

Noah Smith, March 9, 2021

## We will not ban cars

 noahpinion.substack.com/p/we-will-not-ban-cars

### Electric vehicles are crucial for fighting climate change

I have to tell you, I really do not like cars. Cars kill tens of thousands of Americans every year. Cars release large amounts of greenhouse gases. Roads are like scars across the earth, disrupting natural habitats with dead rivers of asphalt. Auto-centric transportation turns cities into inefficient, socially isolating, ruinously costly exurbia. Also driving a car is just a stressful pain in the butt, which is why I try not to own a car if I don't have to.

But having said all that, I must also sadly point out that the anti-car rhetoric now proliferating among certain circles is overdone. For example, writing in the *New York Times*, Farhad Manjoo, citing many of the problems I describe above, dismisses the idea that electric vehicles should be our main tool for decarbonizing transportation. And my friend Darrell Owens, who is one of the activists I respect most, has similar thoughts:



Darrell Owens @IDoTheThinking

I agree we must phase out gas powered vehicles in Berkeley by 2030. But we cannot rely on market-rate luxury EV cars by corporations. We need to prioritize public transit, walking, and bikes to reduce driving in Berkeley. As many cities have done and as the IPCC & UN recommends.



Kate Harrison @KateHarrisonD4

I wrote an op-ed for @berkeleyside re: my resolution calling on @NancySkinnerCA, @BuffyWicks, and @GavinNewsom to pass legislation providing 100% zero-emission transportation this decade to meet our obligations to the climate and our children  
<https://t.co/erlhCzuS7H>  
March 8th 2021

13 Retweets 133 Likes

Meanwhile, “ban cars” has become a Twitter slogan, and the notion that electric cars are overrated as a tool for fighting climate change has become commonplace in the world of op-eds.

But while I love nothing more than to not own a car and to live in a place where everyone gets around via train, bike, walking, and the occasional bus, and while I too want to reduce our dependence on auto travel and exurbia, I also recognize that cars are going to continue to be a huge part of American transportation long beyond the point where we need to halt climate change in its tracks. In other words, we can reduce car usage somewhat, but we’re not going to ban cars or rip up the suburbs anytime soon, and so EVs are our best hope for rapid decarbonization of transportation.

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## **Transit only partially replaces cars**

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In fact, I have lived in a place where urban development is incredibly efficient and centered around trains. That place is Japan.

Japan is the most train-using country on planet Earth. Despite having less than a tenth the population of China or India, Japan has about the same total rail usage, and far more than any other developed country. And in terms of the share of trips that are taken using trains, Japan just clobbers everybody, including the vaunted Netherlands and Switzerland:

## Passenger modal share for rail [ edit ]

The modal share of railway transport (excluding tram & metro) as compared to other modes of transport.

Rank <span>↕</span>	Country <span>↕</span>	Modal share (%) <span>↕</span>	year
1	 Japan	37.2	2016 <sup>[4][48]</sup>
2	 Russia	24.4	2018 <sup>[49]</sup>
3	 Switzerland	20.9	2017 <sup>[50]</sup>
4	 Austria	12.1	2016 <sup>[51]</sup>
5	 Netherlands	11.0	2016 <sup>[51]</sup>
6	 India	10.0	2018 <sup>[52]</sup>
7	 France	9.7	2016 <sup>[51]</sup>
8	 Slovakia	9.4	2016 <sup>[51]</sup>
9	 Hungary	9.3	2016 <sup>[51]</sup>
-	 Sweden	9.3	2016 <sup>[51]</sup>
10	 Czech Republic	8.9	2016 <sup>[51]</sup>
11	 United Kingdom	8.8	2016 <sup>[51]</sup>
12	 Denmark	8.6	2016 <sup>[51]</sup>
-	 Germany	8.6	2016 <sup>[51]</sup>
14	 Belgium	7.7	2016 <sup>[51]</sup>

(The U.S. comes in dead last among developed countries, at 0.3!)

Anyone who has been to Japan knows that their entire urban model is based around trains. Instead of talking about what street a shop or restaurant is on, Japanese people will tell you what train station it's near. When you search for an apartment in Japan, "distance from train station" is one of the major variables you put in.

And yet despite building their entire country around trains, Japanese people also own quite a lot of cars! Japan has 718 vehicles owned per 1000 people, compared to 875 in the U.S. Now, it's true that they drive those vehicles much less than Americans do. In terms of Vehicle Kilometers Traveled (similar to VMT) per capita, Japan comes in at only 4000, less even than the Netherlands and less than one-third the U.S.!

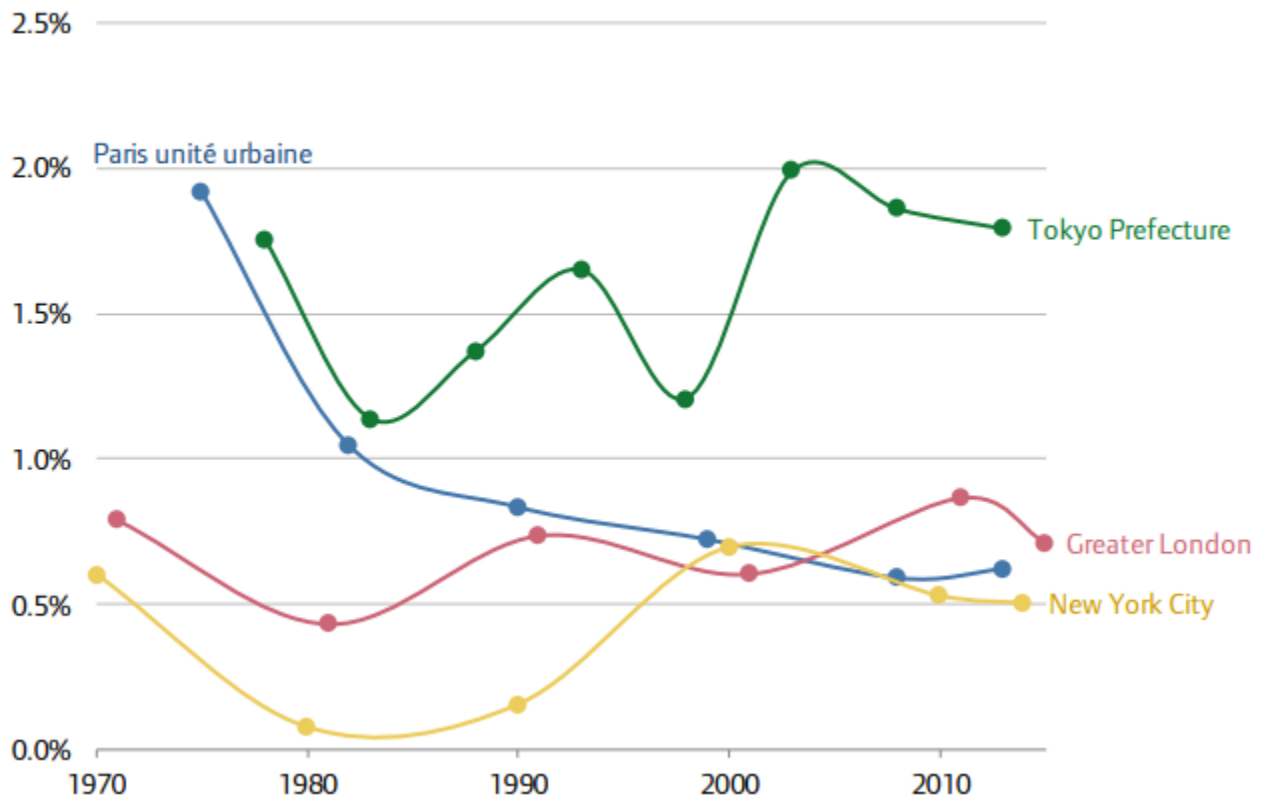
	Average price of gasoline per gallon	% of annual income spent on gasoline	Cars owned per 1,000 persons	Vehicle kilometers traveled per capita	Biking frequency	Public transit usage	Road fuel consumption per capita
Australia	3.78	1.53	741	10,800	0.02	27	580
Canada	4.06	2.92	667	8,500	0.03	23	886
Denmark	7.02	0.95	508	6,300	0.25	-	244
France	6.56	0.59	590	6,250	0.04	28	106
Germany	6.16	1.09	610	7,000	0.13	33	222
Italy	6.81	0.99	707	6,250	0.12	-	158
Japan	5.02	1.38	718	4,000	0.16	31	329
Netherlands	7.19	1.17	543	6,150	0.25	-	242
Norway	7.35	0.53	754	6,500	0.16	-	213
Sweden	6.47	1.23	542	7,000	0.16	32	302
United Kingdom	5.99	1.08	544	6,250	0.04	37	220
United States	3.05	2.16	875	14,000	0.02	12	1106

OK now here's the bad news: Even with all those trains, and all that train-centric development, Japanese people still drive an average of 4000 kilometers every year! And most of them still own cars.

I think any sane and sensible person will regard Japan as an upper bound on America's ability to shift away from cars and toward trains. We urbanists can sit here and dream about becoming Japan, but to dream about becoming *even better at transit and transit-centric development than Japan* is beyond the realm of optimism and into the realm of "doing too many hallucinogenic drugs".

In fact, the truth is, we're not becoming Japan, and it would take heroic feats for us even to become Germany. It would require ripping up much of exurbia and rebuilding millions of Americans' homes in dense, walkable neighborhoods. To give you an idea of how monumental a task this would be, just look at the relative rates of housing construction in Tokyo versus New York City (borrowing a chart from the excellent [James Gleeson](#) and the [UK government](#)):

**Annualised rate of housing stock growth in four world cities since 1970**



Even to increase our train usage and decrease our car usage to the level of Germany, to say nothing of Japan, America would have to transform its land use policy utterly, bring down the utterly ruinous costs of housing and transit construction, convince hundreds of millions of suburbanites to live in an entirely transformed built environment, and spend trillions of dollars.

Which is not to say I don't want to do this. I do!! But the point is that even if we manage to do that, *we will still own a lot of cars and drive a lot of cars*, just like Japan does.

So we'll still need many of cars. And because climate change is bearing down on us, we will need all of our cars to be electric, very soon.

## **EVs are crucial for rapid decarbonization**

A number of people assert that electric vehicles are overrated as tools for fighting climate change. For example, a recent article in *The National Interest* declared:

[W]hile EVs do decrease emissions compared with conventional vehicles, we should be comparing them to buses, trains and bikes. When we do, their potential to reduce greenhouse gas emissions disappears because of their life cycle emissions and the limited number of people they carry at one time.

If we truly want to solve our climate problems, we need to deploy EVs along with other measures, such as public transit and active mobility... Governments need to massively invest in public transit, cycling and walking infrastructure[.]

And my Bloomberg colleague Andrew Small wrote something similar a year earlier:

“Electrification is important,” says Scott Goldstein, the policy director of Transportation For America (T4A), a program by Smart Growth America that pushes for more state and federal investment in public transportation. “But if you trust the scientists who say we have only 11 years to avoid the worst effects of climate change—not to stop it but just get it under control—then we can’t wait until 2030.”

Urbanization itself reduces driving...[M]ore densely developed housing means fewer vehicles miles traveled per household, so rethinking land use—and resisting sprawl—has to be part of any decarbonization regime.

These folks are certainly right that time is of the essence when it comes to climate change. In just seven years, at current rates, we’ll pass the threshold for 1.5°C of warming (where effects start to become severe). After we inevitably cross that Rubicon, every little bit of warming makes our planet a little bit more of a disaster area.

But it seems completely wrong to assert that time pressure means we should turn to land use changes rather than electric vehicles. It takes about 15 years for the entire U.S. auto fleet to be replaced. That’s about how long it takes to build a single new housing development in San Francisco.

In other words, if you think we’re changing our land use faster than we’re replacing internal combustion engine cars with electric ones, you are incorrect. I think we can have that transit-oriented utopia, but it just takes too long to build for us to invest it with our hopes of stopping climate change.

Now, it’s true that simply replacing gas cars with electrics doesn’t immediately reduce emissions all that much. EVs are powered off the grid (and manufactured using power from the grid), and the grid is still 60% fossil fuel powered. But we’re also decarbonizing the grid at a decent and accelerating clip, and hopefully Biden will be able to speed up that rate as well. The more the grid decarbonizes, the more emissions EVs prevent!

In fact, researchers know that electric vehicles are an essential part of the cheapest and easiest path to decarbonization. In a 2019 article for *Carbon Brief*, Zeke Hausfather reviews the research and lays out the case. He concludes:

Electric vehicles (EVs) are an important part of meeting global goals on climate change. They feature prominently in mitigation pathways that limit warming to well-below 2C or 1.5C...

As electricity generation becomes less carbon intensive – particularly at the margin – electric vehicles will become preferable to all conventional vehicles in virtually all cases.

In other words, no matter how much we want those utopian visions of dense transit-oriented cities, we need to replace gasoline cars with electric cars in the two decades and accelerate decarbonization of the electrical grid if we want to rapidly reduce our carbon emissions.

Fortunately, Biden wants to do both. People may call for banning cars on Twitter, and write op-eds saying EVs won't save us, but the administration has looked at the numbers and they know what needs to be done.

## **OK, can we ban cars a little bit, as a treat?**

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I'd like to address one more version of the "ban cars" argument, which is the idea of banning cars within specific regions of city centers.

In fact, this is often a great idea for making urban areas quieter, less polluted, less congested, and more pleasant in general. That in turn probably increases demand for urban life, which makes it easier to build that transit-oriented future. A number of cities around the world are banning at least some types of cars in certain neighborhoods at certain times.

But this strategy has to be done in a smart way, because it doesn't always make a city nicer. At the beginning of 2020, San Francisco banned private cars from a downtown stretch of its biggest thoroughfare, Market Street. But since buses still run on that stretch of road, people can't set up stalls or hang around in the middle of the street. Instead of being a pedestrian paradise, the car-free zone is a giant empty sucking wound running right through the middle of downtown, an empty desert of dead asphalt where nothing really happens unless there's a political protest.

Nor is the perennially hapless SF the only place that has messed up a car ban. London, for example, has actually experienced increased congestion after banning private cars.

So it worries me when I see smart people advocating closing off specific streets to cars: