

[Johns Hopkins Resource Center](#)

[Bad News Wrapped in Protein: Inside the Coronavirus Genome](#)

Excellent coverage in The NY Times, [Washington Post](#), The LA Times and the Wall Street Journal have somewhat open Covid-19 update pages

NY Times: Amazing data & maps [How the Virus got Out](#)  
Jonathan Corum and Carl Zimmer April 3, 2020

[New York State Cases](#) Benjamin F. Maier and Dirk Brockmann, [“Effective containment explains sub-exponential growth in confirmed cases of recent COVID-19 outbreak in Mainland China”](#)

SARS-CoV-2 causes COVID-19 as HIV causes AIDS

Queen Elizabeth II urges Britain to display resolve, as Prime Minister Boris Johnson enters the hospital

[A tiger at the Bronx Zoo tests positive for the coronavirus, and other big cats there appear ill.](#)

Washington Post Op Ed Bill Gates: [Here’s how to make up for lost time on covid-19](#) Lorena Borjas

[Vox Future Perfect](#) has reliable coverage of economics issues related to COVID-19

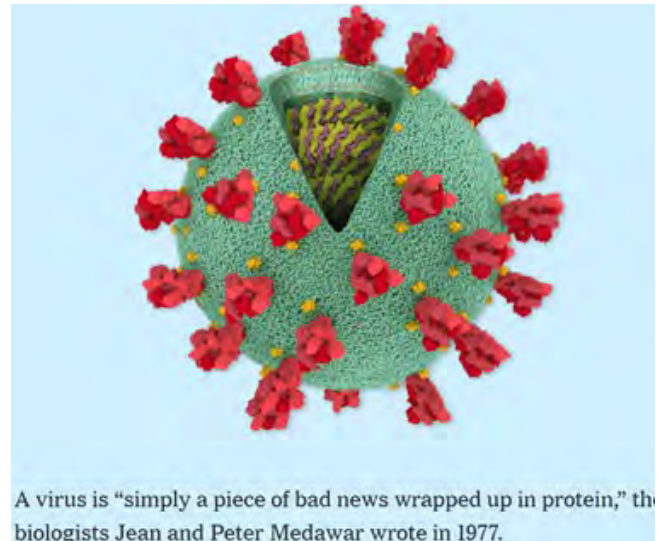
Vox Future perfect: [U.S. could see results of Lockdowns this week](#) (April 1<sup>st</sup>) [Rules of Social Distancing](#) [During the Covid-19 pandemic, nowhere is safe for homeless people](#)

Brookings: Brookings: March 31<sup>st</sup> [70 million people can’t afford to wait for their stimulus funds to come in a paper check](#) [The Federal Coronavirus response- a Public Health Timeline](#)

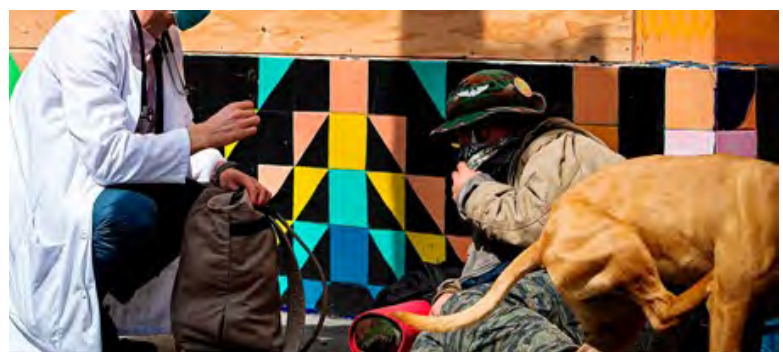
Brookings: March 27<sup>th</sup> [Careful or Careless Perspectives on the CARES Act](#)

See also Bill and Melinda Gates or Thomas Friedman (Optimists among so many pessimists Freakonomic?).

Because of Secular Stagnation: Analogies to the New Deal and WWII are appropriate: falling commodity prices (deflation) rationing. price controls? and firms “taken over” or commandeered the government (as Governor Cuomo would like President Trump to do now for PPEs and ...)



Queen Elizabeth II rallied Britons in the midst of the coronavirus pandemic, which has killed at least 40,000 in the country. Her remarks were pre-recorded from Windsor Castle, where she is sequestering herself. Paul Ellis/Agence France-Presse — Getty Images



Shawn Maloney, a doctor with the Height Authority Fire Clinic, speaks with a person lying on the street about the coronavirus in San Francisco, California, on March 17, 2020. (Linda Edicko/WireImage via Getty Images)

Washington [Post Coronavirus Live Updates and resources page](#)   [How much will your family's check be?](#)

[Atlantic Magazine The Surreality of Central Park's Field Hospital](#)   [What about Masks](#)

Opinion: The New York Times (downstate NYC, Queens has the most cases ...)

Bill Gates, COVID-19 Updates


**Featured**



## Q&A: The Role of Genomic Sequencing in Combating COVID-19

Molecular biologists Peter Thielen and Thomas Mehoke, who are rapidly sequencing the genome of SARS-CoV-2, the virus that causes COVID-19, on how the virus evolves as it spreads and how well containment efforts are working.

[Learn More →](#)



OP-ED

## Ebola lessons for fighting COVID-19

Ngozi Okonjo-Iweala · Thursday, April 2, 2020

<https://www.brookings.edu/opinions/ebola-lessons-for-fighting-covid-19/>

## Washington Post provides some coronavirus coverage free: as of April 5, 2020

**Live updates:** [The latest in the U.S. and abroad](#) | [The latest from the D.C. region](#)

**More news:** [Across the U.S., the coronavirus is killing more men than women](#) | [Rate of infection among Navajos is a major concern](#)

**Mapping the spread:** [Cases and deaths in the U.S.](#) | [Map of cases worldwide](#)

**What you need to know:** [How to make your own fabric mask](#) | [What to do if you get laid off or furloughed](#) | [Calculate how much money you might receive from the stimulus bill](#) |

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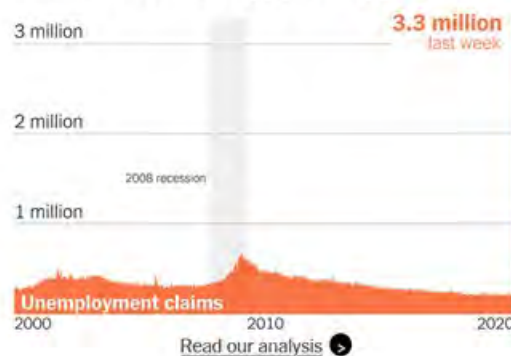
### U.S. Jobless Claims Are Staggering; Pelosi Sees Bipartisan Aid Vote

#### Updates: More Than 1,000 People in the U.S. Have Died From the Virus

The unemployment number far outpaced the existing record, 695,000 new claims, from 1982, in data going back half a century.

Speaker Nancy Pelosi predicted "a strong bipartisan vote" on the stimulus plan after the Senate's approval.

The Trump administration will publish guidelines to help states decide whether



#### Business Live: Markets Up on Stimulus Hopes

Stocks rose for the third straight day as investors looked past a startling rise in unemployment claims and bid up companies set to receive support from the aid bill.

Live 15m ago 182 comments

#### Will I Get Some Money? How Much? And When?

The treasury secretary expects the majority of payments to be made within three weeks. Here's what else taxpayers should know.

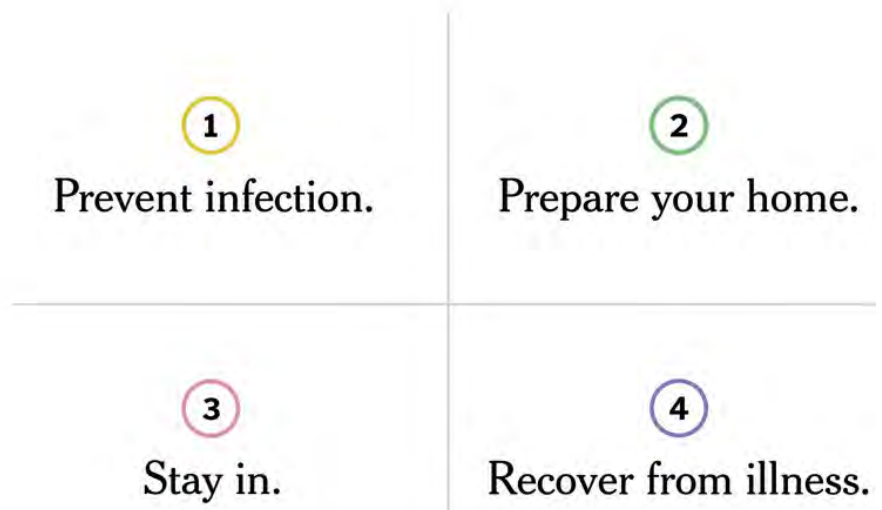
33m ago 391 comments

#### HEALTH

#### What You Can Do About Coronavirus Right Now

You have an essential role to play in slowing the spread. Here is some advice from doctors and experts on how to protect yourself and your community.

4h ago



Most Vulnerable countries include the Philippines where Luigi is now... (send him a Tik Tok clip saying you we miss him)

New York Times [Virus can be stopped, but only with harsh steps...](#)

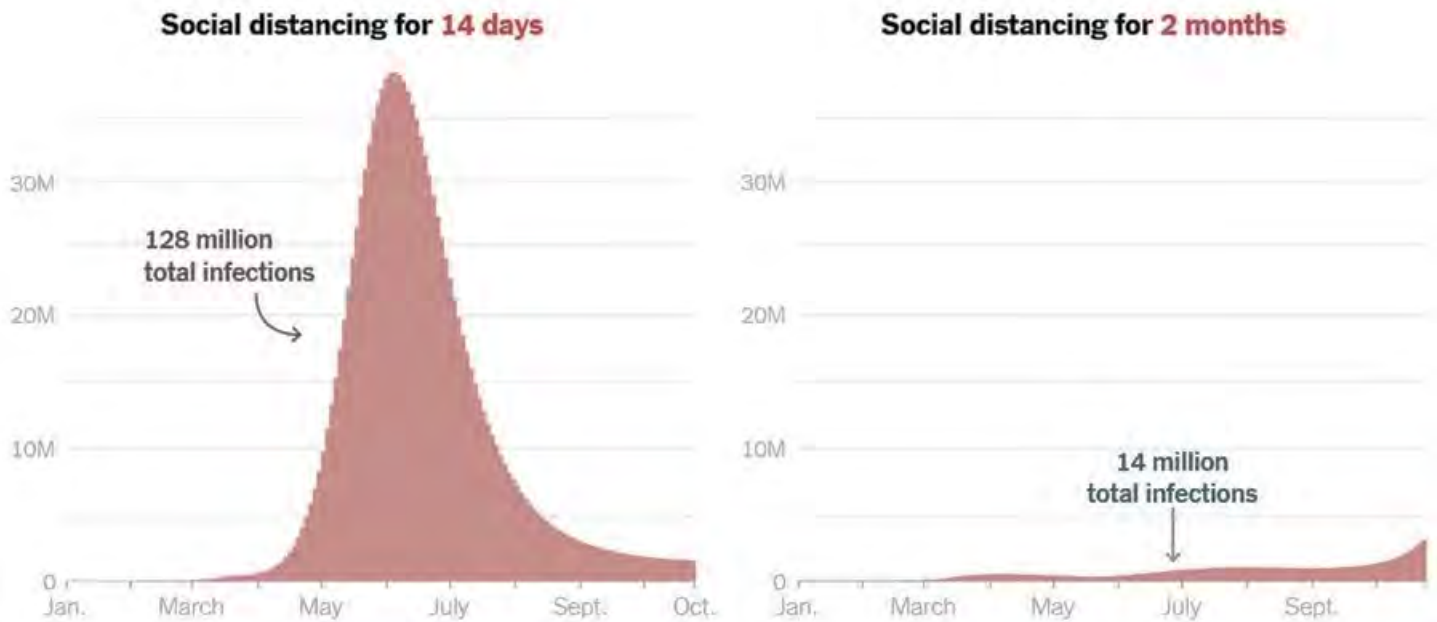
[Fed is printing money like there is no tomorrow China?](#) [How South Korea flattened the Curve](#)

Adam Tooze [This might save the World from Financia\\*l Collapse](#)

[How long will Social Distancing last? Two weeks or two months?](#) NY Times By Nicholas Kristof and Stuart A. Thompson Model created with Gabriel Goh, Steven De Keninck, Ashleigh Tuite and David N. Fisman

\*

MARCH 25, 2020



Note: "Social distancing" also includes a reduction in large gatherings; some school closures and working from home; and efforts to support hospitals and diagnostic testing. Based on a simulation between January and late October using an epidemic model. See [full methodology](#) for details.

[Doctors writing their own wills](#) (NY Times opinion) \*

Brookings [Coronavirus page \(COVID-19\)](#) [Why \\$1 Trillion is not enough](#) [A moment for Unity](#)  
Isabel Sawhill [Greatest Middle Class Crisis since 1930s](#) [Where will crisis hit Hardest? News letter](#) To end global [poverty invest in Peace](#) Franck Bousquet World Bank



Freelance, “anyone can publish” the Medium: Tomas Pueuo [What the Next 18 Months Can Look Like, if Leaders Buy Us Time](#) March 19<sup>th</sup> nice charts skip this, see Director’s statement instead, What is the IMF and/or G-20 doing right now? Martin Muhleisen, [Mitigating Economic Fallout](#)



#AfricaStopEbola

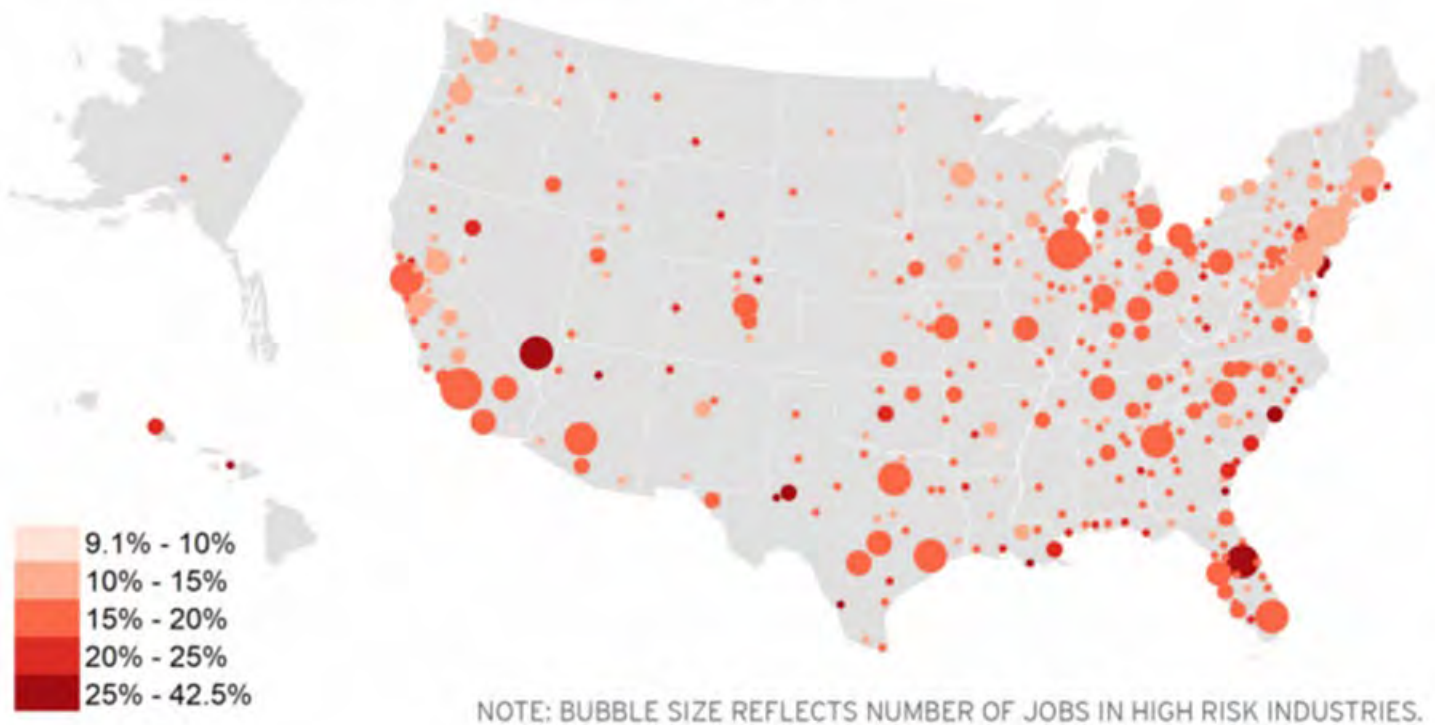
Africa Stop Ebola - Tiken Jah Fakoly, Amadou & Mariam, Salif Keita, Oumou Sangare and others.

1,172,868 views • Oct 27, 2014

8.6K 339 SH

blob:https://www.newyorker.com/f16b79cb-cc9e-41dc-adea-4960d2240e54

## Share of metro employment in high risk industries, 2019



## The places a COVID-19 recession will likely hit hardest

1. Many news outlets are making their Covid-19 coverage open access (no paywall or sub required). Who pioneered the movement for open access survey data (including the best data in the world, which the \_\_\_\_\_)
2. Our World in Data by Max Roser, Hannah Ritchie & Esteban Ortiz-Ospina powt [excellent global COVID-19 data](#)
3. The coalition for the homeless argues “health is housing” arguing the homeless are particularly at risk. They say a “home is health” what do they mean? Explain why this true for the extremely poor in developing countries as well (hint: shoes, dirt floors, running water and thatch roofs...)
4. *Dealing with Pandemics and Epidemics: Health innovation involves vaccine development and distribution for example, who will win the COVID-19 race? [Galead](#) and [Moderna](#) in are in the race (where are they located). What about our own [Regeneron](#), drawn to the abandoned Union Carbide headquarters here in Tarrytown with Amazon 2 style State and local tax breaks. Should corporations pay any taxes (don't ask JW)?*



Dutch Initiatives for address Climate Change: three stages of adaptation (building resilience through extreme engineering...)

### COVID-19 Updates

We're sharing expert perspectives and updates on the response to COVID-19 (novel coronavirus).

[Read more >](#)



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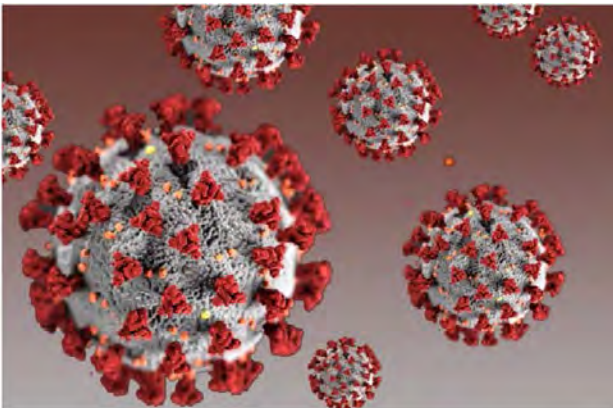


Illustration of the coronavirus. Rendering via CDC image library

LDQ [5.1 What is Gavi?](#) (1-2 sentences) Who funds and founded it in 2000? What aspect of HH & world inequality does it reduce? How does Gavi reduce poverty? Briefly, how do vaccines work ([according to Bill Gates](#)). How many countries is Gavi operating in? What % of the world's children have been reached by vaccination? 5.1B What is U5MR? What has happened to child mortality or [the global U5MR 2000-2018](#)? How does a sharp drop in Child mortality accelerate growth and development in poor nations (for example in Mozambique and Bangladesh)? [See Rosling's don't panic](#). 5.1C Why did they start with [Rotavirus](#) and [Pneumococcal Vaccines](#)? Vaccination for these viruses should reduce the need for Oral Rehydration salts (which

athletes call?) but not yet, how [many ORS sachets did Unicef](#) distribute in 2018. 5.12D Who is Michael Kremer? How does he figure into any discussion of vaccines and Gavi?

LDQ [5.2](#) According to Acemoglu et. al (2012) what is the tradeoff between inequality (lots of billionaires) and the Scandinavian model where everything is taken care of by governments programs. 5.2A What is the tradeoff?

If the U.S. abandons “cutthroat capitalism” (long hours, lots of Unicorns) who is most likely to take the lead in producing big innovations (and billionaires). Stiglitz, 2015 and Banerjee and Duflo, 2019 evidently prefer cuddly (cradle to grave) capitalism, use a quote from each of them to demonstrate this (for example, who is there model for TAA (trade adjustment assistance). **5.2C** Which do you prefer for you and your children (if any)? Why, briefly? *EC Which candidates in this week’s elections advocate Scandinavian vs. America’s (China’s?) model of cutthroat capitalism). Which do the workers in American Factory seem to prefer (or do we have to wait for the Ohio election results)?*

The next few paragraphs copy-pasted from Acemoglu et al 2012 ([NBER paper #18441](#)). You may want to read the pdf directly, in particular the letter “f” did not copy well, apologies in advance for typos. Note that the themes in this article were taken up by Professor Stiglitz

## References for the Capitalism and Innovation debate

Acemoglu, Daron, James A. Robinson, and Thierry Verdier (2012) Can't we all be more like Scandinavians? Asymmetric growth and institutions in an interdependent world. NBER w18441. NBER. [Cited by 136](#)

Acemoglu, Daron, James A. Robinson, and Thierry Verdier.(2017) “[Asymmetric Growth and Institutions in an Interdependent World.](#)” *Journal of Political Economy* 125, no. 5 (October): 1245–1305 (same as 2012 paper but no data?) .

## Designing Advance Market Commitments for New Vaccines

Christopher M. Snyder [Dartmouth College](#) Michael Kremer [Harvard University](#) Jonathan D. Levin , [Stanford University](#) [Download Preview \(PDF, 422.10 KB\)](#)

Stiglitz, Joseph E. "Leaders and followers: [Perspectives on the Nordic model and the economics of innovation.](#)" *Journal of Public Economics* 127 (2015): 3-16. [NBER Paper #30493](#) (let me know if have trouble finding this article)

Can't We All Be More Like Scandinavians? Asymmetric Growth and Institutions in an Interdependent World  
Daron Acemoglu, James A. Robinson, and Thierry Verdier NBER Working Paper No. 18441 October 2012

**ABSTRACT** Because of their more limited inequality and more comprehensive social welfare systems, many perceive average welfare to be higher in Scandinavian societies than in the United States. Why then does the United States not adopt Scandinavian-style institutions? More generally, in an interdependent world, would we expect all countries to adopt the same institutions? To provide theoretical answers to this question, we develop a simple model of economic growth in a world in which all countries benefit and potentially contribute to advances in the world technology frontier. A greater gap of incomes between successful and unsuccessful entrepreneurs (thus greater inequality) increases entrepreneurial effort and hence a country’s contribution to the world technology frontier. We show that, under plausible assumptions, the world equilibrium is asymmetric: some countries will opt for a type of “cutthroat capitalism” that generates greater inequality and more innovation and will become the technology leaders, while others will free-ride on the cutthroat incentives of the leaders and choose a more “cuddly” form of capitalism. Paradoxically, those with cuddly reward structures, though poorer, may have higher welfare than cutthroat capitalists; but in the world equilibrium, it is not a best response for the cutthroat capitalists to switch to a more cuddly form of capitalism. **We also show that domestic constraints from social democratic parties or unions may be beneficial for a country because they prevent cutthroat capitalism domestically, instead inducing other countries to play this role**



Introduction Against the background of the huge inequalities across countries, the United States, Denmark, Finland, Norway and Sweden are all prosperous, with per capita incomes more than 40 times those of the poorest countries around the world today. Over the last 60 years, all four countries have had similar growth rates.<sup>1</sup> But there are also notable differences between them. The United States is richer than Denmark, Finland and Sweden, with an income per capita (in purchasing power parity, 2005 dollars) of about \$43,000 in 2008. Denmark is about \$35,870, Finland is about \$33,700 and Sweden's stands at \$34,300 (OECD, 2011).<sup>2</sup> The United States is also widely viewed as a more innovative economy, providing greater incentives to its entrepreneurs and workers alike, who tend to respond to these by working longer hours, taking more risks and playing the leading role in many of the transformative technologies of the last several decades ranging from software and hardware to pharmaceuticals and biomedical innovations. Figure 1 shows annual average hours of work in the United States, Denmark, Finland, Norway and Sweden since 1980, and shows the significant gap between the United States and the rest.<sup>3</sup>

To illustrate the differences in innovation behavior, Figure 2 plots domestic patents per one million residents in these five countries since 1995, and shows an increasing gap between the United States and the rest.<sup>4</sup> These differences may partly reflect differential patenting propensities rather than differences in innovativeness, or may be driven by "less important" patents that contribute little to productive knowledge and will receive few cites (meaning that few others will build on them). To control for this difference, we adopt another strategy.<sup>5</sup> We presume that important highly cited innovations are more likely to be targeted to the world market and thus patented in the US patent office (USPTO). USPTO data enable us to use citation information. Figure 3 plots the numbers of patents granted per one million residents for Denmark, Finland, Norway and Sweden relative to the United States between 1980 and 1999. Each number corresponds to the relevant ratio once we restrict the sample to patents that obtain at least the number of citations (adjusted for year of grant) specified in the horizontal axis.<sup>6</sup> If a country is more innovative (per resident) than the United States, we would expect the gap to close as we consider higher and higher thresholds for the number of citations. The figure shows that, on the contrary, the gap widens, confirming the pattern indicated by Figure 2 that the United States is more innovative (per resident) than these countries. But there are also other important differences. The United States does not have the type of welfare state that many European countries, including Denmark, Finland, Norway and Sweden, have developed, and despite recent health-care reforms, many Americans do not enjoy the type of high-quality health care that their counterparts in these other countries do. They also receive much shorter vacations and more limited maternity leave, and do not have access to a variety of other public services that are more broadly provided in many continental European countries. Perhaps more importantly, poverty and inequality are much higher in the United States and have been increasing over the last three decades, while they have been broadly stable in Denmark, Finland, Norway and Sweden (see, e.g., Smeeding, 2002). **Inequality at the top of the distribution has also been exploding in the United States, with the top 1% of earners capturing almost 25% of total national income, while the same number is around 5% in Finland and Sweden (Atkinson, Piketty and Saez, 2011)**

But there are also other important differences. The United States does not have the type of welfare state that many European countries, including Denmark, Finland, Norway and Sweden, have developed, and despite recent health-care reforms, many Americans do not enjoy the type of high-quality health care that their counterparts in these other countries do. They also receive much shorter vacations and more limited maternity leave, and do not have access to a variety of other public services that are more broadly provided in many continental European countries. Perhaps more importantly, poverty and inequality are much higher in the United States and have been increasing over the last three decades, while they have been broadly stable in Denmark, Finland, Norway and Sweden (see, e.g., Smeeding, 2002). Inequality at the top of the distribution has also been exploding in the United States, with the top 1% of earners capturing almost 25% of total national income, while the same number is around 5% in Finland and Sweden (Atkinson, Piketty and Saez, 2011).

The economic and social performance of Denmark, Finland and Sweden, as well as several other European countries, raise the possibility that the US path to economic growth is not the only one, and nations can achieve prosperity within the context of much stronger safety net, more elaborate welfare states, and more

egalitarian income distributions. Many may prefer to sacrifice 10 or 20% of GDP per capita to have better public services, a safety net, and a more equal society, not to mention to avoid the higher pressure that the US system may be creating.<sup>7</sup> So can't we all mean all nations of the relatively developed world be more like Scandinavians? Or can we?

The literature on varieties of capitalism pioneered by Hall and Soskice (2001), suggests that the answer is yes. They argue that a successful capitalist economy need not give up on social insurance to achieve rapid growth. They draw a distinction between a Coordinated Market Economy (CME) and a Liberal Market Economy (LME), and suggest that both have high incomes and similar growth rates, but CMEs have more social insurance and less inequality. Though different societies develop these different models for historical reasons and once set up institutional complementarities make it very difficult to switch from one model to another, Hall and Soskice suggest that an LME could turn itself into a CME with little loss in terms of income and growth and with significant gains in terms of welfare.

In this paper, we suggest that in an interconnected world, the answer may be quite different. In particular, it may be precisely the more cutthroat American society that makes possible the more "cuddly" Scandinavian societies based on a comprehensive social safety net, the welfare state and more limited inequality. The basic idea we propose is simple and is developed in the context of a canonical model of endogenous technological change at the world level. The main building block of our model is technological interdependence across countries: technological innovations, particularly by the most technologically advanced countries, contribute to the world technology frontier, and other countries can build on the world technology frontier.<sup>8</sup> We combine this with the idea that technological innovations require incentives for workers and entrepreneurs. From the well-known incentive-insurance tradeoff captured by the standard moral hazard models (e.g., Holmstrom, 1979), this implies greater inequality and greater poverty (and a weaker safety net) for a society encouraging innovation. Crucially, however, in a world with technological interdependences, when one (or a small subset) of societies is at the technological frontier and contributing disproportionately to its advancement, the incentives for others to do so will be weaker. In particular, innovation incentives by economies at the world technology frontier will create higher growth by advancing the frontier, while strong innovation incentives by followers will only increase their incomes today since the world technology frontier is already being advanced by the economies at the frontier. This logic implies that the world equilibrium with endogenous technology transfer may be asymmetric, and some countries will have greater incentives to innovate than others. Since innovation is associated with more high-powered incentives, these countries will have to sacrifice insurance and equality. The followers, on the other hand, can best respond to the technology leader's advancement of the world technology frontier by ensuring better insurance to their population a better safety net, a welfare state and greater

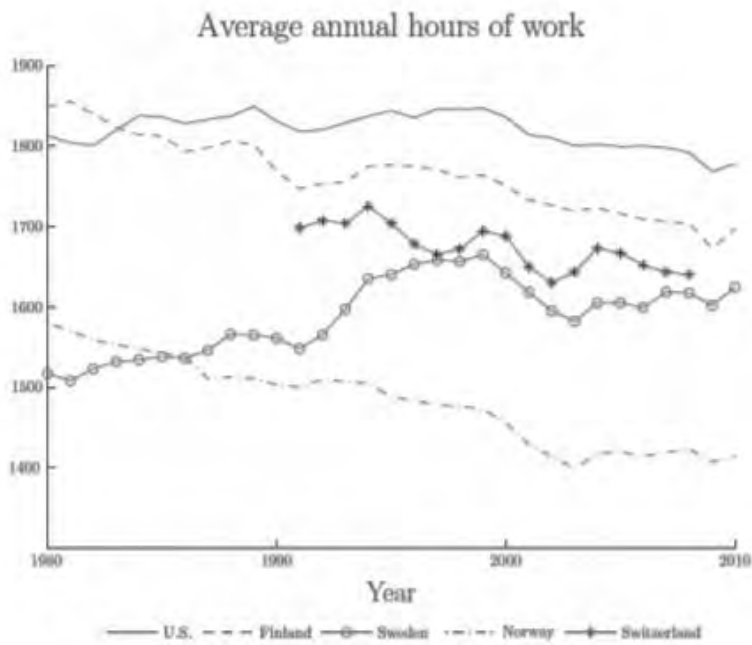


Figure 1: Annual average hours worked. Source: OECD (2010)

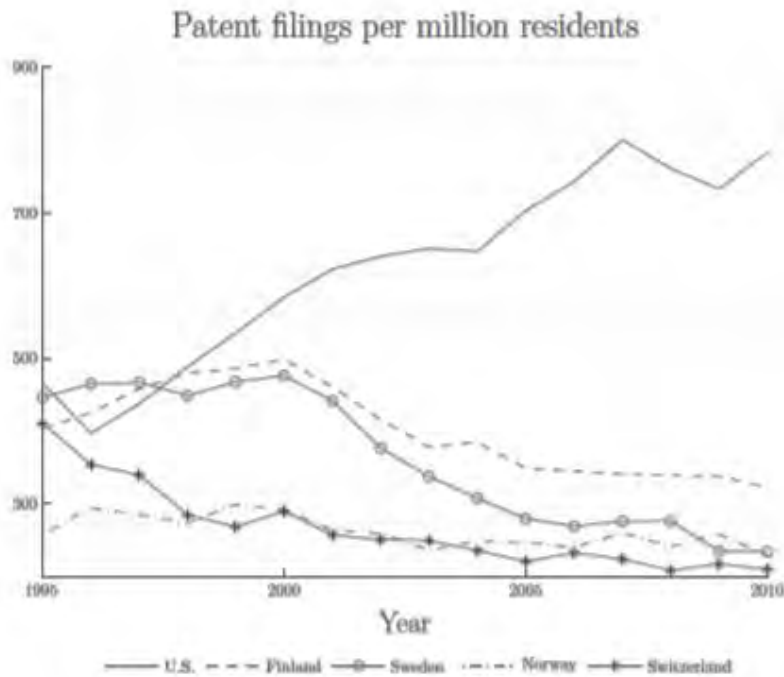


Figure 2: Patent filings per million residents at domestic office. Source: World Intellectual Property Organization.

Can't We All Be More Like Scandinavians? Asymmetric Growth And Institutions In An Interdependent World

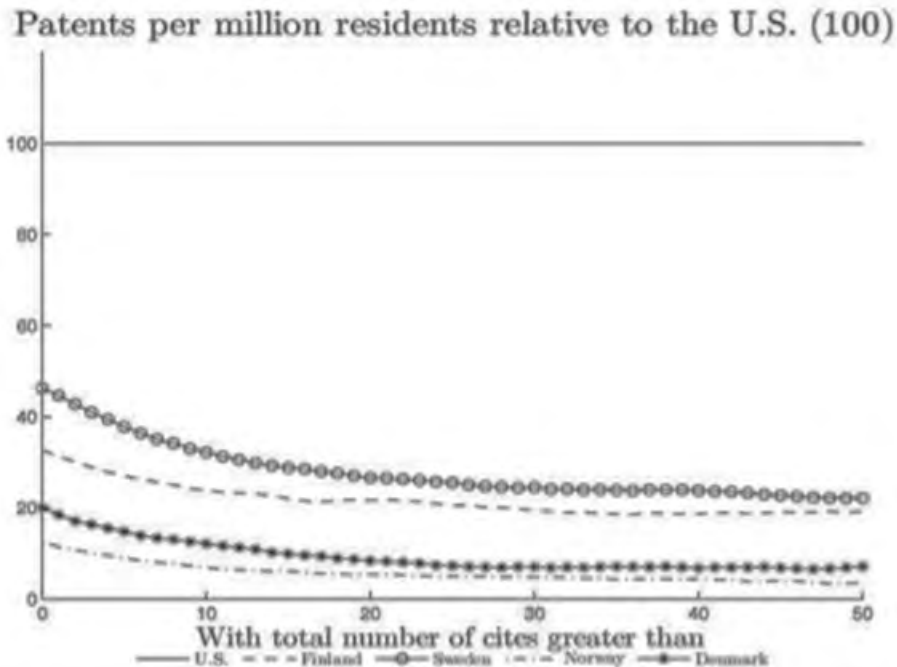


Figure 3: Patents granted between 1980-1999 per million residents to each country relative to the U.S. by number of citations. Source: NBER patent data from the USPTO.

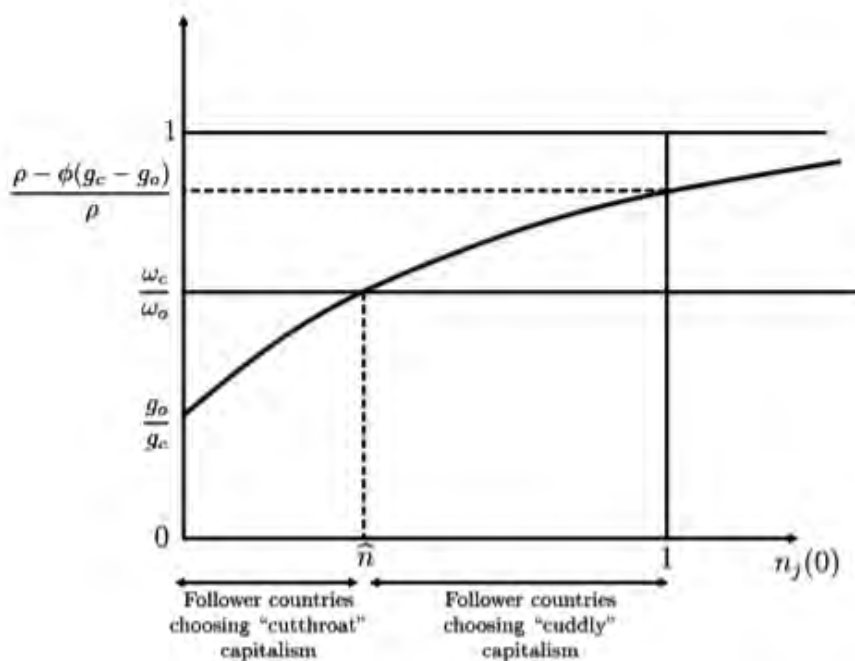


Figure 4: Choice of cutthroat and cuddly reward structures as a function of technology gap  $n_j(0)$ .

**Preventing the Spread of Antibiotic Resistance** Jerome Adda Bocconi University

[Download Preview \(PDF, 193.41 KB\)](#) **Building Resilient Health Systems: Experimental Evidence from**

**Sierra Leone and the 2014 Ebola Outbreak** Oeindrila Dube University of Chicago Darin Christensen University of California-Los Angeles

Johannes Haushofer Princeton University Bilal Siddiqi World Bank Maarten Voors Wageningen University & Research [View Abstract](#) [Download Preview \(PDF, 3.12 MB\)](#)

**The Anatomy of a Public Health Crisis: Household and Health Sector Responses to the Zika Epidemic in Brazil** Imran Rasul University College London and IFS Ildo Junior University College London

[Download Preview \(PDF, 1.59 MB\)](#)

**Designing Advance Market Commitments for New Vaccines**

Christopher M. Snyder Dartmouth College Michael Kremer Harvard University Jonathan D. Levin , Stanford University [Download Preview \(PDF, 422.10 KB\)](#)

Country, Other	Total Cases	New Cases	Total Deaths	New Deaths	Total Recovered	Active Cases	Serious, Critical	Tot Cases/ 1M pop
<a href="#">Iran</a>	8,042	+881	291	+54	2,731	5,020		95.7
<a href="#">Spain</a>	1,674	+443	35	+5	135	1,504	101	35.8
<a href="#">France</a>	1,606	+194	30		12	1,564	66	24.6
Denmark	262	+172			1	261		45.2
Switzerland	497	+123	3	+1	3	491		57.4
<a href="#">Germany</a>	1,317	+93	2		18	1,297	9	15.7
Sweden	351	+91			1	350	2	34.8
Netherlands	382	+61	4			378	1	22.3
UK	373	+52	6	+1	18	349		5.5
Japan	581	+51	10	+1	102	469	31	4.6
Austria	182	+51			4	178	1	20.2
<a href="#">USA</a>	754	+50	27	+1	15	712	8	2.3
Norway	272	+45			1	271		50.2
<a href="#">S. Korea</a>	7,513	+35	58	+5	247	7,208	54	146.5
Belgium	267	+28			1	266	2	23.0
<a href="#">China</a>	80,761	+26	3,136	+17	60,113	17,512	4,794	56.1

China's rate of new cases has fallen dramatically.

Image: Worldometers