provincial data-set of welfare ratios (Allen 2001) from the Unification of Italy in 1861 to World War One. Italy as a whole was very poor throughout the period, with a rather modest improvement since the late 19th century. This improvement had started in the North-West regions, the cradle of Italian industrialization, in the 1880s, while real wages in other macro-areas (North-East, Centre, South and islands) remained stagnant until the early 20th century, rising sizably only in the pre-war years. The gap between North-West and the South, already substantial in 1861 widened until the very end of the period. The Continental South was poorer than the North East, but not always of the Centre, while real wages in the Islands (i.e. Sicily) were close to national average.

DANGER TO THE OLD LADY OF THREADNEEDLE STREET?

THE BANK RESTRICTION ACT AND THE REGIME SHIFT TO PAPER MONEY, 1797-1821[5]

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Abstract

The Bank Restriction Act of 1797 was the unconventional monetary policy of its time. It suspended the convertibility of the Bank of England's notes into gold, a policy which lasted until 1821. The current historical consensus is that the suspension was a result of the state's need to finance the war, France's remonetization, a loss of confidence in the English country banks, and a run on the Bank of England's reserves following a landing of French troops in Wales. We argue that while these factors help us understand the timing of the Restriction period, they cannot explain its success. We deploy new long-term data which leads us to a complementary explanation: the policy succeeded thanks to the reputation of the Bank of England, achieved through a century of prudential collaboration between the Bank and the Treasury.

Keywords: Bank of England, financial revolution, fiat money, money supply, monetary policy commitment, reputation, and time-consistency, regime shift

JEL codes: N13, N23, N43

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When Britain turned inward: Protection and the shift towards Empire in interwar Britain

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Abstract

International trade became much less multilateral during the 1930s. However, previous studies, looking at aggregate trade flows, have argued that discriminatory trade policies had comparatively little to do with this. In this paper we revisit the question of whether trade policy was responsible for the shift towards intra-Imperial trade, but adopt an entirely different empirical approach in tackling the issue. Rather than looking at the relationship between aggregate bilateral trade on the one hand, and country-pair bloc membership on the other, we study the actual (and discriminatory) trade policies pursued by one country, the United Kingdom, in great detail. Rather than looking at whether trade blocs existed or not, we look at what one key member of one trade bloc actually did, and at what the effects of its policies were. Furthermore, since so much interwar protectionism consisted of non-tariff barriers to trade, affecting imports of particular commodities, and since tariff rates differed greatly across commodities, we use disaggregated, commodity-specific data on both trade and trade policies.

We therefore collected and digitized data on imports into the UK of 847 products from 42 countries between 1924 and 1938. These were then aggregated up, allowing us to construct an import database for 258 product categories that are consistently defined over time. We also collected bilateral, commodity and country-specific data on tariff and non-tariff barriers to trade for the same countries, products and years. The result is a

dataset with 162,540 potential observations, although the value of many of these is of course zero. Because trade policies varied by commodity, year, and country, we can calculate elasticities of trade with respect to tariffs including both country times commodity, and commodity times year, fixed effects in the econometric specification.

Armed with these elasticities, we can then calculate a variety of counterfactual “free trade” or “constant policy” equilibria for individual years in the 1930s, which can be compared with the actual trade data. The model we use to calculate these counterfactual equilibria is straightforward: on the demand side we assume nested utility functions as in Broda and Weinstein (2006), while on the supply side a single production sector transforms the sole factor of production into domestically consumed output and exports via a constant elasticity of transformation (CET) production function.4 In this manner we obtain estimates of the impact of protection on the share of the British Empire in the UK’s imports.

We find that more than half of the increase in the Empire’s share of UK imports can be attributed to trade policy. Policy accounted for almost 70% of the increase between 1930 and 1933. Our results are a vindication of traditional historical accounts, which argue that the increasingly bilateral nature of interwar trade was largely due to the policies pursued by governments. Whatever about the impact of trade policies on trade flows today, British trade policy mattered, a lot, during the 1930s.

Long run changes in the body mass index of adults in three food abundant settler societies: Australia, Canada and New Zealand

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Abstract

Body Mass Index (BMI) and rates of obesity/overweight have risen in many regions. Much of the historical research supporting these conclusions, however, examines the first decades of the 20th century, although some evidence of rising BMI in earlier decades is now becoming available. Relatively few studies have examined *trends* in BMI before the 1960s, and fewer still for the era before WWII or the nineteenth century. Therefore, the focus of this paper is consideration of the long run pattern of BMI changes in societies other than those previously considered, i.e., the US and UK, in particular three food abundant settler societies, Australia, Canada and New Zealand. The onset of sustained BMI increase appears to have come later in these societies than in the US. Other previously published evidence on BMI tends to focus exclusively on modern periods, where the emphasis seems to be on establishing correlates with obesity/overweight in large cross-sections of the population, often as part of much larger health surveys. Thus, much of the worldwide increase in obesity has been framed in the medical and public health literature as a phenomenon of the past 35-40 years with this framing in New Zealand and Australia being similar.

The data that we use are drawn from two main sources; i) WWI and WWII attestation forms provide height and weight measures for soldiers from Australia, Canada and New Zealand and ii) modern health surveys provide confidentialised unit record data for the later 20th and early 21st centuries. For New Zealand we also have access to heights and weights from a selection

of NZ prisons, 1840-1975. The combination of historical and modern health survey data that we have collated, provides an unprecedented source of long-term data for these three countries of interest and acts as a significant base to compare with the results for the US and UK.

In terms of the results relating to *within country trends*, two different patterns emerge. In Canada and Australia the gap between males (leading) and female BMIs remains large with some increases in the gap in the 35-39 year age group, but narrowing in the 45-49 range especially in Australia. In contrast, the BMI of both sexes in New Zealand has *effectively converged* for most age ranges (although it has been similar for the 45-49 age range since 1977). In terms of *cross-country comparisons over time*, the results for the full samples show a remarkably similar long-term pattern for males in all three countries although the absolute differences between leading BMI countries has changed over time culminating in New Zealand being the 'top ranked' obese country for males in the 20-49 age group. For females the pattern and trends are quite different, with New Zealand women exceeding the BMI of same aged females in Australia and Canada from the 1980s onwards. If anything the results suggest that New Zealand female BMI continues to grow while that of Australia may be leveling off. Future work will explore the causes of the patterns of results identified.

Breaking from Colonial Institutions: Haiti's Idle Land, 1928-1950

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Abstract

Economists and economic historians attribute long-term underdevelopment in former colonies to either persistent, bad institutions or to initial factor endowments that predisposed the colony to inequality. This paper uses a puzzle in Haiti's economic history to show that these frameworks are incomplete. In the early 20th century, large numbers of Haitian workers migrated abroad to work on plantations, even though lots of fertile land sat idle at home. This puzzling fact reflects two land institutions developed after Haiti's independence in 1804. First, lineages had joint claims over the alienation of land; one household could exploit land, but to sell it they needed agreement from a large number of extended kin. Second, the early-nineteenth century Haitian government had distributed land and banned land ownership by foreigners, preventing the creation of large holdings and establishing a checkerboard of landholdings with multiple claimants.

To assess how this checkerboard led to idle land, I use data on 5,700 plots adopted over 22 years under a government rental program. A simple model of the optimal allocation of labor (between Haiti and elsewhere) and land (between subsistence holdings and plantations) implies that the checkerboard reduces land adoption and attenuates the extent to which new plantations develop after a migration cost shock. Data from settlement patterns in Haiti and a massacre in the Dominican Republic confirm these predictions.

Rainfall Patterns and Human Settlement in Tropical Africa and Asia Compared: Did African Farmers Face Greater Insecurity?

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Abstract

Environmental conditions for sedentary agriculture have been a major determinant of the spatial distribution of the human species throughout recorded human history. Millennia ago, the world's prime peasant-based civilizations emerged in major river delta's with abundant access to fresh water or in mountainous terrains where differences in altitude and associated rainfall patterns allowed for highly diverse cropping systems in a relatively confined geographical area. Of course, access to fresh water –be it through regular precipitation or stored in lakes and rivers– wasn't all that mattered for the settlement and expansion of historical populations. The spread of human and animal diseases, the location of transportation networks and trade routes, and the presence of sub-soil deposits all played their part. Moreover, changes in agricultural and transportation technology allowed some sparsely inhabited regions to become more densely settled, while degrading environmental conditions had opposite effects in some former high density areas. Yet, despite long-term ecological and historical dynamics, the spatial connections between climate, agricultural development and human settlement are still visible at present.

Adverse climatological conditions have been an oft-mentioned cause for disappointing productivity growth in African agriculture, and an important factor in explaining low historical densities of population as well as persistent poverty. That rainfall patterns in tropical Africa may exhibit a greater degree of year-to-year variability than in other tropical areas has been given far less attention. Rainfall variability poses constraints to agricultural intensification and the growth of historical populations, even in areas where average precipitation levels are high enough to support the cultivation of a large range of crops. Under predictable rainfall regimes

farmers can adapt their production strategies (e.g. by cropping drought resistant crops, practicing seasonal transhumance), but when rains vary from year to year, such adaptations are more difficult to make.

This study ventures into two questions of historical significance: has rainfall, on the whole, been more insecure and thus less predictable in tropical Africa than in tropical Asia? And if so, can this explain part of the difference in population densities that existed in both regions *before* the impact of modern medical and transportation technologies that created conditions for the major demographic boom and urbanization patterns of the post-1950 era?

We address these questions using historical rainfall data from colonial meteorological stations. We compile a new dataset of annual and monthly rainfall levels collected from local weather stations set up by former colonial governments for 221 districts in tropical Africa (141) and Asia (80). We refine existing measures of rainfall variability by distinguishing the overall variation in annual rainfall from the *frequency* of rainfall shocks and the *intensity* of rainfall shocks. We find that, controlling for mean rainfall levels, rainfall variability indeed explains a substantial additional part of the variation in population densities across tropical Africa and Asia.

Risk mitigation and selection under forward contracts: 19th-century Indian indentureship

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Abstract

Uncertainty about economic conditions, not merely average wage differentials between markets, affects migration. Ex ante forward, guaranteed migration contracts--used by millions of workers--can reduce uncertainty for migrants. I combine aspects of the two and ask, how does origin-market uncertainty affect out-migration under forward contracts? I turn to new, unique microdata on roughly 250,000 Indian indentured servants sent around the world under forward contracts. Indian indentureship offers a clean identification strategy to isolate the importance of sending-market uncertainty. The migration decision is consistent with migrating to escape price volatility, my main measure of uncertainty. A one-standard deviation increase in a district's price volatility increases extensive margin migration from that district by 2% and the intensive margin by 5%. I find compositional differences by social network: different castes respond differently to economic conditions. The effects of prices and wages on landowning castes are the reverse of those on non-landowning castes. There is suggestive evidence that upper, landowning castes are able to smooth against volatility, which may be due to caste-specific insurance networks insurance. Finally, volatility exerts a persistent negative effect by lowering return migration (within roughly 10 years) by 5%. Overall, volatility, a measurement linked to the second moment (variance), has first-order effects on migration.

Trade Agreements, Democracy and Political Alliances: Understanding the evolution of the global institutional system during the First Globalization

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Abstract

The long 19th century saw the emergence of modern nation states and especially during the First Globalization a shift towards democratization, the formalization of explicit political alliances, and the development of a network of international trade agreements. This paper looks at the co-evolution of these institutional structures, investigating the nature of the relationships between the institutions, especially the strength and direction of a potential influence, to better understand the evolution of political and economic institutions during the First Globalization.
The three institutional structures potentially shaped each other's development, which raises the problem of endogeneity. Manger and Pickup (2016) for example demonstrates that the globalization after World War II saw strong reciprocal links between trade agreements and democratization. Furthermore, the network nature of political alliances trade agreements requires that the mutual dependency between network ties needs to be taken into account.
Although there are several empirical estimation approaches which are used to deal with the identification problem or the spatial correlation within network structures we don't believe that these are available or usefully applicable in this circumstance. We therefore use a simulation-based methodology, more precisely the SIENA approach, which is a recently developed methodology that is fairly widely applicable to such potentially endogenous network settings. It models particular effect mechanisms within actors' evaluation functions for network tie adjustments (i.e. forming an alliance or cancelling a trade treaty) and behaviour changes (i.e. changing the level of Democracy), then simulates the joint evolution of the three outcomes, and derives parameters for the modelled effects by matching simulation results with actual observed data.

This paper links the three outcomes, trade treaties, alliances and democracy, and consequently investigates the nature of network structure effects, for example triad closure effects, the reciprocal influence between the three outcomes, for example whether the difference in democracy levels affected the likelihood of a political alliance, as well as the role of certain covariates, for example GDP, in more detail.

The main results show that network structure effects differed somewhat between the two networks, while political alliances tended to cluster through closing triads followed trade treaties a most-favoured nation logic with ties depending on the extent of treaties of the two states with third countries. In terms of reciprocal effects, there is however no evidence for a direct link between the two networks itself. The relationships between the networks and the level of democracy has several aspects, for example the extent of military alliances mattered while the

role of democracy was binary to influence the likelihood to increase that level. Also, the level of democracy, wealth and monetary arrangements of trade partners appear to have mattered for the democratic development, while those of alliance partners did not. Finally, the effect of distance and contiguity on network changes follow expectations while a common language seemingly had no effect.

International Well-being Inequality in the Long Run

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Abstract

This paper assesses well-being inequality across countries over the long run. How substantial gains in different dimensions of well-being have been distributed internationally over the last century and a half? Have differences across countries widened? Has the distance between the West and the Rest deepened? Did all well-being dimensions evolve alongside?

This paper provides a long-run view of inter-country inequality in well-being based on a new dataset. Well-being dimensions alter the view on long run inequality derived from real per capita GDP. While real per capita income inequality has experienced a sustained rise until the late 20th century, inequality in non-economic dimensions of wellbeing (longevity, education, and human development) after increasing up to early 20th century, fell to 1990. The spread of mass primary education and the epidemiological transition, by which chronic disease replaced infectious disease as the main cause of death, were the main drivers of such a equalising trend in well-being.

The gap between OECD and the *Rest* only partially explains the evolution of well-being inequality as the dispersion within the rest of the world gains weight as time goes by.

The diffusion of the health transitions drives life expectancy inequality and a Health Kuznets Curve can be suggested for life expectancy at birth. Inequality fell while life expectancy rose throughout the twentieth century as the epidemiological transition was spreading across the globe and, then, stagnated as it was completed. A new phase of increasing inequality opened at the turn of the new century, associated to a second health transition, linked to the successful flight against cardiovascular and respiratory disease that, so far, has only effected the developed countries, giving a boost to life expectancy of the elderly. To the extent the new medical technology becomes widely accessible, a decline in life expectancy inequality could be foreseen during the twentieth-first century closing the second health Kuznets curve.

Why inequality declined in social dimensions and human development, but not in GDP per head? In is due to public policy or just to the fact that medical technology is a public good? Why a second health transition has not taken place in the Rest? Has it been the outcome of inequalising new medical technologies?

Keywords: International Inequality, Well-being, Life Expectancy, Literacy, School Enrolment, Per Capita GDP

JEL Classification: I00, N30, O15, O50

The Hand of the Past and the Railway Networks of the Present

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Abstract

The historical development of railway networks has left a legacy of varying degrees of network integration in different regions of the world. Network integration affects transport system costs and performance, which in turn affects an economy's overall market integration and growth. Network integration may be facilitated by common technical standards, most importantly in track gauge (width between the rails), but also in braking systems, signaling and train control systems, electrification systems, car profiles (heights and widths), and other technical parameters, along with administrative procedures that facilitate through-shipment of freight and travel of passengers across multiple national or corporate rail networks. This paper focuses on standardization of track gauge while addressing the other issues in passing.

At the technical level, the chief hindrance to track-gauge standardization is the cost of converting track and rolling stock to a common gauge. Particular technical practices and innovations affect these costs. At an institutional level, transaction costs or coordination costs come into play, as choices of gauge by one local railway system affect the costs of through-shipment and benefits of network integration experienced by neighboring local railway systems. That is, there are network externalities. Processes of conversion, past and present, have frequently been facilitated by institutional innovations that effectively internalize these externalities. Choices to convert or not also depend on technology that affects the costs of transport across breaks of gauge, as well as on the underlying demand for transport across breaks of gauge. All of these features affect the thresholds of network scale and transport volume that determine whether or not track gauge is standardized.

The paper applies an analytical framework incorporating these features to selected episodes in railway history. After reviewing past instances of standardization discussed somewhat differently in my previous work, it gives particular attention to current choices for or against standardization in regions with long histories of increasing but incomplete network integration. Australia still has three gauge in use after 160 years. It completed a common-gauge network linking state capitals in 1995, but proposals for converting the remaining routes using at least one of the other gauges have not come to fruition, and the economic case for much further change appears doubtful. India, by contrast, is now in the final stages of ending its own widespread use of variant gauges, bringing a conclusion to a 150-year-long historical process. The Baltic countries, in conjunction with the European Union, have been pursuing a rationalization of their gauge configuration since the collapse of the (broad gauge) Soviet Union and their increasing economic integration with the EU. These efforts are now bearing fruit, although the full outcome is not yet clear. The paper gives briefer attention to recent developments in (broad gauge) Spain and elsewhere.

The paper concludes with reflections on lessons for the broader topic of path dependence and the adaptability of the economy to changing payoff structures for technical choices and other matters. It adds insight on the perennial question of how history matters.

Officer Retention and Military Spending: The Rise of the Military Industrial Complex during the Second World War

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Abstract

This project examines how top military personnel within the U.S. Navy contributed to military expenditures around the country. It does this by asking two basic question. First, what factors induce naval officers to exit military service? And second, what are some of the longer term implications of officers from different regions of the country exiting the service at different rates, mainly those having to do with the spatial distribution of military resources?

For data we use naval personnel records of officers serving in the U.S. Navy from 1870 to the late 1930s. Specifically, we document the region (typically city and state) from which each newly commissioned officer is appointed for all Naval Academy graduates for the graduating classes of 1870 to 1919. We further document the length of tenure of each naval officer, acquired from official U.S. Navy registers. In this way we are able to construct unique measures of “military representation” across U.S. counties from the Reconstruction period to the dawn of the Second World War. With each Naval Academy graduating class embodying a fairly even geographic representation of the nation, we are able to track how skewed this representation becomes over time. To these officer profiles we merge county-level data. Specifically, we incorporate military spending within counties during the Second World War documented by Jaworski (2016). Spending can be categorized by military branch and purpose. In this way we can isolate spending originating from naval budgets from spending coming from other sources. Finally, we incorporate other county-level military spending measures from Cullen and Fishback (2006) and county-level economic and demographic data from Haines (2010).

The empirical analysis produces a number of findings. As in Glaser and Rahman (2016), we find that wage stagnation within the Navy due to lack of promotion contributed to worker exit, suggesting that these workers found external jobs in alternative industries. Unique from this work, however, we also find that economic conditions from officers' regions of origin contributed to their exits as well – the more urban and manufacturing oriented the county, the stronger the pull on officers to exit the Navy. Because of this, we argue that senior officers disproportionately originated from economically depressed regions.

Using this variation in officer county-of-origin and duration of service, we also construct measures of senior naval officer representation that vary by county. Using these measures we find that officer representation positively predicts regional naval spending during World War II. This finding is robust to the inclusion of regional economic and demographic characteristics, as well as to the presence of pre-existing military installations. Further, this finding only holds for naval spending, not for spending from other branches of the military. Our findings thus produce

support for the idea that officer representation generated a pull of attraction on fiscal dollars when those dollars suddenly became available. This naval spending was spread across many regions of the United States, but tended to flow to more depressed economic regions through this personnel channel.

THE PURCHASE OF BRITISH ARMY COMMISSIONS:

SIGNALLING IN A DYNAMIC MODEL OF APPOINTMENT AND PROMOTION

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Abstract

Prior to November 1, 1871, young men who wanted to be officers in the British Army could purchase their regimental commissions. An officer bought in at the bottom rung (ensign) of the promotion ladder and could move up through the ranks to Lieutenant Colonel by purchasing subsequent commissions.

We posit that purchasing an ensign's commission was a way of signaling high ability. The ensigncy itself provided little opportunity to do anything other than routine tasks, but once the first promotion to lieutenant was achieved, performance in rank became a reliable indicator of ability and the controlling determinant of further promotions. If wages and promotion guidelines were then set optimally, purchasing further commissions would be of no value. If the wage scale was not optimal, then purchasing a higher rank could have positive value to an officer, hastening advancement to earning higher wages. Evidence that purchasing a higher rank was associated with less time spent in the lower rank would be consistent with a suboptimal wage scale.

We set out a model in which the probability of promotion beyond the ensigncy may be determined by the presence of purchased signals. The length of time spent in the lieutenancy is predicted to be shorter if that original commission was purchased than if it was not, *ceteris paribus*. For subsequent promotions, the decision to purchase a commission, and thus the

socio-economic group with which one is associated, should no longer matter since those promotions are expected to depend on performance indicators, assuming an optimal wage structure.

We test these predictions of the model with data drawn from the archives of the British War Office and Hart's Annual Army List. We have observations drawn at the time of the abolition of purchase on the time spent in each rank up to Lieutenant Colonel, whether ranks previously held had been purchased, indicators of bravery, distinction, or other meritorious service, the location of service, whether the officer was of aristocratic lineage, and whether or not the officer was a veteran of the Crimean War. We estimate survivor functions determining separately the elapsed time between promotion to lieutenant and promotion to captain and the elapsed time between promotion to captain and promotion to major as a function of the above-mentioned covariates. Preliminary estimates are consistent with the predictions of the model. Length of time to promotion from lieutenant to captain is lower for those who had purchased an entry-level commission (to the ensigncy), but the purchase of commissions to subsequent ranks have no effect. The time spent as a captain before promotion to major is not affected by the purchase of lower ranks; however, having purchased the rank of major reduces the time to promotion to that rank, suggesting that the wage difference between the ranks of captain and major was not optimal.

Escaping Europe:

Health and Human Capital of Holocaust Refugees

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Abstract

At Europe's doorstep, the current refugee crisis poses considerable challenges to world leaders. Whether refugees are believed beneficial or detrimental to future economic prospects, decisions about them are often based on unverified priors and uninformed opinions. There is a vast body of scholarly work on the economics of international migration, but when it comes to the sensitive topic of war refugees we usually learn about the overall numbers of the displaced but know next to nothing about the human capital of the displaced populations. Our study contributes to this much under- researched, and often hard to document, area of international migration based on a newly constructed dataset of war refugees from Europe to the United States after the outbreak of World War II.

We analyze Holocaust refugees travelling from Lisbon to New York on steam vessels between 1940 and 1942. Temporarily, the war made Lisbon the last major port of departure when all other options had shut down. Escaping Europe before 1940 was difficult but there were still several European ports providing regular passenger traffic to the Americas. The expansion of Nazi Germany in 1940 made emigration increasingly difficult and by 1942 it was nearly impossible for Jews to leave Europe due to mass deportations to concentration camps in the East. The Lisbon migrants were wartime refuges and offer a valuable insight into the larger body of Jewish migrants who left Europe from the Nazi seizure of power in Germany in January of 1933, to the invasion of Poland in September of 1939.

The majority of migrants in our dataset were Jews from Germany and Poland, but we identify migrants from 17 countries in Europe. We define as refugees all Jewish passengers as well as their non-Jewish family members traveling with them. Using individual micro-level evidence we find that regardless of refugee status all migrants were positively selected, that is, they carried a higher level of health and human capital when compared to the populations in their countries of origin; this pattern is stronger for females than males. Furthermore, refugees and non-

refugees in our sample were no different in terms of skills and income level, but they did differ with respect to the timing of the migration decision. Male refugees were more positively selected if they migrated earlier, whereas women migrating earlier were more positively selected regardless of refugee status. These findings suggest large losses of human capital in Europe, especially from women, since the Nazi arrival in power seven years before the period we analyze in our data.

The study of the late Holocaust refugees is rather relevant today in the context of the Syrian civil war, which broke out six years ago. Refugees fleeing Syria today are not just lucky to escape; they are probably also healthier and coming from a higher social background than average in their home country.

Church building and the economy during Europe's 'Age of the Cathedrals', 700–1500[6]

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Abstract

This paper presents new data on the construction history of about 1,100 major churches in Western Europe between 700 and 1500 CE. The idea is that church building can be seen as an indicator of economic activity, reflecting confidence in the future, command of substantial ecclesiastical revenues, mobilisation of large teams of construction workers, and an ability to assemble impressive quantities of building materials at a single site, with the wider economic multiplier effects that this entailed. In a pious age, Church reform, monastic foundation and advancing architectural technology helped kick-start and then lend momentum to the process. Whether so much conspicuous construction activity was beneficial to or a burden upon Christendom's relatively poor and under-developed economy can be debated. What is clear is that churches, like the books and manuscripts produced in the same period, are artefacts that can be quantified.

Whereas hard data are lacking for many other aspects of economic activity, at least before 1250, research by generations of architectural historians means that much is known about the construction history of individual churches, commencing with their original foundation. Putting this information together provides estimates of the ecclesiastical building industry for a number of European countries, currently Switzerland, Germany, France, the Low Countries and England but potentially extending to the whole of Latin Christendom.

Key findings from this investigation are as follows. First, after the false start of the Carolingian Renaissance, the opening phase of the post-c. 920 church-building boom appears to have been concentrated in the area between Rhine and Seine which is usually linked to classic feudalism, suggesting a connection with this new system of exploitation of agricultural (and human) resources and more efficient extraction of surpluses. Second, from the outset, church-building in maritime towns displayed greater

[6] Duby, Georges (1976), *Le temps des cathédrales: l'art et la société (980-1420)*, Paris.

dynamism than other locations and after c. 1200 the disparity between ports and landlocked towns became increasingly pronounced, implying that commercial factors were of growing importance. Third, the big boom had run its course by c.1280 and by the second quarter of the 14^{th} century, as warfare burgeoned and economic conditions took a turn for the worse, construction activity was shrinking almost everywhere, both in aggregate and per capita. Fourth, after c. 1350, the gravitational centre of church building shifted north-eastwards from northern France and Flanders to the Northern Low Countries and adjacent parts of Germany, which were benefiting from the realignment of trade routes and proving themselves to be commercially and demographically more resilient to the negative shocks of war, commercial decline and plague. Fifth, this suggests a periodization of growth, in the sense that initially – during the Carolingian and Ottonian Renaissances – agricultural and institutional drivers played a large role until they were gradually superseded by international trade as the more important motivating factor. Finally, the break between c. 960 and c. 1040 (in England after 1066) is the most striking discontinuity in church building. Changes in religious institutions — the state-backed ecclesiastical reform movement of that period — are a good candidate for explaining this sudden break.

A City of Trades and Networks: Spanish and Italian Immigrants in Late Nineteenth Century Buenos Aires, Argentina

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Abstract

During the era of mass migration the United States became the main destination for European immigrants; however, Argentina attracted a large number of immigrants relative to its own population. Buenos Aires city retained more than 40% of all urban immigrants. This paper brings to light a rather extreme case in immigration: Buenos Aires city in the late nineteenth century, where less than one third of the labour force was native. In particular, we look at the most important immigrant groups, the Spanish and the Italians, in comparison to the Argentineans.

This paper addresses an old issue in the literature using new quantitative evidence. Our contribution lies in a quantitative approach to understand labour markets in Buenos Aires and to explore the importance of ethnic networks in facilitating the immigrant integration into the host society. We compiled a new dataset to analyse the performance of immigrant groups and the importance of ethnic networks. Based on a random sample of the original records of the 1895 national census, we imputed earnings to the full range of occupations from a variety of sources. This is the first attempt to analyse the Argentinean labour market with a rich dataset that includes IPUMS-based occupation classification, income and individual worker characteristics in late nineteenth century Buenos Aires. In particular, we look into the labour market outcomes of Argentineans and European immigrants in different dimensions including labour market participation, occupation and human capital.

We find that, on average, the native-born labour force enjoyed higher wages than the immigrant workers as the market rewarded literacy, experience and knowledge of the Spanish language. Overall, immigrants in Buenos Aires concentrated in occupations with lower wages than natives. Italian and Spanish earnings were around 20 percent lower than the Argentinean level. However, earning differentials are due more to clustering in particular occupational groups than within group variation. The relative concentration in different occupations was not evenly distributed. We find specialisation via nationality: Argentines had a greater participation in higher skilled occupations while immigrants concentrated in less skilled occupations. Spaniards dominated the retail sector and Italians the crafts. Human capital does not explain this specialization pattern as both Spaniards and Italians had relatively high literacy rates. Our results indicate that this clustering of immigrant national groups in particular occupations is due, partly, to the power of immigrant networks. Through the network channel, the Spaniards and Italians helped their fellow immigrants integrate into the

labour market, especially in certain occupations. This strategy was especially successful for the Italians as revealed by higher average income, in spite of lower literacy rates than Spaniards or lacking the language advantage. With deeper and long-established networks in Buenos Aires, the Italians had the first mover advantage, a benefit that persisted, at least, until the end of the 19^{th} century.

Children's Growth in Industrialising Japan

Eric Schneider and Kota Ogasawara

Abstract

Between the birth cohorts of the 1880s and 1980s, the average height of Japanese adult men increased by 13.9 cm (Baten and Blum, 2012). The average WHO height-for-age Z-score of Japanese six year olds in the period 1929-39 was -2.0, suggesting a stunting rate of around 50 per cent whereas the average in 2016 was -0.46 with a much lower stunting rate. Thus, there was a radical change in the growth pattern in Japan across the twentieth century, making it an ideal case for studying changes in children's growth. This paper uses Japan as a case study to analyse changes in children's growth pattern and in their instantaneous growth in the interwar period to determine how exposure to disease may have caused these changes controlling for a number of confounding factors.

Drawing on data from Japanese government reports, we have constructed a panel dataset containing the average heights of boys and girls for all 47 prefectures from 1929-39. To test the influence of disease on child growth, we implement two study designs. First, in order to measure the growth pattern of the children, we are the first to use the SITAR growth model developed by Cole *et al.* (2008) to parameterise the growth pattern of historical populations. SITAR predicts a parameter that measures the size, tempo (timing of the pubertal growth spurt) and velocity of each cohort growth curve in our dataset. We then take the predicted SITAR parameters and use these as dependent variables in fixed effects regressions to understand how changes in health conditions in the year of birth affected each SITAR parameter. There are implicit lags in these regressions, eliminating potential endogeneity problems. In our second study design, we attempt to understand how child morbidity, proxied by the infant mortality rate, influenced the instantaneous growth of children at ages 6 to 11. We use a bilateral-specific fixed effects model, which includes fixed effects for prefecture interacted with birth year, controlling for any differences in initial birth conditions of the children across prefectures and cohorts. There is greater potential for endogeneity in these instantaneous regressions, but by focusing on mortality of younger children, especially infant mortality, in the same year, we eliminate some of this bias.

Briefly, we find that health conditions in early life did not have a strong influence on the growth pattern of children in Japan. However, we do find a significant and economically meaningful effect of the infant mortality rate on child height in the current year for both boys and girls. This suggests that child morbidity was very important to the increase in stature during interwar Japan, but it also suggests that the emphasis placed on preventing child stunting in the first thousand days in the modern development literature may be misplaced. The secular increase in height in interwar Japan was more strongly influenced by cumulative responses to the health environment across development rather than being simply the outcome of improving cohort health.

The impact of commuting and mass transport on the London labour market: Evidence from the *New Survey of London Life and Labour*

Jessica Bean (Denison University); Andrew Seltzer (Royal Holloway, LSE, IZA, CEH, ICS); Jonathan Wadsworth (Royal Holloway, CEP, IZA, LOWER)

Abstract

In modern cities, commuting is an integral part of work and in large metropolises it is not common for workers to average more than an hour per day commuting. However, prior to the development of public transportation networks, workers tended to work very close to home, resulting in extreme over-crowding in working class neighbourhoods. The construction of rail, subway, tram and bus networks allowed workers to live physically separated from their workplace, and to choose between employers over a wider area. Theoretically, public transportation should increase earnings through two separate mechanisms. First, by lowering search and commuting costs, it enables workers to take higher paid jobs further from home. Secondly, by widening workers search areas it improves workers' bargaining power and reduces employers' local monopsony power.

This paper examines the consequences of commuting for London's labour market, circa 1930. We use data from the *New Survey of London Life and Labour*, an approximately two percent sample of London's working class population. The *New Survey* contains information about individual and household characteristics, occupation, hours worked, and earnings. Importantly for our purposes, it contains two pieces of information about commuting: weekly expenditures on work-related transport and the addresses of workers' home and workplace. We have obtained GIS coordinates for home and work addresses, and for London Underground stations, and use these to create distance-based measures of centrality, access to public transport, and commuting.

We have two main empirical results. First, consistent with search models, better access to the London Underground was associated with a higher probability of commuting more than one kilometre from home, and particularly with commuting between 3.2 and 19.5 kilometres. Secondly, controlling for other factors, both access to the Underground and distance commuted were associated with higher earnings. We estimate that each kilometre commuted was associated with a 0.4-0.9 percent increase in earnings. The estimated effect for non-heads of household is approximately twice as large as that of household heads. In addition, we estimate that a one kilometre increase in the distance to the nearest London Underground station reduced earnings by on the order of 1.0 percent for heads of households, but had no significant effect on others.

A Land 'of Milk and Butter': The Role of Elites for the Economic Development of Denmark

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Paul Sharp, University of Southern Denmark, CAGE, CEPR
Christian Skovsgaard, University of Southern Denmark

Abstract

A substantial literature in economics examines the impact of elites on the growth trajectories of societies across time and space via their effect on economic and political institutions, human capital formation, technology adoption and knowledge diffusion. While the impact on economic and political institutions is well-established, the role of elites in knowledge diffusion is not as well understood. In this paper, we shed new light on how elites may foster growth by being an important catalyst for the diffusion of knowledge. We focus on a specific example centered on Denmark, and the emergence of a modern dairy industry based on a new technology, the automatic cream separator, and an institution, the cooperative creamery, which it is commonly agreed propelled the country towards prosperity in the last decades of the nineteenth century. An important point surrounding this development is the rapidity with which it happened: after the foundation of the first cooperative creamery in 1882, within a decade the whole country was covered. We argue that this was in fact the end result of a long period of agricultural enlightenment, as a modern scientific form of agriculture spread into the country, propelled initially by a group of elites on traditional landed estates.

In the Duchies of Schleswig and Holstein, ruled by the King of Denmark in personal union, an intensified crop rotation system with an important dairy component was developed on the large manorial estates known as *Koppelwirtschaft*. It became the dominant field system in the Duchies in the 1700s, and included unprecedentedly large herds of milch cows and the invention of an innovative new centralized system of butter production, the *hollænderi*. We show in a narrative account how this innovation came to Denmark during the 1760s and quickly increased in

importance. This adoption was unequal across the country, and led to an uneven spread of emulation by common farmers. Subsequent scientific debate led to further advances and more generally, it became firmly established that Denmark's comparative advantage lay in dairying, and butter production in particular.

We have previously (Lampe and Sharp forthcoming) established a narrative account – based on substantial use of primary archival and other sources – of how this innovation spread and trickled down to the peasantry through education, research, diffusion of examples of best practice and the establishment of channels of marketing. Here we show econometrically that the pre-existence of specialized estate dairies – introduced by the elites in the 1700s - had a causal effect on the spread of the cooperatives one hundred years later. We rely on the pattern of diffusion of *Koppelwirtschaft* with dairy units from the original place of introduction to estimate its causal effect on the establishment of cooperatives at the parish level. We thus quantify in a formal econometric framework what we have previously only suggested qualitatively: that the reason for the extremely rapid spread of cooperative creameries in Denmark between 1882 and 1890 can be attributed to the innovations introduced by the elites from Schleswig and Holstein over the preceding century.

Banking Networks and Financial Market Integration:

A Case of Japan during the Late 19th Century

Masato Shizume

Waseda University

Abstract

In this paper, we explore the effectiveness of banking networks in integrating the national financial market. We focus on networks operated by private banks and the central bank in Japan during the late 19th century, when its financial system was in the process of modernization. After the enforced opening of the treaty ports in the 1850s and the Meiji Restoration in 1868, the new government moved to establish modern monetary and financial systems with some trial and error. In the course of events, the government introduced a multiple issuing bank system based on the US model. The private sector quickly responded to the government's initiative by formulating a mesh-like banking network. The government then changed its policy by establishing the Bank of Japan (BOJ) in a bid to supplant the existing private networks with a central banking system of a European style. As a result, two types of networks co-existed during the early days of the BOJ. This paper shed new lights on the process of the integration, especially during the early stages, comparing the effectiveness of 1) networks operated exclusively by private banks and 2) the network operated by the central bank and its correspondent partners.

To this end, I construct a dataset comprising the number of pair-wise relationships among banks, and relationships in monthly lending interest rates at the prefectural level. Regression analyses shows that the existence of bilateral relationship between private banks helped to

converge interest rates between prefectures, whereas the bilateral relationship between the central bank and its partners did not. This suggests that the network of the new central bank did not add much to the existing network operated by private banks in terms of financial market integration across prefectures. The Network analysis shows that the network of the First National Bank, which had the biggest network among private banks, had denser and more closely-connected structure than that of the BOJ to facilitate fund transfer. Narrative analyses reveal that private banks formed networks by correspondent contracts and branching to adjust regional discrepancies of supply and demand of funds along with flows of commodities. The banks converged interest rates among regions that otherwise would have tended to diverge as the volumes of interregional commodity trade grew, causing different patterns of seasonal and cyclical demand for funds. Through this converging effect, the private banks helped integrate the national financial market. The BOJ changed its stance toward the financial market for the first time after facing the banking panic of 1890 in Osaka and western Japan. After the panic the bank expanded its own national branch network and actively extended its lending operations by adding company stocks to eligible collaterals, paving the way to act as the lender of the last resort (LLR) toward the end of the century. The BOJ needed time to learn to play its role as a central bank.

Key words: banking network, central bank, financial market integration, modern Japan

Was there a marriage premium in late nineteenth-century manufacturing? Evidence from Sweden

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Abstract

That married men earn more than unmarried peers is a well-documented phenomenon in contemporary labor markets across Western nations. The premium is commonly found to be around 10 percent, though vary across settings. Few studies have, however, documented the marriage premium in the past. The reasons for why there is a marriage premium is not equally well understood. The most common explanation is that marriage make men more productive, though competing explanations argue that married men are more productive already before they marry and that the premium is due to selection. There is also the argument that married men are subject to preferential treatment by employers who value them or adhere to societal norms regarding men's breadwinning responsibilities. Against this backdrop, one may anticipate to find a rather substantial marriage premium among industrial workers in the past.

We investigate if there was a marriage premium among male workers, exploiting matched employer-employee data from the Swedish cigar and printing industry circa 1900. The data provides detailed information on individual characteristics for workers holding the same jobs and also many characteristics of the firm. We are thereby able to control for factors both at the individual and workplace level. To answer our research questions, we estimate standard wage regressions considering individual characteristics for earnings, but also occupation/skill and firm-level characteristics.

We did not find much evidence for a marriage premium in the past and suggest that previous claims about the family wage and how institutions such as union membership supported this, need to be revised. There were sizeable raw marriage premia in both the cigar industry and among compositors. Even when controlling for productivity-related individual characteristics such as age, experience and tenure, we observed premia around 10

log points, which is in line with previous findings for contemporary settings. The more observables we controlled for, the smaller the gaps, to the extent that the marriage premium disappeared among cigar makers. The marriage premium was more substantial among compositors, and for this group previously married men earned an even larger premium. When controlling for unobservable heterogeneity at the firm level, i.e., policies and practices with respect to management and work organization, which previously has been neglected, the marriage premium re-appeared among cigar makers, even among those who were paid piece rates and were remunerated according to productivity. Married cigar makers earned more, not because they worked for better-paying firms or in better-paying jobs but because they worked harder most likely due to their breadwinning responsibilities. While the marriage premium was associated to work effort among cigar makers, this was not the case for compositors where the results more support a human capital story or potentially the emergence of differential treatment in favor of married men. Our results put previous claims into perspective and shows that some associations do not hold up for closer scrutiny.

A Gift of Health:
The Duke Endowment's Impact on Health Care in the Carolinas: 1925-1940

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Abstract

In 1924, James Buchanan Duke established the Duke Endowment with a gift of $40 million. Among the beneficiaries of the Duke Endowment were hospitals in North Carolina and South Carolina, which Duke viewed as "…indispensable institutions [for] ministering to the comfort of the sick [and] in increasing the efficiency of mankind and prolonging human life" (Indenture of Trust of the Duke Endowment, 1924). Over the period 1926-1940, the endowment funneled nearly $14 million in funds to hospitals in the Carolinas. Funds were first used to reimburse hospitals (up to $1 per day) for giving patients free care. Surplus amounts could be used for hospital construction and maintenance. When the Duke Endowment began its program, roughly one-half of North Carolina's 100 counties had no hospital beds. At the beginning of our analysis in 1927, there were 7,679 beds in general hospitals in North and South Carolina. In the last year of our analysis, this number had risen to 11,117. How much of this increase can be attributed to the efforts of the Duke Endowment? Preliminary analysis suggests that Duke Endowment contributions accounted for 2,590 of the beds – or about 23.3 percent.
We also examine the impact of Duke Endowment spending on health outcomes in North Carolina. We find that Duke Endowment spending did not reduce overall mortality until after the advent of sulfa in 1937. However, after the introduction of sulfa, Duke Endowment contributions did reduce all-cause mortality. Specifically, we find that a one standard deviation increase in free days per 1,000 led to a 24.17 percent reduction in mortality.

In the Indenture of Trust for the Duke Endowment, James B. Duke was very clear that money from the Endowment was to be used to fund hospitals for whites and blacks. The data suggest that black hospitals received less overall funds than white hospitals, but that blacks benefited more from subsidized care provided by the Duke Endowment. This spending statistically significantly reduced the black-white mortality differential: with a decrease in the black-white mortality gap of 8.1 percent in the pre-sulfa period and 12.5 percent in the post-sulfa period.

The Old Men in the Census: Inequality and Mobility in 18th Century Murcia

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Salvador Gil-Guirado (University of Murcia)
Chris Vickers (Auburn University)

Abstract

We measure and analyze inequality and social mobility in Murcia (Spain) during the 18th century, a period that covers the pre-industrial world as well as the very early stages of industrialization in Europe. The records we use allow us to study social mobility with a focus on women and their relation to their children and spouses. As a methodological contribution, we propose a new estimation method using the information in these family trees to independently identify three parameters: the effect of the father on the child, the effect of the mother on the child and the degree of assortative mating.

The voluminous literature on intergenerational mobility has generally relied on father-son links, largely for reasons of data availability. More recently, economists have extended the analysis to more complex family dynamics. In this paper, we construct individual links for multiple generations linking baptismal records with censuses data (Milicias Census of 1734, Ensenada Census of 1756 and Floridablanca Census of 1786). That is, because our baptismal records contain information about the names of the baptized individual, the parents, as well as all four grandparents, we can construct four male links from the baptism records to the censuses: the son, the father, as well as both grandfathers. Importantly, linking the maternal grandfather allows us to construct an estimate of the transmission of status from the mother to the son without actually linking her to any census records. On the other hand, the censuses give us information on the structure and composition of each household, as well as data on income and occupations of household heads.

With the constructed family trees, we can study status transmission from both the father and the mother to all children in the household. If the unobserved characteristics of the mother have a direct effect on the characteristics of the son, then the observed correlation between the characteristics of the father and the son is the sum of two effects. The first effect is the direct effect of the father on the son. The second effect is the indirect effect of the father on

the son, which is the product of the degree of assortative mating and the direct effect of the mother on the son. Using information on the grandparents, we construct a GMM estimator to correct for these problems.

In addition to studying social mobility, we examine inequality and how that changes over time using the full population data. We observe no change in inequality from 1734 to 1756. We observe a small increase in inequality from 1756 to 1786 due to a relative decrease in income in the third and fourth quintiles. The effect is consistent with the Kuznets hypothesis that the early stages of industrialization increases inequality by reducing the number of artisan jobs while increasing the number of laborers and the income of capitalists. 1786 is still early for industrialization in Murcia and the effect is still small by 1786.

News Media and Stock Market Returns over the Long Run[7]

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(Queen's University Belfast)

Clive B. Walker
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Abstract

Does the news media affect financial markets? In this paper, we examine the relationship between the content of the *Financial Times* (FT) and returns on the London Stock Exchange for the period 1899–2010 using a new daily stock-market index. To do this, we converted 350,000 articles into text files using OCR software and then assessed the positive and negative sentiment of each article by using the Loughran and McDonald (2011) dictionary. We use the fact that the FT's historical archive categorises its content into sections to test whether the influence of the media on the market varies with the type of reporting. We then use a novel identification method that classifies the market as either being in a bull or bear state to test what type of reporting contributes to the prevailing market state. When we consider the entire newspaper, we find that there is a relationship between sentiment and returns. Our analysis of the FT's sections suggests that news on market performance has a significant impact on future returns. However, this is the first paper to find that the sentiment of non-market news and commentary also has an impact on returns. This is consistent with a behavioural mechanism where news that is read by traders creates a short-term bias in their actions. When we look at results by the state of the market, we find that news reporting affects returns in both bull and bear markets, but FT commentary only has an effect in bear markets. We interpret this as evidence that traders turn to commentary during bear markets to understand better the factors causing the downturn.

[7] Thanks to Gareth Campbell for help with the *Investor's Monthly Manual* data.

The Marginal Child throughout the Life Cycle: Evidence from Early Law Variation

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Abstract

A robust literature examines the effects of "wantedness" on child outcomes, utilizing changes in abortion laws in the late 20th century for identification. The underlying theory, however, predicts that some effects of early life circumstances may not manifest until older ages. Theories of "scarring" indicate unwanted children may be weaker and less well-adapted to their environments, and evidence of this may be apparent soon after birth. On the other hand, if unwantedness produces a selection effect wherein stronger members of the cohort survive, the long-run effect may be higher conditional life expectancies at older ages. We exploit variation in 19th century abortion-related legal restrictions between U.S. states and over time within states to examine the effect of child "wantedness" on the outcomes of children over their lifecycles, from early ages through the oldest old. The adoption of these legal restrictions is not predicted by other changes in state circumstances, and states with anti-abortion laws have between 4 and 15 percent more children than those without. Consistent with theories of scarring, members of these larger cohorts were roughly 3 percent less likely than those in other cohorts to survive into their twenties and thirties.

But we also detect a long-run selection effect; these cohort members are 3-6 percent more likely to survive into their 70s conditional on reaching age 60. Our results are similar for males and females. We also detect reductions in labor force participation and employment rates amongst members of these larger cohorts, which make the positive longevity effects all the more remarkable. Our results are robust to various specification checks and indicate that wantedness, like other aspects of a child's early life circumstances, has important effects on life expectancy,

albeit with different signs over the life cycle. Future work will use 100% census samples and cause of death data to confirm these effects and to explore specific pathways.

The Not-So-Hot Melting Pot: The Persistence of Outcomes for Descendants of the Age of Mass Migration

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Abstract

Today's immigrants from poorer source countries lag behind native income levels, leading to substantial political interest in their eventual economic assimilation (Borjas, 2015; Lubotsky, 2007). This income imbalance is not limited to immigrants themselves; poor outcomes may continue for the children and grandchildren of the first generation, leading to persistent generational poverty. Ultimately, it is unclear how long it will take for recent immigrants and their descendants to overcome low starting points and reach convergence with natives.

Convergence past the second generation is unclear due to a lack of data. The best sources can only identify the first and second generations because United States data do not contain grandparent's country of birth, leaving adult outcomes for the third generation unobserved. Instead of grandparent's country of birth, a large literature classifies the third generation using self-reported ancestry or surnames; however, these methods suffer from either selective self-identification or maternal surname change after marriage.

In this study I create a unique dataset that include all four grandparents' countries of birth for over two million adults observed in the 1940 United States Census. The new data can be created due to two features of historical records. First, the 1910 census asked for mother's and father's birthplace, allowing me to observe all four grandparents' birthplace for children of intact families. Second, while others who use this method can only observe outcomes for *children* still in the household, with publically released historical censuses I am able to link children to their *adult* outcomes 30 years later and observe key outcomes such as occupation, years of completed education, income and real estate wealth. This new dataset provides clean identification of the grandchildren of first-generation immigrants, which allows me to go one generation further than the prior literature.

I find that convergence between source countries was slow, slower than previously estimated in the literature. The correlation between the first and third generations' average skill levels is between 0.44 and 0.48; this suggests that for a given skill gap between two origins in 1880, a little over half had disappeared 60 years later. The results suggest that group-level effects such as social capital, discrimination or ethnic enclaves operate not only for the link between the first and second generations, but also for the link between the second and third generations. Therefore, the first-generation's economic position has a long-lasting influence on future generations.

However, I also find that the grandchildren of first generation migrants outperform those with four American-born grandparents on nearly every economic measure in the 1940 Census. Immigrant descendants have higher years of education, more income, higher-paid occupations, and higher housing wealth. This is consistent with a long-run positive impact of the Age of Mass Migration on American outcomes.

Asset Pricing in Old Regime France

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Abstract

In this study, we examine the Toulouse mill companies, the oldest shareholding corporations known in Europe, to test asset pricing models. We collected data on dividends and share prices for the *Honor del Bazacle* and the *Narbonnais Castle* from 1591 to 1788. The total milled grain quantity in Toulouse was also used to build a proxy for local consumption. In accordance with the consumption-based asset pricing theory, we describe the prices by using a stochastic discount factor (SDF) in the Euler equation. More specifically, we decompose the SDF into an observable component and an unobservable one (Julliard et al. 2016), and we performed a relative entropy analysis to estimate the pricing kernel of the economy parametrically and non-parametrically. We observe that the model-free SDF correlates with the model-implied one and with consumption. A constant relative risk aversion (CRRA)-based model with power utility is not rejected by the data for very low risk aversion levels, and some classic issues in finance, such as the *equity premium puzzle*, do not arise thanks to high consumption growth volatility.

UNREAL WAGES?
REAL INCOME AND ECONOMIC GROWTH IN ENGLAND, 1260-1850[8]

Jane Humphries
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Abstract

Existing accounts of workers' earnings in the past suffer from the fundamental problem that annual incomes are estimated on the basis of day wages without knowing the length of the working year. We circumvent this problem by presenting a novel income series for male workers employed on annual contracts. We use evidence of labour market arbitrage to argue that existing estimates of annual incomes in England are badly off target, because they overestimate the medieval working year but underestimate the working year during the industrial revolution. Our new income estimates suggest that modern economic growth began more than two centuries earlier than commonly thought and was driven by an early and continuing 'Industrious Revolution'.

[8] We thank Bruce Campbell, Tommy Bengtsson, Steve Broadberry, Greg Clark, Jan de Vries, Sara Horrell, John Hatcher, Nuno Palma, Eric Schneider, Jaime Reis, Mauro Rota, Jacob Soll, Michelangelo Vasta, as well as the conference and seminar participants at the 1st Sound for Seniors Workshop, the 17th World Economic History Congress, the Economic History Society Annual Conference 2016, the Linda and Harlan Martens Economic History Forum, 'The First Modern Economy: Golden Age Holland and the Work of Jan de Vries' at the Huntington Early Modern Studies Institute, University of Southern California, 2017, and seminar participants at the University of Siena, the University of Valencia, the Sant'Anna School of Advanced Studies in Pisa, the European University Institute in Florence, and Utrecht University for their helpful comments and suggestions. We are grateful to Jacob Field and Roderick Floud for sharing data. **For the full version of this paper, please visit: https://jacobweisdorf.wordpress.com/ongoing/.**

Australian Squatters, Convicts, and Capitalists: Dividing Up a Fast-Growing Frontier Pie 1821-1871

Laura Panza (Melbourne)
Jeffrey G. Williamson (Harvard and Wisconsin)

Abstract

Compared with its nineteenth century competitors, Australian GDP per worker grew exceptionally fast, about twice that of the US and three times that of Britain. This paper asks whether the fast growth performance produced rising inequality. Using a novel data set we offer new evidence supporting unambiguously the view that, in sharp contrast with US, Australia underwent a revolutionary leveling in incomes between the 1820s and the 1870s. This assessment is based on our annual estimates of functional shares in the form of land rents, convict incomes, free unskilled incomes, free skill premiums, British imperial transfers and a capitalist residual.

Keywords: Colonial Australia, inequality, growth, functional distribution
JEL: N17, N37, O47, O56

Long-Run Consequences of Exposure to Influenza at Birth: Zurich 1889/1890

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Abstract

An increasing number of studies shows negative long-run effects of adverse early life conditions on educational achievement, labor market outcomes, morbidity or mortality later in life. A unique data set for Zurich recruits examined before the outbreak of the First World War allows us to look at channels for these effects in a historical context: in addition to individual information on body measurements, we also have data on physical and intellectual fitness at age of recruitment, measured by the performance at a sports test and the pedagogical examination. The literature on the long-run effects of influenza shows that pregant women are especially vulnerable and that the channel through which the fetus is affected is not a direct viral effect but the inflammatory response of the mother. This has potentially long-run effects on the individual. There is a body of research on the consequences of the Spanish Flu 1918/19, which we cannot study, given that the recruits in the date set were born in the 19th Century. But some of the recruits were exposed to an influenza pandemic at birth, the so called Asiatic or Russian Flu 1889-1890.

The largest 19th Century pandemic broke out in the winter of 1889/1890 and was characterized by wavelike recurrences in the succeeding years. Similarly to the Spanish Flu, 1890 saw an increase in the proportion of deaths in the age group 20-40 years. Other than in the rest of Europe, where the epidemic spread from the Northeast to the Southwest, it arrived in Switzerland in the West in November 1889 and spread quickly across the cantons First cases for the city of Zurich were reported at the end of November/beginning of December. The overall peak of the number of dead was January 1890, followed by outbreaks in April/May 1893 and January 1894. For Zurich, estimates for the number of infected persons range between %20 and %70. We find that the recruits potentially affected in utero by these waves were about 0.5cm smaller than the others, and showed a reduced performance in the pedagogical examinations, especially with respect to reading and essay writing. On the other hand, physical abilities did not react to the exposure.

TOWARDS A QUANTITATIVE ASSESSMENT OF THE TRANSFORMATION OF WORKFORCE IN THE COURSE OF CHINA'S INDUSTRIALIZATION AND URBANIZATION, 1912-2012

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ABSTRACT

This paper attempts to construct a century-long time series of employment accounts for China to facilitate research on China's long-run growth, especially China's industrialization and urbanization since the turn of the twentieth century. Our data is conducted in time and space under a framework of economy-wide labor supply and demand in real terms to ensure a systematic and consistent data handling. For the pre-1949 republican era, we revise the existing estimates for the 1933 benchmark and construct accounts for the 1915 benchmark and the average of 1949-1952 aiming to anchor the estimated time series. For the post-1949 communist era we re-construct the existing official employment series up to 2012 with adjustments for workers engaged in handicrafts and secondary jobs and inconsistent working hours. Besides, using reconstructed census data, we establish the labor supply-side accounts, i.e. total, working-age and economically participated populations, to assess the available demand-side data to gauge the rate of unemployment over time. And, we use factory and service employment data to assess the census and household data on the location of residents to estimate the rate of China's urbanization.

We show that China's century-long labor transformation began with a broad structure of the primary, secondary and tertiary sectors in 1912 as 82.2, 8.1 and 9.7 percent, respectively, of the entire workforce and ended in 2012, one century later, with a distinct structure of 35.7, 28.4 and 35.9 percent of the workforce. Meanwhile, China's urbanization rate rose from 10.7 to 51.9 percent. Both were nonetheless by no means smooth. They were interrupted by the WWII, the Chinese Civil War, the 1949 Communist Revolution, as well as post-1949 numerous radical political and economic campaigns up to Mao's death. As a result of these shocks, by the early 1960s the structure almost reversed to its initial levels in 1912. It was clearly the market-oriented reforms in the 1980s that reinitiated and then accelerated the labor force transformation and urbanization in China.

In this exercise, we also estimated China's labor participation rates for the available benchmarks, which were unusually high, ranging from 82 to 87 percent of the working-age population—a typical low-income country phenomenon that has surprisingly not changed along with the rapid income growth, and use the rates to link the demand-side with the supply-side to explore coherently China's rate of unemployment over time.

Key words: Occupation; by-employment; working-age population; labor participation rate; unemployment; urbanization

JEL classification: C82, E24, O47

The Effect of Immigration Quotas on Wages, the Great Black Migration, and Industry Development

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Abstract

This paper uses a natural experiment to identify the effect of immigration on the manufacturing wages, the Great Black Migration, and the manufacturing industry development in the US between 1920 and 1930. The immigration quota system established in 1921 and 1924 in the US set quotas for immigrants from each sending country proportional to the historical Census population base. By design the quotas assigned to southern and eastern European countries were highly deficient in contrast to generous quotas assigned to western and northern European countries. Thus the quota system severely restricted immigrants from southern and eastern Europe while imposing modest restrictions on immigration from western and northern European countries. US regions that were historically major destinations of eastern and southern European immigrants experienced a greater exogenous decline in immigrant supply compared to regions that used to have more immigrants from less-restricted countries.

Accordingly I estimate the total number of excluded immigrants from each sending European country as the instrumental variable for the change in immigrant share in US regions between 1920 and 1930. I use the annual immigrant inflow from 1879 to 1914 to project each country's "no quota" counterfactual immigrant inflow to the US from 1915 to 1930 and calculate the difference between the counterfactuals and the actual quotas. Then I apportion excluded immigrants to each US region based on their settlement patterns in 1900 country by country to obtain the aggregated number of immigrants excluded by the quota system in this decade to each US region. I use the

excluded immigrants normalized by the regional population as the instrumental variable for the actual change in the immigrant share between 1920 and 1930 in the first-difference county-level regressions.

The IV estimates show that the negative immigrant supply shock to a region significantly increases the local manufacturing wage level. A 1-percentage-point decline in immigrant share lifts the manufacturing wage by about 2 percent. The results reveal a causal relationship between the immigration quotas and the Great Black Migration that the regions with a greater reduction of immigrant supply experience a stronger inflow of the black population. The responsive migratory black population is relatively young, literate, and unskilled. I also find that manufacturers facing less immigrant supply are more likely to shift toward capital-intensive production, indicated by higher horsepower per laborer and valued added per laborer. Meanwhile they have a slower growth in terms of firm size and electrification ratio.

Linguistic Barriers to State Capacity and Ideology: Evidence from the Cultural Revolution

Susan Ou and Heyu Xiong

Abstract

In this paper we utilize a previously unexplored institutional detail of a widely studied historical phenomenon, the Chinese Cultural Revolution, to study the causal impact of state sponsored propaganda on collective conflict and long term individual outcomes.

The Chinese Cultural Revolution (1966-1976) was a period of collective violence and political repression. The movement was fostered by the highly politicized rhetoric from state sponsored media. One type of propaganda was radio broadcasts from centralized loudspeakers located in town centers. These broadcasts were ubiquitous and an unavoidable feature of everyday life. The Communist Party invested heavily in radio infrastructure, creating a way in which it could quickly and directly reach all its constituents, even peasants living in the remote countryside.

While the presence of the propaganda was pervasive, the comprehension and reception of the message was not uniform. It was mandated that all state propaganda be conducted in the official party language: Standard Mandarin. As a result, the propaganda effort was muted in areas whose people did not comprehend Standard Mandarin. We exploit this institutional detail to create a novel intensity of treatment measure. This enables us to determine the contemporaneous effect of propaganda on the intensity of the Cultural Revolution, as well as how this differential exposure to Cultural Revolution ideology affects the long term outcomes of individuals.

Our first main contribution is developing a way in which to quantify the intensity of exposure to propaganda. We use archival data to document the location of radio stations at the time, which determines the density of local broadcasting infrastructure. We construct a measure of exposure based on the interaction of provincial radio density and the local dialect's mutual intelligibility with Standard Mandarin.

We examine the relationship between this interaction term and the intensity of the Cultural Revolution in each county as measured by the number of killings directly attributable to the Cultural Revolution. We find that while the presence of radio increased the level of violence locally, the effect was especially pronounced in locations where Mandarin was more widely understood.

The results highlight a persistent tension faced by the state, between effective administration and centralization of policy. The Communist Party in China conducted all party propaganda in Mandarin in order to combat localism and to try to unite the country. However, this policy was

at odds with the goal of spreading ideology among the linguistically heterogeneous state. Ironically, the language barrier to state capacity during the Cultural Revolution constrained the intensity and excess of the violence. Normative implications aside, our results provide a context for why linguistic standardization is often an implicit or explicit policy in the state building strategy of governments.

On the individual level, we discover that native Mandarin speakers of the impressionable age group at the start of Cultural Revolution participated more in revolutionary activities. Namely, we find that within the same counties, individuals who understood Mandarin were significantly more likely to join the Sent Down movement and affiliate with the Communist party even controlling for parental and individual characteristics. This underscores a mechanism through which propaganda operated.

Railroads, Technology Adoption, and Modern Economic Development: Evidence from Japan

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Abstract

Department of Economics, London School of Economics and Political Science Railroad access can accelerate the technological progress in the industrial sector and therefore induce structural change and urbanization, the two common features of modern economic growth. I examine this particular mechanism in the context of Japanese railroad network expansion and modern economic growth in the late 19th century and early 20th centuries. By digitizing a novel data set that measures the use of steam engines at the factory level, allowing me to directly observe the diffusion of steam power, I analyze the effect of railroad access on the adoption of steam power. To overcome the endogeneity problem, I determine the cost-minimizing path between destinations, and use this to construct an instrument for railroad access, because the networking motivation to connect destinations will be exogenous to local economy, conditional on local controls.

I find that railroad access led to an increased adoption of steam power by factories. My Difference-in-Difference with IV estimates implies that having railroad access by 1892 led to an increase in steam power of about 300 horsepower at the county level between 1888 and 1902. Additionally, I also find the effect of railroad on structural change and urbanization. Conditional on the share of population working in the agricultural sector in 1885, I find that early adopters have a 6.7 percent lower share of workers in the primary sector. Railroad network also broke mean reversion in population growth, eventually leading to urbanization. I find that without railroad access by 1892, counties with log initial population one standard deviation above the average, have a 7.2 percent lower growth between 1885 and 1902 than that of counties at the mean. However, if a county gained railroad access by 1892, this 7.2

percent decline becomes a 1.9 percent decline. When combined, these results imply that railroad construction was key to both structural change and urbanization.

My results provide further implications for the more general question on why the industry sector in Japan adopted Western technology so quickly and developed so rapidly after the Meiji Restoration. This paper suggests one explanation; a centralized government receptive to Western technology, which enabled these changes by rapidly constructing a railroad network.

Technological choice and urban agglomeration: Steam vs water power in French industrialization

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Abstract

The diffusion of steam power and accelerated urbanisation are seen as central elements of modern economic development during the 19th century. In spite of the simultaneous occurrence of these two processes their interrelatedness has only recently led to empirical investigations for the United States (Kim, 2005) and Germany (Gutberlet, 2014). This article contributes to this evolving literature by adding a case of slow urbanisation and adherence to water power: the case of France. Economic historians like Crouzet (1996) and Cameron (1985) have pointed towards a close relationship between power-choice and urbanisation. Besides testing this relationship, this article goes one step further and links the urbanisation effect of steam to economic development through urban agglomeration economies. This article is the first attempt to answer the research question whether French adherence to water power contributed to its slow urbanisation, limited gains from urban agglomeration and through this mechanism constrained economic development.

Applying various models of urban location, from a discrete choice model following Kim (2005) to a fully continuous specification, I find strong evidence that French adherence to water power was associated with lower levels of urbanisation. The analysis is based on two mid-19th century industrial censuses which provide detailed information on power source at a high level of regional and industry disaggregation. This information is linked to city level urban population derived from 19th century population censuses. Depending on the exact specification and the time period, I find that steam-powered firms were between 1.3 and 2.5 times more likely to be located in urban regions compared to non-steam and non-water powered firms. On the other hand, water powered firms were marginally, though, statistically significantly more likely to locate

in rural regions (1.2-1.3 times). Looking at cities instead of regions, water powered firms are much more likely to be located in non-urban communes (2-2.8 times). The urban preference of steam powered firms is less clear at the commune level than it is at the regional level. Larger firms or factories, irrespective of their power source, are both statistically and economically highly significantly associated with urbanity.

The findings of power-specific location choice are linked to the economic success of the French economy by testing for the existence of benefits of urban agglomeration. If benefits of urban agglomeration existed in the French 19th century economy, a faster diffusion of steam power, substituting water power, would have fostered economic growth through its positive effect on urbanisation. The existence of benefits of urban agglomeration is empirically analysed by estimating urban premiums in wages and labour productivity. After adjusting for endogeneity biases by instrumenting urbanity with urbanisation ratios in 1806, I find that urban firms paid 13-14% higher wages and were 16-22% more productive than their rural counterparts, depending on the census period. Hence, it is concluded that French economic growth was indeed constrained by its adherence to water power and slow diffusion of steam power.

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