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## 1AC: Plan

**The United States federal government should substantially increase its investment in high speed rail in the United States**.

## 1AC: Inherency

#### Observation 1 is Inherency:

#### Federal funding is empirically key to covering HSR upfront costs - $8 billion Recovery Act pledge is only a small fraction of what is needed

**Fleming, ’09** – Director of Physical Infrastructure Issues of the Government Accountability Office (“High Speed Passenger Rail: Effectively Using Recovery Act Funds for High Speed Rail Projects” Testimony Before the Subcommittee on Surface Transportation and Merchang Marine Infrastructure, Safety, and Security, Committee on Commerse, Science and Transportation, U.S. Senate, June 23 2009, p. 2-3, http://www.gao.gov/new.items/d09786t.pdf) // SP

Once projects are deemed economically viable, project sponsors face the challenging tasks of securing the significant up-front investment for construction costs and of sustaining public and political support and stakeholder consensus. We found that in other countries (France, Japan, and Spain) with high speed intercity passenger rail systems, the central government generally funded the majority of the up-front costs of high speed rail lines.3 The $8 billion in Recovery Act funds for high speed rail (and other intercity passenger rail) lines represents a significant increase in federal funds available to develop new or enhanced intercity passenger rail service. This amount, however, represents only a small fraction of the estimated costs for starting or enhancing service on the 11 federally authorized high speed rail corridors. For example, the San Francisco-Los Angeles portion of the California high speed rail corridor alone, which already has about $9 billion in state bonding authority, is estimated to cost about $33 billion dollars.4 Furthermore, federal funds for high speed rail in the past (as with the Recovery Act) have been derived from general revenues, not trust funds or other dedicated funding sources. This makes ongoing capital support for high speed rail projects challenging, as they compete for funding with other national priorities such as health care, national defense, and support for ailing industries. In addition, the challenge of sustaining public-sector support and stakeholder consensus is compounded by long project lead times, the diverse interests of numerous stakeholders, and the absence of an established institutional framework for coordination and decision making.

## 1AC: Economy

#### Advantage 1 is the Economy:

#### U.S. infrastructure is undermining our global competitiveness and risks economic collapse

**Building America’s Future, 11** – a bipartisan coalition of elected officials dedicated to bringing about a new era of U.S. investment in infrastructure that enhances our nation’s prosperity and quality of life. (“Falling Apart and Falling Behind”, Transportation Infrastructure Report, <http://www.bafuture.com/sites/default/files/Report_0.pdf>)

Rebuilding America’s economic foundation is one of the most important missions we face *in the 21st century. Our parents and grandparents built America into the world’s leading economic superpower. We have a responsibility to our own children and grandchildren to strengthen—not squander —that inheritance, and to pass on to them a country whose best days are still ahead. Our citizens live in a turbulent, complicated, and competitive world.* The worst recession in eighty years cost us trillions in wealth and drove millions of Americans out of their jobs and homes*. Even more, it called into question their belief in our system and faith in the way forward.* Our infrastructure—*and the good policy making that built it—*is a key reason America became an economic superpower*. But many of the great decisions which put us on that trajectory are now a half-century old. In the last decade,* our global economic competitors have led the way in planning and building the transportation networks of the 21st century. Countries around the world have not only started spending more than the U*nited* S*tates* does today, *but they made those financial commitments—of both public and private dollars—on the basis of 21st-century strategies that will equip them to make commanding strides in economic growth over the next 20-25 years.* Unless we make significant changes in our course and direction, the foreign competition will pass us by, and a real opportunity to restore America’s economic strength will be lost*. The American people deserve better. Falling Apart and Falling Behind lays out the economic challenges posed by our ailing infrastructure, provides a comparative look at the smart investments being made by our international competitors, and suggests a series of recommendations for crafting new innovative transportation policies in the U.S. A Mounting Crisis This report frames the state of our infrastructure in terms of the new economic realities of the 21st-century economy and presents the challenges we currently face.* The surge in global trade has realigned America’s business transport needs, complicating supply chains and increasing the need for sophisticated intermodal transportation. Our economically vital gateways and corridors now operate over capacity, imposing costs of $200 billion a year*.* Our passenger transport system, especially in our major metropolitan regions, is also burdened with costly congestion as passenger travel increases*. Largely run on gasoline,* our transportation system is environmentally, politically, and economically unsustainable*. We have the world’s worst air traffic congestion, in part because we are still using the radar-based air traffic control system developed in the 1950s.*

#### U.S. economy is stalling – unemployment is rising again and comes at a precarious time for the global economy

**Bloomberg 6-1-12-**(Christopher S. Rugaber, “US economy added 69K jobs in May, fewest in a year”, Bloomberg Businessweek, June 1, 2012, [http://www.businessweek.com/ap/2012-06/D9V4CNRO0.htm)//sjl](http://www.businessweek.com/ap/2012-06/D9V4CNRO0.htm%29/sjl)

The U.S. economy suddenly looks a lot weaker. U.S. employers created only 69,000 jobs in May, the fewest in a year, and the unemployment rate ticked up. The dismal jobs data will fan fears that the economy is sputtering. It could also damage President Barack Obama's re-election prospects. And it could lead the Federal Reserve to take further steps to help the economy. The Labor Department also said Friday that the economy created far fewer jobs in the previous two months than first thought. It revised those figures down to show 49,000 fewer jobs created. The unemployment rate rose to 8.2 percent from 8.1 percent in April, the first increase in 11 months. The Dow Jones industrial average fell more than 160 points in the first half hour of trading. The yield on the benchmark on the 10-year Treasury note plunged to 1.46 percent, the lowest on record. It suggested that investors are flocking to the safety of U.S. government bonds. The price of gold, which was trading at about $1,550 an ounce before the report, shot up $30. Investors have seen gold as a safe place to put their money during turbulent economic times. Josh Feinman, global chief economist with DB Advisors, said Friday's report raises the likelihood that the Federal Reserve will do more -- perhaps start another round of bond purchases to further lower long-term interest rates. Still, he noted that the rate on 10-year Treasury notes is already at a record low 1.46 percent. "How much lower can long-term rates go?" Feinman said. The economy is averaging just 73,000 jobs a month over the past two months -- roughly a third of 226,000 jobs created per month in the January-March quarter. Slower growth in the United States comes at a perilous time for the global economy.

#### US economic competitiveness prevents multiple scenarios for global nuclear conflicts

Friedberg & Schoenfeld 8 (Aaron Friedberg is a professor of politics and international relations at Princeton University's Woodrow Wilson School. Gabriel Schoenfeld, senior editor of Commentary, is a visiting scholar at the Witherspoon Institute in Princeton, N.J., “The Dangers of a Diminished America,” Wall Street Journal, Ocbtober 21, 2008,http://online.wsj.com/article/SB122455074012352571.html]

*With the global financial system in serious trouble, is America's geostrategic dominance likely to diminish? If so, what would that mean?* One immediate implication of the crisis that began on Wall Street and spread across the world is that the primary instruments of U.S. foreign policy will be crimped*. The next president will face an entirely new and adverse fiscal position. Estimates of this year's federal budget deficit already show that it has jumped $237 billion from last year, to $407 billion. With families and businesses hurting, there will be calls for various and expensive domestic relief programs. In the face of this onrushing river of red ink, both Barack Obama and John McCain have been reluctant to lay out what portions of their programmatic wish list they might defer or delete. Only Joe Biden has suggested a possible reduction -- foreign aid. This would be one of the few popular cuts, but in budgetary terms it is a mere grain of sand. Still, Sen. Biden's* comment hints at where we may be headed: toward a major reduction in America's world role, and perhaps even a new era of financially-induced isolationism*. Pressures to cut defense spending, and to dodge the cost of waging two wars, already intense before this crisis, are likely to mount. Despite the success of the surge, the war in Iraq remains deeply unpopular. Precipitous withdrawal -- attractive to a sizable swath of the electorate before the financial implosion -- might well become even more popular with annual war bills running in the hundreds of billions.* Protectionist sentiments are sure to grow stronger as jobs disappear in the coming slowdown*. Even before our current woes, calls to save jobs by restricting imports had begun to gather support among many Democrats and some Republicans. In a prolonged recession, gale-force winds of protectionism will blow. Then there are the dolorous consequences of a potential collapse of the world's financial architecture. For decades now, Americans have enjoyed the advantages of being at the center of that system.* The worldwide use of the dollar, and the stability of our economy, among other things, made it easier for us to run huge budget deficits*, as we counted on foreigners to pick up the tab by buying dollar-denominated assets as a safe haven. Will this be possible in the future? Meanwhile,* traditional foreign-policy challenges are multiplying. The threat from al Qaeda and Islamic terrorist affiliates has not been extinguished. Iran and North Korea are continuing on their bellicose paths, while Pakistan and Afghanistan are progressing smartly down the road to chaos. Russia's new militancy and China's seemingly relentless rise also give cause for concern. If America now tries to pull back from the world stage, it will leave a dangerous power vacuum. The stabilizing effects of our presence in Asia, our continuing commitment to Europe, and our position as defender of last resort for Middle East energy sources and supply lines could all be placed at risk. In such a scenario there are shades of the 1930s, when global trade and finance ground nearly to a halt, the peaceful democracies failed to cooperate, and aggressive powers led by *the remorseless* fanatics who rose up on the crest of economic disaster exploited their divisions. Today we run the risk that rogue states may choose to become ever more reckless with their nuclear toys*, just at our moment of maximum vulnerability.* The aftershocks of the financial crisis will almost certainly rock our principal strategic competitors even harder than they will rock us*. The dramatic free fall of the Russian stock market has demonstrated the fragility of a state whose economic performance hinges on high oil prices, now driven down by the global slowdown. China is perhaps even more fragile, its economic growth depending heavily on foreign investment and access to foreign markets. Both will now be constricted, inflicting economic pain and perhaps even sparking unrest in a country where political legitimacy rests on progress in the long march to prosperity. None of this is good news if the authoritarian leaders of these countries seek to divert attention from internal travails with external adventures. As for our democratic friends, the present crisis comes when many European nations are struggling to deal with decades of anemic growth, sclerotic governance and an impending demographic crisis. Despite its past dynamism, Japan faces similar challenges. India is still in the early stages of its emergence as a world economic and geopolitical power. What does this all mean?* There is no substitute for America on the world stage. The choice we have before us is between the potentially disastrous effects of disengagement and the stiff price tag of continued American leadership*. Are we up for the task? The American economy has historically demonstrated remarkable resilience. Our market-oriented ideology, entrepreneurial culture, flexible institutions and favorable demographic profile should serve us well in whatever trials lie ahead. The American people, too, have shown reserves of resolve when properly led. But experience after the Cold War era -- poorly articulated and executed policies, divisive domestic debates and rising anti-Americanism in at least some parts of the world -- appear to have left these reserves diminished. A recent survey by the Chicago Council on World Affairs found that 36% of respondents agreed that the U.S. should "stay out of world affairs," the highest number recorded since this question was first asked in 1947. The economic crisis could be the straw that breaks the camel's back.*

#### **Building HSR is essential to our future competition – other countries are beating us to the punch**

Yaro, ’10 – president of the Regional Plan Association, a policy, research and advocacy group, and Professor of Practice in City and Regional Planning at the University of Pennsylvania (Robert D. “An Investment We Have to Make,” New York Times, October 14 2010, http://www.nytimes.com/roomfordebate/2010/10/13/will-we-ever-have-high-speed-trains/an-investment-we-have-to-make) // AMG

For these reasons Japan, China, Taiwan and Europe -- and now Brazil, South Africa, Morocco, India and Vietnam -- already have or are building high-speed rail. Unless we build similar systems here, we will find ourselves at a growing competitive disadvantage caused by increasing congestion and inefficiency in moving people and goods. At an estimated $500 billion, a national high-speed rail system won't come cheap. But it will help enable a major expansion in the U.S. gross domestic product by mid-century, in much the same way the Interstate highways did in the 20th century. Once completed with forms of public financing, these systems can be operated and maintained by the private sector and operated at a profit. We can't afford not to build a national high-speed system. It's not the only infrastructure investment needed to secure our economic futures. But it's one that will be essential to our future mobility and competitiveness.

#### Investment in HSR will jumpstart the economy and provides the clearest and fastest way to long-term economic growth – studies prove

**Williams 11** (Mantil is a Writer and researcher for the APTA, or American Public Transportation Association. The American Public Transportation Association (APTA) is a nonprofit international association of 1,500 public and private member organizations, engaged in the areas of bus, paratransit, light rail, commuter rail, subways, waterborne services, and intercity and high-speed passenger rail “Federal Investment in High-Speed Rail Could Spur 1.3 Million Jobs ” <http://www.apta.com/mediacenter/pressreleases/2011/Pages/110406_HSR_Business.aspx>

The American Public Transportation Association (APTA) released a report detailing the enormous impact high-speed and intercity passenger rail projects will have in driving job development, while also rebuilding America’s manufacturing sector and generating billions of dollars in business sales. This report focuses on key issues critical to private investors as they consider investments or future expansion into businesses serving the growing passenger rail markets. The report, “The Case for Business Investment in High-Speed and Intercity Passenger Rail” reinforces the point that investments in high-speed and intercity rail will have many direct and indirect benefits. Nationally, due to proposed federal investment of high-speed rail over a six-year period, investment can result in supporting and creating more than 1.3 million jobs. This federal investment will be the catalyst for attracting state, local and private capital which will result in the support and creation of even more jobs. According to this new report, investments in building a 21st century rail system will not only lead to a large increase in construction jobs, but to the sustainable, long-term growth of new manufacturing and service jobs across the country. “It is evident that investing in high-speed and intercity rail projects presents one of the clearest and fastest ways to create green, American jobs and spur long-term economic growth,” said APTA President William Millar. “Investing in high-speed rail is essential for America as we work to build a sustainable, modern transportation system that meets the environmental and energy challenges of the future.” APTA noted for each $1 billion invested in high-speed rail projects, the analysis predicts the support and creation of 24,000 jobs. In addition to the thousands of new construction jobs, investments in high-speed rail will jumpstart the U.S. economy. The Economic Development Research Group for the U.S. Conference of Mayors studied the business impact of high-speed rail investment in different urban regions. For example, in Los Angeles, CA, high-speed rail investment generates $7.6 billion in business sales and $6.1 billion in Chicago, IL. “Federal high-speed rail investment is a strong driver in getting private companies to invest,” said Kevin McFall, Senior Vice President at Stacy and Witbeck Inc., a leading public transit construction firm. “This program can be a shot in the arm for the manufacturing industry. These high-speed rail projects will give us the opportunity to put people to work building the rail infrastructure this country desperately needs.” “U.S. businesses have been known for their cutting edge technologies and innovations, said Jeffrey Wharton, President of IMPulse NC. “We need to put this expertise to work, providing business and employment opportunities while catching up with the rest of the world in high-speed rail and its associated benefits.” “We are excited about the prospect of putting Americans to work building the rail tracks and equipment that will keep America’s economic recovery moving forward,” said Charles Wochele, Vice President for Industry and Government Relations at Alstom Transport. “We look forward to partnering with the federal and state governments to ensure these projects get off the ground.”

#### HSR has significant economic benefits and a direct correlation with GDP – first thorough statistical study proves

Ahlfeldt 12 ( Gabriel M Ahlfeldt, the Department of Geography and Environment at LSE, “New research shows that high-speed rail does deliver economic growth”, The London School of Economics and Political Science, <http://www2.lse.ac.uk/newsAndMedia/news/archives/2010/09/highspeedrail.aspx>, 13 Sep 2010, HLR)

High-speed rail lines bring clear and significant economic benefits to the communities they serve, the first thorough statistical study of the subject has discovered. Economists discovered that towns connected to a new high-speed line saw their GDP rise by at least 2.7 per cent compared to neighbours not on the route. Their study also found that increased market access through high-speed rail has a direct correlation with a rise in GDP – for each one per cent increase in market access, there is a 0.25 per cent rise in GDP. The findings, from the London School of Economics and Political Science and the University of Hamburg, may be used to support arguments for high-speed networks which are already being planned in the UK, US and across the world. Until now, no one has demonstrated that high-speed rail brings clear economic gains along its routes. Authors Gabriel Ahlfeld and Arne Feddersen presented their findings at the conference of the German Economic Association. The paper, From Periphery to Core: economic adjustments to high-speed rail, also points to advantages in employment and GDP per capita for towns on the high-speed network. Their research focused on the line between Cologne and Frankfurt, which opened in 2002 and runs trains at almost 185mph (300 kmh). The authors looked at the prosperity and growth of two towns with stations on the new line – Limburg and Montabaur – and compared them with more than 3,000 other municipalities in the surrounding regions. The new line brought Limburg and Montabaur within a 40-minute journey of both Cologne and Frankfurt. Over a four-year period, the researchers found that both towns and the area immediately around them saw their economies grow by at least 2.7 per cent more than their unconnected neighbours. This effect, say the authors, is entirely attributable to the improved access to markets for Limburg and Montabaur and not to any external factors or inherent growth. They chose the two towns for the study because both were included on the high-speed route due to lobbying by regional government and not because their economies were powerful or expanding. Dr Ahlfeldt, from the Department of Geography and Environment at LSE, said: 'One of the problems with identifying the impact of high-speed rail has been that lines tend to get built first between areas with strong and growing economies so that it's difficult for economists to be sure which effects are attributable to the new rail line and which to existing factors. But because there was no economic rationale for building the line to Limburg and Montabaur, they provided the perfect "laboratory" conditions for us to measure the effect of high-speed trains. 'It is quite clear that the line itself brought significant and lasting benefits in access to markets, growth, employment and individual prosperity. One of our key findings is a positive market access elasticity, which means that improvements in accessibility to other towns, cities and regions, will be reflected in economic growth. We believe this research develops a new framework for predicting the economic effects of large-scale infrastructure projects and will help governments to define future spending priorities.'

## 1AC: Oil

#### Advantage 2 is Oil:

#### Evidence of peak oil is mounting –peak oil is already a reality in 61% of the oil-producing world

**Perl, ’10** – Director of Urban Studies Program at Simon Fraser University (Anthony, “Integrating HSR into North America’s Next Mobility Transition,” June 16, 2010, p. 13016, http://wagner.nyu.edu/rudincenter/publications/RCWP\_Perl.pdf) // SP

Despite an ongoing debate regarding the exact timing of a peak in global oil production, evidence is mounting that we are on the threshold of a substantive change in the ways by which future oil will be extracted. As shown in Table 3, the ‘low hanging fruit’ of cheap and easily accessible oil has largely been consumed. Ghanta (2009) concludes that: Only 14 out of 54 oil producing countries and regions in the world continue to increase production, while 30 are definitely past their production peak, and the remaining 10 appear to have flat or declining production. Put another way, peak oil is real in 61% of the oil producing world when weighted by production. Producing the world’s remaining oil reserves will be both more costly and more risky than obtaining past oil supplies. Tapping the world’s remaining oil reserves requires new, and substantially different, oil production infrastructure that can operate in extreme environments (e.g., five miles below the seabed or in polar regions). Deploying this new energy infrastructure, and responsibly decommissioning established infrastructure that will no longer be used once conventional oil reserves become depleted will increase the price of transport fuels. Learning how to manage that infrastructure safely presents new risks and challenges, as illustrated by the ‘Deepwater Horizon’ disaster and subsequent ecological catastrophe in the Gulf of Mexico. (Perl, 2010) There is thus considerable likelihood of future price increases in transport fuels derived from oil.

#### Oil dependence will only grow in the coming decades and increasingly threatens to embroil the U.S. in future military conflicts – reducing dependence now is key

Collina 5 - Executive Director of 20-20 Vision [Tom Z. Collina, Executive Director of 20-20Vision; testimony in front of Committee on Foreign Relations Subcommittee on Near Eastern and South Asian Affairs United States Senate “Oil Dependence and U.S. Foreign Policy: Real Dangers, Realistic Solutions”. October 19, 2005 <http://www.globalsecurity.org/military/library/congress/2005_hr/051020-collina.pdf>]

More conflicts in the Middle East America imports almost 60% of its oil today and, at this rate, we’ll import 70% by 2025. Where will that oil come from? Two-thirds of the world’s oil is in the Middle East, primarily in Saudi Arabia, Iran and Iraq. The United States has less than 3% of global oil. The Department of Energy predicts that North American oil imports from the Persian Gulf will double from 2001 to 2025.i Other oil suppliers, such as Venezuela, Russia, and West Africa, are also politically unstable and hold no significant long-term oil reserves compared to those in the Middle East. Bottom line: our economy and security are increasingly dependent on one of the most unstable regions on earth. Unless we change our ways, we will find ourselves even more at the mercy of Middle East oil and thus more likely to get involved in future conflicts. The greater our dependence on oil, the greater the pressure to protect and control that oil. The growing American dependence on imported oil is the primary driver of U.S. foreign and military policy today, particularly in the Middle East, and motivates an aggressive military policy now on display in Iraq. To help avoid similar wars in the future and to encourage a more cooperative, responsible, and multilateral foreign policy the United States must significantly reduce its oil use. Before the Iraq war started, Anthony H. Cordesman of the Center for Strategic and International Studies said: “Regardless of whether we say so publicly, we will go to war, because Saddam sits at the center of a region with more than 60 percent of all the world's oil reserves.” Unfortunately, he was right. In fact, the use of military power to protect the flow of oil has been a central tenet of U.S. foreign policy since 1945. That was the year that President Franklin D. Roosevelt promised King Abdul Aziz of Saudi Arabia that the United States would protect the kingdom in return for special access to Saudi oil—a promise that governs U.S. foreign policy today. This policy was formalized by President Jimmy Carter in 1980 when he announced that the secure flow of oil from the Persian Gulf was in “the vital interests of the United States of America” and that America would use “any means necessary, including military force” to protect those interests from outside forces. This doctrine was expanded by President Ronald Reagan in 1981 to cover internal threats, and was used by the first President Bush to justify the Gulf War of 1990-91, and provided a key, if unspoken rationale for the second President Bush’s invasion of Iraq in 2003.ii The Carter/Reagan Doctrine also led to the build up of U.S. forces in the Persian Gulf on a permanent basis and to the establishment of the Rapid Deployment Force and the U.S. Central Command (CENTCOM). The United States now spends over $50 Billion per year (in peacetime) to maintain our readiness to intervene in the Gulf.iii America has tried to address its oil vulnerability by using our military to protect supply routes and to prop up or install friendly regimes. But as Iraq shows the price is astronomical—$200 Billion and counting. Moreover, it doesn’t work—Iraq is now producing less oil than it did before the invasion. While the reasons behind the Bush administration’s decision to invade Iraq may be complex, can anyone doubt that we would not be there today if Iraq exported coffee instead of oil? It is time for a new approach. Americans are no longer willing to support U.S. misadventures in the Persian Gulf. Recent polls show that almost two-thirds of Americans think the Iraq war was not worth the price in terms of blood and treasure. Lt. Gen William Odom, director of the National Security Agency during President Reagan's second term, recently said: "The invasion of Iraq will turn out to be the greatest strategic disaster in U.S. history." The nation is understandably split about what to do now in Iraq, but there appears to be widespread agreement that America should not make the same mistake again—and we can take a giant step toward that goal by reducing our dependence on oil.

#### Oil wars lead to extinction

Stephen Lendman (Research Associate of the Centre for Research on Globalization) 2007 “Resource Wars - Can We Survive Them” http://www.rense.com/general76/resrouce.htm

With the world's energy supplies finite, the US heavily dependent on imports, and "peak oil" near or approaching, "security" for America means assuring a sustainable supply of what we can't do without. It includes waging wars to get it, protect it, and defend the maritime trade routes over which it travels. That means energy's partnered with predatory New World Order globalization, militarism, wars, ecological recklessness, and now an extremist US administration willing to risk Armageddon for world dominance. Central to its plan is first controlling essential resources everywhere, at any cost, starting with oil and where most of it is located in the Middle East and Central Asia. The New "Great Game" and Perils From It The new "Great Game's" begun, but this time the stakes are greater than ever as explained above. The old one lasted nearly 100 years pitting the British empire against Tsarist Russia when the issue wasn't oil. This time, it's the US with help from Israel, Britain, the West, and satellite states like Japan, South Korea and Taiwan challenging Russia and China with today's weapons and technology on both sides making earlier ones look like toys. At stake is more than oil. It's planet earth with survival of all life on it issue number one twice over. Resources and wars for them means militarism is increasing, peace declining, and the planet's ability to sustain life front and center, if anyone's paying attention. They'd better be because beyond the point of no return, there's no second chance the way Einstein explained after the atom was split. His famous quote on future wars was : "I know not with what weapons World War III will be fought, but World War IV will be fought with sticks and stones." Under a worst case scenario, it's more dire than that. There may be nothing left but resilient beetles and bacteria in the wake of a nuclear holocaust meaning even a new stone age is way in the future, if at all. The threat is real and once nearly happened during the Cuban Missile Crisis in October, 1962. We later learned a miracle saved us at the 40th anniversary October, 2002 summit meeting in Havana attended by the US and Russia along with host country Cuba. For the first time, we were told how close we came to nuclear Armageddon. Devastation was avoided only because Soviet submarine captain Vasily Arkhipov countermanded his order to fire nuclear-tipped torpedos when Russian submarines were attacked by US destroyers near Kennedy's "quarantine" line. Had he done it, only our imagination can speculate what might have followed and whether planet earth, or at least a big part of it, would have survived.

#### Eliminating foreign oil is unnecessary for independence - we need only reduce imports to where oil has little to no effect on economic or military policy

Benjamin K. Sovacool, ’07 - (an Assistant Professor at the Lee Kuan Yew School of Public Policy at the National University of Singapore. He is also a Research Fellow in the Energy Governance Program at the Centre on Asia and Globalization) 2007 “Oil Independence Possible for U.S. by 2030” http://scitizen.com/authors/Benjamin-K.-Sovacool-a-899\_s\_08b456d033fcee27acbc8caf208135e8.html

Oil independence is possible for the U.S. if comprehensive and aggressive energy policies are implemented aimed at reducing demand for oil, increasing supply, and promoting alternative fuels. Contrary to what most people might think, oil independence is possible for the United States by 2030. The news is especially important when one considers that, between 1970 and 2000, economists estimate that the costs of American dependence on foreign supplies of oil have ranged between $5 and $13 trillion dollars. That’s more than the cost of all wars fought by the U.S. (adjusted for inflation) going all the way back to the Revolutionary War. The trick is to start by thinking about oil independence a little differently. Oil independence should not be viewed as eliminating all imports of oil or reducing imports from hostile or unstable oil producing states. Instead, it should entail creating a world where the costs of the country’s dependence on oil would be so small that they would have little to no effect on our economic, military, or foreign policy. It means creating a world where the estimated total economic costs of oil dependence would be less than one percent of U.S. gross domestic product by 2030. Conceived in this way (and contrary to much political commentary these days), researchers at the Oak Ridge National Laboratory (ORNL) have calculated that if the country as a whole reduced their demand for oil by 7.22 million barrels per day (MBD) and increased supply by 3 MBD, oil independence would be achieved by 2030 with a 95 percent chance of success. By reducing demand for oil, increasing its price elasticity, and increasing the supply of conventional and unconventional petroleum products, ORNL researchers noted that the country would be virtually immune from oil price shocks and market uncertainty. If large oil producing states were to respond to the U.S. by cutting back production, their initial gains from higher prices would also reduce their market share, in turn further limiting their ability to influence the oil market in the future. So if decreasing American demand for oil by 7.22 MBD and increasing supply by 3 MBD would enable the U.S. to achieve oil independence in 2030, which combination of policies offers an optimal strategy? Policymakers, for instance, could lower demand for oil by making automobiles more efficient (by legislating more stringent fuel economy standards for light and heavy duty vehicles or lowering the interstate speed limit), promoting alternatives in mode choice (such as mass transit, light rail, and carpooling), or establishing telecommuting centers and incentives for commuters to work from home. They could also promote rigorous standards for tire inflation and reduce oil consumption in other sectors of the economy.

#### Shifting away from oil in the next 10 years is key and HSR is the only realistic option for doing so – key to avoiding a global economic collapse and an oil war

**Perl 11** (Anthony, Director of Urban Studies Program at Simon Fraser University , interviewed by Mark a staff writer for CNN.com, “How green is high-speed rail?” http://www.cnn.com/2011/11/18/world/how-green-is-hsr/index.html Nov 19)

Grid-connected traction offers the only realistic option for significantly reducing oil use in transportation over the next 10 years. If such a shift does not begin during this decade, the risk of a global economic collapse and/or geo-political conflict over the world's remaining oil reserves would become dangerously elevated. Making a significant dent in transportation's oil addiction within 10 years is sooner than fuel cells, biofuels, battery-electric vehicles and other alternative energy technologies will be ready to deliver change. Biofuels that could power aircraft now cost hundreds of dollars per gallon to produce. Batteries that a big enough charge to power vehicles between cities are still too big and expensive to make electric cars and buses affordable. But grid-connected electric trains have been operating at scale and across continents for over a century. And when the Japanese introduced modern high-speed trains through their Shinkansen, in 1964, the utility of electric trains was greatly extended.

#### HSR is the single most powerful thing we can do to get the U.S. off oil – combination of renewable sources can be used for power

**USHSR NO DATE** (The US High Speed Rail Association is the leading company in the study of HSR. “Energy Security” <http://www.ushsr.com/benefits/energysecurity.html>)

Building an electrically-powered national high speed rail network across America is the single most powerful thing we can do to get the nation off oil and into a secure, sustainable form of mobility. A national network of high speed trains can be powered by a combination of renewable energy sources including wind, solar, geothermal, and ocean/tidal energy. America's dependency on oil is the most severe in the world, and inevitably pulls us into costly resource wars. It also pushes us into exploring for oil in extreme locations such as 10,000 feet deep below the Gulf of Mexico. We use 25% of the entire world's oil supply, yet we only have 5% of the world's population. We use 8-10 times more oil per person per day than Europeans, and they have faster, easier and better mobility than we do. The extremely high daily oil consumption of Americans is not due to a higher standard of living, but because of the extremely inefficient nature of our national transportation system – based on individual vehicles powered by internal combustion engines, combined with our sprawling community designs that force people into cars for every trip.

## 1AC: Warming

#### Advantage 3 is Warming:

#### Warming is real, anthropogenic, and existential – vast international scientific evidence accumulates weeklyDeibel 7 (Terry L, Professor of IR @ National War College, “Foreign Affairs Strategy: Logic for American Statecraft”, Conclusion: American Foreign Affairs Strategy Today)

Finally, there is one major existential threat to American security (as well as prosperity) of a nonviolent nature, which, though far in the future, demands urgent action. It is the threat of global warming to the stability of the climate upon which all earthly life depends. Scientists worldwide have been observing the gathering of this threat for three decades now, and what was once a mere possibility has passed through probability to near certainty. Indeed not one of more than 900 articles on climate change published in refereed scientific journals from 1993 to 2003 doubted that anthropogenic warming is occurring. “In legitimate scientific circles,” writes Elizabeth Kolbert, “it is virtually impossible to find evidence of disagreement over the fundamentals of global warming.” Evidence from a vast international scientific monitoring effort accumulates almost weekly, as this sample of newspaper reports shows: an international panel predicts “brutal droughts, floods and violent storms across the planet over the next century”; climate change could “literally alter ocean currents, wipe away huge portions of Alpine Snowcaps and aid the spread of cholera and malaria”; “glaciers in the Antarctic and in Greenland are melting much faster than expected, and…worldwide, plants are blooming several days earlier than a decade ago”; “rising sea temperatures have been accompanied by a significant global increase in the most destructive hurricanes”; “NASA scientists have concluded from direct temperature measurements that 2005 was the hottest year on record, with 1998 a close second”; “Earth’s warming climate is estimated to contribute to more than 150,000 deaths and 5 million illnesses each year” as disease spreads; “widespread bleaching from Texas to Trinidad…killed broad swaths of corals” due to a 2-degree rise in sea temperatures. “The world is slowly disintegrating,” concluded Inuit hunter Noah Metuq, who lives 30 miles from the Arctic Circle. “They call it climate change…but we just call it breaking up.” From the founding of the first cities some 6,000 years ago until the beginning of the industrial revolution, carbon dioxide levels in the atmosphere remained relatively constant at about 280 parts per million (ppm). At present they are accelerating toward 400 ppm, and by 2050 they will reach 500 ppm, about double pre-industrial levels. Unfortunately, atmospheric CO2 lasts about a century, so there is no way immediately to reduce levels, only to slow their increase, we are thus in for significant global warming; the only debate is how much and how serious the effects will be. As the newspaper stories quoted above show, we are already experiencing the effects of 1-2 degree warming in more violent storms, spread of disease, mass die offs of plants and animals, species extinction, and threatened inundation of low-lying countries like the Pacific nation of Kiribati and the Netherlands at a warming of 5 degrees or less the Greenland and West Antarctic ice sheets could disintegrate, leading to a sea level of rise of 20 feet that would cover North Carolina’s outer banks, swamp the southern third of Florida, and inundate Manhattan up to the middle of Greenwich Village. Another catastrophic effect would be the collapse of the Atlantic thermohaline circulation that keeps the winter weather in Europe far warmer than its latitude would otherwise allow. Economist William Cline once estimated the damage to the United States alone from moderate levels of warming at 1-6 percent of GDP annually; severe warming could cost 13-26 percent of GDP. But the most frightening scenario is runaway greenhouse warming, based on positive feedback from the buildup of water vapor in the atmosphere that is both caused by and causes hotter surface temperatures. Past ice age transitions, associated with only 5-10 degree changes in average global temperatures, took place in just decades, even though no one was then pouring ever-increasing amounts of carbon into the atmosphere. Faced with this specter, the best one can conclude is that “humankind’s continuing enhancement of the natural greenhouse effect is akin to playing Russian roulette with the earth’s climate and humanity’s life support system. At worst, says physics professor Marty Hoffert of New York University, “we’re just going to burn everything up; we’re going to heat the atmosphere to the temperature it was in the Cretaceous when there were crocodiles at the poles, and then everything will collapse.” During the Cold War, astronomer Carl Sagan popularized a theory of nuclear winter to describe how a thermonuclear war between the Untied States and the Soviet Union would not only destroy both countries but possibly end life on this planet. Global warming is the post-Cold War era’s equivalent of nuclear winter at least as serious and considerably better supported scientifically. Over the long run it puts dangers from terrorism and traditional military challenges to shame. It is a threat not only to the security and prosperity to the United States, but potentially to the continued existence of life on this planet.

#### Warming is likely to be rapid, and even in the best-case scenario the effects of will be catastrophic without severe reductions in emission

Mazo 10 – PhD in Paleoclimatology from UCLA, Jeffrey Mazo, Managing Editor, Survival and Research Fellow for Environmental Security and Science Policy at the International Institute for Strategic Studies in London, 3-2010, “Climate Conflict: How global warming threatens security and what to do about it,” pg. 122

The best estimates for global warming to the end of the century range from 2.5-4.~C above pre-industrial levels, depending on the scenario. Even in the best-case scenario, the low end of the likely range is 1.goC, and in the worst 'business as usual' projections, which actual emissions have been matching, the range of likely warming runs from 3.1--7.1°C. Even keeping emissions at constant 2000 levels (which have already been exceeded), global temperature would still be expected to reach 1.2°C (O'9""1.5°C)above pre-industrial levels by the end of the century." Without early and severe reductions in emissions, the effects of climate change in the second half of the twenty-first century are likely to be catastrophic for the stability and security of countries in the developing world - not to mention the associated human tragedy. Climate change could even undermine the strength and stability of emerging and advanced economies, beyond the knock-on effects on security of widespread state failure and collapse in developing countries.' And although they have been condemned as melodramatic and alarmist, many informed observers believe that unmitigated climate change beyond the end of the century could pose an existential threat to civilisation." What is certain is that there is no precedent in human experience for such rapid change or such climatic conditions, and even in the best case adaptation to these extremes would mean profound social, cultural and political changes.

#### Fast warming causes extinction – adaptation would be impossible

Tickell 8 (Oliver Tickell is an environmental Researcher. He is the founder of the Kyoto2 climate initiative, a researcher of the Oxford Climate Associates and specialized in international climate policy. Published August 11th, 2008 (<http://www.guardian.co.uk/commentisfree/2008/aug/11/climatechange>)

We need to get prepared for four degrees of global warming, Bob Watson [PhD in Chemistry, Award for Scientific Freedom and Responsibility from the American Association for the Advacement of Science] told the Guardian last week. At first sight this looks like wise counsel from the climate science adviser to Defra. But the idea that we could adapt to a 4C rise is absurd and dangerous. Global warming on this scale would be a catastrophe that would mean, in the immortal words that Chief Seattle probably never spoke, "the end of living **and the beginning of survival**" for humankind. Or perhaps the beginning of our extinction. The collapse of the polar ice caps would become inevitable, bringing long-term sea level rises of 70-80 metres. All the world's coastal plains would be lost, complete with ports, cities, transport and industrial infrastructure, and much of the world's most productive farmland. The world's geography would be transformed much as it was at the end of the last ice age, when sea levels rose by about 120 metres to create the Channel, the North Sea and Cardigan Bay out of dry land. Weather would become extreme and unpredictable, with more frequent and severe droughts, floods and hurricanes. The Earth's carrying capacity would be hugely reduced. Billions would undoubtedly die. Watson's call was supported by the government's former chief scientific adviser, Sir David King [Director of the Smith School of Enterprise and the Environment at the University of Oxford], who warned that "if we get to a four-degree rise it is quite possible that we would begin to see a runaway increase". This is a remarkable understatement. The climate system is already experiencing significant feedbacks, notably the summer melting of the Arctic sea ice. The more the ice melts, the more sunshine is absorbed by the sea, and the more the Arctic warms. And as the Arctic warms, the release of billions of tonnes of methane – a greenhouse gas 70 times stronger than carbon dioxide over 20 years – captured under melting permafrost is already under way. To see how far this process could go, look 55.5m years to the Palaeocene-Eocene Thermal Maximum, when a global temperature increase of 6C coincided with the release of about 5,000 gigatonnes of carbon into the atmosphere, both as CO2 and as methane from bogs and seabed sediments. Lush subtropical forests grew in polar regions, and sea levels rose to 100m higher than today. It appears that an initial warming pulse triggered other warming processes. Many scientists warn that this historical event may be analogous to the present: the warming caused by human emissions could propel us towards a similar hothouse Earth.

#### Simply completing all the proposed HSR projects would result in substantial GHG reduction

**CCAP 6**, Center for Clean Air Policy, (Center for Green air Policy, “ High Speed Rail and Greenhouse Gas Emissions in the U.S”, Article itself is a publication, January 2006, [http://www.cnt.org/repository/HighSpeedRailEmissions.pdf)//AG](http://www.cnt.org/repository/HighSpeedRailEmissions.pdf%29//AG)

To estimate high speed rail’s net emissions impact, we calculated the carbon dioxide (CO2) emissions saved from passengers switching to high speed rail from other modes (air, conventional rail, automobile and bus) and subtracted the estimated emissions generated by high speed rail. Our calculations were based on passenger projections and diversion rates for each corridor and typical emissions rates for each mode of travel, including several different high speed rail technologies. Current projections show that passengers would take 112 million trips on high speed rail in the U.S. in 2025, traveling more than 25 billion passenger miles. This would result in 29 million fewer automobile trips and nearly 500,000 fewer flights. We calculated a total emissions savings of 6 billion pounds of CO2 per year (2.7 MMTCO2) if all proposed high speed rail systems studied for this project are built. Savings from cancelled automobile and airplane trips are the primary sources of the emissions savings; together these two modes make up 80 percent of the estimated emissions savings from all modes. Our modeling shows that high speed rail, if built as planned, will generate substantial GHG savings in all regions. The total emissions savings vary greatly by corridor, however, as do the source of those savings. In some regions, such as the Midwest, the impact on air travel is likely to be modest; our analysis shows just a 7 percent decrease in flights from today’s levels. In California, on the other hand, 19 million passengers are projected to switch from air—a volume that would result in 114 percent of today’s 192 million annual direct flights in the corridor being cancelled. Such ridership levels may be an overestimate, or may be possible if projected growth in air travel and indirect flights, including those from outside the corridor are included. To draw so many air passengers to rail will certainly require that high speed rail ticket prices be competitive with air and that service be as convenient and time-efficient. It is worth further study to see if such high levels of mode shifting are likely. In some respects, the California system, as it is currently planned, represents what will be the second generation of high speed rail in many of the other corridors. While areas like the Pacific Northwest may increase ridership sooner with an incremental approach to high speed rail that uses existing rail routes, the success of a new high speed rail system like California’s could prove the value of faster trains with higher upfront capital costs.

#### HSR removes 6 billion pounds of CO2 per year and helps meet the 2020 emissions standards even at only partial capacity

**APTA 12** – American Public Transportation Association, non-profit organization which serves as an advocate for the advancement of public transportation programs and initiatives in the United States; educated the public about the benefits of public transportation through organized bus, light rail, rapid transit and other programs; lobbies the U.S. Congress and local government bodies in favor of public transportation improvements and new developments. (January, An Inventory of the Criticisms ofHigh-Speed Rail, [http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf](http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf%22%20%5Ct%20%22_blank)) // AG

The issue of the carbon footprint is a collateral benefit. Emissions from trains, be they conventional or high-speed, are about two thirds that of airplanes, and one third less that automobiles. And the higher the passenger load, the greater the greenhouse benefit. Overall, environmental analysts estimate that between 12 billion and 6 billion pounds of CO2 can be eliminated by diverting passengers from air and auto travel in passenger rail corridors ranging from 100 to 600 miles in length. Regarding the “green nature” of high-speed rail, the U.S. Department of Transportation believes they have sufficient data to demonstrate that the administration’s passenger rail improvement initiative promotes economic expansion (including new manufacturing jobs), creates new choices for travelers in addition to flying or driving, reduces national dependence on oil, and fosters urban and rural community development. Further, the Department contends that today’s intercity passenger rail service consumes one-third less energy per passenger-mile than cars, and estimates that if high-speed rail lines are ultimately built on all federally-designated corridors, it could result in an annual reduction of 6 billion pounds of CO2 . For its part, Amtrak forecasts, based on EPA and Department of Energy evaluation factors, that travel-related emissions and energy consumption savings in the Northeast Corridor alone would be approximately $400 million over the initial 30 years of its Northeast Corridor passenger rail improvement program. The California High-speed Rail Authority in 2008 issued a draft environmental impact review/ environmental impact study (EIR/EIS) that among other impacts addressed air pollution issues including greenhouse gasses. The draft EIR/EIS noted that it only calculated CO2 for alignment alternatives that reflected emissions from electrical power stations, planes, and onroad vehicles miles traveled (VMT). The highway component was based on potential daily VMT reductions of 32.691 million miles. The air travel component was based on potential reductions of 52,876 daily trips. Additionally, the Climate Change Scoping Plan produced by the California Air Resources Board (CARB) (pursuant to AB 32) in 2008 includes the HST system as one of the state’s fundamental strategies in meeting the 2020 emissions reduction goals. By 2020, the HST system is expected to have just started operations between San Francisco and Anaheim and is estimated to be only at 26% of the full ridership levels— resulting in a reduction of one million metric tons of CO2 equivalent.

#### US expansion of its clean energy sector spills over globally

**Kammen, Professor of Public Policy @ UC Berkeley, 7** (Daniel, "Green Jobs Created by Global Warming Initiative," September 25th, http://www.unep.org/civil\_society/GCSF9/pdfs/karmen-senate.pdf)

In addition to supporting domestic job creation, clean energy is an important and fastest growing international sector, and one where overseas policy can be used to support poor developing regions – such as Africa (Jacobsen and Kammen, 2007) and Central America – as well as regaining market share in solar, fuel cell and wind technologies, where European nations and Japan have invested heavily and are reaping the benefits of month to year backlogs in clean energy orders. Some of those orders are for U. S. installations, but many more could be if we choose to make clean and green energy a national priority for both domestic installation and overseas export. Technology exports have impacts well beyond domestic job creation. In fact, if properly managed, the development of a thriving ‘cleantech’ sector can address a vital global issues, namely the emissions trajectories of major developing nations. China and India are often singled out for attention as major, emerging global emitters. China, in fact, will become the world’s largest greenhouse emitter in the near future, if it has not already. This fact, is often used – mistakenly in my view – to argue against unilateral climate protection efforts by nations such as the United States.  This view is shortsighted in two vital respects. First, China is demonstrably already suffering from the impacts of fossil fuel use. Crop yields in many parts of China are significantly lower than they would be without the significant sulfur and particulate burden that results from domestic coal combustion. (In fact, coal combustions emissions from China have significant air quality impacts on Japan, and can be measured in the U. S. as well.) Crop losses of over 20% have been reported in part of China, with the decrease unambiguously linked to air pollution. China also experiences significant human health impacts from this pollution burden as well. Second, China has committed, on paper, to a ‘circular economy’ where waste is reduced and overall productivity is enhanced. If the United States were to become a major exporter, or even a partner, in the production of low-emissions technologies – from truly carbon-capture coal-fired power plants, to increased numbers of solar, wind, and biofuel technologies – China would be an eager trading partner, so that they could install increasing numbers of low-emissions technologies. This would directly help the Chinese economy and their environmental and public health situation. On both of these grounds, U. S. domestic expansion of the clean energy sector will likely positively impact the ability and the actions of a number of emerging economies to ‘go green’.

## 1AC: Solvency

#### Observation 3 is Solvency:

#### HSR is empirically profitable but public funding is essential to getting the system up and running – New Jersey, France, and Spain prove

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. 8, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

As to the French TGV and the Japanese Shinkansen, there have been many valuable lessons learned from which the United States will benefit as we go forward. The most important of these lessons that the critics acknowledge but refuse to accept is that passenger trains, if allowed to compete in an even environment with other modes, can cover their costs and in some instances even turn a profit. According to the New Jersey Public Interest Research Group, high-speed rail lines generally cover their operating costs with fare revenues. In the United States, a financially sustainable high-speed rail system will likely not require operating subsidies from taxpayers (although public funding is essential to getting the system up and running). High-speed rail service generates enough operating profit that it can subsidize other, less-profitable intercity rail lines in countries such as France and Spain, as well as in the U.S. Northeast. Two high-speed rail lines—the French TGV line between Paris and Lyon and the original Japanese Shinkansen line from Tokyo to Osaka—have covered their initial costs of construction through fares.

#### HSR will be vastly superior to Amtrak – and even its ridership numbers are on the rise

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p.18-19, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

In attacking Amtrak, two of Mr. Samuelson’s main complaints were that: (a) Amtrak has historically low ridership, and (b) it produces no profits (it receives subsidies). While this document is not intended to be a defense of Amtrak, it is important that people understand that even today the Amtrak of old is not the vision for passenger rail and especially high-speed rail to come. The vision the president outlined when he first launched this initiative nearly two years ago “. . . is to transform the nation’s transportation system, by rebuilding existing rail infrastructure while launching new high-speed passenger rail services in 100–600 mile corridors that connect U.S. communities.” This effort will be similar to how interstate highways and the U.S. aviation system were developed in the 20thcentury through a partnership between the public sector and private industry, including strong federal leadership. It is important that people recall that Amtrak has had to operate largely at the mercy of the nation’s freight rail system over routes that were for the most part selected by Congress, and has not until recently been either reliable or competitive with other transportation alternatives. But as noted in Amtrak’s May 10, 2011 press release, “Amtrak ridership surged in April to be the best April on record and extends the national passenger railroad’s streak to 18 consecutive months of year-over-year ridership growth. “This strong performance is part of a long-term trend that has seen Amtrak set annual ridership records in seven of the last eight fiscal years, including more than 28.7 million passengers in FY 2010. Comparing the first seven months of FY 2011 (October–April) to the same time period in FY 2010, national Amtrak ridership is up 6.5 percent so far this fiscal year and all three major business lines are showing gains: the Northeast Corridor up 4.8 percent, state-supported and other short distance corridors up 8.1 percent, and long-distance trains up 5.6 percent.

# \*\*\*Econ\*\*\*

## Internal Links

### Jobs

#### HSR will provide a major stimulus to the California economy – 160,000 jobs and $48 billion per year in taxable income

Kantor, 2008 – Ph.D. from California Institute of Technology, Professor of Economics at the University of California, Research Associate at the National Bureau of Economic Research (Shawn, “The Economic Impact of the California High-Speed Rail in the Sacramento/Central Valley Area” September 2008, www.sjvpartnership.org%2Fuploaded\_files%2FWG\_doc%2FHSR\_ Central Valley \_Presentation.pdf&ei=ZV\_jT6fwE4Gi8QSL49SGCA&usg=AFQjCNGIWF2b3mq SSaI57frEnll-IDNG7g&sig2=BLkRksZX4B3eZ T ptDJ-9iw // (AMG)

The research suggests that HSR will have a disproportionately positive impact on areas that are on the economic periphery at the present time, specifically Merced and 2 Madera Counties. The research further indicates that HSR will trigger internal job creation within the Central Valley, especially in the service, transportation, communications, and utilities, and finance, insurance, and real estate sectors. Further, job-creation will occur directly as a result of the HSR network construction. With 160,000 construction-related jobs created to plan, design, and then build the HSR system at an approximate cost of $40 billion, the Central Valley economy will experience direct employment and economic multiplier benefits. It is reasonable to speculate that the Central Valley will receive somewhere between 15 and 40 percent of the overall HSR public expenditure, based on population and track mileage. One of the most important anticipated benefits from HSR is the increased level of accessibility that Central Valley areas will experience. Lower transportation and transaction costs will encourage new businesses to locate in the Central Valley where favorable costs and public policies can encourage business development. Workers will be able to seamlessly commute both to, from, and within the Central Valley. Estimates presented in the report show that the potential taxable income gains to the Central Valley economy from achieving economic integration into and parity with the rest of the state can reach nearly $48 billion per year. This added income would translate into enhanced state income tax revenues of over $2 billion. Furthermore, increased household income translates into greater consumption. Estimates presented in the report suggest that total sales/use taxes would increase by approximately $333 million per year, of which nearly $46 million would flow directly to counties and cities within the Central Valley.

#### HSR creates thousands of jobs and fosters new manufacturing industries and large amounts of related employment

**Todorovich, Schned, and Lane, 2011** – Director, and associate planner, of America 2050- a national urban planning initiative to develop an infrastructure and growth strategy for the U.S. (Petra, Daniel, and Robert, “High-Speed Rail: International Lessons for U.S. Policy Makers”, Policy Focus Report- Lincoln Institute of Land Policy, September 2011, http://www.lincolninst.edu/pubs/dl/1948\_1268\_High-Speed Rail PFR\_Webster.pdf // (AMG)

Direct job creation: High-speed rail creates thousands of construction-related jobs in design, engineering, planning, and construction, as well as jobs in ongoing maintenance and operations. In Spain, the expansion of the high-speed AVE system from Malaga to Seville is predicted to create 30,000 construction jobs (Euro Weekly 2010). In China, over 100,000 construction work- ers were involved in building the high-speed rail line that connects Beijing and Shanghai (Bradsher 2010). Sustained investment could foster the development of new manu- facturing industries for rail cars and other equipment, and generate large amounts of related employment.

#### HSR produces 20,000 jobs for every $1 billion spent

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. 7, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

As it is, the passenger rail improvement initiative is indeed a long-term infrastructure development initiative conceived to be as massive as the construction of the nation’s interstate highway system. That initiative took over 50 years to complete, the equivalent of at least two generations of workers engaged in highly skilled infrastructure design and construction. Labor experts estimate that for every $1 billion spent on conventional and high-speed passenger rail development, 20,000 jobs are supported. With $13 billion already appropriated and $53 billion proposed over the next six years, that translates into 1.3 million jobs at a time when jobs creation is exactly what our economy needs.

#### **California HSR alone will create 600,000 jobs**

Levinson 2010 (David, Fellow at the Institute of Transportation Studies, “Economic Development Impacts of High-Speed Rail, <http://nexus.umn.edu/Papers/EconomicDevelopmentImpactsOfHSR.pdf>, LCS)

Promoting Economic Development “HSR, according to supporters, promotes economic development, as well as potentially beneﬁcial changes in land use and employment. In the short term, it is argued, jobs will be created in planning, designing, and building HSR. By improving accessibility, HSR, it is thought, will spur economic development and the creation of long-term jobs, particularly around high-speed rail stations. For example, the California High-speed rail Authority argues that its proposal for a HSR connecting northern and southern Californian cities will create 160,000 short-term construction-related jobs, and 450,000 long-term jobs.

#### Midwest train alone would produce 100,000 jobs and $13.8 billion in revenue per year

**Hilkevitch, ’11 -** Chicago Tribune's transportation reporter since 1997; responsible for covering every mode of transportation, both locally and nationally (Jon, “Midwest Bullet Train Network to Cost $83.6 Billion, Study Says”, Chicago Tribune, 4/27/11, [http://articles.chicagotribune.com/2011-04-27/news/ct-met-bullet-train-costs-0428-20110427\_1\_high-speed-rail-bullet-train-network-true-high-speed)//AY](http://articles.chicagotribune.com/2011-04-27/news/ct-met-bullet-train-costs-0428-20110427_1_high-speed-rail-bullet-train-network-true-high-speed%29//AY)

The association's study estimated 43 million riders a year from 13 cities and metro areas on the system, based on offering 25 daily departures on each of the corridors. User-generated revenue was estimated at more than $2.2 billion a year. The proposed 220-mph system would produce $13.8 billion in new business sales a year and 104,000 permanent new jobs when it is in full operation, the study estimated. Seeking to justify the $83.6 billion capital cost of building a 220-mph system, the study said, "It is important to consider that very large investments in airports and freeways would be needed to accommodate all of this travel by air or auto.'' Building the bullet train network would "avoid the need for very large expenditures in modes that already have demonstrated that they are at or near the physical limits needed to expand their capacity," the study [conducted by Economic Development Research Gropu] said.

### Competitiveness

#### HSR is critical to reviving our competitiveness and pulling ourselves out of the current downturn

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. 24, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

The intercity passenger and high-speed rail initiative was launched (by Republicans) for specifically the reasons cited by the current administration. America is growing increasingly uncompetitive with the rest of the developed (and in many cases even the developing) world. We will only pull ourselves out of the current situation by creating the means to make our nation more competitive. High-speed rail and the renewal of the nation’s rail networks are just the kinds of infrastructure projects required of these times and circumstances. The only things gained by waiting are all the bad things this initiative is designed and intended to address, not the least of which is the cost of waiting. Can you imagine what would have happened if President Eisenhower had waited for a “better time” to begin building the nation’s interstate highway system?

#### **HSR is key to maintaining global economic competitiveness – acting now is key to avoiding higher costs down the line**

Stern 5/14 (Rachel, Junior fellow at the society of fellows at Harvard University, “High-Speed Rail Key to Job Creation, Supporters Say in Rally”, <http://santacruz.patch.com/articles/high-speed-rail-key-to-job-creation-supporters-say-in-rally-9b0983f0>, LCS)

Still, "there are far more risks to not moving forward," said Daniel Krause, the co-founder and executive director of Californians for High-Speed Rail at the rally. "It will cost much more to expand airports and freeways to create the same amount of transportation capacity," said Krause, who pointed out that the project would in turn also lead to higher air pollution and risk of automotive deaths. The borrowing costs of the project, he continued, would be offset with the requirement than any of Prop 1A used must be matched with a non-state source of funds, "injecting billions of dollars into our state’s economy." The project’s supporters include San Jose Mayor Chuck Reed and San Francisco Mayor Ed Lee, who has stated that the project is necessary "to maintain our global economic competitiveness." San Francisco International Airport also counts itself as a project supporter, said Airport Director John Martin in a statement he issued earlier. "Passenger traffic at SFO is expected to grow to 50 million passengers by 2025," he said. "High-speed rail will reduce the need for short-haul commuter flights and provide greater ability for SFO to accommodate international and long-haul domestic flights." Now is the time to act on the rail before costs become higher, said Vance Pope a construction operating engineer from Redwood City, after the rally. "The longer you wait," he said, "the more it’s gonna cost so you might as well get it done." "The High-Speed Rail would create a lot of jobs for our members," said Alfredo Quintana, a Milpitas construction worker from Laborers Local 270.

### Productivity/Labor Flow

#### HSR improves the economy through increased productivity and labor flow

Vickerman, 2009 – Director of the Centre for European, Regional and Transport Economics, Professor for the School of Economics at the University of Kent, Doctorate from Philipps-Universitat, Marburg, Chartered Fellow of the Chartered Insitute of Logistics and Transport (Roger, “Indirect and Wider Economic Impacts of High-Speed Rail”, Economic Analysis of High Speed Rail in Europe, 2009, www.eco.uc3m.es%2Ftemp%2Fagenda%2Fmad2006%2Fpapers%2F 12.%2520Vickerman%2C%2520Roger.pdf&ei=WmDjT43MMY2g8gSK94SGCA&usg=AFQjCNEYiGiisPJMZ85lHdmNd0mwVHBgNw&sig2=9Ie1AVAvknnZDMiivQoA9g // (AMG)

Wider benefits are those which typically cannot be recouped from users through charging and they arise in a number of ways, through impacts on the labour market, through direct impacts on productivity and competition in product markets and through changes in patterns of agglomeration. In each of these cases the main reasons for wider benefits occurring is due to the absence of perfect competition. As Jara-Diaz (1986) has shown, where there is perfect competition in transport using markets then user benefits will be an accurate and sufficient measure of total benefits from transport improvements. We stress the importance of the labour market, because it has frequently been ignored in studies of wider benefits. Labour market effects in imperfectly competitive labour markets arise in three possible ways: changing participation rates, increased working hours and moves to more productive jobs (Department for Transport, 2005). Improved transport can enable access to jobs which would not otherwise have been possible. If this enables workers from employment- deficient regions to access jobs in labour-deficient regions there will be gains to the workers, to employers and to the public sector which gains tax revenue and faces lower social security payments. Similarly if easier commuting encourages existing workers to work longer hours there will be potential gains to all three groups, although it might seem more likely that in practice workers would takes the gains in increased leisure rather than increased work. Possibly of greatest importance, however, is the impact on productivity which arises thorough workers being able to move more easily from less productive to more productive jobs. HSR has the important effect of creating a potential step-change in the size of labour markets, not just for daily commuting, but also for reinforcing the possibility of long-distance weekly commuting where the constraints of housing or personal circumstances prevent job-related migration.

#### HSR improves access to the labor market and employment market and allows workers to find cheaper housing

**Todorovich, Schned, and Lane, 2011** – Director, and associate planner, of America 2050- a national urban planning initiative to develop an infrastructure and growth strategy for the U.S. (Petra, Daniel, and Robert, “High-Speed Rail: International Lessons for U.S. Policy Makers”, Policy Focus Report- Lincoln Institute of Land Policy, September 2011, http://www.lincolninst.edu/pubs/dl/1948\_1268\_High-Speed Rail PFR\_Webster.pdf // (AMG)

The time savings and increased mobility offered by high-speed rail enables workers in the service sector and in information- exchange industries to move about the megaregion more freely and reduces the costs of face-to-face communication. This enhanced connectivity boosts worker pro- ductivity and business competitiveness, leading to higher wages (Greengauge 21 2010). Deeper labor and employment markets: By connecting more communities to other population and job centers, high- speed rail expands the overall commuter shed of the megaregion. The deepened labor markets give employers access to larger pools of skilled workers, employees access to more employment options, and workers access to more and cheaper hous- ing options outside of expensive city centers (Stolarick, Swain, and Adleraim 2010).

### Domestic Tourism

#### HSR will create hundreds of millions in domestic tourism

**EDRG, ’10** - a firm established in 1997 by alumni of the Massachusetts Institute of Technology to provide research and consulting on measuring economic performance, impacts and opportunities (Economic Development Research Group, “The Economic Impacts of High-Speed Rail on Cities and their Metropolitan Areas”, The United Conference of Mayors, 6/15/2010, http://www.usmayors.org/highspeedrail/documents/report.pdf)//AY

Third, HSR service can help expand visitor markets and generate additional spending. In all four cities, ridership increases are projected by implementing HSR service. A portion of the riders will be local residents traveling to outside locations. Another includes outsiders who already come to these cities via car or airplane but will shift to use of new high-speed rail. An additional portion represents new tourism, conference, and business trips to the case study cities. These travelers will generate spending at local hotels, restaurants, and retail stores. That new spending will grow over time. Projections show that by 2035, HSR can annually add roughly $255 million in the Orlando area; $360 million in the Los Angeles area; $50 million in the Chicago area; and more than $100 million in the greater Albany area.

### Multiple Reasons

#### HRS benefits the economy in multiple ways – expands job markets, boosts worker productivity, increases tourism

**Todorovich and Shned 11** (Petra, Dan September 27 Regional Plan Association <http://www.rpa.org/2011/09/spotlight-vol-10-no-15-high-speed-rail-can-work-here-despite-setbacks.html>)

We found that in more than a dozen countries across the globe, high-speed rail has created new capacity and balance in regional transportation systems by providing passengers with safe, efficient, and reliable ways to travel between urban population and employment centers. By increasing access to markets, high-speed rail services bring the cities within megaregions closer together, which boosts worker productivity, expands labor and job markets, and makes industries more specialized and competitive due to the agglomeration effects afforded by the "virtual proximity" provided by high-speed rail. High-speed rail also promotes urban regeneration, increases tourism and visitor spending, and operates with greater energy efficiency than other competing modes.

#### HSR key to economy—new jobs, increased tax base, develops renewables

 Bolts and Emy 12- (Nancy Nagle AND Louie, Fast Trains- America’s High Speed Future, )//SR

The impact of building and maintaining a high-speed rail system on the economic health of a nation cannot be understated. New jobs are created in a wide variety of industry sectors that include: Manufacturing Jobs to manufacture rolling stock (train equipment) and signaling systems, and concrete, steel, and other materials needed to lay track and build “high-speed bridges.” High Tech Jobs to design and manufacture aerodynamic bodies, the bogie (chassis), traction transformers, traction motors, traction control, brake systems, and train control networks. Real Estate Development Building high-speed rail stations attracts new users to the land surrounding those stations.  This expands the government tax base, offers new development and investment opportunities, increases economic development opportunities for businesses, and opens up housing markets.  This translates into Transit-Oriented Development around the transportation hub, including new residential units, thriving shops, dining and lodging establishments, and car rental and car sharing companies for travelers who still need a car for part of their trip. and Hospitality High-speed rail service extends the geographical range of travelers, thereby opening more cities and towns to leisure and business travelers. Construction The large number of electrical and mechanical lines, railroad tracks, embankments, high-speed bridges--underpasses and overpasses for dedicated high-speed rail lines to keep high-speed train traffic separated from car traffic--will generate more construction jobs. Energy Development of renewable energy technologies and energy sector jobs will be needed to power electrified high-speed rail. Economic Gains from Improved Safety The introduction of the Japanese Shinkansen high-speed rail system resulted in less automobile travel and therefore, fewer fatalities and injuries from motor vehicle accidents.  This translates into fewer healthcare and insurance costs and a reduction in costs associated with lost productivity. Economic Gains from Reduced Travel Time Studies from the Japanese Shinkansen high-speed rail system show that high-speed rail travel saves time.  If passengers spend less time traveling, they will enjoy more leisure time and have more time for other activities of their choice and more vacation options.  Business commutes are shortened so business and employment mobility increases.  This expands the area in which to operate and do business.  People are able to reach more business locations in less time, expanding employment opportunities. Impact on National Defense Disruptions in air transportation caused by events such as the 9/11 terrorist attacks and the 2010 volcanic eruption in Iceland demonstrate the vulnerability and fragility of air travel and the desirability of having additional land-based connections and travel alternatives for both civilian and military needs.  High-speed rail offers “modal redundancy” to automobile and air traffic. creating another transportation alternative to automobiles and airplanes, high-speed rail will relieve highway and air traffic congestion by taking city-to-city travelers off the interstate highways and commuter airline flights.  Travel congestion contributes to increased costs for products produced in the United States.  As noted by Cox and Love (1996): “If traffic congestion is permitted to worsen, then American consumers will pay a heavy toll, in higher prices due to higher shipping costs, jobs lost due to foreign competition, reduced employment opportunities, and less leisure time.”  Conversely, reducing congestion should help contain costs and lower prices, resulting in more competitive products.

#### HSR expands the economy across a large area

HSRA 12 ( US High Speed Rail Association, “High speed rail delivers many layers of economic benefits”, <http://www.ushsr.com/benefits/economic.html>, 2012, HLR)

High speed rail delivers fast, efficient transportation so riders can save time, energy, and money. HSR is extremely reliable and operates in all weather conditions. HSR is not subject to congestion, so it operates on schedule every day without delay - especially during rush hour and peak travel times. HSR spurs the revitalization of cities by encouraging high density, mixed-use real estate development around the stations. HSR also fosters economic development in second-tier cities along train routes. HSR links cities together into integrated regions that can then function as a single stronger economy. HSR broadens labor markets and offers workers a wider network of employers to choose from. HSR encourages and enables the development of technology clusters with fast easy access between locations. HSR also expands visitor markets and tourism while increasing visitor spending. The many benefits HSR delivers spread throughout regions that have HSR, encouraging economic development across a large area.

### U.S. Economy Key

#### U.S. economy key to world economy – recent spillovers prove

Kohn6/26/08 (Donald L., PhD – Econ “Global Economic Integration and Decoupling” http://www.federalreserve.gov/newsevents/speech/kohn20080626a.htm) MFR

Global Integration through Trade and Finance Undoubtedly, economies have become more integrated in recent decades. For example, U.S. imports of goods and services have risen relative to the U.S. gross domestic product (GDP), from 10 percent in the second half of the 1980s to nearly 18 percent today. U.S. trade with other industrialized countries has more than doubled over this same period. Industrialized country trade with emerging market economies has experienced a far more dramatic increase.2 These increases in trade are the natural result of various forces. Transport costs have been a big factor. Air shipping costs have declined over time, although some of this has been eroded recently with greater security costs and the rise in fuel prices. Costs of ocean shipping have come down, due to containerization, bulk shipping, and other efficiencies.3 Policy-induced barriers, such as tariffs and other means of restraining international trade, also have declined, with progress especially marked in developing Asia and in Eastern Europe after the breakup of the Soviet Union. Additionally, information about production opportunities in foreign countries has become easier to attain, promoted in part by immigrants and multinational companies facilitating networking and by the enhanced availability of information through the Internet. These developments have led to expanded trade in traditional manufactured goods, but also have led to an expanded breadth of types of traded goods and especially services. As a consequence of these developments, internationally integrated production has risen. From the U.S. perspective, this rise has primarily occurred through growth in the import share of intermediate inputs used across all private industries. In the last decade alone, the imported input share rose from around 8-1/4 percent in 1997 to 10-1/2 percent by 2006. The international movement of workers leads to macroeconomic consequences, particularly for smaller developing countries. In 2007, an estimated $240 billion in remittances went to developing countries, more than double the flow in 2001. These remittances represent a significant source of developing country income and broaden the scope for cyclical spillovers.4 Another area of impressive growth in international linkages has been in financial services. We've seen increased cross-listings of stocks and more cross-border ownership and control of exchanges, banks, and securities settlement systems. Outside of the United States, in 1997, 15 percent of the assets in private equity portfolios were in foreign equities. A decade later, this share has risen to 24 percent. For U.S. investors, the comparable shares grew from 9 percent of total equity portfolios to 19 percent. Bond portfolios have also become more international, especially for foreign investors. While financial integration has occurred globally, this growth has been uneven. Integration among industrialized countries, measured by the ratio of the sum of their foreign assets and liabilities to GDP, has tripled since 1990, while an analogous measure for emerging and developing economies has increased only about 50 percent.5 One result of this financial integration is that the financial channels are growing in importance in the transmission of shocks between economies.6 The extent of this integration has become painfully evident to investors and financial institutions during the current episode of financial turmoil, with the collapse of the subprime mortgage market in the United Statesspreading losses and funding pressures to many corners of the globe. Recent analysis of the size and sources of spillovers between the United States, the euro area, Japan, and other industrial countries finds a central role for international trade. But spillovers also occur through commodity prices and through financial variables such as short- and long-term interest rates and equity prices.7 For example, when liquidity conditions tighten in one country, globally active banks may attempt to pull liquidity from overseas affiliates, reducing the liquidity consequences at home but simultaneously transmitting the shock abroad.8 What is particularly interesting is that in some cases, financial linkages might now be more important for transmission than the traditional trade linkages.

#### U.S. is still the world’s largest economy and importer – spillovers are important, especially during market stress

Helbling et al 2007 (\*Thomas, advisor in the IMF's Research Department where he focuses on commodity market prospects \*Peter Berezin, Ph. D in Economics from the University of Toronto, a Master of Science (Economics) from the London School of Economics and a Bachelor of Arts (Economics) from McMaster University. He has extensive experience in analyzing global economic and financial market trends \*Ayhan Kose Ph.D. in Economics, H. B. Tippie College of Business, University of Iowa. \*Michael Kumhof, PhD at Stanford in Econ \*Doug Laxton, the Head of the Economic Modeling Unit of the IMF's Research Department. \*Nikola Spatafora, Senior Economist in the Research Department, Development Macroeconomics Division, of the IMF “Decoupling the Train? Spillovers and Cycles in the Global Economy” <http://www.contexto.org/pdfs/FMIecdecouplingUS.pdf>) MFR

As a starting point, it is useful to establish some basic facts about the relative size of the U.S. economy and its linkages with other regions. • The United States remains by far the world’s largest economy (Table 4.1). When measured at PPP exchange rates, the U.S. economy accounts for about one-fifth of global GDP. In terms of market exchange rates, it accounts for slightly less than one-third of global GDP. These ratios have not changed much in the past three decades. • The United States is the largest importer in the global economy. It has been importing, on average, about one-fifth of all internationally traded goods since 1970. It is the second largest exporter after the euro area. • In line with the generally rapid growth in intraregional trade, the share of trade with the United States has greatly increased in the Western Hemisphere region, including in neighboring countries—Canada and Mexico— and some others in Central and South America (Figure 4.2). Compared with the euro area and Japan, the United States has seen a larger increase in trade with emerging market and other developing countries in general, not just with countries in the Western Hemisphere. Export exposure to the United States—the share of exports to the United States as a percent of GDP—has generally continued to increase, even for countries where the U.S. share of total exports has declined, as trade openness has increased everywhere (Table 4.2). Export exposure to the United States also tends to be larger than that to the euro area and Japan, except in neighboring regions. • Overall, U.S. financial markets have been and remain by far the largest, reflecting not only the size of the economy but also their depth. Changes in U.S. asset prices tend to have strong signaling effects worldwide, and spillovers from U.S. financial markets have been important, especially during periods of market stress. In particular, correlations across national stock markets are highest when the U.S. stock market is declining (Box 4.1). • Reflecting the size and depth of its financial markets, as well as its increasing net external liabilities, claims on the United States typically account for the lion’s share of extra-regional foreign portfolio assets of the rest of the world (Table 4.3). At the same time, the share of foreign portfolio liabilities held by U.S. investors typically also exceeds the holdings of investors elsewhere, except for the euro area, where intraregional holdings are more important. This illustrates the extent of important international financial linkages with U.S. markets.

### Democratization

#### Maintaining economic growth is key to promoting international democratization and stability

Delong 6 (J Bradfold Delong, Harvard Magazine, “Growth is Good,” <http://harvardmagazine.com/2006/01/growth-is-good.html>)

Benjamin M. Friedman ’66, Jf ’71, Ph.D. ’71, Maier professor of political economy, now fills in this gap: he makes a powerful argument that—politically and sociologically—modern society is a bicycle, with economic growth being the forward momentum that keeps the wheels spinning. As long as the wheels of a bicycle are spinning rapidly, it is a very stable vehicle indeed. But, he argues, when the wheels stop—even as the result of economic stagnation, rather than a downturn or a depression—political democracy, individual liberty, and social tolerance are then greatly at risk even in countries where the absolute level of material prosperity remains high. Consider just one of his examples—a calculation he picks up from his colleague Alberto Alesina, Ropes professor of political economy, and others: in an average country in the late twentieth century, real per capita income is falling by 1.4 percent in the year in which a military coup occurs; it is rising by 1.4 percent in the year in which there is a legitimate constitutional transfer of political power; and it is rising by 2.7 percent in the year in which no major transfer of political power takes place. If you want all kinds of non-economic good things, Friedman says—like openness of opportunity, tolerance, economic and social mobility, fairness, and democracy—rapid economic growth makes it much, much easier to get them; and economic stagnation makes getting and maintaining them nearly impossible. The book is a delight to read, probing relatively deeply into individual topics and yet managing to hurry along from discussions of political order in Africa to economic growth and the environment, to growth and equality, to the Enlightenment thinkers of eighteenth-century Europe, to the twentieth-century histories of the major European countries, to a host of other subjects. Yet each topic’s relationship to the central thesis of the book is clear: the subchapters show the virtuous circles (by which economic growth and sociopolitical progress and liberty reinforce each other) and the vicious circles (by which stagnation breeds violence and dictatorship) in action. Where growth is rapid, the movement toward democracy is easier and societies become freer and more tolerant. And societies that are free and more tolerant (albeit not necessarily democratic) find it easier to attain rapid economic growth. Friedman is not afraid to charge head-on at the major twentieth-century counterexample to his thesis: the Great Depression in the United States. Elsewhere in the world, that catastrophe offers no challenge to his point of view. Rising unemployment and declining incomes in Japan in the 1930s certainly played a role in the assassinations and silent coups by which that country went from a functioning constitutional monarchy with representative institutions in 1930 to a fascist military dictatorship in 1940—a dictatorship that, tied down in a quagmire of a land war in Asia as a result of its attack on China, thought it was a good idea to attack, and thus add to its enemies, the two superpowers of Britain and the United States. In western Europe the calculus is equally simple: no Great Depression, no Hitler. The saddest book on my shelf is a 1928 volume called Republican Germany: An Economic and Political Survey, the thesis of which is that after a decade of post-World War I political turmoil, Germany had finally become a stable, legitimate, democratic republic. And only the fact that the Great Depression came and offered Hitler his opportunity made it wrong.

## Impacts

#### Multiple reasons economic decline leads to war

**Strauss-Kahn 9** (Dominique, Manging Director of the IMF, International Monetary Fund, http://www.imf.org/external/np/speeches/2009/102309.htm)JFS

Let me stress that the crisis is by no means over, and many risks remain**.** Economic activity is still dependent on policy support, and a premature withdrawal of this support could kill the recovery. And even as growth recovers, it will take some time for jobs to follow suit. This economic instability will continue to threaten social stability. The stakes are particularly high in the low-income countries. Our colleagues at the United Nations and World Bank think that up to 90 million people might be pushed into extreme poverty as a result of this crisis**.** In many areas of the world, what is at stake is not only higher unemployment or lower purchasing power, but life and death itself. Economic marginalization and destitution could lead to social unrest, political instability, a breakdown of democracy, or war. In a sense, our collective efforts to fight the crisis cannot be separated from our efforts guard social stability and to secure peace**.** This is particularly important in low-income countries.War might justifiably be called “development in reverse”. War leads to death, disability, disease, and displacement of population. War increases poverty. War reduces growth potential by destroying infrastructure as well as financial and human capital. War diverts resources toward violence, rent-seeking, and corruption. War weakens institutions. War in one country harms neighboring countries, including through an influx of refugees. Most wars since the 1970s have been wars within states. It is hard to estimate the true cost of a civil war**.** Recent research suggests that one year of conflict can knock 2-2½ percentage points off a country’s growth rate. And since the average civil war lasts 7 years, that means an economy that is 15 percent smaller than it would have been with peace. Of course, no cost can be put on the loss of life or the great human suffering that always accompanies war. The causality also runs the other way. Just as wars devastate the economy, a weak economy makes a country more prone to war**.** The evidence is quite clear on this point—low income or slow economic growth increases the risk of a country falling into civil conflict. Poverty and economic stagnation lead people to become marginalized, without a stake in the productive economy. With little hope of employment or a decent standard of living, they might turn instead to violent activities. Dependence on natural resources is also a risk factor—competition for control over these resources can trigger conflict and income from natural resources can finance war. And so we can see a vicious circle—war makes economic conditions and prospects worse, and weakens institutions, and this in turn increases the likelihood of war**.** Once a war has started, it’s hard to stop. And even if it stops, it’s easy to slip back into conflict. During the first decade after a war, there is a 50 percent chance of returning to violence, partly because of weakened institutions.

#### Economic decline leads to global nuclear war and failed states

**Green and Schrage 9** – Senior Advisor and Japan Chair @ CSIS and Associate Professor @ Georgetown University AND CSIS School Chair in International Business and Former Senior Official with the US Trade Representative’s Office (Michael J. and Steven P., “It’s not just the economy,” State Department and Ways & Means Committee, Asia Times, 3/26, <http://www.atimes.com/atimes/asian_economy/kc26dk01.html>)

Facing the worst economic crisis since the Great Depression, analysts at the World Bank and the US Central Intelligence Agency are just beginning to contemplate the ramifications for international stability if there is not a recovery in the next year. For the most part, the focus has been on fragile states such as some in Eastern Europe. However, the Great Depression taught us that a downward global economic spiral can even have jarring impacts on great powers. It is no mere coincidence that the last great global economic downturn was followed by the most destructive war in human history. In the 1930s, economic desperation helped fuel autocratic regimes and protectionism in a downward economic-security death spiralthat engulfed the world in conflict**.** This spiral was aided by the preoccupation of the United States and other leading nations with economic troubles at home and insufficient attention to working with other powers to maintain stability abroad. Today's challenges are different, yet 1933's London Economic Conference, which failed to stop the drift toward deeper depression and world war, should be a cautionary tale for leaders heading to next month's London Group of 20 (G-20) meeting. There is no questionthe US must urgently act to address banking issues and to restart its economy. But the lessons of the past suggest that we will also have to keep an eye on those fragile threads in the international system that could begin to unravel if the financial crisis is not reversed early in the Barack Obama administration and realize that economics and security are intertwined in most of the critical challenges we face. A disillusioned rising power? Four areas in Asia merit particular attention, although so far the current financial crisis has not changed Asia's fundamental strategic picture. China is not replacing the US as regional hegemon, since the leadership in Beijing is too nervous about the political implications of the financial crisis at home to actually play a leading role in solving it internationally. Predictions that the US will be brought to its knees because China is the leading holder of US debt often miss key points. China's currency controls and full employment/export-oriented growth strategy give Beijing few choices other than buying US Treasury bills or harming its own economy. Rather than creating new rules or institutions in international finance, or reorienting the Chinese economy to generate greater long-term consumer demand at home, Chinese leaders are desperately clinging to the status quo (though Beijing deserves credit for short-term efforts to stimulate economic growth). The greater danger with China is not an eclipsing of US leadership, but instead the kind of shift in strategic orientation that happened to Japan after the Great Depression. Japan was arguably not a revisionist power before 1932 and sought instead to converge with the global economy through open trade and adoption of the gold standard. The worldwide depression and protectionism of the 1930s devastated the newly exposed Japanese economy and contributed directly to militaristic and autarkic policies in Asia as the Japanese people reacted against what counted for globalization at the time. China today is similarly converging with the global economy, and many experts believe China needs at least 8% annual growth to sustain social stability. Realistic growth predictions for 2009 are closer to 5%. Veteran China hands were watching closely when millions of migrant workers returned to work after the Lunar New Year holiday last month to find factories closed and jobs gone. There were pockets of protests, but nationwide unrest seems unlikely this year, and Chinese leaders are working around the clock to ensure that it does not happen next year either. However, the economic slowdown has only just begun and nobody is certain how it will impact the social contract in China between the ruling communist party and the 1.3 billion Chinese who have come to see President Hu Jintao's call for "harmonious society" as inextricably linked to his promise of "peaceful development". If the Japanese example is any precedent, a sustained economic slowdown has the potential to open a dangerous path from economic nationalism to strategic revisionism in China too. Dangerous states It is noteworthy that North Korea, Myanmar and Iran have all intensified their defiance in the wake of the financial crisis, which has distracted the world's leading nations, limited their moral authority and sown potential discord. With Beijing worried about the potential impact of North Korean belligerence or instability on Chinese internal stability, and leaders in Japan and South Korea under siege in parliament because of the collapse of their stock markets, leaders in the North Korean capital of Pyongyang have grown increasingly boisterous about their country's claims to great power status as a nuclear weapons state. The junta in Myanmar has chosen this moment to arrest hundreds of political dissidents and thumb its nose at fellow members of the 10-country Association of Southeast Asian Nations. Iran continues its nuclear program while exploiting differences between the US, UK and France (or the P-3 group) and China and Russia - differences that could become more pronounced if economic friction with Beijing or Russia crowds out cooperation or if Western European governments grow nervous about sanctions as a tool of policy. It is possible that the economic downturn will make these dangerous states more pliable because of falling fuel prices (Iran) and greater need for foreign aid (North Korea and Myanmar), but that may depend on the extent that authoritarian leaders care about the well-being of their people or face internal political pressures linked to the economy. So far, there is little evidence to suggest either and much evidence to suggest these dangerous states see an opportunity to advance their asymmetrical advantages against the international system. Challenges to the democratic model The trend in East Asia has been for developing economies to steadily embrace democracy and the rule of law in order to sustain their national success. But to thrive, new democracies also have to deliver basic economic growth. The economic crisis has hit democracies hard, with Japanese Prime Minister Aso Taro's approval collapsing to single digits in the polls and South Korea's Lee Myung-bak and Taiwan's Ma Ying Jeou doing only a little better (and the collapse in Taiwan's exports - particularly to China - is sure to undermine Ma's argument that a more accommodating stance toward Beijing will bring economic benefits to Taiwan). Thailand's new coalition government has an uncertain future after two years of post-coup drift and now economic crisis. The string of old and new democracies in East Asia has helped to anchor US relations with China and to maintain what former secretary of state Condoleezza Rice once called a "balance of power that favors freedom". A reversal of the democratic expansion of the past two decades would not only impact the global balance of power but alsoincrease the potentialnumber of failed states, with all the attendant risk they bring from harboring terrorists to incubating pandemic diseases and trafficking in persons. It would also undermine the demonstration effect of liberal norms we are urging China to embrace at home. Protectionism The collapse of financial markets in 1929 was compounded by protectionist measures such as the Smoot-Hawley tariff act in 1932. Suddenly, the economic collapse became a zero-sum race for autarkic trading blocs that became a key cause of war. Today, the globalization of finance, services and manufacturing networks and the World Trade Organization (WTO) make such a rapid move to trading blocs unlikely. However, protectionism could still unravel the international system through other guises. Already, new spending packages around the world are providing support for certain industries that might be perceived by foreign competitors as unfair trade measures, potentially creating a "Smoot-Hawley 2.0" stimulus effect as governments race to prop up industries. "Buy American" conditionality in the US economic stimulus package earlier this year was watered down somewhat by the Obama administration, but it set a tempting precedent for other countries to put up barriers to close markets. Nations pushing the bounds of their trade commitments could overload the circuits of a system that can take two years to determine violations - more than enough time for a global meltdown. Climate change legislation is also likely to become a stalking horse for protectionism as legislatures enthusiastically embrace punitive tariffs against Chinese or Indian goods that are produced outside of the framework for reducing greenhouse gas emissions. Finally, competitive devaluation - already being pursued by China in the view of some economists - could intensify international protectionism and friction. Global trade has already contracted for the first time in over two decades and governments have only just begun exploring unilateral measures that could cause further barriers. Meanwhile, trade liberalization has stalled in the Doha Round of the WTO and the Obama administration has come into office expressing strong reservations about major bilateral free trade agreements already negotiated with allies like South Korea and Columbia. Even if the clarion call of protectionism does not lead to the kind of autarkic blocs that contributed to war in the 1930s, it could still distract governments from collaboration on common threats and slow the prospects for more rapid recovery. Don't worry, but be smart These danger signs do not mean that the worst case scenarios are likely to happen even if the economic crisis extends beyond 2009, buthistory and contemporary trends both suggest that they could happen if we are not careful. Fortunately, we can learn from past failings. We know that it is important to fight protectionism, and the US and its key allies can lead in that effort at home and through the WTO, APEC [Asia-Pacific Economic Cooperation grouping of nations], the Group of Seven [leading industrialized nations] and [the broader] the G-20, or through other new or strengthened alliances that might be built between committed partners. We know that offensive trade liberalization through renewed efforts at the WTO or with the South Korea-US Free Trade Agreement would be the best defense of all against protectionism. We know that it is important to provide economic assistance to fragile states like Pakistan and through the World Bank and International Monetary Fund even amidst our own financial crises. We know that it would be foolhardy to slash defense spending or to replace deterrence and strong alliances with weak diplomatic arrangements as we did in the 1920s and 1930s. And we know that we need a global strategy for revitalizing economic growth and recognizing its interconnections to security rather than seeking relative gains through unilateral approaches.

# \*\*\*Oil\*\*\*

## Internal Links

### Economy

#### Rising oil prices threaten to derail economic recovery – oil affects every sector of the economy

WSJ, 2/16 (2/16/12, "Oil Rise Imperils Budding Recovery", <http://online.wsj.com/article/SB10001424052970204792404577224932060341956.html?mod=WSJ_hp_LEFTWhatsNewsCollection)//MP>

Rising oil prices are emerging once again as a threat to the U.S. economic recovery just as it appears to be gaining momentum. Oil prices have climbed sharply in recent weeks as mounting tension with Iran has raised the threat of a disruption in global supplies. On Wednesday, oil futures on the New York Mercantile Exchange rose $1.06 to $101.80 a barrel on reports that Iran had cut off sales to six European countries in response to the European Union's newly stepped-up sanctions. Iran's oil ministry later denied the report. Pricier oil comes at a delicate time. The job market has begun showing signs of life, and other economic indicators are pointing toward stronger growth. But the recovery remains too halting to easily absorb the shock of sharply costlier oil. An oil spike would also complicate the job of the Federal Reserve. The central bank would have to balance any calls for more Fed action to stimulate the economy against rising inflation fears**.** Minutes of the Fed's last policy-setting meeting in January, released Wednesday, showed the central bank divided over whether to launch a new bond-buying program to support economic growth--but the bank kept the option open. In the past, the Fed has been willing to look past temporary spikes in inflation, but it isn't clear it would be willing to do so again. Higher crude prices are likely to translate into higher prices at the gas pump, where drivers already are paying more to fill up. The average price of a gallon of regular gasoline has jumped 13.1 cents to $3.518 in the past month, according to auto club AAA. Some parts of the country have seen even bigger increases, with prices approaching $4 a gallon in parts of California. Financial markets fell Wednesday as rising oil prices and new uncertainty about the latest Greek bailout rattled investors. The Dow Jones**Industrial Average**suffered its biggest drop of the new year, falling 97.33 points, or 0.8%, to 12780.95. Other major U.S. indexes also fell. Oil prices affect virtually every aspect of the U.S. economy. Higher prices at the pump force consumers to cut back spending on discretionary items like restaurant meals, haircuts and family vacations, hurting those industries. Manufacturers face lower profit margins as they pay more to get their products to market and face higher costs for plastics and other petroleum-based materials. A prolonged increase can drive up inflation and drive down hiring. "It has the power to derail an economic recovery that's not looking very strong already," said Paul Dales, an economist for research firm Capital Economics.

#### Trying to maintain oil-based transport systems leads to a vicious cycle of high oil prices, recession, and modest recovery

**MK: Gilbert,**; **Perl**, **2010** (Richard Anthony. Transport Revolutions : Moving People and Freight Without Oil. New York, NY, USA: New Society Publishers,. p 239. <http://site.ebrary.com/lib/umich/Doc?id=10397417&ppg=239> Copyright © 2010. New Society Publishers. All rights reserved.)

Even before the dramatic events of 2008, noted in Chapter 3 and analyzed further in Chapter 6, there was a growing preoccupation with economic decline and societal collapse.1 This is an outcome of limits to the supply of oil that we strive to transcend. We also want to avoid the challenges of trying to sustain oil-based transport systems in an era of what we described in Chapter 4 as oil depletion, i.e., falling oil production. This effort could well result in a vicious cycle of high oil prices, economic recession, lower oil prices, modest economic recovery, and high oil prices again. In Chapter 6 we will suggest that such a cycle is what began in late 2007 and could well continue beyond 2009.

### Jobs

#### Reducing dependence on foreign oil creates 4.5 jobs per each million dollars saved

**Litman 9**, executive director of the Victoria Transport Policy Institute, (Todd, “ Smart Transportation Economic Stimulation: Infrastructure Investments That Support Economic Development”, Victoria Transport Policy Institute Journal, April 21, 2009, http://www.vtpi.org/econ\_stim.pdf)//AG

Americans consume about twice as much transportation energy per capita as peer countries due to differences in transportation policies, including planning practices and fuel prices. Dependency on imported petroleum is economically harmful. A US Department of Energy study estimated that excessive dependence on imported petroleum cost the U.S. economy $150-$250 billion in 2005, at a time when oil averaged $35-$45/bbl (Greene and Sanjana Ahmad, 2005). A U.S. Department of Energy study estimates the external costs of imported oil (described as "a measure of the quantifiable per-barrel economic costs that the U.S. could avoid by a small-to-moderate reduction in oil imports") to be $13.60 per barrel, with a range of $6.70 to $23.25 (Leiby, 2007). These estimates omit military costs. These costs are expected to increase in the future as international oil prices rise and as U.S. oil production declines. For this study we commissioned special analysis using the IMPLAN model, based on 2006 U.S. economic conditions (Lindall and Olson, 2005). Table 8 summarizes results. This indicates that in 2006, each million dollars shifted from fuel expenditures to a typical bundle of consumer goods adds 4.5 jobs to the U.S. economy (17.3-12.8), and each million shifted from general motor vehicle expenditures (purchase of vehicles, servicing, insurance, etc.) adds about 3.6 jobs (17.3-13.7).

### Hegemony

#### Reducing oil dependence would be the single greatest multiplier of U.S. power in the world

**Zakaria 5**, host of CNN’s flagship international affairs program—Fareed Zakaria GPS, Editor at Large of TIME, a Washington Post columnist, and a New York Times bestselling author, (Fareed, “ Mile by Mile, Into the Oil Trap”, The Washington Post, August 23, 2005, http://www.washingtonpost.com/wp-dyn/content/article/2005/08/22/AR2005082201114.html)//AG

If I could change one thing about American foreign policy, what would it be? The answer is easy, but it's not something most of us think of as foreign policy. I would adopt a serious national program geared toward energy efficiency and independence. Reducing our dependence on oil would be the single greatest multiplier of American power in the world. I leave it to economists to sort out what expensive oil does to America's growth and inflation prospects. What is less often noticed is how crippling this situation is for American foreign policy. "Everything we're trying to do in the world is made much more difficult in the current environment of rising oil prices," says Michael Mandelbaum, author of "The Ideas That Conquered the World." Consider: · Terror ism . Over the past three decades, Islamic extremism and violence have been funded from two countries, Saudi Arabia and Iran, not coincidentally the world's first- and second-largest oil exporters. Both countries are now awash in money, and no matter what the controls, some of this cash is surely getting to unsavory groups and individuals. · Democracy. The centerpiece of President Bush's foreign policy -- encouraging democracy in the Middle East -- could easily lose steam in a world of high-priced oil. Governments reform when they have to. But many Middle Eastern governments are likely to have easy access to huge surpluses for years, making it easier for them to avoid change. Saudi Arabia will probably have a budget surplus of more than $26 billion this year because the price of oil is so much higher than anticipated. That means it can keep the old ways going, bribing the Wahhabi imams, funding the army and National Guard, spending freely on patronage programs. (And that would still leave plenty to fund dozens of new palaces and yachts.) Ditto for other corrupt, quasi-feudal oil states.

## Solvency

### Oil Dependency

#### HSR is the ideal medium to facilitate a shift away from oil and will reduce oil-based transportation by 40%

**Perl**, Director Urban Studies Program, Simon Fraser University,’**10** (Anthony, June 10, Council on Foreign Relations, “Expert Roundup: Reducing U.S. Oil Consumption,”<http://www.cfr.org/energyenvironment/reducing-us-oil-consumption/p22413>)//sp

High-speed trains have revolutionized the way that people move between cities hundreds of miles apart. These trains are powered by electricity--the ideal medium to facilitate a transition away from oil because it can blend energy sources and thus shift from non-renewable carbon based fuels like coal and natural gas to renewable sources like solar, wind, and water as soon as the infrastructure to generate them can be built. These trains are powered by electricity--the ideal medium to facilitate a transition away from oil because it can blend energy sources, and thus shift from non-renewable carbon-based fuels. In "Transport Revolutions," Richard Gilbert and I illustrated one scenario whereby the United States could reduce oil-powered transportation by 40 percent between 2010 and 2025 while obtaining roughly the same levels of ton-miles in freight transportation and passenger-miles in local and intercity travel. Around half of today's car travel would shift to electric propulsion, mostly aboard local buses and trains, while about one-third of domestic flying would be substituted by electric trains, mostly running at 125 miles per hour or faster. Electric cars also would play a modest, but growing role in providing local mobility. Similar shifts would occur in freight transportation.

#### HRS solves congestion and oil dependency

**Rosenthal 11** (John December 11 Bloomberg news <http://www.bloomberg.com/news/2011-12-19/riding-high-speed-rail-to-a-u-s-recovery-john-rosenthal.html>)

Investment in rail is a step toward energy independence. Transportation accounts for almost three-quarters of U.S. oil consumption. Shifting millions of passenger trips from cars and airplanes to electric-powered trains each year wouldn’t just relieve airport and highway congestion; it would also reduce the amount of oil we need to import from the Middle East. And because trains use a third less energy per passenger mile than cars do, they’re far less damaging to the environment. The weak economy only increases the urgency. Interest rates are at historic lows, real estate values remain depressed, private sector spending is stagnant, and unemployment is stuck around 9 percent. There could hardly be a better time to borrow billions of dollars to buy up land for train rights-of-way and to create high-paying jobs in engineering, manufacturing and construction.

### Peak Oil

#### HSR drastically lowers our oil dependency and our risk from the coming peak oil crisis

**USHSR NO DATE** (The US High Speed Rail Association is the leading company in the study of HSR. “Numerous benefits with train systems” http://www.ushsr.com/benefits.html)

Faster, more efficient mobility, enormous energy savings, reduced environmental damage - a train system solves many problems: Creates millions of green jobs nationwide building the new rail infrastructure and manufacturing the rail cars Pays for itself by significantly reducing our $700 billion a year oil purchase trade deficit Offers a convenient, comfortable way to travel without hassles or delays Congestion Relief - delivers new mobility while relieving congestion on highways and runways A major step toward solving global warming by reducing our oil consumption and emissions Drastically reduces our oil addiction and lowers our risk from the coming peak oil crisis Lowers our dependence on costly military operations securing oil flow around the world Lowers our national security risk, and ends wars for oil Freedom from oil - Powered by clean electricity from renewable energy sources: wind, solar, geothermal, ocean/tidal Safe, affordable, green transportation for everyone Saves lives (43,000 Americans die each year in car accidents) Provides efficient mobility that moves people and goods without delay and waste.

#### HSR is the single most powerful thing the U.S. can do to shift away from oil before prices inevitably rise and resource wars escalate

**USHSR, 12** – United States High Speed Rail, created of HSR (“Rail - The Solution to Rising Gas Prices”, 2012, [http://www.ushsr.com/benefits/energysecurity.html)//MP](http://www.ushsr.com/benefits/energysecurity.html%29//MP)

Building an electrically-powered national high speed rail network across America is the single most powerful thing we can do to get the nation off oil and into a secure, sustainable form of mobility. A national network of high speed trains can be powered by a combination of renewable energy sources including wind, solar, geothermal, and ocean/tidal energy. America's dependency on oil is the most severe in the world, and inevitably pulls us into costly resource wars. It also pushes us into exploring for oil in extreme locations such as 10,000 feet deep below the Gulf of Mexico. We use 25% of the entire world's oil supply, yet we only have 5% of the world's population. We use 8-10 times more oil per person per day than Europeans, and they have faster, easier and better mobility than we do. The extremely high daily oil consumption of Americans is not due to a higher standard of living, but because of the extremely inefficient nature of our national transportation system – based on individual vehicles powered by internal combustion engines, combined with our sprawling community designs that force people into cars for every trip. As the world oil supply begins to peak and then irreversibly declines, prices will rise faster, and the situation will get far worse for America if we don't quickly reduce our national oil dependency. This dependency cuts across our entire society and affects our daily survival. Oil provides 95% of the energy to grow, process and deliver food to the nation. Our entire national transportation system is powered mostly by oil. Numerous daily products we use are made from oil. We use 20 million barrels of oil every day - just in America - 70% of it for transportation. Of the 20 million barrels we consume, we import 2/3 of this oil (13 million barrels per day) from foreign sources, many in unstable places. No combination of drilling off our coasts, hydrogen fuel cells, natural gas, biofuels, and used French fry oil will solve this and carry 300 million Americans into the future. None of these fuels can be scaled up to anywhere near the amount of liquid fuel we use daily in any practical, economical, or sustainable way.

## Impacts

#### Oil dependence escalates multiple flashpoints globally

Mark Rosen (Deputy General Counsel at the Center for Naval Analyses & Professor of Homeland Security Law and Policy at George Washington University) 2010 “Energy Independence and Climate Change: The Economic and National Security Consequences of Failing to Act” University of Richmond Law Review, Lexis

There is a growing consensus in U.S. national security circles that American dependence on imported oil constitutes a threat to the United States because a substantial portion of those oil reserves are controlled by governments that have historically pursued policies inimical to U.S. interests. For example, Venezuela, which represents eleven percent of U.S. oil imports, "regularly espouses anti-American and anti-Western rhetoric both at home and abroad ... [and] ... promotes ... [an] anti-U.S. influence in parts of Latin and South America ..." 72 that retards the growth of friendly political and economic ties among the United States, Venezuela, and a few other states in Latin and South America. This scenario plays out in many different regions. Russia, for example, has used its oil leverage to exert extreme political pressure upon Ukraine and Belarus. 73 Longstanding Western commercial relations with repressive regimes in the Middle East - i.e., Iran, Sudan, and Saudi Arabia - raise similar issues because of the mixed strategic messages that are being sent. Of course, large wealth [\*989] transfers have allowed the Taliban in Saudi Arabia to bankroll terrorism. 74 A. Chokepoints and Flashpoints For the foreseeable future, the U.S. military will most likely be involved in protecting access to oil supplies - including the political independence of oil producers - and the global movements of using oil to help sustain the smooth functioning of the world economy. The security challenges associated with preserving access to oil are complicated by geographical "chokepoints," through which oil flows or is transported, but which are vulnerable to piracy or closure. 75 "Flashpoints" also exist as a result of political - and sometimes military - competition to secure commercial or sovereign access to oil in the face of disputed maritime and land claims that are associated with oil and gas deposits. Together, these challenges have necessitated that the United States and its allies maintain costly navies and air forces to protect sea lanes, ocean access, and maintain a presence to deter military competition in disputed regions. A selection of today's chokepoints and flashpoints follow. The Strait of Hormuz. This strait is the narrow waterway that allows access from the Indian Ocean into the Persian Gulf. Two-thirds of the world's oil is transported by ocean, and a very large percentage of that trade moves through Hormuz. The northern tip of Oman forms the southern shoreline of the strait. 76 Hormuz is protected by the constant transits of the U.S. Navy and its allies. Even though the strait has not been closed, the Persian Gulf has been the scene of extensive military conflict. 77 On September 22, 1980, Iraq invaded Iran, initiating an eight-year war between the two countries that featured the "War of the Tankers," in which 543 ships, including the USS Stark, were attacked, while the U.S. Navy provided escort services to protect tankers [\*990] that were transiting the Persian Gulf. 78 There have been past threats by Iran to militarily close the strait. 79 Additionally, there are ongoing territorial disputes between the United Arab Emirates and Iran over ownership of three islands that are located in approaches to the strait. 80 Closure of the strait would cause severe disruption in the movements of the world's oil supplies and, at a minimum, cause significant price increases and perhaps supply shortages in many regions for the duration of the closure. 81 During the War of the Tankers, oil prices increased from $ 13 per barrel to $ 31 a barrel due to supply disruptions and other "fear" factors. 82 Bab el-Mandeb. The strait separates Africa (Djibouti and Eritrea) and Asia (Yemen), and it connects the Red Sea to the Indian Ocean via the Gulf of Aden. The strait is an oil transit chokepoint since most of Europe's crude oil from the Middle East passes north through Bab el-Mandeb into the Mediterranean via the Suez Canal. 83 Closure of the strait due to terrorist activities or for political/military reasons, could keep tankers from the Persian Gulf from reaching the Suez Canal and Sumed Pipeline complex, diverting them around the southern tip of Africa (the Cape of Good Hope). 84 This would add greatly to transit time and cost, and would effectively tie-up spare tanker capacity. Closure of the Bab el-Mandeb would effectively block non-oil shipping from using the Suez Canal. 85 In October 2002 the French-flagged tanker Limburg was attacked off the coast of Yemen by terrorists. 86 During the [\*991] Yom Kippur War in 1973, Egypt closed the strait as a means of blockading the southern Israeli port of Eilat. 87 The Turkish Straits and Caspian Oil. The term "Turkish Straits" refers to the two narrow straits in northwestern Turkey, the Bosporus and the Dardanelles, which connect the Sea of Marmara with the Black Sea on one side and the Aegean arm of the Mediterranean Sea on the other. Turkey and Russia have been locked in a longstanding dispute over passage issues involving the Turkish Straits. 88 The 1936 Montreux Convention puts Turkey in charge of regulating traffic through the straits; 89 yet Turkey has been hard pressed to stop an onslaught of Russian, Ukrainian, and Cypriot tankers, which transport Caspian Sea oil to markets in Western Europe. 90 Because of the very heavy shipping traffic and very challenging geography, there have been many collisions and groundings in the past, creating terrible pollution incidents and death. 91 Thus far, none of these incidents have been attributed to state-on-state-conflict or terrorism; 92 however, the confined waterway is an especially attractive target because of the grave economic and environmental damage that would result from a well-timed and well-placed attack on a loaded tanker. The issues surrounding the straits are also a subset of larger problems associated with the exploitation of Caspian oil, including severe pollution of the Caspian Sea as a result of imprudent extraction techniques, as well as the ever-present potential for conflict among the various claimants to the Caspian's hydrocarbon resources due to an inability of the various Caspian littoral states to agree on their maritime boundaries - and their [\*992] legal areas in which to drill. 93 Any one of these problems could become a major flashpoint in the future. China vs. Japan. The Daiyu/Senkaku islands located in the East China Sea have become an increasingly contentious dispute because both claimants have, in the past, used modern military platforms to patrol the areas of their claims in which there are suspected oil and gas deposits in the seabed. 94 In September 2005, for example, China dispatched five warships to disputed waters surrounding its oil and gas platforms, which were spotted by a Japanese maritime patrol aircraft. 95 There have been other similar military-to-military encounters. 96 Given the fact that both countries have modern armed forces and are comparatively energy starved, it is not difficult to envision serious conflict erupting over these disputed areas. The Arctic Super Highway. Traditionalists would probably not include the Arctic as a security chokepoint. The oil connection is reasonably well known: "22 percent of the world's undiscovered energy reserves are projected to be in the region (including 13 percent of the world's petroleum and 30 percent of natural gas)." 97 However, given the very small margins that transporters earn transporting oil from point A to B, 98 shipping companies are always in search of shorter routes to transport oil to market. As the thawing of the Arctic Ocean continues as a result of climate change, 99 this may create new shipping routes that transporters of [\*993] oil and other goods will use to maximize their profits and minimize their transit times. As supplies of readily exploitable crude oil are reduced, the probability increases that some of this trade will result from exploitation activities in the land and littoral areas adjacent to the Arctic Sea. This development is concerning for a number of reasons: (1) the area is very remote and could provide a safe haven to pirates seeking to hijack cargoes; (2) the environmental sensitivity of the area, and the concomitant difficulty of mounting a cleanup effort, means that an oil spill in that marine environment will be much more persistent than an oil spill in temperate waters; 100 (3) the Arctic presents unique navigational difficulties due to the lack of good charts, navigational aids, and communications towers, as well as the impacts of extreme cold on the operational effectiveness of systems; 101 (4) the unsettled nature of claims by various countries, including the United States, to the seabed continental shelf resources in the littoral areas off their coastlines creates the potential for military competition and conflict over these claims. 102 The International Maritime Organization ("IMO") is now circulating draft guidelines for ships operating in Arctic areas to promote - but not require - ship hardening against an iceberg strike, better crew training, and environmental protection measures. 103 These guidelines are merely advisory and can only be implemented via the flag states. 104 Also, neither IMO nor any of the UN Law of the Sea Institutions have mandatory jurisdiction over any of the flashpoint issues relating [\*994] to competing continental shelf claims in the Arctic, 105 meaning that any disputes will remain unresolved for a long time. The above is only a selected list of potential flashpoints in which oil is the main culprit. Disputes between China and six other nations of the Spratly Islands, and other territories in the South China Sea, remain unresolved. 106 The Spratly Islands could become a flashpoint in the future, involving the United States or its allies, because of the proximity of those areas to the major sea routes to Japan and Korea. 107 The strategic straits of Malacca, Lombok, and Sunda in Southeast Asia are absolutely essential to the movement of raw materials to Japan, Korea, and China. 108 Because of Lombok's depth and strategic location, it is a major transit route for very large crude carriers that move between the Middle East and Asia. 109 Lombok is an undefended waterway that is only eighteen kilometers in width at its southern opening, making it an attractive chokepoint for hijacking or eco-terrorism in which the waters of the environmentally sensitive Indonesian archipelago would be held hostage. 110

#### Oil shocks ensure extinction.

Richard Heinberg, ’03 - core faculty member at New College of California, The Party’s Over: Oil, War and the Fate of Industrial Societies, 2003, p. 230

Today the average US citizen uses five times as much energy as the world average. Even citizens of nations that export oil – such as Venezuela and Iran – use only a small fraction of the energy US citizens use per capita. The Carter Doctrine, declared in 1980, made it plain that US military might would be applied to the project of dominating the world’s oil wealth: henceforth, any hostile effort to impede the flow of Persian Gulf oil would be regarded as an “assault on the vital interests of the United States” and would be “repelled by any means necessary, including military force.” In the past 60 years, the US military and intelligence services have grown to become bureaucracies of unrivaled scope, power, and durability. While the US has not declared war on any nation since 1945, it has nevertheless bombed or invaded a total of 19 countries and stationed troops, or engaged in direct or indirect military action, in dozens of others. During the Cold War, the US military apparatus grew exponentially, ostensibly in response to the threat posed by an archrival: the Soviet Union. But after the end of the Cold War the American military and intelligence establishments did not shrink in scale to any appreciable degree. Rather, their implicit agenda — the protection of global resource interests emerged as the semi-explicit justification for their continued existence. With resource hegemony came challenges from nations or sub-national groups opposing that hegemony. But the immensity of US military might ensured that such challenges would be overwhelmingly asymmetrical. US strategists labeled such challenges “terrorism” — a term with a definition malleable enough to be applicable to any threat from any potential enemy, foreign or domestic, while never referring to any violent action on the part of the US, its agents, or its allies. This policy puts the US on a collision course with the rest of the world. If all-out competition is pursued with the available weapons of awesome power, the result could be the destruction not just of industrial civilization, but of humanity and most of the biosphere.

## AT Countries Are Rational/No Escalation

#### Risk of escalation is high - Nationalism will promote fierce emotion and irrationality during energy wars and draw in major powers

Jim Cabral (teaches international relations and political science in the Social Science Department at Landmark College in Putney, Vt.) August 12, 2010 “Beyond BP: Michael Klare on US Energy Policy” http://www.valleyadvocate.com/article.cfm?aid=12165

The preoccupation of states with securing the reliability of energy through exploration and extraction might seem benign enough (leaving aside for a moment the weighty issues of diminishing and increasingly remote supplies). But understood as a matter of state security, energy procurement is inextricably bound up with military proliferation. Hence Klare's "new geopolitics of energy" is fraught with the potential for conflict, especially given the urgency that state leaders attach to finding new sources of energy. Energy competition among what Klare calls the "energy deficit" states typically involves arms-for-energy tradeoffs with their suppliers, the "energy surplus" states. In the case of oil, arms transfers to the governments of surplus states pave the way for the deficit states' NOCs (and any IOCs headquartered in their countries) both to exploit their hosts' oilfields and to search for new ones. For deficit states, the top priority accorded to "energy security" renders considerations of surplus states' integrity (Do they respect international norms? Do they allow their citizens to exercise civil liberties?) irrelevant, for the most part. Not surprisingly, the accelerating militarization of energy procurement increases the possibilities for armed international conflict. Klare explains how nationalism lends momentum to this process: "The long-term risk of escalation is growing even more potent because major energy importers and exporters regularly appeal to that most dangerous of emotions, nationalism, in making their claim over the management of energy flows. Nationalistic appeals, once they have gripped a populace, almost invariably promote fierce emotion and irrationality. Add to this fact that the leaders of most countries involved in the great energy race have come to view the struggle over hydrocarbon assets as a 'zero-sum' contest—one in which a gain for one country almost always represents a loss for others. A zero-sum mentality leads to a loss of flexibility in crisis situations, while the lens of nationalism turns the pursuit of energy assets into a sacred obligation of senior government officials." The "competitive arms transfers" that represent the militarization of energy procurement also have another disturbing upshot: strengthening and legitimizing repressive, corrupt foreign regimes. In the case of U.S. arms recipients, the list is long and growing. It includes long-time allies in the Persian Gulf region—most notably Saudi Arabia—whose anachronistic social policies effectively reduce women to the status of second-class citizens; corruptible African governments in Nigeria, Chad, and Angola, where—along with off-shore drilling sites along the continent's west coast—U.S.-based oil companies such as Exxon and Chevron currently operate; and more recent allies in the energy-rich Caspian Sea region, including those Klare refers to as the "autocratic regimes" of Kazakhstan, Kyrgyzstan and Uzbekistan. While the governments of the oil-rich Persian Gulf have long been wooed with energy deficit countries' military largess, the emergence of the Caspian Sea region's governments as coveted allies may come as a bit of a surprise to some. Klare soberly sketches out a "three-way struggle for geopolitical advantage" in the Caspian Sea basin, as the U.S., Russia (Caspian states having formerly been Soviet republics) and China funnel arms and other forms of military assistance into the region in competition for influence there. Again stressing the dangers of an escalation of conflict, Klare notes that "This three-way struggle...is militarizing the Caspian basin, inundating the region with advanced arms and an ever-growing corps of military advisers, instructors, technicians, and combat-support personnel. [It will] heighten traditional suspicions and rivalries that have long plagued the region. The Great Powers are not only adding tinder to possible future fires, but also increasing the risk that they will be caught in any conflagration

# \*\*\*Warming\*\*\*

## Internal Links

### Transportation Sector Key

#### Transportation sector is uniquely key to reducing warming

Jehanno 11 (Aurélie, works at Deutsche Bahn Environment Centre, for University of Chicago, High Speed and Sustainable Development Departments, “High Speed Rail & Sustainability”, November 2011, <http://uic.org/IMG/pdf/hsr_sustainability_main_study_final.pdf>, CJD)

4.1.1 Energy consumption and GHG emissions The reality of global warming is commonly admitted among the scientific community. The works of the International Panel on Climate Change (IPCC) are unequivocal on the question that climate change is happening and that human activities are largely responsible for it. Global warming is a consequence of the well-known Greenhouse Effect, and the non-natural part of it especially is caused mainly by carbon emissions due to human activity. Anthropogenic emissions have been growing continuously since the 19th century (see Figure 4). The IPCC predicts temperature rises of between 1° and 6° Centigrade from current levels by 2100, depending on the levels of future greenhouse gas (GHG) emissions. If the higher estimates are accurate, there could be catastrophic consequences, so decisive action is required. The Kyoto Protocol regulates five GHGs beside CO2: methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF6). International efforts are now focused on reducing GHG emissions from the activities of modern society to avoid unprecedented impacts from climate change. In March 2007, as part of a wide-ranging attempt to cut emissions, European heads of state agreed to set legally binding targets to reduce Europe-wide GHG emissions by 20% from 1990 levels by 2020 (increased to 30% with a strong global agreement), (EC, 2010) f . The European Commission has further stated that work must begin immediately on a longer-term target of a 50% cut in global emissions by 2050. In July 2008, the European Commission published its ‘Greening Transport’ package which included a series of proposals to make the transport sector more environmentally-friendly and to promote sustainable mobility. Yet the measures agreed so far are not sufficient to contain the negative environmental effects of transport growth. Furthermore, there is still no coherent ‘roadmap’ to reduce emissions from transport. Figure 5 shows total GHG emissions for the EU 27 countries, including international maritime and aviation “bunkers” g , projected on linear trajectory towards 80% and 95% reduction targets, alongside total transport emissions (including bunkers) assuming current trends continue. This shows that if the current growth in transport emissions continues, then even if all other sectors achieve a 100% reduction, targets for total emissions will be exceeded by transport alone by 2050. Transport has a key role to play within solutions to climate change as current transport structures are responsible for extreme pressures on energy resources and ecosystems through a high dependence on fossil fuels (80% of energy consumption is derived from fossil fuels). Producing 23% of all worldwide CO2 emissions, transport is the second largest source of man-made CO2, after energy production (see Figure 6). Among all sectors, the transport sector is the only one in which emissions are continuing to increase in spite of all the technological advances. Moreover, transport emissions, for instance in Europe, increased by 25% between 1990 and 2010. By contrast emissions from the industrial and energy sectors are falling. 9 Reducing transport emissions is therefore one of the most crucial steps in combating global warming and securing our future. In the interests of people and the environment, the rail sector strongly recommends that transport policies in the EU and elsewhere start to make more use of the energy efficiency of railways in order to progress towards the 2020 CO2 reduction targets Railways already offer the most energy efficient performance and are constantly improving in terms of energy use per passenger km (pkm).

### Fosters Green Energy

#### HSR will lead to investment in environmentally friendly technology and create hundreds of thousands of green collar jobs

**American Public Transportation Association, 2009** – non-profit organization which serves as an advocate for public transportation initiatives in the U.S. (“Getting it Done: Building High-Speed Passenger Rail in America”, 2009, www.apta.com/PassengerTransport/PublishingImages/APTAFinalBrochurerev.pdf // (AMG)

Building on the rail renaissance currently underway in America, the U.S. will advance new express high-speed corridors, develop existing and emerging regional high-speed corridor services, and upgrade reliability and service on conventional intercity and commuter rail services. This will yield immediate results and will put the nation on track for high-speed corridor development in the coming decades. Investing in environmentally friendly and energy- efficient high-speed rail will: • Create jobs and boost productivity through highly skilled jobs in the transportation industry, and revitalize domestic industries supplying transportation products and services. Upgrading freight and passenger operations on newly revitalized tracks, bridges and rights of way is spurring business productivity along all corridors. Employment growth in a domestic rail industry will be a key component of America’s economic future, providing hundreds of thousands of forward-looking, green collar jobs. • Reduce the nation’s dependency on foreign oil while keeping billions of dollars in the U.S. economy; decrease greenhouse gas emissions; help meet national and international climate change goals; and improve air quality. • Mitigate congestion, improve connectivity and provide travel choices. The U.S. population is expected to grow by 50 percent between 2000 and 2050. The population growth is creating mega-regions that will not prosper unless they can be freed from the stranglehold of highway and airport congestion. At the same time, rural and small urban communities will benefit from the increased transfer points and the feeder services connecting with new high-speed rail corridors.

#### HSR empirically foster uses cleaner forms like nuclear energy

Zaidi, 2007 – Writer on science, technology, and law (Kamaal R., “High Speed Rail Transit: Developing the Case for Alternative Transportation Schemes in the Context of Innovative and Sustainable Global Transportation Law and Policy”, 2007, works.bepress.com/context/kamaal\_ zaidi/article/1000/type/ native/viewcontent // (AMG)

Efforts at promoting high-speed rail transit also signal the importance of the environment. High-speed rail transit now represents an alternative to existing forms of transportation that have traditionally relied heavily upon fossil fuel technology. As many nations have found, the advantage of adopting high-speed rail transit is that its energy derives from cleaner forms of nuclear energy, and not from traditional fossil fuels. Environmental assessments are routinely conducted prior to establishing high-speed rail projects, mainly because of the need to protect local communities and wildlife from adverse effects. These environmental assessments supplement feasibility studies that are often reviewed by transportation authorities. So important are these environmental considerations that many jurisdictions around the world are enacting legislation with strict environmental compliance measures.

#### HSR will use electricity that uniquely relies on a range of renewables and low carbon sources

**Davies 9,**  Head of Strategic Policy for the Association of Train Operating Companies (ATOC) (Richard, “ Energy consumption and CO2 impacts of High Speed Rail: ATOC analysis for Greengauge 21”, The Association of Train Operating Companies, April 2009, [http://www.greengauge21.net/wp-content/uploads/Energy-Consumption-and-CO2-impacts.pdf)//AG](http://www.greengauge21.net/wp-content/uploads/Energy-Consumption-and-CO2-impacts.pdf%29//AG)

Firstly, high speed railways tend to be high capacity railways. A double-deck, double-unit TGV Duplex train, for example, offers 1090 seats in twenty vehicles compared to the 439 seats that the 9-cars of a Pendolino can offer (a significant capacity advantage that would remain even after most of these have been extended to 11 cars). 1 High speed railways have higher load factors than the average of the rail network (Eurostar has a 70% load factor). The trains used are also typically longer, so that the aerodynamic drag of the front end of the train (which is a significant energy cost at high speed) is spread over perhaps 16 to 18 carriages rather than the UK norm of 8 to 10 carriages. • Secondly, considerable effort is expended by train manufacturers in developing train designs that reduce drag. The futuristic designs of the latest Japanese Shinkansen trains, for example, are one of the key ways (along with light weight) that the Japanese have managed to reduce energy consumption per seat of successive generations of Shinkansen trains. The next generation of French TGV trains (the Automotrice a Grande Vitesse or AGV) will be single deck and are expected to reduce energy consumption by about 15% compared to existing TGV stock. • Thirdly, since high speed trains use electricity they have access to a wide range of possible low carbon sources. The decrease in the carbon content of electricity expected from widespread use of **renewables**, **nuclear and carbon capture and storage techniques to mitigate emissions** from fossil fuel sources, **will give high speed rail a particularly strong advantage** **over air** travel, where there is no straightforward way of decarbonising the fuel supply. • Fourthly, and more fundamentally, high speed rail will draw traffic from other modes, from both short haul aviation and road. A high speed rail network in the UK brings with it the prospect of a substantial reduction in domestic air travel, with air routes between London, Manchester, Newcastle and Edinburgh/Glasgow likely to be scaled back hugely**. Any increased rail carbon emissions from operating faster trains therefore needs to be set in the context of the emissions avoided through reduced air and road** travel and through the ability to use more carbon efficient modes to access rail terminals. The Green gauge work is evaluating this potential mode shift currently and we expect to carry out further work on the net carbon position of rail in the light of this. We also intend to carry out further work on the carbon impact of construction of a high speed line, which is part of the overall carbon picture although the indications we have are that this would not significantly alter the analysis presented here.

### Comparatively Lower Emissions

#### **HSR has a comparatively lower climate impact than all other transportation modes and is essential to mitigating the warming effect of transportation**

Jehanno 11 (Aurélie, works at Deutsche Bahn Environment Centre, for University of Chicago, High Speed and Sustainable Development Departments, “High Speed Rail & Sustainability”, November 2011, <http://uic.org/IMG/pdf/hsr_sustainability_main_study_final.pdf>, CJD)

Any human activity causes damage to the natural environment. Mobility is a particular contributor to this through local pollution, extensive use of resources, landscape intrusion, habitat fragmentation, wildlife mortality, pressure over biodiversity, noise generation etc. Given this, dealing with increasing travel demands and increasing needs for mobility, as well as accommodating protection of the physical environment, appears to be a tricky issue. HSR, nevertheless, has characteristics that make it an efficient, and effective, solution to mitigate the impact of transportation on the environment, and climate, and make it an essential part of sustainable mobility systems. In addition, transport energy-related CO2 emissions are predicted to increase by 1.7% a year from 2004 to 2030. The significant proportion of global emissions from transport indicates that the sector and HRS in particular can play a key role within the challenge of tackling climate change and sustainable development. 4.1 HSR has a lower impact on climate and environment than all other compatible transport modes To compare the overall environmental performance of HSR with other competitive transport modes, all environmental impacts must be considered. These are, mainly: energy consumption and the combustion of fossil fuels; air pollutant emissions and noise; and environmental damage like land use and resource depletion. These impacts occur during the construction, operation and maintenance of HSR. The following chapter focuses on the most significant, and on-going, phase, the operation of HSR, and shows how HSR brings solutions to global challenges.

#### HSR produces significantly less emissions than other largest forms of passenger transport

**Campos 9**, Chilean writer and professor of economics at Department of Applied Economic Analysis at the University of Las Palmas de Gran Canaria, (Javier, Some stylized facts about high-speedrail: A review of HSR experiences around the world , Transport Policy, Sciverse ScienceDirect, http://www.sciencedirect.com.proxy.lib.umich.edu /science/article/ pii/S0967070 X09000109)//AG

The key question with environmental costs is related to the comparison with other modes. As long as price is not equal to marginal social costs in other transport modes, the abstraction of traffic from air and road to rail increases efficiency if high-speed rail has lower external effects. With regard to pollution, the quantity of polluting gases generated to power a high-speed train for a given trip depends on the amount of energy consumed and the air pollution from the electricity plant generated to produce it. Due to the potentially high diversity of primary energy sources used in each country**,** it appears to be relatively complex to make comparisons about air pollution emissions by HSR**.** It is generallyacknowledged**,** however, that in comparison with competing alternatives, such as the private car or the airplane, HSR is a much less polluting transport mode. According to INFRAS/IWW (2000), the primary energy consumed by high-speed railways in liters of petrol per 100 passengers-km was 2.5 (whereas by car and plane are 6 and 7**,** respectively). Similarly, the amount of carbon dioxide emissions per 100 passengers-km was 17 tonnes in the case of airplanes and 14 tonnes for private cars, due to the use of derivatives of crude oil. For HSR, the figure was just 4 tonnes.21

## Impacts

#### Climate change poses an existential threat – only early and severe reductions in emissions can solve

Mazo 10 – PhD in Paleoclimatology from UCLA Jeffrey Mazo, Managing Editor, Survival and Research Fellow for Environmental Security and Science Policy at the International Institute for Strategic Studies in London, March, “Climate Conflict: How global warming threatens security and what to do about it,” p.122

The best estimates for global warming to the end of the century range from 2.5-4.~C above pre-industrial levels, depending on the scenario. Even in the best-case scenario, the low end of the likely range is 1.goC, and in the worst 'business as usual' projections, which actual emissions have been matching, the range of likely warming runs from 3.1--7.1°C. Even keeping emissions at constant 2000 levels (which have already been exceeded), global temperature would still be expected to reach 1.2°C (O'9""1.5°C)above pre-industrial levels by the end of the century." Without early and severe reductions in emissions, the effects of climate change in the second half of the twenty-first century are likely to be catastrophic for the stability and security of countries in the developing world - not to mention the associated human tragedy. Climate change could even undermine the strength and stability of emerging and advanced economies, beyond the knock-on effects on security of widespread state failure and collapse in developing countries.' And although they have been condemned as melodramatic and alarmist, many informed observers believe that unmitigated climate change beyond the end of the century could pose an existential threat to civilisation." What is certain is that there is no precedent in human experience for such rapid change or such climatic conditions, and even in the best case adaptation to these extremes would mean profound social, cultural and political changes.

#### Warming causes extinction – feedbacks lead to runaway warming

Brandenberg 99 (Dr. John, Physicist, Dead Mars, Dying Earth, p. 232-233)

The world goes on its merry way and fossil fuel use continues to power it. Rather than making painful or politically difficult choices such as inventing in fusion or enacting a rigorous plan of conserving, the industrial world chooses to muddle through the temperature climb. Let’s imagine that America and Europe are too worried about economic dislocation to change course. The ozone hole expands, driven by a monstrous synergy with global warming that puts more catalytic ice crystals into the stratosphere, but this affects the far north and south and not the major nations’ heartlands. The seas rise, the tropics roast but the media networks no longer cover it. The Amazon rainforest becomes the Amazon desert. Oxygen levels fall, but profits rise for those who can provide it in bottles. An equatorial high pressure zone forms, forcing drought in central Africa and Brazil, the Nile dries up and the monsoons fall. Then inevitably, at some unlucky point in time, a major unexpected event occurs—a major volcanic eruption, a sudden and dramatic shift in ocean circulation or a large asteroid impact (those who think freakish accidents do not occur have paid little attention to life on Mars), or a nuclear war that starts between Pakistan and India and escalates to involve China and Russia… Suddenly, the gradual climb in global temperatures goes on a mad excursion as the oceans warm and release large amounts of dissolved carbon dioxide from their lower depths into the atmosphere. Oxygen levels go down as oxygen replaces lost oceanic carbon dioxide. Asthma cases double and then double again. Now a third of the world fears breathing. As the oceans dump carbon dioxide, the greenhouse effect increases, which further warms the oceans, causing them to dump even more carbon. Because of the heat, plants die and burn in enormous fires which release more carbon dioxide, and the oceans evaporate, adding more water vapor to the greenhouse. Soon, we are in what is termed a runaway greenhouse effect, as happened to Venus eons ago. The last two surviving scientists inevitably argue, one telling the other, “See, I told you the missing sink was in the ocean!” Earth, as we know it, dies. After this Venusian excursion in temperatures, the oxygen disappears into the soil, the oceans evaporate and are lost and the dead Earth loses its ozone layer completely. Earth is too far from the Sun for it to be a second Venus for long. Its atmosphere is slowly lost – as is its water—because of the ultraviolet bombardment breaking up all the molecules apart from carbon dioxide. As the atmosphere becomes thin, the Earth becomes colder. For a short while temperatures are nearly normal, but the ultraviolet sears any life that tries to make a comeback. The carbon dioxide thins out to form a thin veneer with a few wispy clouds and dust devils. Earth becomes the second Mars – red, desolate, with perhaps a few hardy microbes surviving.

#### Warming exacerbates every impact and causes extinction

**Burke '8** (Sharon, senior fellow and director of the energy security project at the Center for a New American Security, “Climatic Cataclysm: The Foreign Policy and National Security Implications of Climate Change”, p 157-165)

At the same time, however, the implications of both trends for human society and survival raise the stakes; it is crucial to try to understand what the future might look like in one hundred years in order to act accordingly today. This scenario, therefore, builds a picture of the plausible effects of catastrophic climate change, and the implications for national security, on the basis of what we know about the past and the present. The purpose is not to "one up" the previous scenarios in awfulness, but rather to attempt to imagine the unimaginable future that is, after all, entirely plausible. Assumed Climate Effects of the Catastrophic Scenario. In the catastrophic scenario, the year 2040 marks an important tipping point. Large-scale, singular events of abrupt climate change will start occurring, greatly exacerbated by the collapse of the Atlantic meridional overturning circulation (MOC), which is believed to play and important role in regulating global climate, particularly in Europe.8 There will be a rapid loss of polar ice, a sudden rise in sea levels, totaling 2 meters (6.6 feet), and a temperature increase of almost 5.6°C (10.1°F) by 2095. Developing countries, particularly those at low latitudes and those reliant on subsistence, rain-fed farming, will be hardest and earliest hit. All nations, however, will find it difficult to deal with the unpredictable, abrupt, and severe nature of climate change after 2040. These changes will be difficult to anticipate, and equally difficult to mitigate or recover from, particularly as they will recur, possibly on a frequent basis. First, the rise in temperatures alone will present a fundamental challenge for human health. Indeed, even now, about 250 people die of heatstroke every year in the United States. In a prolonged heat wave in 1980, more than 10,000 people died of heat-related illnesses, and between 5,000 and 10,00 in 1988.9 In 2003, record heat waves in Europe, with temperatures in Paris hitting 40.4°C (104.7°F) and 47.3°C (116.3°F) in parts of Portugal, are estimated to have cost more than 37,000 lives; in the same summer there were at least 2,000 heat-related deaths in India. Average temperatures will increase in most regions, and the western United States, southern Europe, and southern Australia will be particularly vulnerable to prolonged heat spells. The rise in temperatures will complicated daily life around the world. In Washington, D.C., the average summer temperature is in the low 30s C (high 80s F), getting as high as 40°C (104°F). With a 5.6°C (10.1°F) increase, that could mean temperatures as high as 45.6°C (114.5°F). In New Delhi, summer temperatures can reach 45°C (113°F) already, opening the possibility of new highs approaching sO.sOC (123°F). In general, the level of safe exposure is considered to be about 38°C (lOO°F); at hotter temperatures, activity has to be limited and the very old and the very young are especially vulnerable to heat-related ill­ness and mortality. Sudden shifts in temperature, which are expected in this scenario, are particularly lethal. As a result of higher temperatures and lower, unpredictable precipitation, severe and persistent wildfires will become more common, freshwater will be more scarce, and agricultural productivity will fall, particularly in Southern Europe and the Mediterranean, and the western United States. The World Health Organization estimates that water scarcity already affects two- fifths of the world population-s-some 2.6 billion people. In this scenario, half the world population will experience persistent water scarcity. Regions that depend on annual snowfall and glaciers for water lose their supply; hardest hit will be Central Asia, the Andes, Europe, and western North America. Some regions may become uninhabitable due to lack of water: the Mediter­ranean, much of Central Asia, northern Mexico, and South America. The southwestern United States will lose its current sources of fresh water, but that may be mitigated by an increase in precipitation due to the MOC col­lapse, though precipitation patterns may be irregular. Regional water scarcity will also be mitigated by increases in precipitation in East Africa and East and Southeast Asia, though the risk of floods will increase. The lack of rainfall will also threaten tropical forests and their dependent species with extinction. Declining agricultural productivity will be an acute challenge. The heat, together with shifting and unpredictable precipitation patterns and melting glaciers, will dry out many areas, including today's grain-exporting regions. The largest decreases in precipitation will be in North Africa, the Middle East, Cen tral America, the Caribbean, and northeastern South America, including Amazonia. The World Food Program estimates that nearly 1 billion people suffer from chronic hunger today, almost 15 million of them refugees from conflict and natural disasters. According to the World Food Program, "More than nine out of ten of those who die I of chronic hunger] are simply trapped by poverty in remote rural areas or urban slums. They do not make the news. They just die." Mortality rates from hunger and lack of water will skyrocket over the next century, and given all that wiII be happening, that will probably not make the news, either--people will just die. Over the next one hundred years, the "breadbasket" regions of the world will shift northward. Consequently, formerly subarctic regions will be able to support farming, but these regions' traditionally small human populations and lack of infrastructure, including roads and utilities, will make the dra­matic expansion of agriculture a challenge. Moreover, extreme year-to-year climate variability may make sustainable agriculture unlikely, at least on the scale needed. Northwestern Europe, too, will see shorter growing seasons and declining crop yields because it will actually experience colder winters, due to the collapse of the MOC. At the same time that the resource base to support humanity is shrinking, there will be less inhabitable land. Ten percent of the world population now lives in low-elevation coastal zones (all land contiguous with the coast that is 10 meters or less in elevation) that will experience sea level rises of 6.6 feet (2 meters) in this scenario and 9.8 feet (3 meters) in the North Atlantic, given the loss of the MOC. Most major cities at or near sea level have some kind of flood protection, so high tides alone will not lead to the inundation of these cities. Consider, however, that the combined effects of more frequent and severe weather events and higher sea levels could well lead to increased flood­ing from coastal storms and coastal erosion. In any case, there will be saltwa­ter intrusion into coastal water supplies, rising water tables, and the loss of coastal and upstream wetlands, with impacts on fisheries. The rise could well occur in several quick pulses, with relatively stable peri­ods in between, which will complicate planning and adaptation and make any kind of orderly or managed evacuation unlikely. Inundation plus the combined effects of higher sea levels and more frequent tropical storms may leave many large coastal cities uninhabitable, including the largest American cities, New York City and Los Angeles, focal points for the national economy with a combined total of almost 33 million people in their metropolitan areas today. Resettling coastal populations will be a crippling challenge, even for the United States. Sea level rises also will affect food security. Significant fertile deltas will become largely uncultivable because of inundation and more frequent and higher storm surges that reach farther inland. Fisheries and marine eco­systems, particularly in the North Atlantic, will collapse. Locally devastating weather events will be the new norm for coastal and mid-latitude locations-wind and flood damage will be much more intense. There will be frequent losses of life, property, and infrastructure-and this will happen *every year.* Although water scarcity and food security will dis­proportionately affect poor countries-they already do-extreme weather events will be more or less evenly distributed around the world. Regions affected by tropical storms, including typhoons and hurricanes, will include all three coasts of the United States; all of Mexico and Central America; the Caribbean islands; East, Southeast and South Asia; and many South Pacific and Indian Ocean islands. Recent isolated events when coastal storms made landfall in the South Atlantic, Europe, and the Arabian Sea in the last few years suggest that these regions will also experience a rise in the incidence of extreme storms. In these circumstances, there will be an across-the-board decline in human development indicators. Life spans will shorten, incomes will drop, health will deteriorate-including as a result of proliferating diseases-infant mortality will rise, and there will be a decline in personal freedoms as states fall to anocracy (a situation where central authority in a state is weak or non­existent and power has devolved to more regional or local actors, such as tribes) and autocracy. The Age of Survival: Imagining the Unimaginable Future If New Orleans is one harbinger of the future, Somalia is another. With a weak and barely functional central government that does not enjoy the trust and confidence of the public, the nation has descended into clan warfare. Mortality rates for combatants and noncombatants are high. Neighboring Ethiopia has intervened, with troops on the ground in Mogadishu and else­where, a small African Union peacekeeping force is present in the country, and the United States has conducted military missions in Somalia within the last year, including air strikes aimed at terrorist groups that the United States government has said are finding safe haven in the chaos." In a July 2007 report, the UN Monitoring Group on Somalia reported that the nation is "lit­erally awash in arms" and factional groups are targeting not only all combat­ants in the country but also noncombatants, including aid groups. Drought is a regular feature of life in Somalia that even in the best of times has been difficult to deal with. These are bad times, indeed, for Somalia, and the mutually reinforcing cycle of drought, famine, and conflict has left some 750,000 Somalis internally displaced and about 1.5 million people-17 per­cent of the population-in dire need of humanitarian relief. The relief is dif­ficult to provide, however, given the lawlessness and violence consuming the country. For example, nearly all food assistance to Somalia is shipped by sea, but with the rise of piracy, the number of vessels willing to carry food to the country fell by 50 percent in 2007.u Life expectancy is forty-eight years, infant mortality has skyrocketed, and annual per capita GDP is estimated to be about six hundred dollars. The conflict has also had a negative effect on the stability of surrounding nations. In the catastrophic climate change scenario, situations like that in Soma­lia will be commonplace: there will be a sharp rise in failing and failed states and therefore in intrastate war. According to International Alert, there are forty-six countries, home to 2,7 billion people, at a high risk of violent con­flict as a result of climate change. The group lists an additional fifty-six nations, accounting for another 1.2 billion people, that will have difficulty dealing with climate change, given other challenges. 12 Over the next hundred years, in a catastrophic future, that means there are likely to be at least 102 failing and failed states, consumed by internal conflict, spewing desperate refugees, and harboring and spawning violent extremist movements. More­over, nations all over the world will be destabilized as a result, either by the crisis on their borders or the significant numbers of refugees and in some cases armed or extremist groups migrating into their territories. Over the course of the century, this will mean a collapse of globalization and transnational institutions and an increase in all types of conflict-most dramatically, intrastate and asymmetric. The global nature of the conflicts and the abruptness of the climate effects will challenge the ability of govern­ments all over the world to respond to the disasters, mitigate the effects, or to contain the violence along their borders. There will be civil unrest in every nation as a result of popular anger toward governments, scapegoating of migrant and minority populations, and a rise in charismatic end-of-days cults, which will deepen a sense of hopelessness as these cults tend to see no end to misery other than extinction followed by divine salvation. Given that the failing nations account for half of the global population, this will also be a cataclysmic humanitarian disaster, with hundreds of mil­lions of people dying from climate effects and conflict, totally overwhelming the ability of international institutions and donor nations to respond. This failure of the international relief system will be total after 2040 as donor nations are forced to turn their resources inward. There will be a worldwide economic depression and a reverse in the gains in standards of living made in the twentieth and early twenty-first centuries. At the same time, the probability of conflict between nations will rise. Although global interstate resource wars are generally unlikely;" simmering conflicts between nations, such as that between India and Pakistan, are likely to boil over, particularly if both nations are failing. Both India and Pakistan, of course, have nuclear weapons, and a nuclear exchange is possible, perhaps likely, either by failing central governments or by extremist and ethnic groups that seize control of nuclear weapons. There will also be competition for the Arctic region, where natural resources, including oil and arable land, will be increasingly accessible and borders are ill defined. It is possible that agreements over Arctic territories will be worked out among Russia, Canada, Norway, the United States, Iceland, and Denmark in the next two decades, before the truly catastrophic climate effects manifest themselves in those nations. If not, there is a strong probability of conflict over the Arctic, pos­sibly even armed conflict. In general, though, nations will be preoccupied with maintaining internal stability and will have difficulty mustering the resources for war. Indeed, the greater danger is that states will fail to muster the resources for interstate cooperation. Finally, all nations are likely to experience violent conflict as a result of migration patterns. There will be increasingly few arable parts of the world, and few nations able to respond to climate change effects, and hundreds of millions of desperate people looking for a safe haven-a volatile mix. This will cause considerable unrest in the United States, Canada, Europe, and Russia, and will likely involve inhumane border control practices. Imagining what this will actually mean at a national level is disheartening. For the United States, coastal cities in hurricane alley along the Gulf Coast will have to be abandoned, possibly as soon as the first half of the century, certainly by the end of the century. New Orleans will obviously be first, but Pascagoula and Bay St. Louis, Mississippi, and Houston and Beaumont, Texas, and other cities will be close behind. After the first couple of episodes of flooding and destructive winds, starting with Hurricanes Katrina and Rita in 2005, the cities will be partially rebuilt; the third major incident will make it clear that the risk of renewed destruction is too high to justify the cost of reconstruction. The abandonment of oil and natural gas production facilities in the Gulf region will push the United States into a severe recession or even depression, probably before the abrupt climate effects take hold in 2040. Mex­ico's economy will be devastated, which will increase illegal immigration into the United States. Other major U.S. cities are likely to become uninhabitable after 2040, including New York City and Los Angeles, with a combined metropolitan population of nearly 33 million people. Resettling these populations will be a massive challenge that will preoccupy the United States, cause tremen­dous popular strife, and absorb all monies, including private donations, which would have previously gone to foreign aid. The United States, Canada, China, Europe, and Japan will have little choice but to become aggressively isolationist, with militarized borders. Given how dependent all these nations are on global trade, this will provoke a deep, persistent eco­nomic crisis. Standards of living across the United States will fall dramatically, which will provoke civil unrest across the country. The imposition of martial law is a possibility. Though the poor and middle class will be hit the hardest, no one will be immune. The fact that wealthier Americans will be able to manage the effects better, however, will certainly provoke resent­ment and probably violence and higher crime rates. Gated communities are likely to be commonplace. Finally, the level of popular anger toward the United States, as the leading historical contributor to climate change, will be astronomical. There will be an increase in asymmetric attacks on the American homeland. India will cease to function as a nation, but before this occurs, Pakistan and Bangladesh will implode and help spur India's demise. This implosion will start with prolonged regional heat waves, which will quietly kill hundreds of thousands of people. It will not immediately be apparent that these are cli­mate change casualties. Massive agricultural losses late in the first half of the century, along with the collapse of fisheries as a result of sea level rise, rising oceanic temperatures, and hypoxic conditions, will put the entire region into a food emergency. At first, the United States, Australia, China, New Zealand, and the Nordic nations will be able to coordinate emergency food aid and work with Indian scientists to introduce drought- and saltwater-resistant plant species. Millions of lives will be saved, and India will be stabilized for a time. But a succession of crippling droughts and heat waves in all of the donor nations and the inundation of several populous coastal cities will force these nations to concentrate on helping their own populations. The World Food Program and other international aid agencies will first have trouble operating in increasingly violent areas, and then, as donations dry up, will cease operations. Existing internal tensions in India will explode in the latter half of the century, as hundreds of millions of starving people begin to move, trying to find a way to survive. As noted above, a nuclear exchange between either the national governments or subnational groups in the region is possi­ble and perhaps even likely. By mid-century, communal genocide will rage unchecked in several African states, most notably Sudan and Senegal, where agriculture will com­pletely collapse and the populations will depend on food imports. Both nations will be covered with ghost towns, where entire populations have either perished or fled; this will increasingly be true across Africa, South Asia, Central Asia, Central America, the

###  AT HSR Increases Emissions Generally

#### No warming turns - HSR will use electricity that uniquely relies on a range of renewables and low carbon sources

**Davies 9,**  Head of Strategic Policy for the Association of Train Operating Companies (ATOC) (Richard, “ Energy consumption and CO2 impacts of High Speed Rail: ATOC analysis for Greengauge 21”, The Association of Train Operating Companies, April 2009, [http://www.greengauge21.net/wp-content/uploads/Energy-Consumption-and-CO2-impacts.pdf)//AG](http://www.greengauge21.net/wp-content/uploads/Energy-Consumption-and-CO2-impacts.pdf%29//AG)

Firstly, high speed railways tend to be high capacity railways. A double-deck, double-unit TGV Duplex train, for example, offers 1090 seats in twenty vehicles compared to the 439 seats that the 9-cars of a Pendolino can offer (a significant capacity advantage that would remain even after most of these have been extended to 11 cars). 1 High speed railways have higher load factors than the average of the rail network (Eurostar has a 70% load factor). The trains used are also typically longer, so that the aerodynamic drag of the front end of the train (which is a significant energy cost at high speed) is spread over perhaps 16 to 18 carriages rather than the UK norm of 8 to 10 carriages. • Secondly, considerable effort is expended by train manufacturers in developing train designs that reduce drag. The futuristic designs of the latest Japanese Shinkansen trains, for example, are one of the key ways (along with light weight) that the Japanese have managed to reduce energy consumption per seat of successive generations of Shinkansen trains. The next generation of French TGV trains (the Automotrice a Grande Vitesse or AGV) will be single deck and are expected to reduce energy consumption by about 15% compared to existing TGV stock. • Thirdly, since high speed trains use electricity they have access to a wide range of possible low carbon sources. The decrease in the carbon content of electricity expected from widespread use of renewables, nuclear and carbon capture and storage techniques to mitigate emissions from fossil fuel sources, will give high speed rail a particularly strong advantage over air travel, where there is no straightforward way of decarbonising the fuel supply. • Fourthly, and more fundamentally, high speed rail will draw traffic from other modes, from both short haul aviation and road. A high speed rail network in the UK brings with it the prospect of a substantial reduction in domestic air travel, with air routes between London, Manchester, Newcastle and Edinburgh/Glasgow likely to be scaled back hugely**.** Any increased rail carbon emissions from operating faster trains therefore needs to be set in the context of the emissions avoided through reduced air and roadtravel and through the ability to use more carbon efficient modes to access rail terminals. The Green gauge work is evaluating this potential mode shift currently and we expect to carry out further work on the net carbon position of rail in the light of this. We also intend to carry out further work on the carbon impact of construction of a high speed line, which is part of the overall carbon picture although the indications we have are that this would not significantly alter the analysis presented here.

### AT HSR Uses More Energy

#### HSR is empirically net energy efficient – it reduces energy consumption per passenger

**Jehanno et al 11**, engineering leader of urban transportation at Systra, “ High Speed Rail and Sustainability”, International Union of railways report, November 2011, http://uic.org/IMG/pdf/hsr\_sustainability\_main\_study\_final.pdf”

A common objection to HSR is that energy consumption of trains increases non-linearly with speed, because of increasing air resistance, so that the energy required to power a high speed train is much greater than that needed at conventional speed. However if energy use per passenger kilometre (pkm) is compared, then HSR trains can be just as energy efficient as, or even better than conventional trains. The total energy consumption of HSR trains when in operation is higher, yet the additional necessary energy is compensated due to several factors l . HSR is a system where each part contributes: the rolling stock, the electric power system, the infrastructure and the operation system m : The most important reason that can make HSR a more energy efficient means of transport than conventional trains is the higher capacity utilization (load factor), the number of passenger-kilometres travelled as a percentage of the total seat-kilometres available. Higher speeds mean shorter travel duration and thus higher attractiveness for travellers in comparison with other modes. With a good load factor, the energy consumption per passenger can be smaller than that achieved on conventional trains. The higher load factor has already been proved from experience in France, Germany and Japan HSR trains: n The higher permitted speed in the downhill phase leads to lighter braking. Less kinetic energy is lost during braking and thus less energy is needed to maintain speed on following level or climbing sections. Raising the speed from 300 to 350 km/h in the HSR MadridBarcelona line (gradient 2.5 mm/m) means a possible reduction in energy consumption in the downhill phases by 11%. In some cases the distance between two stations on HSR routes is shorter and more direct than on conventional lines. This means a reduction in the energy consumption per passenger. In Spain, for example, the average distance of HSR lines is 13% shorter than that of the conventional lines between the same points, if measured in static terms (as a simple average of the route coefficients), and 12% if the effective route coefficient is measured (the coefficients weighted by the anticipated pkm on each route). On some routes (e.g. HSR line Madrid - Segovia) the distance is as much as 23% shorter. However many HSR lines are not shorter or more direct and actually take a more circuitous route to the destination, such as in France or on the proposed UK HS2route. However as speeds are higher and passengers can reach their destination in a short time the actual energy per passenger is still relatively low. 16 Another aspect relates to energy consumed by auxiliary services of the train. These services are systems that consume energy for technical purposes (such as compressors, ventilators, etc.), and for the comfort of passengers (heating, air conditioning, lighting, etc.). Energy consumption from these services is proportional to the operating time and therefore, in the same proportion to the average speed increases, the consumption per kilometre decreases. This energy consumption is not directly related to the speed; thus, in the verification of a typical high speed case, a 50% increase in the average speed means a 29% reduction in the energy consumed by the auxiliary services.

### AT HSR Construction Increases Emissions

#### HSR rail and road construction emit 20 times less than car and plane emissions – engineering studies prove

**Jehanno et al 11**, engineering leader of urban transportation at Systra, “ High Speed Rail and Sustainability”, International Union of railways report, November 2011, http://uic.org/IMG/pdf/hsr\_sustainability\_main\_study\_final.pdf”

Another objection to HSR is that the track construction is linked with a high emission of CO2 due to the earthworks needed, the construction of viaducts and bridges, the track and rolling stock. In a background report for this study, the carbon footprint of 4 different routes in Europe and Asia has been analysed, including the construction of track and rolling stock. The emissions from the construction of the high speed rail lines lies in the range of 58 t – 176 t of CO2 per km of line and year. Lines with a moderate space and relief constraints (for example in France) emits around 60t of CO2, By comparison, the carbon footprint of the construction of a 2x3 lane motorway is 73 t CO2 (with similar transport capacity under the same geographical conditions). Projects with important space (China) or topographical constraints (Taiwan) are linked with a higher value of around 139 t – 176 t of CO2 per km of HS-line and year due to the higher number of viaducts and tunnels. The carbon footprint of the track construction per Passenger and km is between 3.7 g CO2 and 8.9 g CO2, mainly depending on the share of viaducts and tunnels and the frequency of HSR trains. The construction, maintenance and disposal of the rolling stock lead to emissions of 0.8 CO2 to 1.0 g CO2 per pkm. Compared with the construction of a car (20.9 g CO2 / pkm), the construction of a HSR-Train is 20 times lower. The construction of an airplane (0.5g CO2 /pkm) is in the same order of magnitude as HSR. Thus, estimating the impacts during the full life cycle doesn’t change the low environmental impact of the HSR compared to other infrastructure/transport modes. It also shows that for HSR CO2 emissions of rolling stock are significantly less, compared to the upstream emissions from energy provision. In addition, the construction of new HSR infrastructures allows it to replace other less sustainable modes such as aviation or the private car, which have GHG emissions factors 5 or 6 times larger. With the construction of new HSR lines, countries may effectively reduce their carbon emissions significantly. Hence, an integrated evaluation of the economical investments and the environmental impacts, of new HSR lines is needed to avoid some criticisms of new construction

# \*\*\*Solvency\*\*\*

## Neg Author Indicts

#### Samuelson offers no alternative to HSR – all infrastructure requires federal subsidies and the problems are mounting

**Reutter 10**, former editor of Railroad History and author of Making Steel: Sparrows Point and the Rise and Ruin of American Industrial Might (2005, rev. ed.), (Mark, “ The Strange Logic of Samuelson’s High-Speed Rail Critique”, ppi: progressive policy institute, November 2, 2010, [http://progressivepolicy.org/the-strange-logic-of-samuelson%E2%80%99s-high-speed-rail-critique)//AG](http://progressivepolicy.org/the-strange-logic-of-samuelson%E2%80%99s-high-speed-rail-critique%29//AG)

Constructing 800 miles of high-speed rail in California is liable to cost more than $40 billion. Constructing and operating all 13 corridors proposed by the Obama administration could easily approach $200 billion. But these dramatic headline figures need context. The current transportation act allots $300 billion to highways – not for new construction since the interstate system is completed, but just for maintenance and rebuilding. Huge costs loom as America’s highways reach the end of their productive life. Replacing the Tappan Zee Bridge in New York State is estimated to cost $17 billion. That figure is guaranteed to rise. If interstate thoroughfares and vital bridges paid their way, private investors would be clamoring to commit funds to refinance them. They aren’t. All modes of transporting people require subsidies. Amtrak’s direct subsidies of about $1.5 billion a year are transparent and highly publicized. Subsidies for cars and airlines are hidden in trust fund appropriations, user tax breaks, and local and state programs paid for by all taxpayers, including those who rarely drive and never fly. In portraying himself as a hard-nosed realist free of the “fashionable make-believe” of rail advocates, Samuelson would do well to explain how he’d fix congestion, advance mobility, lessen pollution, and reduce our dependence on foreign oil by jettisoning an infrastructure program that directly addresses these issues.

#### Prefer our solvency authors – Vranich and Cox base their sweeping claims on a misreading of an infrastructure study

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. iii, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

What is disheartening, however, is that this small group of critics have organized themselves into a well- oiled campaign that includes strategies to repeat the criticisms frequently, offer them as fresh criticisms each time they are expressed, and make broad, sweeping claims that sound factual, but upon close examination are usually without fact. Most of these criticisms can be found in one form or another in a paper published by the Reason Foundation and authored by Wendell Cox and Joseph Vranich titled, “The California High-Speed Rail Proposal: A Due Diligence Report.” The “Due Diligence Report” was prepared especially to defeat the 2008 California Proposition 1A—a bond referendum to finance the California high-speed rail project. The key message of “A Due Diligence Report” was that the California High-Speed Rail Authority’s plans had little or no potential to be implemented in their proposed form and that the project was highly risky for state taxpayers and private investors. Cox and Vranich based these conclusions on a misreading of a rather exhaustive study done by Bent Flyvbjerg, Nils Bruzelius and Werner Rottengatter, “Mega-Projects and Risk: An Anatomy of Ambition,” published by Cambridge University Press in 2003. The intent of “Mega-Projects” was to inform decision-makers of the challenges that face project managers and decision-makers as they propose, pursue and execute large infrastructure projects. Cox and Vranich construed “Mega-Projects” as a condemnation of large infrastructure projects, pointing to the California project as the very type of project “to be condemned.”

#### Prefer our sources - CATO, Heritage, and the Reason Foundation are merely a small group determined to repeat each other’s mantra until it seems true

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. 23, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

But the derision Mr. Will should refer to is the fact that these criticisms, as we noted in our introduction, are all coming from a small group of individuals who are engaged in a campaign in which they repeat each other’s mantra until it seems that everyone is saying and believing the same thing. They mouth the same fictions that the CATO Institute, the Heritage Foundation, and the Reason Foundation have been mouthing for the past two years in an effort to defeat the administration’s intercity passenger and high-speed rail initiative while at the same time attempting to advance continued subsidies for highway construction and maintenance. It is unfortunate that these groups would wish to frame the debate in this fashion, particularly when national organizations and leaders recognize that this is not an “either/or” debate. This is a debate over providing Americans a third viable transportation option that will actually enhance the ability of travelers and shippers to wring better value out of what should be a highly integrated, wisely used transportation system.

#### O’Toole grossly exaggerates HSR’s costs – he is a car-subsidy shill

**Yglesias 10** (Matthew us a staff writer for thinkprogress.org. “HSR Opponents Make the Case for High-Speed Rail” http://thinkprogress.org/yglesias/2010/11/02/198969/hsr-opponents-make-the-case-for-high-speed-rail/?mobile=nc Nov 2, 2010) CANOVA

“Federal taxpayers can’t afford high-speed rail in California or anywhere else. A Cato essay on high-speed rail points out that the cost of California’s HSR could be $81 billion and a national system could cost $1 trillion. Samuelson is right: the Obama administration’s HSR dreams “represent shortsighted, thoughtless government at its worst.” ‘To get specific, the Cato essay in question is from car-subsidy shill Randal O’Toole and clarifies that for this bargain basement price we’d be getting real HSR and not the Obama’s kinda sorta fast trains: “Thus, the costs of a true high-speed rail system would be far higher than the costs of a medium-speed system on existing tracks, as envisioned by the Obama administration. To build a 12,800-mile system of high-speed trains would cost close to $1 trillion, based on the costs estimates of the California system. It is unlikely that the nation could afford such a vast expense, particularly since our state and federal governments are already in huge fiscal trouble.” Taking California construction costs and projecting them nationwide seems methodologically unsound to me since California is an above-average cost jurisdiction. And keep in mind that this is a policy brief from a guy who’s entire job is to talk smack about federal investments in rail. So what he’ll have done to produce the $1 trillion number is at every step of the way shade things in a high cost direction. But let’s stick with the trillion.

## HSR Is Profitable

#### HSR is cheaper than new highways per mile and empirically covers its costs

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. 10, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

The cost per mile of building rail that may eventually evolve to be high-speed rail is between $3 million and $6 million per mile according to the Indiana High-Speed Rail Association. That compares quite favorably to $15 million to $25 million per mile of interstate- type highway. Plus, based on the experience of European and Asian high-speed rail operators, as well as Amtrak’s experience in the Northeast Corridor, passenger rail service, and especially high-speed passenger service, generates at least enough fare box revenue to cover above the rail costs. A recent Congressional Budget Office study, “Alternative Approaches to Funding Highways” (March 2011), notes that the current 18.6 cent gas tax pays for less than one-quarter of the cost of highway construction, maintenance, and operations. worthy of federal infrastructure support.

#### HSR can be designed to cover operating costs, but government must provide the initial investment

**United States Government Accountability Office, ’09** – the audit, evaluation, and investigation arm of the United States Congress (“High Speed Passenger Rail: Future Development Will Depend on Addressing Financial and Other Challenges and Establishing a Clear Federal Role,” Report to Congressional Requesters, March 2009, p. 12-13, http://www.gao.gov/new.items/d09317.pdf?source=ra) // SP

High levels of demand for intercity travel are needed to justify a new high speed rail line. (See app. V for a discussion of techniques for forecasting demand for intercity travel and riders on high speed rail.) Project sponsors identified high levels of population and expected population growth along a corridor, and strong business and cultural ties between cities as factors that can lead to higher demand for intercity travel. In some corridors, riders are expected to come from business travelers and commuters due to the strong economic ties between cities along the corridor; while in other corridors, a larger number of tourists and leisure travelers comprise the expected riders. Officials in Japan expressed the importance of connecting several high-population areas along a corridor as a key factor in the high number of riders on their system, to effectively serve several travel markets, including commuters and travelers from cities along the corridor. The corridor between Tokyo and Osaka in Japan is unique in that it is one of the most populous regions in the world, with multiple urban areas of several million inhabitants located along the corridor. This corridor attracts the highest number of riders of any high speed rail line in the world—over 150 million riders annually. In other foreign corridors we examined, however, population and densities were not as high, but foreign officials indicated that high speed rail revenues in these areas were sufficient to cover ongoing operating costs, although not necessarily sufficient to recoup the initial investment in the line. Some, but not all of the corridors under development in the United States today have Page 12 GAO-09-317 population levels similar to corridors in the foreign countries we examined (see figs. 1 and 2).

## Demonstration Project Solves

#### Obama’s scattershot approach to HSR gutted its potential – focusing on the Northeast Corridor is key

**Orski, 12** - Publisher, Innovation Briefs (Ken, “The merits of HSR are not the issue” 1/19, <http://transportation.nationaljournal.com/2012/01/highspeed-rail-in-a-coma.php#comments>)

  All of the comments so far have missed the central point in the high-speed rail (HSR) debate: that it is not the merits of high speed rail that are the issue but the Obama Administration’s handling of its HSR initiative. It’s the flaws in the Administration’s approach and its misleading rhetoric, rather than the appropriateness of HSR technology, that are the key reason why the press and public opinion have turned skeptical and why Congress, on a bipartisan basis, has refused to fund the program two years in a row. The Administration’s inept handling of the program was the focus of a December 6 hearing of the House Transportation and Infrastructure Committee. I thought our exchange about high-speed rail could benefit from taking a fresh look at the Committee’s conclusions. Hearing Highlights Missteps in Administration's High-Speed Rail Program December 6, 2011 Washington, DC – Transportation and Infrastructure Committee Members and witnesses outlined growing concerns with the Obama Administration’s high-speed rail program. Although sold by the Administration as a high-speed rail program, over $10 billion in funding has been scattered to projects across the country under the program, with the very real possibility that no high-speed rail service will result. "Since the passage of the Stimulus, the President’s high-speed rail program has gone completely in the wrong direction," said Committee Chairman John L. Mica (R-FL). "Before the Stimulus, I worked to include language to create a blueprint for the development of U.S. high-speed rail in the 2008 Passenger Rail Investment and Improvement Act. And I was optimistic when the President made developing high-speed rail a priority and included $8 billion in funding in the Stimulus. "Unfortunately, the vast majority of the projects selected by the Administration are not high-speed at all. This bait-and switch gives high-speed rail in the U.S. a bad name," Mica continued. "In March 2011/2010, GAO reported the Administration’s project selection process lacked transparency, and we don’t fully understand why projects were chosen. We’re funding slow-speed projects all over the country, most of them for Amtrak, that will not result in high-speed service. $3.6 billion – more than one-third of the $10.1 billion that has gone to projects – was turned back by states. The one project funded that offered the most hope for achieving high-speed, the California project, appears to be in disarray. In fact, the Committee will hold a hearing specifically to review this project next week.

#### A focused approach on making one HSR corridor successful is key – the Northeast Corridor is ideal

**Orski, 12** - Publisher, Innovation Briefs (Ken, “The merits of HSR are not the issue” 1/19, <http://transportation.nationaljournal.com/2012/01/highspeed-rail-in-a-coma.php#comments>)

"We need one high-speed rail success, and our country’s best opportunity to achieve high-speed rail is in the Northeast Corridor," Mica concluded. "Now that federal funding for this program has been stopped, we have an opportunity to learn from those mistakes and make the needed changes to develop at least one truly successful high-speed rail corridor in this country." "I support high-speed rail where it makes sense, but the President’s vision of providing 80% of Americans with access to high-speed rail service is unnecessary and isn’t going to happen," said Railroads, Pipelines and Hazardous Materials Subcommittee Chairman Bill Shuster (R-PA). "Instead of finding one place to do high-speed rail, and do it right, the Administration has spread the money too thinly all over the country. Because of this misguided approach, we’re not getting any high-speed rail. The only result will be a wasted opportunity. "I urge this Administration to reevaluate what it’s doing with this program, and to move its high-speed rail efforts in a new direction," Shuster added. "We can develop high-speed rail in this country, but only where it makes sense. And nowhere makes more sense than the Northeast Corridor." Witnesses testifying at today’s hearing included Ken Orski, a former federal transportation official and transportation policy consultant. Orski highlighted the Administration’s missteps in implementing its purported plan to develop high-speed rail in the United States. "The Administration’s first misstep, in my judgment, has been to falsely represent its program as ‘high-speed rail,’ thus, conjuring up an image of bullet trains cruising at 200 mph, just as they do in Western Europe and the Far East," Orski stated in prepared testimony. "It further raised false expectations by claiming that ‘within 25 years 80 percent of Americans will have access to high-speed rail.’ In reality the Administration’s high-speed rail program will do no such thing. A close examination of the grant announcements shows that, with one exception, the program consists of a collection of planning, engineering and construction grants that seek incremental improvements in existing facilities of Class One freight railroads in selected corridors used by Amtrak trains." Orski continued, "The Administration’s second mistake, in my opinion, has been to fail to pursue its objective in a focused manner. Instead of identifying a corridor that would offer the best chance of successfully demonstrating the technology of high-speed rail, and concentrating resources on that project, the Administration has scattered its nine billion dollars on 145 projects in 32 states, and in all regions of the country. "Ironically, the Northeast corridor, where high-speed rail has the best chance of succeeding, has received scant attention. And yet, this corridor is probably the only one in the nation that has all the attributes necessary for effective and economical high-speed rail service," Orski stated.

#### A successful demonstration is vital to jumpstarting HSR investment – the Northeast Corridor offers the best potential

**Kinstlinger, 12** - Chairman Emeritus, KCI Technologies, Inc (Jack, “The Future of High Speed Rail,” 1/17, [http://transportation.nationaljournal.com/2012/01/highspeed-rail-in-a-coma.php#comments)//DH](http://transportation.nationaljournal.com/2012/01/highspeed-rail-in-a-coma.php#comments%29//DH)

High speed rail is definitely in America’s future. Our congested roads and airports and dwindling sources of oil make it eminently clear that a new, environmentally friendly and green technology that can move passengers and freight at speeds exceeding 200 MPH must ultimately become high priority. But where and when should it start is a good question. Currently there is no high speed operation in the U.S. and most Americans are not familiar with its advantages. Europe and Asia abound in examples where high speed rail is operated safely and successfully. We in the U.S. need at least one successful operation to get the ball rolling. Florida had been a possibility until derailed by politics. California has problems but its project still makes sense in that the most costly and disruptive option to improve mobility between the SF and LA areas is to do nothing and let congestion reach unacceptable levels. Ultimately the North East Corridor offers the best potential for profitable high speed rail operation.

#### Demonstration project gets policymakers on board – Germany proves there is an alternative to the all-or-nothing approach

Perl 2002 [Anthony Perl is Director of the Urban Studies Program at Simon Fraser University in Vancouver, British Columbia and has been awarded prizes for outstanding papers presented at the World Conference on Transport Research and the Canadian Transportation Research Forum. He has advised governments in Australia, Belgium, Canada, France, and the United States on transportation and environmental research and policy development, and currently chairs the Intercity Passenger Rail committee of the U.S. Transportation Research Board, a division of the National Research Council. “New Departures: Rethinking Rail Passenger Policy in the Twenty-First Century”, 2/8/08, pg. 33-35]//DLi

The ICE project represented only a partial reinvention of the passenger train, compared to either Japanese and French high-speed services, because of its more limited infrastructure development and the trade-off between wider coverage and use of more conventional tracks at lower speeds. It was a product of greater political compromise, seeking to obtain widespread regional support in a federal parliament as well as accommodate environmental and NIMBY criticisms and demands for impact—mitigation measures (primarily against noise). It thus could not trigger a full-scale reorganization of Germany venerable rail enterprise on its own, but the fall of the Berlin Wall and reunification led to such restructuring shortly after the ICE train’s debut. What ICE did was to place a somewhat modest growth opportunity on the agenda of managers and policy makers who were deciding what to do about the future of a unified Germany’s rail system, in so doing, the ICE provided evidence for the passenger train’s future potential in Germany at a most opportune time. It should come as no surprise to sec that the ICE has produced some commercial success, but less than in France or Japan. Figure 1.7 illustrates the relatively steady growth of ICE patronage since its introduction, from 5.9 million in 1991 to 35.6 million in 1999. Figure 1.8 shows that the ICE accounts for a relatively modest share of the German railway’s passenger business, and that this share has leveled off at just above 2 percent in recent ‘cars. And in Figure 1.9, the ICE’s share of total rail travel by distance also appears to be holding steady at around 15 percent. This is much more modest than France, where close to four-fifths of the distance traveled by rail is aboard a TGV or Japan, where that percentage is Just below 30 percent. The ICE performance to date offers evidence that there is an alternative to the “all-or-nothing” debate about options for renewing the passenger train that participants in a rail policy community can get locked into, and which has yielded very little in the way of productive outcomes in North America. Germany pursued the ICE option as part of an incremental approach to modernizing its traditional rail carrier. And while the ICE did not solve all of the DB’s problems, it does complement further attempts at reorganization and refinancing that are discussed in chapter 2. It also enabled Germany to gain some mobility benefits from rail during the course of an even more ambitious, and ultimately unsuccessful, initiative to deploy magnetically levitated transportation domestically.

### AT Rail Ownership Barriers

#### Infrastructure condominiums solves the issues with rail infrastructure ownership

**Perl, ’10** – Director of Urban Studies Program at Simon Fraser University (Anthony, “Integrating HSR into North America’s Next Mobility Transition,” June 16, 2010, p. 27-28, http://wagner.nyu.edu/rudincenter/publications/RCWP\_Perl.pdf) // SP

If the potential for high-speed rail is to be fully realized, new policy tools will be needed to recapture the synergies between transportation and local land use that once made America’s railroad stations invaluable additions to their surrounding cities and communities. Three broad categories of policy tools will need to be brought to this task. The first category of these policy tools will enable high-speed rail developers to overcome the constraints posed by today’s rail infrastructure ownership configuration. Today’s ownership of rail rights of way gives rise to adversarial dynamics that are sure to bog high-speed train development down in costly conflicts over property rights. Current railroad ownership arrangements will be hard pressed to accommodate the major developments that would be needed to make high-speed trains a significant part of America’s intercity transportation future. What is needed is a means by which public and private ownership could be layered together both along high-speed rail corridors and adjacent to them. Elsewhere, (Gilbert and Perl, 2010; Perl, 2002), I have referred to such arrangements as an ‘infrastructure condominium’. As proposed in Transport Revolutions, ‘this legal device separates the ownership of land along a transport right of way from what is built upon it.’ (Gilbert and Perl, 2010: 253) The same concept could be extended to building alongside the right-of- way at future high-speed train stations.

## AT No Ridership/Amtrak Fails

#### Conventional trains cannot be compared to autos and airliners – because they haven’t been provided with the in means of competitive success

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. 20, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

Second, **passenger trains require federal infrastructure investment in a modern right of way and a modern command-and-control technology just as cars and airplanes do. Until the federal government funds a meaningful, modern and relevant system of passenger-train tracks, signals, and stations, no comparison between passengers trains and cars or airliners is valid. To be competitive, trains must first be provided with the means of competitive success, as cars and airplanes were. And as shoe factories are**.

#### Oil spikes are inevitable and will lead to a growing competitive advantage for HSR

**Perl, ’10** – Director of Urban Studies Program at Simon Fraser University (Anthony, “Integrating HSR into North America’s Next Mobility Transition,” June 16, 2010, p. 16, http://wagner.nyu.edu/rudincenter/publications/RCWP\_Perl.pdf) // SP

The effects of this price change will be uneven along at least two dimensions. First, the shift from producing conventional to unconventional oil will not proceed in a linear fashion. There will be price ‘spikes’, either because large investments need to be raised for this new infrastructure ahead of production, or because the absence of such investment will mean production declines with the depletion of conventional sources. In either case, the effects of higher oil prices across different transport modes will be uneven. The more oil-intensive a mode of travel is, the more it will be affected by future oil production trends. In these circumstances, high speed and conventional trains that are powered by electricity will have a growing competitive advantage over driving and flying.

#### Public transportation is on the rise – disproves critics and bodes well for HSR

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. 12-13, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

In its January 2011 Vital Signs Report, WMATA stated there were 217,219,000 Metrorail riders, 123,847,000 Metrobus riders, and 2,377,000 Metro Access riders on the system in 2010. Across the United States, the American Public Transportation Association reported in its fourth quarter “2010 Public Transportation Ridership Report” that there were 10.18 billion unlinked transit passenger trips in 2010 compared to nearly 10.26 billion in 2009, a slight decrease of 0.74 percent (possibly due to economic and weather conditions). For its part, Amtrak, in its 2009 Annual Report, noted that demand for passenger rail was strong. During FY 2009, Amtrak carried 27.2 million passengers—the second highest total in company history. While ridership in FY 2009 was down from the all-time record of 28.7 million in FY 2008, it was up 5 percent over FY 2007, continuing a long-term trend of rising ridership since FY 2002 when 21.6 million passengers rode Amtrak. On this basis, it’s pretty hard to argue with any credibility that the American public does not want, nor will they use public transportation. Judging from the latest statistics from the Texas Transportation Institute, Americans would like nothing more than to have transportation services available that will allow them to reclaim some of those 6 billion hours a year lost in highway and roadway congestion. According to a July 27, 2008 posting by Sarah Schlicter at Independenttravel.com, Amtrak ridership was up 11 percent since October 2007, and the company expected to see a record number of passengers in 2008 (see “High-Speed Rail: Obama’s Gift that Nobody Wants,” Washington Examiner Editorial, February 10, 2011, above).

#### HSR is nothing like Amtrak – California proves it will cost half the amount of new freeways and airports needed to meet travel demands

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. 11, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

O’Toole argues that the time savings is not worth the cost of the present difference between Acela ($139) and Northeast Regional ($60) services between Washington and New York (a value judgment), especially compared to the cut-rate ($20) bus service or the $119 one-way flight (the price in June 2009)/one hour (no accounting for travel time to and from the airport or wait time in security lines). Mr. O’Toole apparently is attempting to extrapolate some kind of cost based on what he claims are Amtrak losses of $28 to $84 per passenger in most of its short-distance corridors and $84 per passenger in the state-subsidized corridors like North Carolina’s Raleigh-Charlotte corridor. It would be interesting to see what the comparable numbers would be for highway and aviation infrastructure cost overruns and operating loses. These figures and statements bear no resemblance to the 800-mile, largely green field high-speed rail project proposed by the California High-Speed Rail Authority. According to the California High- speed Rail Authority, its high- speed train system would lower the number of intercity automobile passengers on highways by up to 70 million annually. What’s more, it will cost less than half the amount of expanding freeways and airports to meet future intercity travel demand and would eliminate the need to construct 3000 lane miles of highways, 91 airport gates and five additional airport runways.

#### Oil prices are causing people to shift towards trains

**Grbenik 12** ( Mara May 22 Journalist for Medill News Service <http://www.upi.com/Business_News/Energy-Resources/2012/05/22/High-speed-rail-still-a-dream-in-US/UPI-19121337682600>)

That patterns in transportation in general are shifting as the cost of fuel rises support that idea. More people are utilizing public options and Amtrak said it is on pace to set an annual ridership record in 2012. This is good, since bullet trains would require large numbers of riders and revenues to cover annual operating costs. However, moving too soon to build high-speed rail prematurely puts the projects at risk of financial instability and at the mercy of a continuous supply of government subsidies. This is what's happening in California. To accommodate growth on standard passenger rail, Amtrak is taking a "blended approach" to high-speed rail development, embracing it where it makes sense by deviating shared track in certain spots and installing new dedicated track in other locations, Amtrak spokesman Steve Kulm said.

## AT Safety Problems

#### HSR is empirically very safe – Japan proves

**Peterman, Frittelli, and Mallett ‘09** –Analyst in Transportation Policy, Specialists in Transportation Policy, from the Congressional Research Service- prepares information for members and committees of Congress (“High Speed Rail (HSR) in the United States” CRS Report for Congress, December 8 2009, p. 4, http://www.fas.org/sgp/crs/misc/R40973.pdf) // SP

**A high speed rail system using dedicated track can handle many trains at one time without compromising safety. For example, the Japanese high speed rail network, which began operation in 1964, now has trains running at speeds up to 200 mph**, with as little as three minutes of headway (the time separating trains operating on the same track) during peak periods. **In more than 40 years of operation, there has never been a fatality due to a train crash on the Japanese high speed network**.13

## AT HSR is Elitist

#### HSR is not elitist – average Americans use railways now

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. 9-10, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

In a speech in Philadelphia on December 1, 2001, Chicago lawyer and Amtrak Reform Council member James Coston gave the perfect rejoinder to this criticism: “When I hear critics say, ‘Well, the federal government may have a role in financing improvements for high-speed trains that carry business travelers in urban corridors, but it has no business promoting long-distance leisure travel for a tiny minority of well heeled tourists,’ I have to ask, ‘Oh, really? Then why do the Army Engineers use taxpayer funds to build breakwaters and to dredge channels for cruise ships that dock at Miami and Ft. Lauderdale and Palm Beach and New Orleans, and why does the U.S. Coast Guard protect those harbors, and why does Customs & Immigration Service have an army of inspectors at every pier?’ And anyway, who says long-distance train travel consists only of so-called leisure travel? The pace may be leisurely compared with air travel, but when I spent my days putting people on the Zephyr and the Empire Builder and the City of New Orleans at Chicago Union Station, they didn’t look muchlike cruise ship passengers to me. The people I put on those trains were college students traveling between home and school; people visiting their families; people relocating to new jobs or checking out an out-of-town job opportunity, professional groups heading to a conference; foreign visitors who wanted to see the U.S. close up and meet Americans en route; and retirees—most of them not particularly wealthy—who wanted a relaxing and informative travel experience. I think those are activities worthy of federal infrastructure support. They already get federal infrastructure support when they’re carried out on the highway, airway, and waterway systems. Why not on rail as well? And you know what? If a so-called tiny minority of well heeled tourists wants to ride a passenger train, I say, ‘Welcome aboard!’ Cruise ship travel started out as an upper-class fringe phenomenon in the 1960s, but thanks to the billions of dollars the federal government handed out to local communities to improve their deepwater ports, the cost of cruise ship travel came down, new entrepreneurs entered the business, and what was formerly considered a luxury for a slender stratum of super- rich individuals has now turned into a virtual entitlement for middle-class America. I can’t prove it, but I strongly suspect that a firm federal commitment to rail infrastructure also will change the demographics of rail travel—creating new markets; opening up new travel and leisure choices for millions of Americans who today know nothing of rail travel; attracting train-riding overseas visitors who find our current mobility options puzzling and inconvenient; and opening up new entrepreneurial opportunities that the bureaucratic mind with its picking-winners-and-losers mentality simply is not configured to imagine.”

#  \*\*\*Add-Ons\*\*\*

## Urban Sprawl

#### HSR leads to sustainable land use and decreases urban sprawl

Kantor, 2008 – Ph.D. from California Institute of Technology, Professor of Economics at the University of California, Research Associate at the National Bureau of Economic Research (Shawn, “The Economic Impact of the California High-Speed Rail in the Sacramento/Central Valley Area” September 2008, www.sjvpartnership.org%2Fuploaded\_files%2FWG\_doc%2FHSR\_ Central Valley \_Presentation.pdf&ei=ZV\_jT6fwE4Gi8QSL49SGCA&usg=AFQjCNGIWF2b3mq SSaI57frEnll-IDNG7g&sig2=BLkRksZX4B3eZ T ptDJ-9iw // (AMG)

In the terms of the environmental benefits of HSR, electrically-powered high- speed trains would reduce Californians’ reliance on gasoline consumption. With an expected 117 million passengers annually by 2030, along with the transport of lightweight freight, HSR is anticipated to save 12.7 million barrels of oil per year by 2030. By providing an attractive, cost-effective alternative to cars and planes, the California high-speed train system is estimated to be able to reduce CO2 emissions by up to 12 billion pounds per year by 2030. In addition, HSR will lead to more sustainable land use. While freeway expansion tends to encourage urban sprawl, high-speed train stations serve as a focal point for growth that stimulates denser infill development that links directly with local and regional transit systems, airports, and freeway systems. Moreover, by using existing transportation corridors, the HSR will have less of an impact on California’s open spaces.

### Biodiversity

#### Urban sprawl causes biodiversity loss

MSNBC 5 (1/11, <http://www.msnbc.msn.com/id/6814251/>)

WASHINGTON - Urban sprawl is gobbling up open spaces in fast-growing metropolitan areas so quickly that it could spell extinction for nearly 1,200 species of plants and animals, environmental groups say. The National Wildlife Federation, Smart Growth America and NatureServe projected that over the next 25 years, more than 22,000 acres of natural resources and habitat will be lost to development in 35 of the largest and most rapidly growing metropolitan areas. According to the groups, as many as 553 of the nearly 1,200 at-risk species are found only in those areas. “The bottom line is that these species are at risk of extinction due to habitat destruction,” said John Kostyack, a National Wildlife Federation attorney and report co-author. “And in these metro areas, the leading cause of habitat destruction is sprawl — development of homes and office buildings and roads in outlying forests and farm fields.”

#### Biodiversity loss triggers extinction

Diner ’94 (David, JD Ohio State, Military Law Review, Winter, l/n)

4. Biological Diversity. -- The main premise of species preservation is better than simplicity. As the current mass extinction has progressed, the world's biological diversity generally has decreased. This trend occurs within ecosystems by reducing the number of species, and within species by reducing the number of individuals. Both trends carry serious future implications. Biologically diverse ecosystems are characterized by a large number of specialist species, filling narrow ecological niches. These ecosystems inherently are more stable than less diverse systems. "The more complex the ecosystem, the more successfully it can resist stress... [l]ike a net, in which each knot is connected to others by several strands, such a fabric can resist collapse better than a simple, unbranched circle of threads -- which is cut anywhere breaks down as a whole." By causing widespread extinctions, humans have artificially simplified many ecosystems. As biologic simplicity increases, so does the risk of ecosystem failure. The spreading Sahara Desert in Africa, and the dustbowl conditions of the 1930s in the United States are relatively mild examples of what might be expected if this trend continues. Theoretically, each new animal or plant extinction, with all its dimly perceived and intertwined affects, could cause total ecosystem collapse and human extinction. Each new extinction increases the risk of disaster. Like a mechanic removing, one by one, the rivets from an aircraft's wing, mankind may be edging closer to the abyss.

### Air Pollution

#### Urban sprawl significantly increases air pollution

Frumkin, 02- Professor of Environmental and Health sciences at University of Washington (Howard, “Urban Sprawl and Public Health,” 201-204)

*One of* the cardinal features of sprawl is driving, reflecting a well-established, close relationship between lower density *development* and more automobile travel. *For example,* in the Atlanta metropolitan area*, one of the nation’s leading examples of urban sprawl,* the average person travels 34.1 miles in a car each day—an average that includes the entire population, both drivers and non-drivers.17 More densely populated metropolitan areas have far lower per capita daily driving figures than Atlanta, e.g., 16.9 miles for Philadelphia, 19.9 for Chicago, and 21.2 for San Francisco.*17 On a neighborhood scale, the same pattern is observed. In the Los Angeles, San Francisco, and Chicago metropolitan areas, vehicle miles traveled increase as neighborhood density decreases.* Automobile use *offers extraordinary personal mobility and independence. However, it* is *also* associated with health hazards, including air pollution, motor vehicle crashes, and pedestrian injuries and fatalities. Motor vehicles are a leading source of air pollution.*20 Even though automobile and truck engines have be- come far cleaner in recent decades,* the *sheer* quantity of vehicle miles driven results in large releases of carbon monoxide, carbon dioxide, particulate matter, nitrogen oxides, and hydrocarbons into the air. Nitrogen oxides and hydrocarbons, in the presence of sunlight, form ozone. Nationwide, “mobile sources” (mostly cars and trucks) account for approximately 30% of emissions of oxides of nitrogen and 30% of hydrocarbon emissions. *However,* in automobile-dependent *metropolitan* areas, the proportion may be substantially higher. In the 10-county *metropolitan* Atlanta area*, for ex- ample,* on-road cars and trucks account for 58% of emissions of nitrogen oxides and 47% of hydrocarbon emissions, figures that underestimate the full impact of vehicle traffic *because they exclude emissions from related sources, such as fuel storage facilities and filling stations. In various combinations,* the pollutants that originate from cars and trucks*, especially nitrogen oxides, hydrocarbons, ozone, and particulate matter,* account for a substantial part of *the* air pollution *burden of American cities. Of note,* the highest air pollution levels in a metropolitan area may occur *not at the point of formation but* downwind, due to regional transport. Thus, air pollution is a problem not only alongsideroadways (or in close proximity to other sources) but also on the scale of entire regions. The health hazards of air pollution are well known.24 Ozone is an airways irritant. Higher ozone levels are associated with higher incidence and severity of respiratory symptoms, worse lung function, more emergency room visits and hospitalizations, more medication use, and more absenteeism from school and work*. Although healthy people may demonstrate these effects, people with asthma and other respiratory diseases are especially susceptible.* Particulate matter is associated *with many of the same respiratory effects and, in addition,* with elevated mortality*. People who are especially susceptible to the effects of air pollution include the elderly, the very young, and those with underlying cardiopulmonary disease.* Carbon dioxide is the major greenhouse gas, accounting for approximately 80% of emissions with global warming *potential.* Motor vehicles are also a major source of other greenhouse gases, including methane, nitrogen oxides, and volatile *organic* compounds. As a result, automobile traffic is a major contributor to global climate change, accounting for approximately 26% of U.S. greenhouse gas emissions.28 During the decade of the 1990s, greenhouse gases from mobile sources increased 18%, *primarily* a re- flection of more vehicle miles traveled.28 In turn, global climate change threatens human health in a number of ways, including the direct effects of heat, enhanced formation of some air pollutants*, and increased prevalence of some infectious diseases. Thus, the link between sprawl and respiratory health is as follows:* Sprawl is associated with high levels of driving, driving contributes to air pollution, and air pollution causes morbidity and mortality. In heavily automobile-dependent cities, air pollution can rise to hazardous levels, and driving can account for a majority of the emissions. *Although ongoing research is exploring the pathophysiology of air pollution expo- sure and related issues, there are also important re- search questions that revolve around prevention. Technical issues include such challenges as the development of low-emission vehicles and other clean technologies. Policy research needs to identify approaches to land use and transportation that would reduce the need for motor vehicle travel. Behavioral research needs to identify factors that motivate people to choose less-polluting travel behaviors, such as walking, carpooling, or use of more efficient vehicles.* Sprawl and car usage have been linked together, which has in turn been linked to pollution*. Stone, 06-(Brian, “Urban sprawl and air quality in large U.S. cities,” 689-690)//I.S.* A significant relationship between land use and vehicle travel has been widely documented *(Transportation Research Board, 1995; Apogee, 1998). Perhaps the most compelling evidence of this relationship is provided by the handful of studies that has examined readily available measures of land use and travel within a large number of cities.* In one of the most widely cited of these studies, Newman and Kenworthy (1989) documented a strong and significant negative relationship between population density and per capita fuel usage within 63 large metropolitan regions around the world *(R2 1⁄4 0:86).1 Similar significant relationships have been found to exist between population density and vehicle ownership, vehicle trip generation, and vehicle miles traveled (VMT) in American cities and abroad (Pucher and Lefevre, 1996).*

#### Air pollution causes extinction

Driesen 3 (David, Associate Professor – Syracuse Univeristy Law, 10 Buff. Envt'l. L.J. 25, Fall/Spring, Lexis)

Air pollution can make life unsustainable by harming the ecosystem upon which all life depends and harming the health of both future and present generations*. The Rio Declaration articulates six key principles that are relevant to air pollution. These principles can also be understood as goals, because they describe a state of affairs that is worth achieving. Agenda 21, in turn, states a program of action for realizing those goals. Between them, they aid understanding of sustainable development's meaning for air quality. The first principle is that "human beings. . . are entitled to a healthy and productive life in harmony with nature", because they are "at the center of concerns for sustainable development." 3* While the Rio Declaration refers to human health, its reference to life "in harmony with nature" also reflects a concern about the natural environment. 4 Since air pollution damages both human health and the environment, air quality implicates both of these concerns*. 5*

# \*\*\*2AC Answers\*\*\*

## 2AC States CP

#### States lack jurisdiction for HSR – approval of multiple federal agencies is required for implementation

**United States Government Accountability Office, ’09** – the audit, evaluation, and investigation arm of the United States Congress (“High Speed Passenger Rail: Future Development Will Depend on Addressing Financial and Other Challenges and Establishing a Clear Federal Role,” Report to Congressional Requesters, March 2009, p. 11, http://www.gao.gov/new.items/d09317.pdf?source=ra) // SP

Several federal agencies have played a role in the planning and development of high speed rail projects to date, and others may potentially be involved as projects progress. FRA has generally been the lead federal agency—sharing that role with other federal agencies, such as the Surface Transportation Board—regarding the environmental review process. The Surface Transportation Board must give its approval before any new rail lines can be constructed that connect to the interstate rail network.11 FRA also designates corridors as “high speed rail” corridors, and is the agency responsible for any safety regulations or standards regarding high speed rail operations. Safety standards relative to tracks and signaling requirements become more stringent as train speeds increase. For example, at speeds of 125 miles per hour or higher, highway-rail grade crossings must be eliminated, and trains must be equipped with positive train control, which will automatically stop a train if the locomotive engineer fails to respond to a signal. To operate at speeds above 150 miles per hour, FRA requires dedicated track—that is, track that can only be used for high speed rail service. No safety regulations currently exist for speeds above 200 miles per hour. In addition to FRA and the Surface Transportation Board, the Federal Highway Administration and the Federal Transit Administration (FTA) may play a role if highway or other transit right-of-way will be used or if highway or transit funds are to be used for some part of a high speed rail project. The Bureau of Land Management is responsible for granting rights-of-way on public lands for transportation purposes and, thus, would be involved in any new high speed rail project that envisions using public lands. Various other agencies would be involved in the environmental approval process, including the U.S. Fish and Wildlife Service and the Environmental Protection Agency, among others.

#### States fail – private companies empirically won’t invest in HSR projects that are under the threat of rescission

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. 36, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

If the Post read the Review Group report carefully, it would better understand why private capital has been reluctant to openly commit to the project. The demonstration of firm public sector financial commitments will be an absolute necessity prior to approaching sources of private capital, it stressed. In other words, investors won’t sink money into a project that’s under the threat of rescission by the likes of Rep. Lewis.

#### States lack funding for HSR – USFG’s general fund is key to solvency

**Peterman, Frittelli, and Mallett ‘09** –Analyst in Transportation Policy, Specialists in Transportation Policy, from the Congressional Research Service- prepares information for members and committees of Congress (“High Speed Rail (HSR) in the United States” CRS Report for Congress, December 8 2009, p. 27, http://www.fas.org/sgp/crs/misc/R40973.pdf) // SP

Proponents of rail funding have also recommended the use of bonds, including tax-exempt bonds and tax-credit bonds, to fund development of high speed rail lines. However, by borrowing the money and spreading out the repayment over a long period of time, bonds increase the cost of a project compared to paying for it all upfront. On the other hand, proponents contend that since rail improvements have long lifetimes, there is a case for having the cost of those improvements paid by the people who will benefit from the improvements many years into the future, rather than having the cost paid primarily by those in the present day. Based on the costs of high speed rail development and the revenue experience of high speed lines in other countries, it appears likely that the loans would have to be repaid primarily by the federal or state governments, or both. Consequently, critics of this approach contend that it would be preferable to draw funding from the government’s general fund, since a portion of the federal budget is already being financed by the sale of bonds, which will be repaid by future taxpayers. Prospects for significant funding from states are not promising. Most states’ budgets are constrained by current economic difficulties, and those budgets face growing demands in other areas, such as pensions and health care, as well as for highways and transit. The availability of dedicated funding sources for highway and transit in some states, and the lack of a dedicated funding source for rail, makes it more difficult for states to pursue rail as an alternative to highways or transit when evaluating the need for new transportation investment.

#### No state will make a commitment to HSR without vast federal funding

**American Interest 12** (“High Speed Rail Fail: US Edition” http://blogs.the-american-interest.com/wrm/2012/01/04/high-speed-rail-fail-us-edition/ January 4, 2012) CANOVA

Republicans have what looks at this early stage like a lock on the House in 2012 and seem likely to win the Senate. That means federal funding for more high speed rail is as dead as the dodo for some time to come; without vast federal help no state can rationally make a commitment to visionary and expensive rail projects. It looks like the transportation of the future—like the energy of the future—will remain a dream in the minds of blue politicians and trendy urban planners for years to come.

### AT States/Privates Partnerships

#### **States cannot rely on public-private partnerships for funding – interest has declined since the recession and privates don’t have enough money to meet the capital costs**

GAO 10 (Us Government Accountability Office, HIGH SPEED RAIL: Learning From Service Start-ups, Prospects for Increased Industry Investment, and Federal Oversight Plans, Report to Congressional Committee, <http://www.gao.gov/new.items/d10625.pdf>)//AG

Both current and former domestic high speed rail project sponsors have sought private financing but found it difficult to obtain private sector participation, given the significant financial risks high speed rail projects pose. Other countries have had success implementing public-private partnerships in which foreign governments’ shared the financial risks of their expanding high speed rail systems with private partners.41 Some state officials said there was greater interest in entering public-private partnerships with regard to station development, train operation, and track maintenance before the economic downturn. In addition, a potential passenger rail operator said that the private sector could not provide enough money to meet the initial capital costs of starting intercity passenger rail service; the vast majority of funding would have to come from the public sources.

#### State/private partnerships cannot solve HSR – structuring them is complex and states lack the necessary expertise

**Peterman, Frittelli, and Mallett ‘09** –Analyst in Transportation Policy, Specialists in Transportation Policy, from the Congressional Research Service- prepares information for members and committees of Congress (“High Speed Rail (HSR) in the United States” CRS Report for Congress, December 8 2009, p. 27, http://www.fas.org/sgp/crs/misc/R40973.pdf) // SP

Prospects for significant funding from the private sector are even less clear. Given the high up- front costs of developing a high speed line, and the uncertain prospect of a high speed line covering even its operating costs, let alone its development costs, there has not yet been a successful development of a privately financed high speed passenger rail line in the post-Amtrak era in the United States.90 In fact, as noted earlier, some experts say that only two high speed rail lines in the world (not national systems, but individual routes) have been successful enough to cover both their development and operating costs. While partnerships between public and private entities may offer a way to develop high speed rail lines at less cost to taxpayers than having them developed entirely by public agencies, structuring such partnerships is complex, and it will take time for federal and state rail agencies to develop expertise in this area.91

## 2AC California Model CP

#### California cannot possibly afford $117.6 billion for HSR

**Taylor12** (Jeff is a staff writer for Bakersfield. “California simply can't afford high-speed rail, now or later” http://www.bakersfield.com/opinion/community/x560112310/California-simply-cant-afford-high-speed-rail-now-or-later Mar 29 2012) CANOVA

California currently has a $9.2 billion deficit, and the 2012-13 deficit will be larger -- much larger, according to a Feb. 27 report released by the nonpartisan Legislative Analyst's Office. The LAO report states that California's tax revenue will fall $6.5 billion short of Gov. Jerry Brown's January 2012 budget proposal, and that revenue will decrease even more if voters do not approve his income and sales tax hike initiative later this year. So, according to the LAO, our 2012-13 state deficit will be at least $15.7 billion. In these economically perilous times, how can we even consider obligating ourselves to paying 30 years of interest on state bonds for a $117.6 billion high-speed rail project? Have we lost our minds?

#### California HSR will die without federal support

**Wood 12** (Daniel is a Staff Writer for the Christian Science Monitor. “Jerry Brown's Waterloo Station? California high-speed rail takes a new hit.” http://www.csmonitor.com/USA/Politics/2012/0410/Jerry-Brown-s-Waterloo-Station-California-high-speed-rail-takes-a-new-hit April 10, 2012) CANOVA

Some political analysts dismiss the significance of the probe. “I don't suspect that this investigation and potentially hearings would be taken particularly seriously,” says Corey Cook, associate professor of public affairs at the University of San Francisco. But the investigation does add another potential hurdle for a project already facing many. “In a state as fiscally depleted as California, it is a very steep and long march uphill,” says Michael Shires, a professor of public policy at Pepperdine University. “The project must have federal support to happen. If the investigation and continued attention lead to the Obama administration and Congress withdrawing their support, the project will likely die.” Brown has so far been one of the plan’s most vocal supporters. That could leave him exposed.

## 2AC Privatization CP

#### Federal funding is key to inducing and sustaining private sector participation

**United States Government Accountability Office, ’09** – the audit, evaluation, and investigation arm of the United States Congress (“High Speed Passenger Rail: Future Development Will Depend on Addressing Financial and Other Challenges and Establishing a Clear Federal Role,” Report to Congressional Requesters, March 2009, preface, http://www.gao.gov/new.items/d09317.pdf?source=ra) // SP

Once projects are deemed economically viable, project sponsors face the challenging tasks of securing the up-front investment for construction costs and sustaining public and political support and stakeholder consensus. In the three countries GAO visited, the central government generally funded the majority of the up-front costs of high speed rail lines. By contrast, federal funding for high speed rail has been derived from general revenues, not from trust funds or other dedicated funding sources. Consequently, high speed rail projects must compete with other nontransportation demands on federal funds (e.g., national defense or health care) as opposed to being compared with other alternative transportation investments in a corridor. Available federal loan programs can support only a fraction of potential high speed rail project costs. Without substantial public sector commitment, private sector participation is difficult to secure. The challenge of sustaining public support and stakeholder consensus is compounded by long project lead times, by numerous stakeholders, and by the absence of an established institutional framework.

#### Private companies empirically have faced great difficulties financing high-cost, long-gestation projects without government guarantees

Tan 11- Assistant Professor at AKU-ISMC specialising in the political economy of development. Dr Tan completed his PhD in Economics at SOAS. He previously taught development studies at SOAS and LSE, and worked on governance and human rights in Malaysia. His areas of interest include developmental state theories, late industrialisation, poverty, privatisation, corruption and urban transport networks, (Jeff, “Infrastructure Privatisation: Oversold, Misunderstood and Inappropriate”, Development Policy Review, January 1, 2011, EBSCO, CJD)

The third problem is that infrastructure development is characterised by very high sunk costs, long gestation periods and uncertainty. Being capital-intensive means that turnover compared with investment is low, while long lead times mean that the financing requirements during the initial stages of the work are high yet revenue is low in the early years of the operation (Fayard, 1999). The higher risks, uncertain revenues(due to a higher price elasticity for demand) and possibilities of default raise the cost of

capital (Sappington and Stiglitz, 1987; Payson and Steckler, 1996; Daniels and Trebilcock, 2000; Estache and Pinglo, 2004; Estache and Fay, 2007) and necessitate higher average tariffs *(or subsidies),* making poor countries even less attractive for private investors *who are faced* with the option of low bids being financially unfeasible and high bids being politically untenable. At the same time, loan maturity has shortened from around 10 to 5 years after the 1997-8 Asian financial crisis, leading to a maturities mismatch for infrastructure financing (see Estache, 2001). As a result, the private sector has faced great difficulties in financing such high-cost, long-gestation projects without government guarantees (to secure long-term loans) and tax breaks (to reduce the tax burden at the beginning of the loan period) (see Windsor, 1996; Fayard, 1999; Dunn, 2000). The state will also need to reduce the private sector’s share of the cost, or its risk, by absorbing demand risk through subsidies or government guarantees to ensure the project is viable for private-sector participation (Heilman and Johnson, 1992; Norton Rose, 2006). Government guarantees are needed for a wide range of reasons to deal with unexpected events and to ensure that an acceptable financial return can be generated (see Irwin, 2007). These can cover financing/debt and the government assuming some form of contingent liability or guaranteed returns (for example, minimum traffic/revenue and exchange rates) to lower the operational risk profile of PPI projects (Annez, 2006; Estache et al., 2007; Irwin, 2007). At the same time*,* the duration of the concession can be extended and the government can subsidise the private sector through debt forgiveness(for example, British Rail). In fact*,* the private sector now expects the public sharing of risks through government subsidies*,* and views the ‘general perception that allPPP [public-private partnerships] should transfer demand risk to the private sector’ as ‘altogether flawed’ (Norton Rose, 2006).

#### HSR can be designed to cover operating costs, but government must provide the initial investment

**United States Government Accountability Office, ’09** – the audit, evaluation, and investigation arm of the United States Congress (“High Speed Passenger Rail: Future Development Will Depend on Addressing Financial and Other Challenges and Establishing a Clear Federal Role,” Report to Congressional Requesters, March 2009, p. 12-13, http://www.gao.gov/new.items/d09317.pdf?source=ra) // SP

High levels of demand for intercity travel are needed to justify a new high speed rail line. (See app. V for a discussion of techniques for forecasting demand for intercity travel and riders on high speed rail.) Project sponsors identified high levels of population and expected population growth along a corridor, and strong business and cultural ties between cities as factors that can lead to higher demand for intercity travel. In some corridors, riders are expected to come from business travelers and commuters due to the strong economic ties between cities along the corridor; while in other corridors, a larger number of tourists and leisure travelers comprise the expected riders. Officials in Japan expressed the importance of connecting several high-population areas along a corridor as a key factor in the high number of riders on their system, to effectively serve several travel markets, including commuters and travelers from cities along the corridor. The corridor between Tokyo and Osaka in Japan is unique in that it is one of the most populous regions in the world, with multiple urban areas of several million inhabitants located along the corridor. This corridor attracts the highest number of riders of any high speed rail line in the world—over 150 million riders annually. In other foreign corridors we examined, however, population and densities were not as high, but foreign officials indicated that high speed rail revenues in these areas were sufficient to cover ongoing operating costs, although not necessarily sufficient to recoup the initial investment in the line. Some, but not all of the corridors under development in the United States today have Page 12 GAO-09-317 population levels similar to corridors in the foreign countries we examined (see figs. 1 and 2).

#### Fully-private HSR empirically fails – Taiwan and UK experience prove

**Freemark, ’09** (Yonah, The Transport Politic, September 22, “Securing the Financial Health of New High Speed Projects,” <http://www.thetransportpolitic.com/2009/09/22/securing-the-financial-health-of-new-high-speed-projects/>)

The international experience, however, could put a damper on hopes for private involvement. This week, [Taiwan High-Speed Rail](http://www.thsrc.com.tw/en/) fully revealed its fiscal impotency; the national government [will have to take over the operating company](http://www.google.com/hostednews/afp/article/ALeqM5gp2QjFr_bKiNOxeGJ9NK90qRjjhQ), three years after the project opened to the public. The Taiwanese system, which cost more than $15 billion, was the first in the world built entirely with private funds — 80% of which were secured through bank loans at high interest rates. Though the line’s fare revenues, lower than projected, make up for operations, maintenance, and even most interest payments on the initial capital costs, [elevated depreciation charges](http://www.railwaygazette.com/news/single-view/view/10/taiwan-high-speed-rail-refinancing-agreed/browse/1.html) put the railroad into its misery. The recession, which decreased interest in travel, put the final stake in the company’s heart. A [government bailout plan](http://www.chinapost.com.tw/taiwan/t-business/2009/09/21/225471/HSR-to.htm) will essentially force the public to assume the costs of paying back loans that provided for the system’s construction. No one would argue with the fact that pure government spending on the line’s construction, either direct through tax-based spending or with the support of loans at a low marginal rate, would have cost less money in the long-term, simply because of lower interest payments. Taiwan’s experience is directly comparable to that of the United Kingdom’s [High-Speed One](http://www.highspeed1.co.uk/), which was undertaken by [London & Continental Railways](http://www.lcrhq.co.uk/) under the initial presumption that the project would be entirely a product of private investment. Earlier this year, however, the European Union agreed to allow the British government to [bailout the operation](http://www.thetransportpolitic.com/2009/05/15/giving-away-the-crown-jewels/), which had gone bankrupt after construction was completed in 2007. Incompetence on the part of the corporations involved with the project had already forced the government to support £3.7 billion of bonds in 2006; aid this year amounts to £5.7 billion, compared to the initial capital cost of £5.8 billion. In both cases, one wonders why private industry was involved at all if the respective governments were eventually going to have to find the money to cover the price of the whole project anyway — plus pay interest on debt accumulated by failed companies. Of course, California’s plans are different. While both the Taiwanese and British projects relied on bank loans that accounted for 80% of construction costs, the U.S. project will only be dependent on a 20% private investment. Revelations last week of [SNCF’s expression of interest in involvement](http://www.thetransportpolitic.com/2009/09/19/breaking-sncf-proposes-development-of-high-speed-rail-in-midwest-texas-florida-and-california-corridors/) in the California system demonstrate that foreign companies see U.S. high-speed systems as potential money makers — and the French company’s report specifically argues that the U.S. project’s economics are sound. But just how much private money is an acceptable risk? Having the California High-Speed Rail project default on its obligations is unacceptable, because it would put a dent in plans for train systems throughout the country by dramatically illustrating “wasteful” spending in action — specifically the kind of example we cannot give anti-infrastructure conservatives. The two experiences cited above indicate that a fully private project is very risky, and that makes sense; making up a huge initial capital cost like that of a rail line through loan back payments requires enormous revenues and limited operating needs. California’s estimates demonstrate annual fare revenues ($2.3-2.5 billion) that are about double operations costs ($1.1-1.3 billion); Taiwan’s system has similar financials, but paying back the bank has bankrupted the company.

#### Government financial assistance is increasingly key to sharing the risk where capital costs are high and revenue uncertain - widely cited infrastructure database proves

Tan 11- Assistant Professor at AKU-ISMC specializing in the political economy of development. Dr Tan completed his PhD in Economics at SOAS. He previously taught development studies at SOAS and LSE, and worked on governance and human rights in Malaysia. His areas of interest include developmental state theories, late industrialisation, poverty, privatisation, corruption and urban transport networks, (Jeff, “Infrastructure Privatisation: Oversold, Misunderstood and Inappropriate”, Development Policy Review, January 1, 2011, [**EBSCO**](http://web.ebscohost.com.proxy.lib.umich.edu/ehost/pdfviewer/pdfviewer?vid=3&hid=108&sid=5fbd11ab-759e-4fd9-95de-7e6319639e3c%40sessionmgr113), CJD)

The most widely cited data source to assess private investment in infrastructure is the World Bank’s Private Participation in Infrastructure (PPI) database. However, it should be noted that this ‘has a number of omissions, some inaccuracies, and some built-in limitations’ and is often used to ‘generate greatly overstated estimates of investment by the private sector’ (Hall and Lobina, 2006: 16). In particular, it records investment commitments (not planned or executed investments) expected during the lifetime of the project, and includes both private and public investments. Despite these limitations and the tendency to overestimate PPI, a review of the evidence would appear to support the argument that PPI has not significantly increased the financing of capital investment in general. Instead, a striking feature of infrastructure privatisation is the high degree of government financial assistance and declining private investment, with ‘utility operators around the world ... having an extraordinarily hard time securing the financing needed to maintain and expand services’ (Kessides, 2004: 11; see also Pongsiri, 2001). The shift from privatisation to PPP and, more recently, private-sector participation (PSP) and PPI, is a reflection of the need for risks to be shared where capital costs are very high and revenue uncertain. This has necessitated shifting the meaning of privatisation away from strict ownership (i.e. divestiture) to encompass any form of private-sector participation (for example, lease of assets, concessions, management contracts) because the private sector is often unable or unwilling to bear the full cost and risks of investing in infrastructure on its own, thus necessitating public loans, financing and subsidies. This is reflected in the small numbers of (full) divestitures compared with other forms of PPI, in particular concessions. Between 1990 and 2008, concessions were the largest type of PPI in railroads and WSS (64% and 39% respectively) compared with divestitures (8% and 4%). If ‘build, lease and transfer’ (BLT) and ‘build, operate and transfer’ (BOT) ‘greenfield projects’ are included, the concessions share of PPI increases to 91% for railroads and 77% for WSS. Divestitures are higher for electricity (31% compared with 25% concessions) but only 34% of this has involved full divestitures, with the state remaining the main actor in electricity distribution and generation in developing countries (see Estache and Fay, 2007). Overall, infrastructure privatisation has been characterised by concessions which accounted for 65% of PPI globally in electricity, rail and WSS (including BLT and BOT ‘greenfield projects’) (World Bank PPI database). The inability to implement cost-covering tariffs has also reduced the profitability and hence attractiveness of investments in infrastructure. These problems are reflected in the evidence which shows that private investment in infrastructure has been: a) relatively small compared with the public sector; b) selective, flowing to richer countries and sectors where costs and risks are lower; and c) declining as a whole.

#### National policy framework is key to solvency – private-led efforts have empirically failed

**Perl, ’10** – Director of Urban Studies Program at Simon Fraser University (Anthony, “Integrating HSR into North America’s Next Mobility Transition,” June 16, 2010, p. 4, http://wagner.nyu.edu/rudincenter/publications/RCWP\_Perl.pdf) // SP

During these two decades, project-specific initiatives to introduce high speed trains beyond the Northeast were pursued by a handful of state governments, without the support that a national policy framework offered in developing airports, roads and transit. Various financial and organizational formulations were created ranging from a publicly led initiative in Ohio (Perl, 2002:158 - 161) to privately led efforts in Texas (Robey, 1994) to joint ventures in which private promoters partnered with the state of Florida to advance high-speed rail projects. Each pursuit of high-speed rail failed to deliver any trains. Among other revelations, these false starts with high-speed rail highlighted the challenge of initiating such projects in the absence of a policy framework that could provide clear ‘rules of the game’ for building, and rebuilding, rail infrastructure. Without such guidance Washington, state and local governments, as well as the private sector railroads that owned all the relevant rights of way were left to negotiate custom-made financial and operational arrangements. None of these stood the test of time. This paper will examine the challenges and opportunities for (re)developing rail infrastructure and (re)connecting it to established road, air and public transit systems that each occupy an established place in national transportation policy.

## 2AC Non-dedicated Tracks CP

#### Non-dedicated tracks will be slower and hence less competitive

**United States Government Accountability Office, ’09** – the audit, evaluation, and investigation arm of the United States Congress (“High Speed Passenger Rail: Future Development Will Depend on Addressing Financial and Other Challenges and Establishing a Clear Federal Role,” Report to Congressional Requesters, March 2009, p. 25, http://www.gao.gov/new.items/d09317.pdf?source=ra) // SP

Incremental projects tend to cost less than new dedicated track projects. Construction costs per mile for the 6 proposed incremental projects that we reviewed ranged from $4.1 million to $11.4 million per mile. Top and average speeds for the incremental projects, however, ranged from 80 to 110 miles per hour—substantially slower than dedicated track speeds. This slower speed could make these projects less competitive with other transportation modes and less reliable than dedicated track because of the need to share rail lines with other passenger and freight operations.

#### Using existing tracks places many limitations on train speed – empirically proven

**Peterman, Frittelli, and Mallett ‘09** –Analyst in Transportation Policy, Specialists in Transportation Policy, from the Congressional Research Service- prepares information for members and committees of Congress (“High Speed Rail (HSR) in the United States” CRS Report for Congress, December 8 2009, p. 3, http://www.fas.org/sgp/crs/misc/R40973.pdf) // SP

There are two options to developing high speed rail service; the option chosen determines the level of high speed service that can be attained: • Upgrading existing track, signaling systems, and equipment (e.g., tilting trains) to enable trains to travel somewhat faster over the existing rail network, or • Building new rail lines enabling trains to travel at much higher speeds than are possible over the existing rail network, which is shared with freight rail. The advantage of upgrading existing track is its lower cost; one estimate puts the average cost of such upgrades at around $7 million per mile.6 One limitation of that approach is that the existing network usually has many limitations on train speed—curves, at-grade road crossings, etc.—that limit the potential speed improvements. For example, in the 1990s Amtrak (and commuter railroads7) spent around $2 billion—an average of around $9 million per mile, in 2003 dollars— to upgrade the 229-mile north end of the Northeast Corridor (connecting Boston to New York City), including electrifying the route and replacing a bridge.8 This reduced rail travel time between Boston and New York City from 4 hours to 3 hours and 24 minutes—an increase in average speed over the route from 57 mph to 67 mph.

## 2AC Elections/Obama Good DA

#### Claims that the public hates HSR are patently false – only 3 governors turned down federal money and one later reapplied – and polls show broad public support

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. 29, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

As is clear, there are specific, over-drawn extrapolations in each of these statements. For example, they suggest that because three governors (one of whom would later reapply for funding) who campaigned against rail improvements in their respective states and won, all governors are against federal passenger rail improvement funding and all voters everywhere also oppose the federal initiative. Even the most basic understanding of logic would tell the casual reader that this construction does not hold up. Plus, there are ample and recent polls that show broad public support for the federal passenger rail improvement initiative.

#### Strong public support for HSR – 23 states accepted federal funding, Amtrak ridership is at its highest level, and polls show 2/3 support

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. 30, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

In the case of Florida, where, with the nudging of the Reason Foundation, the gubernatorial candidate argued that accepting the federal funding would straight-jacket taxpayers into at least a $3 billion subsidy, private- sector interests had stepped forward to assume the full costs of the project beyond the federal funding and state financing that was previously approved by the state legislature as well as cover any operating loses that might occur. In early March, the state department of transportation released a study done by an independent consultant that showed the proposed first leg of the proposed high-speed rail system would generate a $10 million surplus in its first year of operations, and that the surplus would grow to more than $26 million annually by the 10th year of that leg’s operation. To date, 23 states (excluding the three that returned theirs) have received rail stimulus funding, and each of them has made every effort to capture all or a portion of the more than $3 billion Florida, Wisconsin and Ohio returned to the Federal Railroad Administration following the governors’ denouncement of the rail initiative. And in a real twist of irony, Governor Walker of Wisconsin has reapplied for a portion of the funding he turned back. Probably one of the most telling measures of public support for passenger rail lies in the fact that Amtrak is enjoying the highest levels of ridership in its history. Additionally, the BizTimes Daily on December 1, 2010 reported a poll commissioned by the American Public Transportation Association (APTA) showing that: “Nearly two-thirds of American adults (62 percent) said they would definitely or probably use high-speed rail service for leisure or business travel if it were an option. The survey, taken among 24,711 adults, also asked how important various factors would be in choosing high-speed rail service. Ninety-one percent of respondents said high-speed rail should offer shorter travel times compared to driving to their destinations; 91 percent said the rail service should be less expensive than flying; 89 percent said it should be less expensive than driving; and 85 percent said the rail service should integrate with local public transit so they could avoid using rental cars and cabs, and paying parking fees.” use high-speed rail service for leisure or business travel if it were an option.

##  2AC Political Capital DAs

#### Bipartisan support is growing for high speed rails

HART 5/23 (THOMAS HART JR., Staff writer, “High-speed rail's many benefits”, Politico, May 23, 2012, <http://www.politico.com/news/stories/0512/76682.html>, HLR)

There is growing consensus among Democrats and Republicans in Congress that the NEC is ideally suited for high-speed rail development. Differences remain, however, on the best path for development. Rep. John Mica (R-Fla.), chairman of the House Transportation and Infrastructure Committee, introduced controversial legislation last year that would privatize Amtrak, only to meet strong Democratic resistance. Tea party Republicans eliminated federal funding for high-speed rail in 2012, preferring private-sector financing. Indeed, high-speed rail funding may be zeroed out in the surface transportation bill now being negotiated in a House-Senate conference — though there is growing bipartisan support for provisions that could spark private investment through tax incentives and government guarantees. Given the current political realities, most policymakers now do support a public-private partnership model for the NEC. It’s already proven successful and for infrastructure development at the state and local level as well as in Europe and Asia.

#### HSR has bipartisan support—eleven Republican governors applied for ARRA grants

Harnish 2011 (Richard, Executive Director of the High Speed Rail Association, Global Midwest Policy Brief, “Ideas to Ensure Midwest’s Success in a Global Era”, <http://www.midwesthsr.org/sites/default/files/pdf/CCGA_Global_Midwest_Policy_Brief_Sep_2011.pdf>, LCS)

Investing in infrastructure can be a bipartisan cause. Democratic and Republican leaders support high- speed rail and intercity passenger rail. This may be surprising given that the governors who have turned away federal funding have been Republican. But it is important to note that eleven Republican governors applied for ARRA grants in 2009.

#### **Strong bipartisan support for spurring private investment and providing government guarantees**

Hart Jr. 5/23 (Thomas, Staff Writer, Politico, “High-Speed Rail’s Many Benefits”, <http://www.politico.com/news/stories/0512/76682.html>, LCS)

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#### Key Republicans have shown support for HSR

Harnish 2011 (Richard, Executive Director of the High Speed Rail Association, Global Midwest Policy Brief, “Ideas to Ensure Midwest’s Success in a Global Era”, <http://www.midwesthsr.org/sites/default/files/pdf/CCGA_Global_Midwest_Policy_Brief_Sep_2011.pdf>, LCS)

Rick Snyder, the Republican governor of Michigan, is working to purchase a 135-mile segment of the Chicago–Detroit Amtrak line and upgrade the track for 110-mph operations. U.S. House Transportation and Infrastructure Committee Chairman John L. Mica of Florida, a Republican, has supported “true high-speed passenger rail” in the Northeast Corridor. Republican Bill Shuster of Pennsylvania, chairman of the House Subcommittee on Railroads, Pipelines and Hazardous Materials, has also publicly supported HSR in the Northeast Corridor. Republican Rep. Steven LaTourette of Ohio backs a high-speed rail line along Lake Erie linking Cleveland with Buffalo, Chicago, Detroit, and Toledo. And U.S. Sen. Mark Kirk of Illinois, also a Republican, said he wants to get an HSR project under way in Illinois within his term.

###

#### HSR is bipartisan –rejection of the Latham amendment proves

**Borman, ’09** – writer at the Telegraph (Maggie, “True cost may derail high-speed push”, The Telegraph, 8/11/09, <http://www.lexisnexis.com.proxy.lib.umich.e>du/lnacui2api/api/version1/getDocCui?lni=7WC3-K141-2R2Y-70DY&csi=169235&hl=t&hv=t&hnsd=f&hns=t&hgn=t&oc=00240&perma=true)//AY

In the president's budget, released earlier this year, Obama asked Congress to devote $1 billion for the next five years for high-speed rail, along with the $8 billion already marked for the program under the stimulus bill. The House's decision to increase that number to $4 billion is a direct reaction to the huge response from states and the private sphere for stimulus-based federal rail grants. The FRA revealed that 40 states had applied for more than $103 billion. U.S. Rep. Tom Latham, R-Iowa, attempted to block the inclusion of so much money for [high speed] rail, arguing that the government shouldn't embark on what he argued would be a $100 billion endeavor. Yet his amendment was rejected by a vote of 284-136, with 40 Republicans voting against his measure -- compared to only 16 members of the GOP voting for the bill as a whole. This indicates strong bipartisan support in Congress for high-speed rail investment and bodes well for similar action in the more conservative Senate.

#### GOP supports private sector investment

Cahn 11 (Emily Cahn, Staff Writer, “GOP pushes private rail investment”, The Hill’s, May 23, 2011, <http://thehill.com/business-a-lobbying/162817-gop-makes-case-for-private-bids-on-117b-rail-project>, HLR)

Republicans on the House Transportation and Infrastructure Committee will press the Obama administration this week to rely more on private investment for a high-speed rail project in the Northeast. Committee leaders noted the benefits high-speed rail would provide to cities in the Northeast in a memo distributed by Republican staff, stressing that the corridor between Boston and Washington is an ideal location for the investment. Still, the memo says, a future project must be supported by private investors and not rely too heavily on federal funds. “While the need and opportunity for a successful true high-speed rail project exists, the federal government cannot carry the full financial burden of public infrastructure projects,” the memo states. “Private industry must step up and help fill the gaps in high-speed rail funding and operations.” President Obama has made the creation of a high-speed rail line a priority of his administration, but has received backlash from Republican governors, who said they were worried their states would be hit with some of the costs for the railroad upgrades. The for-profit company Amtrak announced last week that it would look to private investors to help fund a high-speed rail line on the Northeast Corridor — one of the busiest rail lines in the country. But a company spokesman said Amtrak does not know how large a percentage of the project’s funding will come from private investors and won’t know until after June 10, when proposals from interested backers are due.

### Obama’s Pushing HSR

#### Obama support for HSR is as strong as ever

Laing 6/04 (Keith, Transportation Specialist, The Hill, “DOT official: Obama support of high-speed rail 'remains as strong as ever'”, <http://thehill.com/blogs/transportation-report/railroads/230777-dot-official-obama-support-of-high-speed-rail-remains-as-strong-as-ever>, LCS)

Federal Railroad Administration chief Joseph Szabo said Monday that President Obama is unwavering in his support for high-speed rail projects. Speaking a conference held by the American Public Transportation Conference in Dallas, Szabo said Obama's support for rail "remains as strong as ever. "His Fiscal Year 2013 budget requests $2.5 billion combined with $6 billion in immediate transportation investments – a total of $8.5 billion for the continued development of high-speed and intercity passenger rail projects," Szabo said. "America’s rail renaissance is well underway."

#### Obama is already selling HSR

Alliance (Eric, “High Speed Rail Stimulus Funding”, Cygnus, June 2010, <http://www.lexisnexis.com.proxy.lib.umich.edu/hottopics/lnacademic/>, CJD)

The administration is selling the concept of bullet trains - truly high-speed service. At the same time, the administration's program is incremental, improving or upgrading present service and in some places introducing new conventional passenger rail service. Through the stimulus package the administration is making what it believes to be strategic investments that focus on three primary areas that will deliver transportation, economic recovery and other public benefits: Building new high-speed rail corridors that will fundamentally expand and improve passenger transportation in the geographic regions they serve; Upgrading existing intercity passenger rail services; and, Laying the groundwork for future high-speed passenger rail services through smaller projects and planning efforts. The initiative invests or encourages the investment in significant improvements to currently existing right-of-ways owned and operated by the various freight railroad companies and, in perhaps just two or three cases, it actually underwrites the planning and construction of what the administration terms high-speed rail express service trains that will run at speeds up to 220 mph.

#### Obama Pushing high speed rail despite staunch opposition

**Laing 05/30** (Keith Laing, Staff Writer, “Obama administration officials to speak at high-speed rail conference”, The Hill’s, <http://thehill.com/blogs/transportation-report/railroads/230145-obama-administration-officials-to-speak-at-high-speed-rail-conference>, May 30, 2012, HLR)

A pair of key transportation officials from President Obama's administration will address a high-speed rail conference in Philadelphia this summer. Transportation Secretary Ray LaHood and Federal Railroad Administrator Joseph Szabo will speak at the 8th World Congress & Trade Exhibition on High-Speed Rail, organizers announced Wednesday. LaHood and Szabo will be joined at the July 10-13 conference by Amtrak CEO Joseph Boardman and the transportation ministers of Canada, Poland and Turkey. The Obama administration has maintained its push for high-speed rail in the face of staunch opposition from Republicans in Congress and in state governments. The president called early in the first half of his tenure in office for a nationwide network of high-speed railways that he said would rival the reach of the interstate highway system, and he included $8 billion for construction in the 2009 economic stimulus.

## 2AC Spending

#### O’Toole’s estimate are grossly exaggerated – he’s a car-subsidy shill

**Yglesias 10** (Matthew us a staff writer for thinkprogress.org. “HSR Opponents Make the Case for High-Speed Rail” http://thinkprogress.org/yglesias/2010/11/02/198969/hsr-opponents-make-the-case-for-high-speed-rail/?mobile=nc Nov 2, 2010) CANOVA

“Federal taxpayers can’t afford high-speed rail in California or anywhere else. A Cato essay on high-speed rail points out that the cost of California’s HSR could be $81 billion and a national system could cost $1 trillion. Samuelson is right: the Obama administration’s HSR dreams “represent shortsighted, thoughtless government at its worst.” ‘To get specific, the Cato essay in question is from car-subsidy shill Randal O’Toole and clarifies that for this bargain basement price we’d be getting real HSR and not the Obama’s kinda sorta fast trains: “Thus, the costs of a true high-speed rail system would be far higher than the costs of a medium-speed system on existing tracks, as envisioned by the Obama administration. To build a 12,800-mile system of high-speed trains would cost close to $1 trillion, based on the costs estimates of the California system. It is unlikely that the nation could afford such a vast expense, particularly since our state and federal governments are already in huge fiscal trouble.” Taking California construction costs and projecting them nationwide seems methodologically unsound to me since California is an above-average cost jurisdiction. And keep in mind that this is a policy brief from a guy who’s entire job is to talk smack about federal investments in rail. So what he’ll have done to produce the $1 trillion number is at every step of the way shade things in a high cost direction. But let’s stick with the trillion.

#### $1 trillion over 30 years would cost $57.99 billion a year - a drop in the bucket for the FY budget.

**Yglesias 10** (Matthew us a staff writer for thinkprogress.org. “HSR Opponents Make the Case for High-Speed Rail” http://thinkprogress.org/yglesias/2010/11/02/198969/hsr-opponents-make-the-case-for-high-speed-rail/?mobile=nc Nov 2, 2010) CANOVA

Currently, the government needs to pay 4.1% interest on a thirty year bond. And according to the handy dandy amortization-calc.com to amortize a 30 year loan of $1 trillion at an interest rate of 4.1% per year would cost $57.99 billion a year for thirty years. Note that’s in fixed, nominal terms, so while it’s a fair amount of money in the short term by the 2030s it’ll be a joke relative to our Nominal GDP. Contrast that to the $708 billion FY 2011 budget request the Obama administration submitted. It seems to me that an 8.1 percent reduction in defense expenditures in order to create a transformative nationwide new infrastructure program would be a no-brainer. Of course the larger moral of the story here is that with government borrowing costs currently very low and large quantities of workers and other resources idle, it makes a ton of sense to borrow large sums of money to invest in useful projects. A trillion dollars is a lot of money. And at a higher interest rate, the return on investment you’d need to justify borrowing it might be quite large. But at today’s rates and with plenty of genuinely idle resources around the situation is quite different. With high unemployment and a frontloaded pace of construction, the $57.99 billion in annual debt-finance costs would be partially offset in the short-term by increased income and FICA revenue, decreased Unemployment Insurance outlays, and spillover benefits to retailers and other service professionals who would benefit from the increased pace of economic activity.

## 2AC Airline Tradeoff DA

#### HSR benefits airliners – allows them to get out of the money-losing regional air business

**American Public Transportation Association, ’12** – non-profit that advocates for the advancement of public transportation programs in the U.S. ( “An Inventory of the Criticisms of High-Speed Rail: with Suggested Responses and Counterpoints,” January 2012, p. 24, http://www.apta.com/resources/reportsandpublications/Documents/HSR-Defense.pdf) // SP

Southwest Airlines, for one, has made it clear that there are huge advantages for them to have high-speed rail built in California. Among the advantages Southwest sees is that high-speed rail will allow them to get out of the money-losing, overly congested regional air service business.

#### Nonunique – HSR is now beginning to trade off with airliners internationally

**Aerospace America 12** – [Aerospace America has earned an international reputation as the preeminent publisher of cutting-edge aerospace books and journals, and the leading source of aerospace industry archives, dating back to the early 1900s. “High-speed rail will impact airliner markets” February 2012 <http://www.aerospaceamerica.org/Documents/Aerospace-America-PDFs-2012/February-2012/International-Beat-FEB2012-2.pdf> //NGopaul]

Some believe that competition between rail and air has only just begun. “The impact of the HSR industry and rail in general on air networks has not been as great as it could have been because of the commercial management of the rail system, which is still broadly government controlled,” says Ian Lowden, principal with the U.K. aviation consultants LowdexxAviation Consulting. “Airlines, in general, have developed far more flexible and advanced management systems.

#### HSR empirically benefits airliners – enables them to replace short-haul services with more profitable long-haul routes

Aerospace America 12 – (“High-speed rail will impact airliner markets,” February 2012, <http://www.aerospaceamerica.org/Documents/Aerospace-America-PDFs-2012/February-2012/International-Beat-FEB2012-2.pdf> //NGopaul)

The effect of HSR competition on northern European routes between London, Paris, Amsterdam, Brussels, and Frankfurt has been to open up slots at heavily congested airports, a phenomenon most airlines have welcomed as they have been able to replace short-haul services with more profitable long-haul routes. In this scenario, integrated air-rail HSR networks allow fast trains to become ‘feeder services’ to an airport hub, encouraging network carriers to develop their global services using larger aircraft.

#### Turn—HSR benefits the automakers and airliners – they will help develop the hardware

Pioneer Newspapers 8 – [Pioneer Newspapers, Inc. is a family media business owned by members of the Scripps’ family. “High-speed Rail and the Automotive Industry” 11/22/08 <http://www.pocatelloshops.com/new_blogs/politics/?p=4521> //NGopaul]

Believe it or not Journal blogger Disgusted Reader and the auto industry bailout fiasco have brought me back to our discussion on high speed rail. Congress has (so far) refused to give the “Big Three” the bailout money they’re demanding; now we hear the Big Three will be bankrupt by the end of the year and this spells an end to the auto industry in the United States. In reality the auto industry in the United States is not in trouble. Only three of the 16 auto manufacturers in this country are in trouble. This is less than 20 percent of the auto makers. If bankruptcy is the only way to fix the problems plaguing the Big Three then that is the correct solution. As the Big Three emerge from bankruptcy they may be unable to recover the market share they previously held. Under a new business model they may be interested in joining with the airlines and power companies to develop a nationwide high speed passenger rail system. General Motors, Ford and Chrysler could all produce parts of the track and rolling stock needed for the maglev system along with other hardware to support the use of high speed passenger and light freight traffic such as UPS and FedEx packaging. This would require a national standard for the maglev system to be employed and a level of federal involvement that usually makes me uncomfortable. However, federal involvement can be limited to setting a standard design and providing the tax incentives for the companies involved. The government would also need to streamline the permitting process and shut down the air corridors for flights under two hours’ duration. There are new ideas on how to make a maglev train work; **older designs relied on superconducting magnets or coils requiring expensive cryogenic cooling systems. Less expensive, more efficient systems can be built with permanent magnets.**

#### HSR helps airliners by reducing aircraft operating delays

Kantor, 2008 – Ph.D. from California Institute of Technology, Professor of Economics at the University of California, Research Associate at the National Bureau of Economic Research (Shawn, “The Economic Impact of the California High-Speed Rail in the Sacramento/Central Valley Area” September 2008, www.sjvpartnership.org%2Fuploaded\_files%2FWG\_doc%2FHSR\_ Central Valley \_Presentation.pdf&ei=ZV\_jT6fwE4Gi8QSL49SGCA&usg=AFQjCNGIWF2b3mq SSaI57frEnll-IDNG7g&sig2=BLkRksZX4B3eZ T ptDJ-9iw // (AMG)

As HSR became more widely used by commuters and other passengers, it would lead to less congestion on highways and in airports. Freeway gridlock during peak travel times would be reduced, as would airport waiting times. Not only would travelers benefit if their flights could leave and arrive as scheduled, but the airline industry would reap benefits as well as aircraft operating delays were reduced. Cambridge Systematics calculated the benefits accruing in the Central Valley from reduced automobile delays to be nearly $2 billion, while the reduction in air delays specific to the region would be a relatively modest $2.6 million.

## 2AC Auto Tradeoff DA

#### Turn—HSR benefits the automakers and airliners – they will help develop the hardware

**Pioneer Newspapers 8** – [Pioneer Newspapers, Inc. is a family media business owned by members of the Scripps’ family. “High-speed Rail and the Automotive Industry” 11/22/08 <http://www.pocatelloshops.com/new_blogs/politics/?p=4521> //NGopaul]

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#### No link – Japanese still buy tons of cars but just use them less frequently than Americans

China Auto Web 10 – [China Auto Web - a guide to China's Auto Industry “How Will High Speed Rail Affect China’s Love Affair with Cars?” 5/5/10 <http://chinaautoweb.com/2010/05/how-will-high-speed-rail-affect-chinas-love-affair-with-cars/> //NGopaul]

Japan is widely admired for its efficient public transportation system–high speed rails linking major cities, each of which runs heavily used subway and/or bus services. And yet its motor vehicle ownership is also among the highest in the world, to the surprise of many, at close to 600 per 1,000 people, not so far behind America’s rate, which stands close to 800 at present. So the Japanese love cars almost as much as Americans. But they use cars differently. While for most working Americans, driving is a daily necessity, a large portion of Japanese car users drive mainly for recreations and conveniences. In Japan, cars are often reserved for weekends, holidays, and other free times. When going to work or on business trips, people there prefer a train or bus instead. Their daily life will not be disabled if they lose their cars. A future China as an enlarged Japan will mean the following things. First, good news for automakers: if Chinese car ownership will reach anything near the current Japanese level, the room for market growth will remain huge in a long time. At 2008 every one thousand Chinese had only about 128 automotive vehicles. China is likely to be the engine of the global auto industry for decades to come.

#### No internal link – China will be the engine of the global auto industry for decades to come

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