# \*\*\*HSR AFFIRMATIVE (CNDI)

### 1AC Plan

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

## \*\*Economy/Competitiveness ADV

### 1AC Economy ADV

**Three internal links—**

**First is competitiveness—rail is facing collapse—but the plan boosts competitiveness and creates growth—dedicated funding sources are key**

**Galati, CGW, 10**—certified grant writer for TRC Solutions Inc, extensively experienced in writing technical documents to government, local, industrial, environmental, transportation, process, security, and infrastructure clients (Stephan, December 2010 (last cited date), “Changing the Dynamics of the Rail Industry: Transformation through Federal Rail Grant Funding”, TRC Solutions White Paper, <http://www.trcsolutions.com/Documents/White%20Papers/TRC_Stephan_Galati_Whitepaper_Grant_Writing.pdf>, AL)

The rail systems in America offer traveler passage between our nation’s most populated metropolitan centers and to those areas far less travelled. Although the nation’s rail network promotes energy efficiency and offers various transportation choices, the **existing systems are facing critical issues**. America’s rail infrastructure is aged making many transit systems vulnerable to **new threats** and **unnatural acts of destruction**, while the passenger rail network is **fractured** often leaving passengers with unlinked modes of transportation and inefficient rail corridors.

The nation’s network has also steadily fallen behind the worldwide rail leaders who offer such transportation choices as high-speed rail, which links passengers with their country’s transit and commuter rail networks. Taking notice of America’s **loss of economic competitiveness** and rail systems beleaguered with security and safety concerns, the Federal government began offering grant funding for the rehabilitation and development of transit systems nationwide. As a result of this robust funding stream, America’s rail industry and nationwide network is now being transformed to serve America’s future rail needs and enrich our nation’s passenger rail options.

Two of the more dynamic rail project funding programs espoused by the federal government are the Federal Rail Administration’s (FRA) High-Speed Intercity Passenger Rail (HSIPR) Program and the Department of Homeland Security’s (DHS) Transit Security Grant Program (TSGP). While both programs are changing our nation’s network of railroads, they are individually in a state of transition as well. The younger of the funding programs, the HSIPR program, is in full-gear shift from recent project funding awards to project starts and implementations. Alternatively, the more senior program, the TSGP, is in transition from its current funding structure to one better fitted for the next years’ project needs. The following synopses characterize each program and the different ways each is transforming the rail industry.

The High-Speed Intercity Passenger Rail (HSIPR) Program

The High-Speed Intercity Passenger Rail Program was inaugurated in June 2009 after President Obama’s historic declaration promoting high-speed passenger rail in America. Under the American Recovery and Reinvestment Act (ARRA), eight billion dollars was allocated to launch a national high-speed rail program designed to modernize the national transportation network, promote energy efficiency, **invigorate domestic economic development** through ‘Buy American’ requirements, and build America’s competitiveness with other leading nations. Grants under this program are designated only for high-speed rail projects and not for any other transportation modes. This **dedicated funding source** has laid a potent foundation for a **vibrant high-speed rail** program in America that provides commutable links between America’s major population centers.

The HSIPR program is a **ray of hope** for the rail industry. As already implied, America has fallen behind competitively with other countries regarding high-speed rail. As perspective, Japan’s first high-speed “bullet” train, the shinkansen, was introduced four decades ago for the Tokyo Olympics in 1964, and Europe’s first high-speed rail, the Train à Grande Vitesse (TGV), was introduced in France in 1981 (Miller, 2010). Both countries’ high-speed rail networks have grown since their inaugural trains and now have mature high-speed rail systems that employ the newest technologies. In fact, Japan’s latest high-speed rail trains, called the E5 series, will be put into service in 2011 and will move passengers at nearly 200 miles per hour (McCurry, 2009). China has used new technology to build the leading high-speed rail network that is not only three times the size of Japan’s network, but also is the longest in the world (Yingying, 2010). The United States, through the HSIPR Program, will commence with the development of a **robust national network** of high-speed rail travel that will hopefully compete with or even rival our formidable and well-vested competitors.

Since the HSIPR program was initiated, $2.5 billion in grants have been awarded to approximately 54 organizations in numerous areas, including California’s corridors, the Detroit-Chicago corridor, the Charlotte-Richmond-Washington, DC corridor, and the Northeast Region. The chart below highlights the already announced awards for HSIPR funding by state and reflects the changes from FRA’s redistribution of Wisconsin and Ohio’s $1.195 billion funding, which was handed back to DHS by the states in December 2010.

Now that the government has awarded project funding and the pathway toward a national high-speed rail system has been cemented, the HSIPR program is transitioning from a grant awarding phase to a project implementation phase. This shift is **vital for revitalizing economic development** in America. The investments made today in the rail road industry will **swell the economic returns dynamically** as our national rail network is augmented for future travelers. With this grant funding stream being implemented throughout the country, our nation’s intercity passenger rail infrastructure, equipment, and intermodal connections are being modernized so that the United States- like China, Japan, and Europe- can quickly move people from one major hub to another. Additionally, the influx of **federal money** into local economies will have **dramatic influences** in key areas of the country and ultimately offer Americans transportation choices through a reinvigorated and improved rail industry.

**And it’s critical to long-term economic success**

**Archdeacon, VEIL officer, 11**—officer for project development at the Victorian Eco-Innovation Lab, MPhil in urban agriculture at U Melbourne (Kate, 2/2/2011, “High-Speed Rail: A Catalyst for Sustainable City Development”, VEIL at U Melbourne, <http://www.sustainablecitiesnet.com/research/high-speed-rail-a-catalyst-for-sustainable-city-development/>, AL)

High-speed rail can **create jobs** and **boost local economies**. A U.S. high-speed rail system could help **position the nation for economic success** in the 21st century while creating short-term jobs in construction and long-term jobs in ongoing maintenance and operation.

 Construction of high-speed rail lines creates thousands of temporary jobs. For example, about 8,000 people were involved in construction of the highspeed rail link between London and the Channel Tunnel.

 Well-designed high-speed rail stations located in city centers **spark economic development** and encourage revitalization of urban areas:

 A study of the Frankfurt-Cologne high-speed rail line in Germany estimated that areas surrounding two towns with new high-speed rail stations experienced a **2.7 percent increase** in overall economic activity compared with the rest of the region.

 Office space in the vicinity of highspeed rail stations in France and northern Europe generally fetches higher rents than in other parts of the same cities.

 The city of Lyon experienced a 43 percent increase in the amount of office space near its high-speed rail station following the completion of a high-speed rail link to Paris.

 Property values near stations on Japan’s Shinkansen network have been estimated to be **67 percent higher** than property values further away.

 Several cities have used high-speed rail as the catalyst for ambitious urban redevelopment efforts. The city of Lille, France, used its rail station as the core of a multi-use development that now accommodates 6,000 jobs. The new international high-speed rail terminal at London’s St. Pancras station is the centerpiece of a major redevelopment project that will add 1,800 residential units, as well as hotels, offices and cultural venues in the heart of London.

 High-speed rail has increased overall travel in corridors in Spain and France and the number of one-day business trips in South Korea. Increases in overall travel indicate that high-speed rail is having an impact on **broader economic decisions** and improve the chances that high-speed rail lines can recoup their overall costs.

 High-speed rail can **expand labor markets** and increase the potential for face-to-face interactions that create value in the growing “**knowledge economy**.” A British study projects that the construction of the nation’s first high-speed rail line will lead to **more than $26 billion** in net economic benefits over the next 60 years.

**That’s key to stave off isolationism and maintain hegemony**

**Khalilzad, fellow at RAND, 95**—fellow at the RAND corporation, fmr US ambassador to the United Nations(Zalmay, “Losing the moment? The United States and the World after the Cold War?” Washington Quarterly Vol 18 no 2 Spring)

The United States is unlikely to preserve its military and technological dominance if the U.S. economy declines seriously. In such an environment, the domestic economic and political **base for global leadership would diminish** and the United States would probably **incrementally withdraw from the world**, become inward-looking, and abandon more and more of its external interests. As the United States weakened, others would try to fill the Vacuum.

To sustain and improve its economic strength, the United States must **maintain its technological lead** in the economic realm. Its success will depend on the choices it makes. In the past, developments such as the agricultural and industrial revolutions produced fundamental changes positively affecting the relative position of those who were able to take advantage of them and negatively affecting those who did not. Some argue that the world may be at the beginning of another such transformation, which will shift the sources of wealth and the relative position of classes and nations. If the United States fails to recognize the change and **adapt its institutions**, its relative position will **necessarily worsen**.

Hegemony solves war—but collapse makes miscalculation and the collapse of liberalism inevitable

**Kagan 2/11**—Senior Fellow in Foreign Policy at the Brookings Institution (Robert, member of the Foreign Policy Advisory Board of Secretary of State Hillary Clinton, the Foreign Policy Advisory Board of Secretary of State Hillary Clinton, 2/11/12, “Why the World Needs America,” Wall Street Journal, http://online.wsj.com/article/SB10001424052970203646004577213262856669448.html, MV)

History shows that world orders, including our own, are transient. They rise and fall, and the institutions they erect, the beliefs and "norms" that guide them, the economic systems they support—they rise and fall, too. The downfall of the Roman Empire brought an end not just to Roman rule but to Roman government and law and to an entire economic system stretching from Northern Europe to North Africa. Culture, the arts, even progress in science and technology, were set back for centuries. Modern history has followed a similar pattern. After the Napoleonic Wars of the early 19th century, British control of the seas and the balance of great powers on the European continent provided relative security and stability. Prosperity grew, personal freedoms expanded, and the world was knit more closely together by revolutions in commerce and communication. With the outbreak of World War I, the age of settled peace and advancing liberalism—of European civilization approaching its pinnacle—collapsed into an age of hyper-nationalism, despotism and economic calamity. The once-promising spread of democracy and liberalism halted and then reversed course, leaving a handful of outnumbered and besieged democracies living nervously in the shadow of fascist and totalitarian neighbors. The collapse of the British and European orders in the 20th century did not produce a new dark age—though if Nazi Germany and imperial Japan had prevailed, it might have—but the horrific conflict that it produced was, in its own way, just as devastating. Would the end of the present American-dominated order have less dire consequences? A surprising number of American intellectuals, politicians and policy makers greet the prospect with equanimity. There is a general sense that the end of the era of American pre-eminence, if and when it comes, need not mean the end of the present international order, with its widespread freedom, unprecedented global prosperity (even amid the current economic crisis) and absence of war among the great powers. American power may diminish, the political scientist G. John Ikenberry argues, but "the underlying foundations of the liberal international order will survive and thrive." The commentator Fareed Zakaria believes that even as the balance shifts against the U.S., rising powers like China "will continue to live within the framework of the current international system." And there are elements across the political spectrum—Republicans who call for retrenchment, Democrats who put their faith in international law and institutions—who don't imagine that a "post-American world" would look very different from the American world. If all of this sounds too good to be true, it is. The present world order was largely shaped by American power and reflects American interests and preferences. If the balance of power shifts in the direction of other nations, the world order will change to suit their interests and preferences. Nor can we assume that all the great powers in a post-American world would agree on the benefits of preserving the present order, or have the capacity to preserve it, even if they wanted to. Take the issue of democracy. For several decades, the balance of power in the world has favored democratic governments. In a genuinely post-American world, the balance would shift toward the great-power autocracies. Both Beijing and Moscow already protect dictators like Syria's Bashar al-Assad. If they gain greater relative influence in the future, we will see fewer democratic transitions and more autocrats hanging on to power. The balance in a new, multipolar world might be more favorable to democracy if some of the rising democracies—Brazil, India, Turkey, South Africa—picked up the slack from a declining U.S. Yet not all of them have the desire or the capacity to do it. What about the economic order of free markets and free trade? People assume that China and other rising powers that have benefited so much from the present system would have a stake in preserving it. They wouldn't kill the goose that lays the golden eggs. Unfortunately, they might not be able to help themselves. The creation and survival of a liberal economic order has depended, historically, on great powers that are both willing and able to support open trade and free markets, often with naval power. If a declining America is unable to maintain its long-standing hegemony on the high seas, would other nations take on the burdens and the expense of sustaining navies to fill in the gaps? Even if they did, would this produce an open global commons—or rising tension? China and India are building bigger navies, but the result so far has been greater competition, not greater security. As Mohan Malik has noted in this newspaper, their "maritime rivalry could spill into the open in a decade or two," when India deploys an aircraft carrier in the Pacific Ocean and China deploys one in the Indian Ocean. The move from American-dominated oceans to collective policing by several great powers could be a recipe for competition and conflict rather than for a liberal economic order. And do the Chinese really value an open economic system? The Chinese economy soon may become the largest in the world, but it will be far from the richest. Its size is a product of the country's enormous population, but in per capita terms, China remains relatively poor. The U.S., Germany and Japan have a per capita GDP of over $40,000. China's is a little over $4,000, putting it at the same level as Angola, Algeria and Belize. Even if optimistic forecasts are correct, China's per capita GDP by 2030 would still only be half that of the U.S., putting it roughly where Slovenia and Greece are today. As Arvind Subramanian and other economists have pointed out, this will make for a historically unique situation. In the past, the largest and most dominant economies in the world have also been the richest. Nations whose peoples are such obvious winners in a relatively unfettered economic system have less temptation to pursue protectionist measures and have more of an incentive to keep the system open. China's leaders, presiding over a poorer and still developing country, may prove less willing to open their economy. They have already begun closing some sectors to foreign competition and are likely to close others in the future. Even optimists like Mr. Subramanian believe that the liberal economic order will require "some insurance" against a scenario in which "China exercises its dominance by either reversing its previous policies or failing to open areas of the economy that are now highly protected." American economic dominance has been welcomed by much of the world because, like the mobster Hyman Roth in "The Godfather," the U.S. has always made money for its partners. Chinese economic dominance may get a different reception. Another problem is that China's form of capitalism is heavily dominated by the state, with the ultimate goal of preserving the rule of the Communist Party. Unlike the eras of British and American pre-eminence, when the leading economic powers were dominated largely by private individuals or companies, China's system is more like the mercantilist arrangements of previous centuries. The government amasses wealth in order to secure its continued rule and to pay for armies and navies to compete with other great powers. Although the Chinese have been beneficiaries of an open international economic order, they could end up undermining it simply because, as an autocratic society, their priority is to preserve the state's control of wealth and the power that it brings. They might kill the goose that lays the golden eggs because they can't figure out how to keep both it and themselves alive. Finally, what about the long peace that has held among the great powers for the better part of six decades? Would it survive in a post-American world? Most commentators who welcome this scenario imagine that American predominance would be replaced by some kind of multipolar harmony. But multipolar systems have historically been neither particularly stable nor particularly peaceful. Rough parity among powerful nations is a source of uncertainty that leads to miscalculation. Conflicts erupt as a result of fluctuations in the delicate power equation. War among the great powers was a common, if not constant, occurrence in the long periods of multipolarity from the 16th to the 18th centuries, culminating in the series of enormously destructive Europe-wide wars that followed the French Revolution and ended with Napoleon's defeat in 1815. The 19th century was notable for two stretches of great-power peace of roughly four decades each, punctuated by major conflicts. The Crimean War (1853-1856) was a mini-world war involving well over a million Russian, French, British and Turkish troops, as well as forces from nine other nations; it produced almost a half-million dead combatants and many more wounded. In the Franco-Prussian War (1870-1871), the two nations together fielded close to two million troops, of whom nearly a half-million were killed or wounded. The peace that followed these conflicts was characterized by increasing tension and competition, numerous war scares and massive increases in armaments on both land and sea. Its climax was World War I, the most destructive and deadly conflict that mankind had known up to that point. As the political scientist Robert W. Tucker has observed, "Such stability and moderation as the balance brought rested ultimately on the threat or use of force. War remained the essential means for maintaining the balance of power." There is little reason to believe that a return to multipolarity in the 21st century would bring greater peace and stability than it has in the past. The era of American predominance has shown that there is no better recipe for great-power peace than certainty about who holds the upper hand. President Bill Clinton left office believing that the key task for America was to "create the world we would like to live in when we are no longer the world's only superpower," to prepare for "a time when we would have to share the stage." It is an eminently sensible-sounding proposal. But can it be done? For particularly in matters of security, the rules and institutions of international order rarely survive the decline of the nations that erected them. They are like scaffolding around a building: They don't hold the building up; the building holds them up. Many foreign-policy experts see the present international order as the inevitable result of human progress, a combination of advancing science and technology, an increasingly global economy, strengthening international institutions, evolving "norms" of international behavior and the gradual but inevitable triumph of liberal democracy over other forms of government—forces of change that transcend the actions of men and nations. Americans certainly like to believe that our preferred order survives because it is right and just—not only for us but for everyone. We assume that the triumph of democracy is the triumph of a better idea, and the victory of market capitalism is the victory of a better system, and that both are irreversible. That is why Francis Fukuyama's thesis about "the end of history" was so attractive at the end of the Cold War and retains its appeal even now, after it has been discredited by events. The idea of inevitable evolution means that there is no requirement to impose a decent order. It will merely happen. But international order is not an evolution; it is an imposition. It is the domination of one vision over others—in America's case, the domination of free-market and democratic principles, together with an international system that supports them. The present order will last only as long as those who favor it and benefit from it retain the will and capacity to defend it. There was nothing inevitable about the world that was created after World War II. No divine providence or unfolding Hegelian dialectic required the triumph of democracy and capitalism, and there is no guarantee that their success will outlast the powerful nations that have fought for them. Democratic progress and liberal economics have been and can be reversed and undone. The ancient democracies of Greece and the republics of Rome and Venice all fell to more powerful forces or through their own failings. The evolving liberal economic order of Europe collapsed in the 1920s and 1930s. The better idea doesn't have to win just because it is a better idea. It requires great powers to champion it. If and when American power declines, the institutions and norms that American power has supported will decline, too. Or more likely, if history is a guide, they may collapse altogether as we make a transition to another kind of world order, or to disorder. We may discover then that the U.S. was essential to keeping the present world order together and that the alternative to American power was not peace and harmony but chaos and catastrophe—which is what the world looked like right before the American order came into being.

**Second is stimulus—the plan immediately boosts the economy and cements the next wave of growth—empirics prove and dissenters use myopic models**

**MPI, economic think tank, 10**—Martin Prosperity Institute at the U of Toronto’s Rotman School of Management (date last cited, “High Speeds, High Costs, Hidden Benefits: A Broader Perspective on High-Speed Rail”, Martin Prosperity Insights, <http://martinprosperity.org/images/stories/jmc/cache/mpi-high-speeds-high-costs-hidden-benefits-a-broader-perspective-on-high-speed-rail.pdf>, AL)

Thus the benefits of high-speed rail are usually conceived as lowering costs and reducing problems (gridlock, pollution, travel time) rather than expanding growth. The Martin Prosperity Institute’s latest white paper, Making High-Speed Rail Work for Ottawa, argues that a better approach to assessing transportation investments ought to consider the **economy-expanding effects** of high-speed rail. Economic history is replete with evidence of forward-thinking infrastructure investments that could not be justified by the evaluation tools of their time but **ultimately proved transformative** to the economic system. The Trans-Canada railway, the **U.S.** Interstate **Highway System**, and **ARPANET** (precursor to the Internet) all fall into this category. The new paper argues that high-speed rail infrastructure has the potential to have the same sort of transformative effect.

First, it **expands the labour pool** available to employers, bringing talented workers from nearby centres within commuting distance and thus expanding the **quantity and quality of available employees**. So, for example, high-speed rail would enable a company in Toronto looking for a mobile user-interface designer to draw on talent living in Kitchener-Waterloo, London, and Kingston. In economic terms, an effective transportation system improves productivity because it helps allocate labour inputs more effectively.

Second, high-speed rail **expands the size of the job market** available to **workers**. Because it increases the distance that commuters can travel for work, it allows them to seek employment across what were once multiple, separate labour markets. This is particularly important in an era when self-employment, contract-oriented work, and part-time work are all rising, meaning that workers are searching for jobs more frequently than ever. Eliminating the need to move to a new home to follow economic opportunity saves **significant financial** and social **costs**.

Third, faster connections **extend the benefits of other** expensive, productivity-enhancing **infrastructure** across the entire mega-region. International airports, major research universities and reference libraries are all more **financially viable** and **internationally competitive** when they serve a larger population. High-speed rail allows them to build the scale they need to achieve world-class **excellence** and also spreads their high costs across a wider population.

Perhaps the best paradigm for illustrating the potential effects of high-speed rail is the development of the US Interstate Highway System. In a report looking back at the history of the system since construction began in 1956, the Transportation Research Board describes the difficulty of capturing the full economic impact of such a massive transportation advance using conventional models. Introduction of the high-speed highway system “fundamentally altered relationships between time, cost, and space in a manner which allowed new economic opportunities to emerge that would never have emerged under previous technologies”ii (p. 44). In the knowledge economy era, high-speed rail may have the right characteristics to help facilitate **another wave of productivity-driven economic growth**.

**And the plan is key—other stimuli fail**

**Tierney, prof geography, 12**—professor of geography at U of North Texas, PhD in geography from U of Denver, MA in geography from Arizona State University (Sean, 2/28/2012, “High-speed rail, the knowledge economy and the next growth wave”, Journal of Transport Geography 22, p. 285-287, p. science direct, AL)

For all the controversy surrounding the 2009 stimulus bill, one of its **noteworthy flaws** was its focus on ‘shovel ready’ projects. Shovel ready projects are relics of the 20th century economy designed to prop up or expand the existing built environment. Acknowledging that crisis management is **inherently reactionary**, the stimulus failed to anticipate the next economic landscape. **What we need now**, what HSR offers, is infrastructure that **primes the knowledge economy**, designed to enhance idea-exchange in the face of rising populations and global competition.

Globalization is already reshuffling our national urban hierarchy. Some cities and regions are grappling with **decaying industries**, plummeting tax receipts and laborers with inadequate skills. Meanwhile, other places with deep and diversified economic roots are repositioning themselves for the next round of consolidation and growth. For better or worse, **ideas have replaced tangible goods** as our primary export and there is a growing divide between those places with long traditions of economic adaptation and those with mono-industry concentrations and declining productivity. HSR is not appropriate for regions in decline, places like the industrial mid-west or the sand-states (Florida, Arizona, and Nevada), but HSR is well suited to **strengthen the competitive advantages** of those places that are winning.

**Only massive stimulus now can stave off a second depression**

**Watson, citing Roubini, PhD in int’l economics, 11**—news writer and MA in IR from U Nottingham (Steve, 9/12/2011, “Renowned Economist Warns Of Severe Depression Without “Massive New Stimulus, Could hit as early as next year”, InfoWars, <http://www.infowars.com/renowned-economist-warns-of-severe-depression-without-massive-new-stimulus/>, AL)

Renowned Economist Nouriel Roubini, says that unless world governments release **massive new fiscal stimulus**, there will be **another Great Depression**, possibly **within one year**.

Roubini, who predicted the 2008 crash and has been predicting a double dip recession for some time, has even revised his previous “perfect storm” prediction for 2013 and now suggests that a **grave economic downturn** is even closer.

“I thought a few months ago that the perfect storm would be 2013, but now, the economic weakness in the U.S., eurozone and U.K. is front-loaded.” Roubini told Bloomberg News.

“So we’re going to double-dip earlier. The climax of it could be 2013 or it could be already earlier.” Roubini added.

Earlier this month, the economist, often dubbed Dr Doom owing to his stark and bearish financial predictions, stated that he feels there is a 60 percent probability of recession in early 2012.

“There’ll be more monetary easing and quantitative easing done by the Fed and other central banks, but the credit channel is broken.” Roubini told Bloomberg.

Roubini has warned that the world’s developed economies are trapped in a more dangerous place than in 2008, owing to the “stall speed” of low growth and a dearth of potential political solutions.

“Things are getting worse, and the big difference between now and a few years ago is that this time around, we’re **running out of policy bullets**.” Roubini said.

In a piece in the Financial Times last month, the economist noted that the recent media driven impression of a short term “recovery” was a “**delusion that has been dashed**.”

“America’s recent data have been lousy: there has been little job creation, weak growth and flat consumption and manufacturing production. Housing remains depressed. Consumer, business and investor confidence has been falling, and **will now fall further**.”

“Until last year policymakers could always produce a new rabbit from their hat to trigger asset reflation and economic recovery.” Roubini writes. “Zero policy rates, QE1, QE2, credit easing, fiscal stimulus, ring-fencing, liquidity provision to the tune of trillions of dollars and bailing out banks and financial institutions – all have been tried. But now we have run out of rabbits to reveal.” he added.

The New York University professor,stated that he believes avoiding another severe recession is tantamount to “mission impossible”.

“In the short term, we **need to do massive stimulus**; otherwise, there’s going to be another Great Depression…”

“You need to restore economic growth, not five years from now. You need to restore it today.” the economist added.

The impact is nuclear war

Harris and Burrows 9 (Mathew, PhD European History at Cambridge, counselor in the National Intelligence Council (NIC) and Jennifer, member of the NIC’s Long Range Analysis Unit “Revisiting the Future: Geopolitical Effects of the Financial Crisis” <http://www.ciaonet.org/journals/twq/v32i2/f_0016178_13952.pdf>, AM)

Increased Potential for Global Conflict Of course, the report encompasses more than economics and indeed believes the future is likely to be the result of a number of intersecting and interlocking forces. With so many possible permutations of outcomes, each with ample Revisiting the Future opportunity for unintended consequences, there is a growing sense of insecurity. Even so, history may be more instructive than ever. While we continue to believe that the Great Depression is not likely to be repeated, the lessons to be drawn from that period include the harmful effects on fledgling democracies and multiethnic societies (think Central Europe in 1920s and 1930s) and on the sustainability of multilateral institutions (think League of Nations in the same period). There is no reason to think that this would not be true in the twenty-first as much as in the twentieth century. For that reason, the ways in which the potential for greater conflict could grow would seem to be even more apt in a constantly volatile economic environment as they would be if change would be steadier. In surveying those risks, the report stressed the likelihood that terrorism and nonproliferation will remain priorities even as resource issues move up on the international agenda. Terrorism’s appeal will decline if economic growth continues in the Middle East and youth unemployment is reduced. For those terrorist groups that remain active in 2025, however, the diffusion of technologies and scientific knowledge will place some of the world’s most dangerous capabilities within their reach. Terrorist groups in 2025 will likely be a combination of descendants of long established groups\_inheriting organizational structures, command and control processes, and training procedures necessary to conduct sophisticated attacks\_and newly emergent collections of the angry and disenfranchised that become self-radicalized, particularly in the absence of economic outlets that would become narrower in an economic downturn. The most dangerous casualty of any economically-induced drawdown of U.S. military presence would almost certainly be the Middle East. Although Iran’s acquisition of nuclear weapons is not inevitable, worries about a nuclear-armed Iran could lead states in the region to develop new security arrangements with external powers, acquire additional weapons, and consider pursuing their own nuclear ambitions. It is not clear that the type of stable deterrent relationship that existed between the great powers for most of the Cold War would emerge naturally in the Middle East with a nuclear Iran. Episodes of low intensity conflict and terrorism taking place under a nuclear umbrella could lead to an **unintended escalation** and broader conflict if clear red lines between those states involved are not well established. The close proximity of potential nuclear rivals combined with underdeveloped surveillance capabilities and mobile dual-capable Iranian missile systems also will produce inherent difficulties in achieving reliable indications and warning of an impending nuclear attack. The lack of strategic depth in neighboring states like Israel, short warning and missile flight times, and uncertainty of Iranian intentions may place more focus on preemption rather than defense, potentially leading to **escalating** **crises**. 36 Types of conflict that the world continues to experience, such as over resources, could reemerge, particularly if protectionism grows and there is a resort to neo-mercantilist practices. Perceptions of renewed energy scarcity will drive countries to take actions to assure their future access to energy supplies. In the worst case, this could result in interstate conflicts if government leaders deem assured access to energy resources, for example, to be essential for maintaining domestic stability and the survival of their regime. Even actions short of war, however, will have important geopolitical implications. Maritime security concerns are providing a rationale for naval buildups and modernization efforts, such as China’s and India’s development of blue water naval capabilities. If the fiscal stimulus focus for these countries indeed turns inward, one of the most obvious funding targets may be military. Buildup of regional naval capabilities could lead to increased tensions, rivalries, and counterbalancing moves, but it also will create opportunities for multinational cooperation in protecting critical sea lanes. With water also becoming scarcer in Asia and the Middle East, cooperation to manage changing water resources is likely to be increasingly difficult both within and between states in a more dog-eat-dog world.

**Third is jobs—the plan creates over 1.6 million—creates long-term economic stability and resilience**

**Rogers, JD, 11**—JD from U of Illinois College of Law, BA in Economics from U of Utah (Joshua, Spring 2011, “THE GREAT TRAIN ROBBERY: HOW STATUTORY CONSTRUCTION MAY HAVE DERAILED AN AMERICAN HIGH SPEED RAIL SYSTEM”, U. Ill. J.L. Tech. & Pol'y 215, p. lexis, AL)

High speed rail will also **boost the economy immediately** and help **stabilize the economy** in the future. The construction of high speed rail is estimated to create **1.6 million U.S. jobs**. n68

Still, that number could **grow significantly** if, as has been proposed by some, the U.S. contracts with American companies to build the high speed rail trainsets. n69

Beyond the immediate creation of jobs, passenger rail is predicted to reduce America's dependence on foreign oil imports. n70

That reduction could also be augmented if the high speed rail system employs electric propulsion in lieu of the traditional diesel propulsion of passenger rail. n71

Thus, the U.S. would benefit from a viable high speed rail system through increased efficiency, reduced environmental impact, and economic growth and stabilization.

**Limiting unemployment creates a social infrastructure that is key to lifting the poorest of the poor**

AFL-CIO, labor advocacy group, 1—“An American Economy That Works for All Working Families,” <http://www.aflcio.org/aboutus/thisistheaflcio/convention/2001/resolutions/upload/res6.pdf>

Low unemployment rates also yield tremendous social benefits by providing a rung on the ladder of economic opportunity to those previously excluded from the labor force. Without the opportunity to earn a living and acquire job skills, it is impossible to participate in the American dream. Falling unemployment throughout the second half of the 1990s provided this opportunity to our most economically disadvantaged citizens, and the benefits were enormous for all of us. People everywhere worked when given the chance, welfare roles shrank and economically disadvantaged inner-city areas began to revive. Finally, low unemployment also produces major fiscal benefits. High levels of employment and rising wages increase tax revenues and reduce demand for social services. They also generate higher profits and stock market gains, which add to public revenues through corporate and capital gains taxes. As a result, the nation’s finances are improved, positioning us to invest in education, public infrastructure, health care and retirement security. In short, low unemployment is the foundation of rising living standards, greater productivity, enhanced opportunities for the most disadvantaged and sound public finances.

**This solves economic nationalism and protectionism**

El-Erian, CEO at Pimco, 9—Mohamed, chief executive and co-chief investment officer of Pimco, American jobs data are worse than we think, <http://www.ft.com/cms/s/0/1e06911c-6719-11de-925f-00144feabdc0.html#axzz1RAPfeGsO>

This conventional wisdom is valid most, but not all of the time. There are rare occasions, such as today, when we should think of the unemployment rate as much more than a lagging indicator; it has the potential to influence future economic behaviours and outlooks. Today’s broader interpretation is warranted by two factors: the speed and extent of the recent rise in the unemployment rate; and, the likelihood that it will persist at high levels for a prolonged period of time. As a result, the unemployment rate will increasingly disrupt an economy that, hitherto, has been influenced mainly by large-scale dislocations in the financial system. In just 16 months, the US unemployment rate has doubled from 4.8 per cent to 9.5 per cent, a remarkable surge by virtually any modern-day metric. It is also likely that the 9.5 per cent rate understates the extent to which labour market conditions are deteriorating. Just witness the increasing number of companies asking employees to take unpaid leave. Meanwhile, after several years of decline, the labour participation rate has started to edge higher as people postpone their retirements and as challenging family finances force second earners to enter the job market. Notwithstanding its recent surge, the unemployment rate is likely to rise even further, reaching 10 per cent by the end of this year and potentially going beyond that. Indeed, the rate may not peak until 2010, in the 10.5-11 per cent range; and it will likely stay there for a while given the lacklustre shift from inventory rebuilding to consumption, investment and exports. Beyond the public sector hiring spree fuelled by the fiscal stimulus package, the post-bubble US economy faces considerable headwinds to sustainable job creation. It takes time to restructure an economy that became over-dependent on finance and leverage. Meanwhile, companies will use this period to shed less productive workers. This will disrupt consumption already reeling from a large negative wealth shock due to the precipitous decline in house prices. Consumption will be further undermined by uncertainties about wages. This possibility of a very high and persistent unemployment rate is not, as yet, part of the mainstream deliberations. Instead, the persistent domination of a “mean reversion” mindset leads to excessive optimism regarding how quickly the rate will max out, and how fast it converges back to the 5 per cent level for the Nairu (non-accelerating inflation rate of unemployment). The US faces a material probability of both a higher Nairu (in the 7 per cent range) and, relative to recent history, a much slower convergence of the actual unemployment rate to this new level. This paradigm shift will complicate an already complex challenge facing policymakers. They will have to recalibrate fiscal and monetary stimulus to recognise the fact that “temporary and targeted” stimulus will be less potent than anticipated. But the inclination to increase the dose of stimulus will be tempered by the fact that, as the fiscal picture deteriorates rapidly, the economy is less able to rely on future growth to counter the risk of a debt trap. Politics will add to the policy complications. The combination of stubbornly high unemployment and growing government debt will not play well. The rest of the world should also worry. Persistently high unemployment fuels protectionist tendencies. Think of this as yet another illustration of the fact that the US economy is on a bumpy journey to a new normal. The longer this reality is denied, the greater will be the cost to society of restoring economic stability.

**The impact is great power conflict and nuclear terrorism**

Panzner, investment banker, 8 **-**faculty at the New York Institute of Finance, 25-year veteran of the global stock, bond, and currency markets who has worked in New York and London for HSBC, Soros Funds, ABN Amro, Dresdner Bank, and JPMorgan Chase Michael, Financial Armageddon: Protect Your Future from Economic Collapse, Revised and Updated Edition, p. 136-138

Continuing calls for curbs on the flow of finance and trade will inspire the United States and other nations to spew forth protectionist legislation like the notorious Smoot-Hawley bill. Introduced at the start of the Great Depression, it triggered a series of tit-for-tat economic responses, which many commentators believe helped turn a serious economic downturn into a prolonged and devastating global disaster, But if history is any guide, those lessons will have been long forgotten during the next collapse. Eventually, fed by a mood of desperation and growing public anger, restrictions on trade, finance, investment, and immigration will almost certainly intensify.   Authorities and ordinary citizens will likely scrutinize the cross-border movement of Americans and outsiders alike, and lawmakers may even call for a general crackdown on nonessential travel. Meanwhile, many nations will make transporting or sending funds to other countries exceedingly difficult. As desperate officials try to limit the fallout from decades of ill-conceived, corrupt, and reckless policies, they will introduce controls on foreign exchange, foreign individuals and companies seeking to acquire certain American infrastructure assets, or trying to buy property and other assets on the (heap thanks to a rapidly depreciating dollar, will be stymied by limits on investment by noncitizens. Those efforts will cause spasms to ripple across economies and markets, disrupting global payment, settlement, and clearing mechanisms. All of this will, of course, continue to undermine business confidence and consumer spending.  In a world of lockouts and lockdowns, any link that transmits systemic financial pressures across markets through arbitrage or portfolio-based risk management, or that allows diseases to be easily spread from one country to the next by tourists and wildlife, or that otherwise facilitates unwelcome exchanges of any kind will be viewed with suspicion and dealt with accordingly.  The rise in isolationism and protectionism will bring about ever more heated arguments and dangerous confrontations over shared sources of oil, gas, and other key commodities as well as factors of production that must, out of necessity, be acquired from less-than-friendly nations. Whether involving raw materials used in strategic industries or basic necessities such as food, water, and energy, efforts to secure adequate supplies will take increasing precedence in a world where demand seems constantly out of kilter with supply. Disputes over the misuse, overuse, and pollution of the environment and natural resources will become more commonplace. Around the world, such tensions will give rise to full-scale military encounters, often with minimal provocation.  In some instances, economic conditions will serve as a convenient pretext for conflicts that stem from cultural and religious differences. Alternatively, nations may look to divert attention away from domestic problems by channeling frustration and populist sentiment toward other countries and cultures. Enabled by cheap technology and the waning threat of American retribution, terrorist groups will likely boost the frequency and scale of their horrifying attacks, bringing the threat of random violence to a whole new level.  Turbulent conditions will encourage aggressive saber rattling and interdictions by rogue nations running amok. Age-old clashes will also take on a new, more healed sense of urgency. China will likely assume an increasingly belligerent posture toward Taiwan, while Iran may embark on overt colonization of its neighbors in the Mideast. Israel, for its part, may look to draw a dwindling list of allies from around the world into a growing number of conflicts. Some observers, like John Mearsheimer, a political scientist at the University of Chicago, have even speculated that an "intense confrontation" between the United States and China is "inevitable" at some point.  More than a few disputes will turn out to be almost wholly ideological. Growing cultural and religious differences will be transformed from wars of words to battles soaked in blood. Long-simmering resentments could also degenerate quickly, spurring the basest of human instincts and triggering genocidal acts. Terrorists employing biological or nuclear weapons will vie with conventional forces using jets, cruise missiles, and bunker-busting bombs to cause widespread destruction. Many will interpret stepped-up conflicts between Muslims and Western societies as the beginnings of a new world war.

###  Competitiveness—Plan Key

**Rail is collapsing now and key to competitiveness—new investment is key**

**Dovell, CFR researcher, 3/7**—researcher for the Council on Foreign Relations, Executive Board Member and Program Writer at Dialogue Beyond Borders, BA in international relations from SUNY-New Paltz (Elizabeth, 3/7/2012, “U.S. Rail Infrastructure”, Council on Foreign Relations: Renewing America, <http://www.cfr.org/united-states/us-rail-infrastructure/p27585>, AL)

Rail is an **essential component** of a balanced national transportation (PDF) system and a globally competitive economy. The American Society of Civil Engineers, which graded U.S. rail infrastructure with a **C-**, notes that the rail industry requires $200 billion in investment by 2035 to meet projected future demand. In the United States, modern freight and passenger rail systems share the same corridors and infrastructure. But while privately owned U.S. freight has succeeded in remaining competitive with other transportation modes, federally run passenger rail has **struggled**. Experts say the continued success of freight rail will require **billions in new funding** to avoid congestion, particularly if plans for expanding passenger rail proceed.

###  Competitiveness—AT Collapse Inev

**Not inevitable—but we’re facing serious challenges**

**Porter and Rivkin, Harvard profs, 12**—\*Bishop William Lawrence University Professor at Harvard Business School, \*\*Bruce V. Rauner Professor of Business Administration at Harvard Business School (\*Michael E. Porter, \*\*Jan W. Rivkin, March, “The Looming Challenge to U.S. Competitiveness”, Harvard Business Review, <http://hbr.org/2012/03/the-looming-challenge-to-us-competitiveness/ar/1>, AL)

During the past year, we have examined U.S. competitiveness with the help of a **diverse group of scholars**, business **leaders from around the world**, and the first-ever comprehensive survey of Harvard Business School alumni. Our research suggests that the U.S. faces serious challenges. Too often, America’s leaders, in government and business, have acted in ways that neutralize the country’s many strengths. However, the decline of U.S. competitiveness is **far from inevitable**. The United States remains the world’s most productive large economy and its largest market for sophisticated goods and services, which stimulates innovation and acts as a magnet for investment.

###  Stimulus—Global Growth EXT

**HSR is critical to supply the expanding economic geography—drives global economic growth**

**Tierney, prof geography, 12**—professor of geography at U of North Texas, PhD in geography from U of Denver, MA in geography from Arizona State University (Sean, 2/28/2012, “High-speed rail, the knowledge economy and the next growth wave”, Journal of Transport Geography 22, p. 285-287, p. science direct, AL)

More than simply links and nodes, transportation is **deeply embedded** in the texture of the American experience, and HSR is the **next logical iteration** in the nexus between infrastructure and an expanding economic geography. History has shown that new transportation technologies improve exchange while accommodating growing urban populations. Street and trolley cars enabled the first bedroom communities along rail lines after which the early automobile expanded the perimeter a bit further. The Eisenhower highway system created the suburbs, while beltways brought us edge cities and exurbs. Urban boundaries have now pushed out so far that they often **overlap with neighboring cities**. People living in the boomburb of Castle Rock, CO are within an hour of both Denver and Colorado Springs, while Princeton, NJ splits the difference between New York and Philadelphia.

It is **axiomatic** that **agglomerations spur innovation and growth** (Audretsch, 1998), but creativity has been pushing outward for decades as evidenced by Redmond, WA (Microsoft), Stamford, CT (UBS Bank) or Round Rock, TX (Dell). The landscape is extending yet again and where we used to associate economic vibrancy with cities, and then metropolitan areas, we now think of **mega-regions**. Charlotte is not part of the research triangle (Raleigh, Durham, and Chapel Hill) but is home to the country’s largest bank (Bank of America) and is only 250 miles from Atlanta. Los Angeles and San Diego are part of a web extending across southern California. Southwest Airlines got its start serving traveler demand in the triangle between Dallas, Houston and San Antonio; with triple digit oil prices, rail could serve these three fast-growing cities (a triangle that also contains Austin and Ft. Worth), none of which are more than 275 miles apart.

Florida (2009) identifies **40 global mega-regions**, of which nine are located in the US (seven are purely US and two included parts of Canada). These places are not just **driving global economic growth**, they are doing it with a fraction of the people; home to less than 20% of the world’s population, these mega-regions produce 2/3 of the economic output. It is naïve to believe the populations of these regions will remain static, which is why it would be **irresponsible** not to start constructing HSR. Intelligent transportation systems or alternate fuel vehicles may obviate an oil crisis, but we would still have a highway and **congestion crisis**. There is a reason that highway construction has its own ‘black hole theory’ (Plane, 1995). And it is not just congestion that is costing us money, but also l**ost economic output**. By equipping trains with Wi-Fi, as competitor countries have already done, HSR enhances productivity.

###  Stimulus—AT Doesn’t Work

**Keynesian models are correct—stimulus saves the economy**

Stiglitz, prof econ, 12—University Professor at Columbia University, and a Nobel laureate in Economics [Joseph E. Stiglitz, Stimulating the Economy in an Era of Debt and Deficit, The Economists’ Voice http://www.degruyter.com/view/j/ev March, 2012]

Any diagnosis of the current economic situation should focus on the fact that the shortfall between actual and potential unemployment is huge and that monetary policy has proven ineffective, at least in restoring the economy to anything near full employment. Under these circumstances, the traditional economists’ solution has been to advocate the use of fiscal policy—tax cuts and/or spending increases. There is an especially compelling case for increasing public investments because they would increase GDP and employment today as well as increase output in the future. Given low interest rates, the enhanced growth in GDP would more than offset the increased cost of government spending, reducing national debt in the medium term. Moreover, the ratio of debt to GDP would decrease and the ability of the U.S. economy to sustain debt (debt sustainability) would improve.

This happy state of affairs is especially likely given the ample supply of high-return investment opportunities in infrastructure, technology, and education resulting from underinvestment in these areas over the past quarter century. Moreover, well-designed public investments would raise the return on private investments, “crowding in” this additional source of spending. Together, increased public and private investment would raise output and employment in the short run, and increase growth and debt sustainability in the medium and long run. Such spending would reduce (not increase) the ratio of debt to GDP. Thus, the objection that the U.S. should not engage in such fiscal policies because of the high ratio of debt to GDP is simply wrong; even those who suffer from deficit fetishism should support such measures.

Critics of this standard Keynesian prescription raise two objections: (a) government is not likely to spend the money on high return investments, so that the promised gains will prove elusive and (b) the fiscal multipliers are small (perhaps negative), suggesting that the shortrun gains from fiscal policy are minimal at best. Both of these objections are easily dismissed in the current economic environment.

First, the assertion that government is incapable of making high return investments is just wrong. Studies of the average returns on government spending on investments in technology show extraordinarily high returns, with returns on investments in infrastructure and education returns well above the cost of borrowing. Thus, from a national point of view, investments in these areas make sense, even if the government fails to make the investments with the absolute highest returns.

Second, the many variants of the argument that the fiscal multiplier is small typically rest on the assumption that as government spending increases, some category of private expenditure will decline to offset this increase. 1 Certainly, when the economy is at full employment and capital is being fully utilized, GDP cannot increase. Hence, under the circumstances, the multiplier must be zero. But today’s economic conditions of significant and persistent resource underutilization have not been experienced since the Great Depression. As a result, it is simply meaningless to rely on empirical estimates of multipliers based on post-World War II data. Contractionary monetary policy is another reason why multipliers may be markedly larger now than they were in some earlier situations of excess capacity. In these cases, monetary authorities, excessively fearful of inflation, responded to deficit spending by raising interest rates and constraining credit availability, thus dampening private spending. But such an outcome is not inevitable; it is a result of policies, often guided by mistaken economic theories.

In any case, such an outcome is irrelevant today. This is because the Federal Reserve is committed to an unprecedented policy of maintaining near-zero interest rates through at least the end of 2014, while at the same time encouraging government spending. With interest rates at record lows and the Federal Reserve committed to keeping them there, crowding out of private investment simply will not occur. On the contrary, as I have noted, public investment— for instance, in better infrastructure—is more likely to increase the returns to private investment. Such public spending crowds in private investment, increasing the multiplier. Sometimes economists claim that consumers, worried about future tax liabilities in the wake of government spending, would contract their spending. However, the applicability of this notion (referred to as Ricardian equivalence) is contradicted by the fact that when George W. Bush lowered taxes and massively increased the deficit, savings plummeted to zero. But even if one believed in the applicability of Ricardian equivalence in today’s economy, government spending on investments that increase future growth and improve the debt-toGDP ratio would induce rational to spend more today. Consumption would also be crowded in by such government expenditures, not crowded out.

Indeed, if consumers had rational expectations, the multiplier would increase even more in a long-lived downturn like the current one. The reason is that some of the money that is saved this year will be spent next year, or the year after, or the year after that—periods in which the economy is still well-below capacity. This increased spending will lead to higher employment and incomes in these later years. But if individuals are rational, the realization that their future incomes will be higher will lead them to spend more today. Deficit spending today crowds in not just investment, but also consumption.

Thus, a careful look at the current situation suggests that the impact of well-designed government programs will be to stimulate the economy more than is assumed to be the case in standard Keynesian models (which typically assume a short-lived downturn and yield a shor run fiscal multiplier of around 1.5). Even in the current period, fiscal policy results in greater output increases because investment and consumption is crowded in, because: (a) the Federal Reserve is unlikely either to increase interest rates or reduce credit availability; (b) public investments are likely to increase the returns to private investments; and (c) rational consumers/ taxpayers may recognize that future tax liabilities will decline and that future incomes will rise as a result of these measures.

###  Inherency—AT ARRA Solves

**Not enough funding**

**Rogers, JD, 11**—JD from U of Illinois College of Law, BA in Economics from U of Utah (Joshua, Spring 2011, “THE GREAT TRAIN ROBBERY: HOW STATUTORY CONSTRUCTION MAY HAVE DERAILED AN AMERICAN HIGH SPEED RAIL SYSTEM”, U. Ill. J.L. Tech. & Pol'y 215, p. lexis, AL)

President Obama has noted that the $ 8 billion ARRA grant is intended as a down payment on high speed rail. n100

This initial investment is to be followed [\*227] by $ 1 billion annually to continue funding of planning and projects. n101

Standing alone, these figures are vast; however, when compared with the $ 1.8 trillion the federal government has spent on air and highway travel since 1960, the **figures are minimal**. n102

In fact, when projected over an equal period of time, they are nearly identical to the 3% of federal funding for intercity passenger travel that passenger rail has traditionally received. n103

This minimal funding demonstrates a traditional dilemma faced by passenger rail: it **does not receive the funding required to make it successful**. If a high speed rail system is meant to compete with air and automobile travel, it will cost **significantly more** than the amounts allocated by ARRA and the President's proposed continued investment.

Not surprisingly, estimates of the cost of high speed rail infrastructure construction vary widely. n104

**Standards prevent rail effectiveness**

**Rogers, JD, 11**—JD from U of Illinois College of Law, BA in Economics from U of Utah (Joshua, Spring 2011, “THE GREAT TRAIN ROBBERY: HOW STATUTORY CONSTRUCTION MAY HAVE DERAILED AN AMERICAN HIGH SPEED RAIL SYSTEM”, U. Ill. J.L. Tech. & Pol'y 215, p. lexis, AL)

With this new code section, the law creates a section specific definition of high speed rail as "intercity passenger rail service that is reasonably expected to reach speeds of at least 110 miles per hour." n124

Thus, ARRA, by committing its high speed rail funding to P.L. 110-432, adopts the 110 mph attainment (but not average) standard, which is woefully short of the needed 150 mph average standard. ARRA does at least succeed, regarding the geographic requirements, because § 502 of PRIIA modifies § 501 to the extent that for an application to be approved it must fall within one of the designated high speed corridors. n125

Therefore, by establishing the system requirements at 110 mph, **ARRA fails to capture the purpose and vision of U.S. high speed rail**.

## \*\*Env/Emissions ADV

### 1AC Emissions ADV

**The plan halves automobile emissions**

**CCAP, environmental research group, 6**—environmental think tank, in collaboration with the Center for Neighborhood Technology, a think tank dedicated to local sustainability (January, “High Speed Rail and Greenhouse Gas Emissions in the U.S.”, The Center for Clean Air Policy, <http://www.cnt.org/repository/HighSpeedRailEmissions.pdf>, AL)

Results

We calculated a total emissions savings of **6 billion pounds of CO2 per year** (2.7 MMTCO2)23 if all proposed high speed rail systems studied for this project are built (Table 2). Overall, high speed rail is estimated to generate approximately **half of the gross emissions it saves** by enabling passengers to switch from other modes. 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. The total emissions savings vary greatly by corridor, however, as do the source of those savings, as shown in Figures 3 and 4. Figure 4 looks at the emissions for every corridor except California, because its large potential savings overshadows the other corridors studied when the corridors are considered together.

**That’s the controlling internal link to warming**

**EDF, environmental think tank, 6**—Environmental Defense Fund, a think tank dedicated to sustainability and fixing global warming (1/26/2006, “Cars Built by Each of the Big Three Emit More Greenhouse Gas Than America”, Environmental Defense Fund, <http://www.edf.org/news/cars-built-each-big-three-emit-more-greenhouse-gas-america>, AL)

“Fixing the global warming problem without making cars more efficient is like **trying to fix a leaky roof without a hammer**,” said Environmental Defense President Fred Krupp. “The leading automakers must accept responsibility for becoming part of the solution.”

“Cutting greenhouse gas emissions from U.S. automobiles will be **critical to any strategy for slowing global warming**,” said John DeCicco, author of the report and senior fellow at Environmental Defense. “To address global warming, we’ll need a clear picture of what sources are contributing to the problem. This report details, by automaker and vehicle type, the greenhouse gas contributions from America's auto sector, for the first time.”

Surprisingly, given the popularity of SUVs, small cars (compacts and subcompacts) still accounted for the greatest portion of carbon emitted as of 2004 – a testament to how long today’s vehicles remain on the road. SUVs will soon be the main source of CO2 emissions from U.S. autos, having overtaken small cars in market share in 2002.

U.S. cars and light trucks are responsible for 45 percent of the CO2 emitted by automobiles around the world, even though America’s vehicles represent just 30 percent of the nearly 700 million cars in use worldwide. The American share of CO2 emissions is disproportionately higher because American vehicles are driven more each year and on average burn more fuel than cars in other countries.

The report examines the three factors behind greenhouse gas emissions from automobiles: amount of driving, fuel economy, and the carbon content of motor fuel. U.S. cars and light trucks were driven a staggering **2.6 trillion miles** in 2004, equal to driving back and forth to Pluto more than 470 times. U.S. autos also had an average fuel economy of 19.6 miles per gallon; gasoline contains 5.3 pounds of carbon, nearly all of which ends up in the atmosphere when burned.

“Reducing global warming on the road is a **shared responsibility**,” said DeCicco. “By underscoring the magnitude of emissions from America's automobiles, this report shows that all actors – automakers, fuel providers, consumers, and various levels of government – can help solve the problem by addressing those aspects of CO2 emissions they can control.”

**Warming is real and anthropogenic—models and scientific consensus are on our side**

**Rahmstorf 8** (Richard. Professor of Physics of the Oceans at Potsdam University. Global Warming: Looking Beyond Kyoto. Edited by Ernesto Zedillo. “Anthropogenic Climate Change?” Page 42-49)

It is time to turn to statement B: human activities are altering the climate. This can be broken into two parts. The first is as follows: global climate is warming. This is by now a **generally undisputed** point (except by novelist Michael Crichton), so we deal with it only briefly. The two leading compilations of data measured with thermometers are shown in figure 3-3, that of the National Aeronautics and Space Administration (NASA) and that of the British Hadley Centre for Climate Change. Although they differ in the details, due to the inclusion of different data sets and use of different spatial averaging and quality control procedures, they both show a consistent picture, with a global mean warming of 0.8°C since the late nineteenth century. Temperatures over the past ten years clearly were the warmest since measured records have been available. The year 1998 sticks out well above the longterm trend due to the occurrence of a major El Nino event that year (the last El Nino so far and one of the strongest on record). These events are examples of the **largest natural climate variations** on multiyear time scales and, by releasing heat from the ocean, generally cause **positive** anomalies in global mean temperature. It is remarkable that the year 2005 rivaled the heat of 1998 even though no El Nino event occurred that year. (A bizarre curiosity, perhaps worth mentioning, is that several prominent "climate skeptics" recently used the extreme year 1998 to claim in the media that global warming had ended. In Lindzen's words, "Indeed, the absence of any record breakers during the past seven years is statistical evidence that temperatures are not increasing.")33 In addition to the surface measurements, the more recent portion of the global warming trend (since 1979) is also documented by satellite data. It is not straightforward to derive a reliable surface temperature trend from satellites, as they measure radiation coming from throughout the atmosphere (not just near the surface), including the stratosphere, which has strongly cooled, and the records are not homogeneous' due to the short life span of individual satellites, the problem of orbital decay, observations at different times of day, and drifts in instrument calibration.' **Current** analyses of these satellite data show trends that are fully consistent with surface measurements and model simulations." If no reliable temperature measurements existed, could we be sure that the climate is warming? The "canaries in the coal mine" of climate change (as glaciologist Lonnie Thompson puts it) ~are mountain glaciers. We know, both from old photographs and from the position of the terminal moraines heaped up by the flowing ice, that mountain glaciers have been in retreat all over the world during the past century. There are precious few exceptions, and they are associated with a strong increase in precipitation or local cooling.36 I have inspected examples of shrinking glaciers myself in field trips to Switzerland, Norway, and New Zealand. As glaciers respond sensitively to temperature changes, data on the extent of glaciers have been used to reconstruct a history of Northern Hemisphere temperature over the past four centuries (see figure 3-4). Cores drilled in tropical glaciers show signs of recent melting that is unprecedented at least throughout the Holocene-the past 10,000 years. Another powerful sign of warming, visible clearly from satellites, is the shrinking Arctic sea ice cover (figure 3-5), which has declined 20 percent since satellite observations began in 1979. While climate clearly became warmer in the twentieth century, much discussion particularly in the popular media has focused on the question of how "unusual" this warming is in a longer-term context. While this is an interesting question, it has often been mixed incorrectly with the question of causation. Scientifically, how unusual recent warming is-say, compared to the past millennium-in itself contains little information about its cause. Even a highly unusual warming could have a natural cause (for example, an exceptional increase in solar activity). And even a warming within the bounds of past natural variations could have a predominantly anthropogenic cause. I come to the question of causation shortly, after briefly visiting the evidence for past natural climate variations. Records from the time before systematic temperature measurements were collected are based on "proxy data," coming from tree rings, ice cores, corals, and other sources. These proxy data are generally linked to local temperatures in some way, but they may be influenced by other parameters as well (for example, precipitation), they may have a seasonal bias (for example, the growth season for tree rings), and high-quality long records are difficult to obtain and therefore few in number and geographic coverage. Therefore, there is still substantial uncertainty in the evolution of past global or hemispheric temperatures. (Comparing only local or regional temperature; as in Europe, is of limited value for our purposes,' as regional variations can be much larger than global ones and can have many regional causes, unrelated to global-scale forcing and climate change.) The first quantitative reconstruction for the Northern Hemisphere temperature of the past millennium, including an error estimation, was presented by Mann, Bradley, and Hughes and rightly highlighted in the 2001 IPCC report as one of the major new findings since its 1995 report; it is shown in figure 3\_6.39 The analysis suggests that, despite the large error bars, twentieth-century warming is indeed highly unusual and probably was unprecedented during the past millennium. This result, presumably because of its symbolic power, has attracted much criticism, to some extent in scientific journals, but even more so in the popular media. The hockey stick-shaped curve became a symbol for the IPCC, .and criticizing this particular data analysis became an avenue for some to question the credibility of the IPCC. Three important things have been overlooked in much of the media coverage. First, even if the scientific critics had been right, this would not have called into question the very cautious conclusion drawn by the IPCC from the reconstruction by Mann, Bradley, and Hughes: "New analyses of proxy data for the Northern Hemisphere indicate that the increase in temperature in the twentieth century is likely to have been the largest of any century during the past 1,000 years." This conclusion has since been supported further by every single one of close to a dozen new reconstructions (two of which are shown in figure 3-6). Second, by far the most serious scientific criticism raised against Mann, Hughes, and Bradley was simply based on a mistake. 40 The prominent paper of von Storch and others, which claimed (based on a model test) that the method of Mann, Bradley, and Hughes systematically underestimated variability, "was [itself] based on incorrect implementation of the reconstruction procedure."41 With correct implementation, climate field reconstruction procedures such as the one used by Mann, Bradley, and Hughes have been shown to perform well in similar model tests. Third, whether their reconstruction is accurate or not has no bearing on policy. If their analysis underestimated past natural climate variability, this would certainly not argue for a smaller climate sensitivity and thus a lesser concern about the consequences of our emissions. Some have argued that, in contrast, it would point to a larger climate sensitivity. While this is a valid point in principle, it does not apply in practice to the climate sensitivity estimates discussed herein or to the range given by IPCC, since these did not use the reconstruction of Mann, Hughes, and Bradley or any other proxy records of the past millennium. Media claims that "a pillar of the Kyoto Protocol" had been called into question were therefore misinformed. As an aside, the protocol was agreed in 1997, before the reconstruction in question even existed. The overheated public debate on this topic has, at least, helped to attract more researchers and funding to this area of paleoclimatology; its methodology has advanced significantly, and a number of new reconstructions have been presented in recent years. While the science has moved forward, the first seminal reconstruction by Mann, Hughes, and Bradley has held up remarkably well, with its main features reproduced by morerecent work. Further progress probably will require substantial amounts of new proxy data, rather than further refinement of the statistical techniques pioneered by Mann, Hughes, and Bradley. Developing these data sets will require time and substantial effort. It is time to address the final statement: most of the observed warming over the past fifty years is anthropogenic. A large number of studies exist that have taken different approaches to analyze this issue, which is generally called the "attribution problem." I do not discuss the exact share of the anthropogenic contribution (although this is an interesting question). By "most" I imply mean "more than 50 percent.” The first and crucial piece of evidence is, of course, that the magnitude of the warming is what is expected from the anthropogenic perturbation of the radiation balance, so anthropogenic forcing is able to explain all of the temperature rise. As discussed here, the rise in greenhouse gases alone corresponds to 2.6 W/tn2 of forcing. This by itself, after subtraction of the observed 0'.6 W/m2 of ocean heat uptake, would Cause 1.6°C of warming since preindustrial times for medium climate sensitivity (3"C). With a current "best guess'; aerosol forcing of 1 W/m2, the expected warming is O.8°c. The point here is not that it is possible to obtain the 'exact observed number-this is fortuitous because the amount of aerosol' forcing is still very' uncertain-but that the expected magnitude is roughly right. There can be little doubt that the anthropogenic forcing is large enough to explain most of the warming. Depending on aerosol forcing and climate sensitivity, it could explain a large fraction of the warming, or all of it, or even more warming than has been observed (leaving room for natural processes to counteract some of the warming). The second important piece of evidence is clear: there is **no viable** alternative explanation. In the scientific literature, no serious alternative hypothesis has been proposed to explain the observed global warming. Other possible causes, such as solar activity, volcanic activity, cosmic rays, or orbital cycles, are well observed, but they do not show trends capable of explaining the observed warming. Since 1978, solar irradiance has been measured directly from satellites and shows the well-known eleven-year solar cycle, but no trend. There are various estimates of solar variability before this time, based on sunspot numbers, solar cycle length, the geomagnetic AA index, neutron monitor data, and, carbon-14 data. These indicate that solar activity probably increased somewhat up to 1940. While there is disagreement about the variation in previous centuries, different authors agree that solar activity did not significantly increase during the last sixty-five years. Therefore, this cannot explain the warming, and neither can any of the other factors mentioned. Models driven by natural factors only, leaving the anthropogenic forcing aside, show a cooling in the second half of the twentieth century (for an example, See figure 2-2, panel a, in chapter 2 of this volume). The trend in the sum of natural forcings is downward. The only way out would be either some as yet undiscovered unknown forcing or a warming trend that arises by chance from an unforced internal variability in the climate system. The latter cannot be completely ruled out, but has to be considered highly unlikely. **No evidence** in the observed record, proxy data, or current models suggest that such internal variability could cause a sustained trend of global warming of the observed magnitude. As discussed, twentieth century warming is unprecedented over the past 1,000 years (or even 2,000 years, as the few longer reconstructions available now suggest), which does not 'support the idea of large internal fluctuations. Also, those past variations correlate well with past forcing (solar variability, volcanic activity) and thus appear to be largely forced rather than due to unforced internal variability." And indeed, it would be difficult for a large and sustained unforced variability to satisfy the fundamental physical law of energy conservation. Natural internal variability generally shifts heat around different parts of the climate system-for example, the large El Nino event of 1998, which warmed, the atmosphere by releasing heat stored in the ocean. This mechanism implies that the ocean heat content drops as the atmosphere warms. For past decades, as discussed, we observed the atmosphere warming and the ocean heat content increasing, which rules out heat release from the ocean as a cause of surface warming. The heat content of the whole climate system is increasing, and there is no plausible source of this heat other than the heat trapped by greenhouse gases. ' A completely different approach to attribution is to analyze the spatial patterns of climate change. This is done in so-called fingerprint studies, which associate particular patterns or "fingerprints" with different forcings. It is plausible that the pattern of a solar-forced climate change differs from the pattern of a change caused by greenhouse gases. For example, a characteristic of greenhouse gases is that heat is trapped closer to the Earth's surface and that, unlike solar variability, greenhouse gases tend to warm more in winter, and at night. Such studies have used different data sets and have been performed by different groups of researchers with different statistical methods. They consistently conclude that the observed spatial pattern of warming can only be explained by greenhouse gases.49 Overall, it has to be considered, highly likely' that the observed warming is indeed predominantly due to the human-caused increase in greenhouse gases. ' This paper discussed the evidence for the anthropogenic increase in atmospheric CO2 concentration and the effect of CO2 on climate, finding that this anthropogenic increase is proven beyond reasonable doubt and that a mass of evidence points to a CO2 effect on climate of 3C ± 1.59C global-warming for a doubling of concentration. (This is, the classic IPCC range; my personal assessment is that, in-the light of new studies since the IPCC Third Assessment Report, the uncertainty range can now be narrowed somewhat to 3°C ± 1.0C) This is based on consistent results from theory, models, and data analysis, and, even in the absence-of any computer models, the same result would still hold based on physics and on data from climate history alone. Considering the plethora of consistent evidence, the chance that these conclusions are wrong has to be considered minute. If the preceding is accepted, then it follows logically and incontrovertibly that a further increase in CO2 concentration will lead to further warming. The magnitude of our emissions depends on human behavior, but the climatic response to various emissions scenarios can be computed from the information presented here. The result is the famous range of future global temperature scenarios shown in figure 3\_6.50 Two additional steps are involved in these computations: the consideration of anthropogenic forcings other than CO2 (for example, other greenhouse gases and aerosols) and the computation of concentrations from the emissions. Other gases are not discussed here, although they are important to get quantitatively accurate results. **CO2 is the largest and most important forcing**. Concerning concentrations, the scenarios shown basically assume that ocean and biosphere take up a similar share of our emitted CO2 as in the past. This could turn out to be **an optimistic assumption**; some models indicate the possibility of a positive feedback, with the biosphere turning into a carbon source rather than a sink under growing climatic stress. It is clear that even in the **more optimistic** of the shown (non-mitigation) scenarios, global temperature would rise by 2-3°C above its preindustrial level by the end of this century. Even for a paleoclimatologist like myself, this is an extraordinarily high temperature, which is very likely unprecedented in at least the past 100,000 years. As far as the data show, we would have to go back about 3 million years, to the Pliocene, for comparable temperatures. The rate of this warming (which is important for the ability of ecosystems to cope) is also highly unusual and unprecedented probably for an even longer time. The last major global warming trend occurred when the last great Ice Age ended between 15,000 and 10,000 years ago: this was a warming of about 5°C over 5,000 years, that is, a rate of only 0.1 °C per century. 52 The expected magnitude and rate of planetary warming is highly likely to come with major risk and impacts in terms of sea level rise (Pliocene sea level was 25-35 meters higher than now due to smaller Greenland and Antarctic ice sheets), extreme events (for example, hurricane activity is expected to increase in a warmer climate), and ecosystem loss. The second part of this paper examined the evidence for the current warming of the planet and discussed what is known about its causes. This part showed that global warming is already a measured and-well-established fact, not a theory. Many different lines of evidence consistently show that most of the observed warming of the past fifty years was caused by human activity. Above all, this warming is exactly what would be expected given the anthropogenic rise in greenhouse gases, and no viable alternative explanation for this warming has been proposed in the scientific literature. Taken together., the very strong evidence accumulated from **thousands** of independent studies, has over the past decades convinced **virtually every** climatologist around the world (many of whom were initially quite skeptical, including myself) that anthropogenic global warming is a reality with which we need to deal.

**Warming magnifies every impact and causes extinction**

**Burke 8** (Sharon, sr fellow and dir of the energy security project at the Center for a New American Security, Chapter 6 of Climatic Cataclysm: The Foreign Policy and National Security Implications of Climate Change, edited by Kurt Campbell, 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 Caribbean, South America, and Southeast Asia. Europe will have the oddity of having to deal with far colder winters, given the collapse of the MOC, which will compromise agricultural productivity.

###  Emissions—National EXT

**Substantial benefits across the US**

**CCAP, environmental research group, 6**—environmental think tank, in collaboration with the Center for Neighborhood Technology, a think tank dedicated to local sustainability (January, “High Speed Rail and Greenhouse Gas Emissions in the U.S.”, The Center for Clean Air Policy, <http://www.cnt.org/repository/HighSpeedRailEmissions.pdf>, AL)

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.

###  Emissions—HSR Solves EXT

**HSR massively decreases emissions**

**Rogers, JD, 11**—JD from U of Illinois College of Law, BA in Economics from U of Utah (Joshua, Spring 2011, “THE GREAT TRAIN ROBBERY: HOW STATUTORY CONSTRUCTION MAY HAVE DERAILED AN AMERICAN HIGH SPEED RAIL SYSTEM”, U. Ill. J.L. Tech. & Pol'y 215, p. lexis)

American transportation will become more efficient, if high speed rail is [\*222] used. Of the three major forms of land transportation (automobile, airplane, and passenger rail), traditional passenger rail already expends the least amount of energy per passenger mile n54 and, despite moving two to three times faster, high speed rail is actually more energy efficient than traditional passenger rail. n55 Also, with every passenger mile serviced by high speed rail, the other forms of transportation service less passenger miles. n56 It is estimated that a high speed rail network would annually reduce automobile travel by 29 million trips and reduce air travel by approximately 500,000 flights. n57 For automobile travel, less cars on the road, means less wasted energy spent in traffic and for air travel, this means less wasted energy through delays. In other words, less transportation congestion and, thus, increased efficiency across all modes of intercity passenger travel.

A high speed rail network would reduce the U.S.'s negative impact on the environment. As recently as 2006, the U.S. emitted 5,902.75 million metric tons of carbon dioxide (CO2) annually, n58 placing the U.S. second, behind China, among the world's countries in total annual CO2 emissions. n59 Moreover, the U.S. placed second, behind Australia, in per capita CO2 emissions among countries with a population of more than 10 million. n60 As the largest CO2 emitter among end-use sectors, n61 transportation constitutes approximately one-third of all CO2 emissions in the U.S. n62 High speed rail employs "green" technologies that consume one-third less energy per passenger mile than automobile travel. n63 Also, high speed rail would transport passengers closer to their city center destinations, thereby, reducing unneeded energy consumption by additional travel to and from airports. n64 It is estimated that a high speed rail network would result in an annual reduction of 6 billion pounds of CO2 emissions for the U.S. n65 These statistics have led several [\*223] environmental groups, such as the Center for Clean Air Policy n66 and the Sierra Club n67 to endorse a U.S. high speed rail system.

###  Warming—AT Methane/Livestock

**Cows have a minimal impact**

Wheat, 8 – Ph.D. Biology and Consultant (Dr. David, personal blog, <http://sxxz.blogspot.com/2008/01/do-cow-farts-cause-global-warming.html>)

Cows can digest things we can't, especially including the cellulose in grass and grain. They do this by maintaining cultures of microorganisms in their complicated series of "stomachs" that can break down cellulose. The cows then digest the microbes and the sugars and fatty acids they produce. (Brief overview of ruminant digestion here. If you are interested in delving into the digestive physiology of ruminants in more detail, start here.) Some of these microbes produce methane (CH4). Some of the other microbes can use that methane as food, but a certain amount of it escapes as belches or farts (mostly belches). (Some people have microbes in their guts which produce methane, and thus their farts also contain methane--but nothing compared to the amount cows produce.) The publication Emissions of Greenhouse Gases in the United States 2006 (pdf) summarizes the total greenhouse gas output of the US: Of the 605 million metric tonnes CO2 equivalent of methane shown in the graph, about 115 million tonnes CO2e is from "livestock enteric fermentation"--mostly cow burps and farts. That is less than 20% of the methane load, and less than 2% of the 7 billion tonne CO2 total. Of course raising cattle causes other greenhouse gas emissions. \* There are about 56 million tonnes CO2e of methane and 55 million tonnes CO2e of nitrogen oxides released from cattle wastes as they decompose. (Some of that methane can be captured and used to generate electricity or heat, while releasing carbon dioxide, a much less potent greenhouse gas.) \* About 227 million tonnes CO2e of nitrous oxide is released from nitrogen fertilization of soils (30% of it from nitrogen fixed by the crops themselves, not from industrially produced fertilizers). \* Most of the nitrogen fertilizer used on crops (89%) is used on corn (maize). About half of the corn produced in the US is fed to livestock, a large fraction to cattle, especially dairy cows. So about 50 million tonnes CO2e emissions associated with fertilizer use should be indirectly blamed on cows. \* (Another large fraction of corn is used to make ethanol as a motor fuel, indirectly causing the release of significant amounts of greenhouse gases in the corn production. But that's another story.) So cattle are responsible for about 3.5% of US greenhouse gas emissions, on a CO2 equivalent basis. To keep this in perspective: \* 2% of greenhouse gas production is in the form of methane from garbage decomposing in landfills. \* Roughly 2% is chlorofluorocarbons (CFCs) from air conditioners, refrigerators and industrial processes. \* Other industrial processes (especially cement manufacture) produce about 2%. \* Burning jet fuel accounts for more than 3%. \* 12% of greenhouse gas emissions are CO2 emitted generating electricity which is used in residential applications like lighting, TVs, computers, and refrigerators. \* 17% came from burning gasoline in cars and trucks. **So cow farts and burps do contribute some to greenhouse gases, and thus to global climate change. But they are not a major cause**. Nonetheless, improvements in fertilizer use and waste management in agriculture could reduce the cow-related burden on our atmosphere.

###  Warming—Consensus

**Prefer scientific consensus – it’s the only way to prevent the politicization of scientific studies and create international awareness.**

**GSA, The Geological Society of America, 4** [GSA, August 2004, GSA Today, “Panel Seeks Help”, <http://www.gsajournals.org/perlserv/?request=get-document&doi=10.1130%2F1052-

5173(2004)014%3C0028%3ASOTEOS%3E2.0.CO%3B2&ct=1>]

In response to growing concern about how scientific information is being used in policy-making, GSA's Council has appointed a panel to prepare a statement to present an earth science perspective on the evaluation of scientific information. The panel seeks your help in crafting the statement. Sound policy decisions require the best available scientific information. Population growth, increasing per-capita consumption driven by globalization, and the need to preserve essential resources for future generations have sharply reduced the margin for error, and increased the need for policymakers to understand the implications of science and how the quality of scientific information can be assessed. Many nonscientists think of science primarily in terms of laboratory experiments intended to discover laws that are precise and easily quantified. Untangling complex processes like climate change, ecosystem response, beach migration, or earthquake dynamics is much more complex. It requires collaboration among a team of scientists with complementary expertise, and it requires that the team systematically integrate results from different disciplines and gradually **work toward consensus**. Each step requires careful review by peer scientists in an atmosphere that encourages objective exchange, free of political pressures. Policymakers, the media, and the general public need to understand **the importance of consensus,** objective exchange, and freedom from political pressure. There are signs that the process of integrating science and public policy is **becoming increasingly politicized**. For example: The Union of Concerned Scientists (UCS) published a report in February 2004 detailing incidents in which the administration was allegedly mishandling, suppressing, and distorting the scientific findings of federal agencies. Note, the administration responded to the UCS report, and the UCS has since prepared a rebuttal. In September 2003, the Office of Management and Budget (OMB) proposed procedures for selecting scientists for peer review of regulatory information that attempts to limit the involvement of scientists who have received grants from the federal agency involved; that seems to equate having “advocated a position” on the matter with having a bias; and, when bias so defined exists on a panel, requires that “another reviewer with contrary bias” be appointed for the sake of balance. Note, the OMB is reevaluating these proposed procedures based on extensive comments from the scientific community and other affected parties. Scientists are already reluctant to communicate their scientific conclusions to policymakers or to the public. Redefining conclusions as bias may further inhibit scientists from participating in policy-making for fear of being perceived as “advocates.”

## \*\*AT Off Case

### AT CP Generic—Fed Key

**Consistent, dedicated federal funding streams are key**

**Galbraith, MA in economics, 10**—MA in economics from the London School of Economics, Nieman fellow in journalism at Harvard, fmr writer for The Economist, clean energy reporter for the New York Times (Kate, 9/5/2010, “U.S. Plays Catch-Up on High-Speed Rail”, New York Times, <http://www.nytimes.com/2010/09/06/business/energy-environment/06green.html?_r=1>, AL)

But the biggest question mark hovering over the future of high-speed rail in the United States is **funding**. The $8 billion allocated in the stimulus package is not nearly enough, particularly because it is spread across a range of projects around the country. California’s new system alone could cost $40 billion. State governments will shoulder a substantial share of the costs, and they are **grappling with budget deficits**.

Mr. Gertler of HNTB said that one key will be **consistent spending from the federal government**. He envisioned a **dedicated stream** of funding, like the gasoline tax, which pays for highway maintenance. “The biggest obstacle is a permanent, sustainable and secure source of funding into the future,” he said.

###  AT States—Perm

**Federal down payment gets states on board—California proves**

**Kehs 10**—public relations officer for high-speed rail advocacy group Hill & Knowlton, General Manager of the Washington DC Office of Hill & Knowlton (Michael, October 2010, “High-Speed Rail can Keep the Economy on Track”, US High Speed Rail Association, <http://www.ushsr.com/images/High_Speed_Rail_can_Keep_the_Economy_on_Track_1_.pdf>, AL)

The benefits of a HSR system nationally, once established, will comprise the greatest change to the way Americans travel since the establishment of the interstate highway system. And as I said in June at the US HSR conference in Los Angeles, there’s no better place to start than right here in California.

Our largest and most productive state in the union, California represents an opportunity to set a constructive pattern and model for the nation. As Californians and others are so fond of saying “as California goes, so goes the nation.”

But we are not without our challenges. Like so many states, California finds itself in **fiscal peril** with many competing priorities vying for attention in Sacramento. But HSR presents a light at the end of the tunnel. With a $2.25B **down-payment from the federal government** – to include the recent $194M federal grant from the Federal Rail Administration that will help pay for preliminary engineering and environmental analyses of segments connecting San Francisco to Anaheim – **we have the momentum behind us** to make our case.

###  AT States—Solvency

**States mismanage funds and overspend**

**Julian, Stanford researcher, 10**—fellow at the Hoover Institute, a Stanford University think tank (Liam, 3/24/2010, “The Trouble with High-Speed Rail”, The Hoover Institution at Stanford University, <http://www.hoover.org/publications/policy-review/article/5296>, AL)

Nonetheless, the Obama administration pushes onward, encouraging **states** such as Florida and California to concoct **bogus high-speed rail plans** and then dispersing billions of dollars to them. All the while, **nobody has an accurate idea** of what these scattered high-speed systems will actually cost the country, all total, in the end. History shows that official construction estimates are **usually lowballed big-time**. A 1990 evaluation by the U.S. Department of Transportation of 10 major American rail transit projects found that their average cost overrun was about 50 percent; the real costs of seven of the ten projects were between 30 and 100 percent higher than their original estimates. A 2003 study carried out at Aalborg University in Denmark evaluated 258 transport infrastructure projects completed in 20 nations on five continents between 1927 and 1998. It found that the **costs of nine out of ten projects were underestimated**, and that for rail, actual expenses were some **45 percent higher than predicted**. Ridership projections are typically way overshot, too, though not as whoppingly so as in Florida and California.

###  AT CP Private—Perm/Solvency

**Public-private partnerships solve best—governmental leadership is key**

**Downey, director at WMATA, 11**—Member of the Board of Directors at Washington Metropolitan Area Transit Authority, Senior Advisor at Parsons Brinckerhoff, fmr deputy secretary at the US Department of Transportation, AMP from Harvard, MPA in public administration from New York University, BA in political science from Yale, magna cum laude (Mortimer, September 2011, “An Introduction to High Speed Rail - A Multidisciplinary Challenge”, Velocity Network Issue No. 73, <http://www.pbworld.com/pdfs/publications/pb_network/pbnetwork73.pdf>, AL)

Leadership, both governmental and corporate, will be critical in establishing the foothold for these investments to reach their maximum potential. US national and regional policy makers need to understand their options and make the choices that make for optimum investments with limited resources. If we can invest in HSR to move people within a mega-region like the Northeast Corridor or California, shouldn’t we reconfigure those region’s air services to serve different needs for international and intercontinental travel, rather than competing with the improved rail service? On the highway side, there’s talk of a new generation of Interstate Highways, closing gaps and making connections that aren’t there now even as we rebuild our fifty year old roadways and bridges. Wouldn’t it make sense to do that planning in a way that takes rail opportunities into account? **That’s a role for government**— federal, state and local—and as we look more and **more to public-private partnerships** to finance key assets, the private sector has an interest as well.

Considering the mega-regional opportunities, we may have to **create new instruments of government** to develop systems that transcend state and local boundaries but are smaller in scope than the nation as a whole. Cooperative efforts have taken us part of the way, but investments that serve broad regional needs and intersect with local services and facilities have to be approached with the perspective of the broad region.

### AT DA Elections

**Bipartisan public support for new transportation funding**

**Branham, CSG editor, 12**—managing editor for The Council of State Governments, a think tank dealing with energy and infrastructural issues (Mary, March/April 2012, “The Road to Recovery Begins with Transportation”, The Council of State Governments, <http://www.csg.org/pubs/capitolideas/Mar_Apr_2012/10questions.aspx>, AL)

Do you think the public has an adequate understanding about the nation’s infrastructure needs, the political and fiscal challenges policymakers face in addressing those needs and the importance of improving our infrastructure to our economy?

“I’ve travelled to **200 cities** in **48 states** during the last three years. Everywhere I go, people come up to me and say the same thing: ‘Put my neighbors to back to work rebuilding our country.’ I’ve met with construction workers building St. Paul’s new light rail line, Charlotte’s new streetcar system and Oakland’s new air traffic control tower. I’ve visited with leaders of America’s labor movement at the Laborers’ International Convention in Las Vegas, with business people in Kansas City and with economic development officials in Anchorage.

“And this is **no partisan sentiment**. In one poll conducted earlier this year, **two of three voters**—and 59 percent of Tea Party supporters—said making improvements in transportation is **extremely important**.”

# \*\*\*NEGATIVE

### AT Economy Adv

**SQ travel methods are cheaper and solve better**

**Sanandaji, PhD in public policy, 11**—PhD in public policy from U Chicago, MA in economics from U Chicago, post-doc student at U Chicago, Research Fellow at the Institute of Industrial Economics (Tino, 2/8/2011, “America wrong continent for High-Speed Trains”, Super-Economy (blog), <http://super-economy.blogspot.com/2011/02/america-wrong-continent-for-high-speed.html>, AL)

High-Speed trains are not only **expensive**, they are slow when compared to air-travel. Take one of the least crazy high-speed train projects, connecting Los Angeles and San Francisco. The White House estimates are that this trip will take 2 hours 40 minutes. The same trip by commercial flight takes 1 hours 20 minutes. Even if you add an extra one hour for security check, the trip is faster by air (you also have to drive to the airport, but the same is true for trains).

After the **first terrori st attack against high-speed trains**, the security advantage would diminish. If we really wanted to and had an extra $53 billion over, we could invest in flying faster, in making the security process more effective, or (most sensibly) improving the high-way system.

Another fact Liberals ignore is that air-travel is cheaper in the U.S, costing about **half** per mile of what it does in Europe (perhaps due to economies of scale and higher competitiveness).

###  AT Competitiveness IL

**Their competitiveness arguments are wrong—HSR isn’t necessary**

**Sanandaji, PhD in public policy, 11**—PhD in public policy from U Chicago, MA in economics from U Chicago, post-doc student at U Chicago, Research Fellow at the Institute of Industrial Economics (Tino, 2/8/2011, “America wrong continent for High-Speed Trains”, Super-Economy (blog), <http://super-economy.blogspot.com/2011/02/america-wrong-continent-for-high-speed.html>, AL)

The New York Times headlines this "U.S. Plays Catch-Up on High-Speed Rail", admiring High-Speed trains in China and Europe. Basically, the American Left argues that since Western Europe and China have high-speed rail, and since they believe that Western Europe and China have better economic policy than the United States, we should emulate them and build fast trains.

I often argue that European style policies **will not work in America** because of demographics and cultural differences. I can understand that not all readers are convinced that Americans are that different from Europeans. However, I hope every reader accepts that **the U.S is geographically different from Europe and Asia**.

High-Speed train countries Spain and France have 3 times higher population density than America. China has 4 times higher, Germany 7 times higher, Japan 10 times higher, South Korea 15 times higher and Taiwan 20 times higher population density than the U.S. Germany is more densely populated than New York state, and China more densely populated than California.

Countries that like America have a lot land compared to people, such as Canada, Scandinavia, Russia and Australia have not made any large scale investments in high-speed trains.

Let me illustrate this graphically. I take the total high-speed miles from The International Union of Railways, and plot the density of the high-speed-rail network with population density.

The United States **is not an outlier** as the White-House suggests, the U.S is exactly where our population density would predict. Only after President Obama's plan will the U.S become a outlier, a country with more High-Speed Train that population density would predict (the figure after Obama's plan is my estimate based on White House material).

**Competitiveness theory is false**

**Krugman 94** (Paul, “Competitiveness: A Dangerous Obsession,” April 1994, Paul Krugman joined The New York Times in 1999 as a columnist on the Op-Ed Page and continues as professor of Economics and International Affairs at Princeton University. At MIT he became the Ford International Professor of Economics. Mr. Krugman is the author or editor of 20 books and more than 200 papers in professional journals and edited volumes. His professional reputation rests largely on work in international trade and finance; he is one of the founders of the "new trade theory," a major rethinking of the theory of international trade. In recognition of that work, in 1991 the American Economic Association awarded him its John Bates Clark medal)

By contrast, even the largest corporation sells hardly any of its output to its own workers; the "exports" of General Motors -- its sales to people who do not work there -- are virtually all of its sales, which are more than 2.5 times the corporation's value-added. Moreover, countries do not compete with each other the way corporations do. Coke and Pepsi are almost purely rivals: only a negligible fraction of Coca-Cola's sales go to Pepsi workers, only a negligible fraction of the goods Coca-Cola workers buy are Pepsi products. So if Pepsi is successful, it tends to be at Coke's expense. But the major industrial countries, while they sell products that compete with each other, are also each other's main export markets and each other's main suppliers of useful imports. If the European economy does well, it need not be at U.S. expense; indeed, if anything a successful European economy is likely to help the U.S. economy by providing it with larger markets and selling it goods of superior quality at lower prices. International trade, then, is not a zero-sum game. When productivity rises in Japan, the main result is a rise in Japanese real wages; American or European wages are in principle at least as likely to rise as to fall, and in practice seem to be virtually unaffected. It would be possible to belabor the point, but the moral is clear: while competitive problems could arise in principle, as a practical, empirical matter the major nations of the world are not to any significant degree in economic competition with each other. Of course, there is always a rivalry for status and power -- countries that grow faster will see their political rank rise. So it is always interesting to compare countries. But asserting that Japanese growth diminishes U.S. status is very different from saying that it reduces the U.S. standard of living -- and it is the latter that the rhetoric of competitiveness asserts. One can, of course, take the position that words mean what we want them to mean, that all are free, if they wish, to use the term "competitiveness" as a poetic way of saying productivity, without actually implying that international competition has anything to do with it. But few writers on competitiveness would accept this view. They believe that the facts tell a very different story, that we live, as Lester Thurow put it in his best-selling book, Head to Head, in a world of "win-lose" competition between the leading economies. How is this belief possible?

**Heg doesn’t solve war—expanding the power gap causes global backlash that makes effective leadership impossible**

Maher 11—Ph.D. in Political Science from Brown University (Richard, Winter, “The Paradox of American Unipolarity: Why the United States May Be Better Off in a Post-Unipolar World,” Orbis, Vol. 55, No. 1, p. 53-68)

Since the disintegration of the Soviet Union and the end of the Cold War, world politics has been unipolar, defined by American preponderance in each of the core components of state power—military, economic, and technological. **Such an imbalanced distribution of power in favor of a single country is unprecedented in the modern state system. This material advantage does not automatically translate into America’s preferred political and diplomatic outcomes, however.** Other states, if now only at the margins, are **challenging U.S. power and authority**. Additionally, on a range of issues, **the United States is finding it increasingly difficult to realize its goals and ambitions**. The even bigger challenge for policymakers in Washington is how to respond to signs that America’s unquestioned preeminence in international politics is waning. This decline in the United States’ relative position is in part a consequence of the burdens and susceptibilities produced by unipolarity. Contrary to the conventional wisdom, **the U.S. position both internationally and domestically may actually** be strengthened **once this period of unipolarity has passed**. On pure material terms, the gap between the United States and the rest of the world is indeed vast. The U.S. economy, with a GDP of over $14 trillion, is nearly three times the size of China’s, now the world’s second-largest national economy. The United States today accounts for approximately **25 percent of global economic output**, a figure that has held relatively stable despite steadily increasing economic growth in China, India, Brazil, and other countries. Among the group of six or seven great powers, this figure approaches 50 percent. When one takes discretionary spending into account, the United States today spends more on its military than the rest of the world combined. This imbalance is even further magnified by the fact that five of the next seven biggest spenders are close U.S. allies. China, the country often seen as America’s next great geopolitical rival, has a defense budget that is one-seventh of what the United States spends on its military. There is also a vast gap in terms of the reach and sophistication of advanced weapons systems. By some measures, the United States spends more on research and development for its military than the rest of the world combined. What is remarkable is that the United States can do all of this without completely breaking the bank. The United States today devotes approximately 4 percent of GDP to defense. As a percentage of GDP, the United States today spends far less on its military than it did during the Cold War, when defense spending hovered around 10 percent of gross economic output. As one would expect**, the United States today enjoys unquestioned preeminence in the military realm**. No other state comes close to having the capability to project military power like the United States.1 And yet, **despite this material preeminence, the United States sees its** political and strategic influence diminishing **around the world.** It is involved in two costly and destructive wars, in Iraq and Afghanistan, where **success has been elusive** and the end remains out of sight. China has adopted a new assertiveness recently, on everything from U.S. arms sales to Taiwan, currency convertibility, and America’s growing debt (which China largely finances). Pakistan, one of America’s closest strategic allies, is facing the threat of social and political collapse. Russia is using its vast energy resources to **reassert its dominance** in what it views as its historical sphere of influence. Negotiations with North Korea and Iran have gone **nowhere** in dismantling their nuclear programs. Brazil’s growing economic and political influence offer another option for partnership and investment for countries in the Western Hemisphere. And relations with Japan, following the election that brought the opposition Democratic Party into power, are at their frostiest in decades. To many observers, it seems that America’s vast power is not translating into America’s preferred outcomes. **As the United States has come to learn, raw power does not automatically translate into the realization of one’s preferences, nor is it necessarily easy to maintain one’s predominant position in world politics**. There are **many costs** that come with predominance – material, political, and reputational. **Vast imbalances of power create** apprehension and anxiety **in others, in one’s friends just as much as in one’s rivals**. In this view, it is not necessarily American predominance that produces unease but rather American predominance. **Predominance also makes one a** tempting target**, and a** scapegoat **for other countries’ own problems and unrealized ambitions**. Many a Third World autocrat has blamed his country’s economic and social woes on an ostensible U.S. conspiracy to keep the country fractured, underdeveloped, and subservient to America’s own interests. **Predominant power likewise breeds** envy, resentment, and alienation**.** How is it possible for one country to be so rich and powerful when so many others are weak, divided, and poor? **Legitimacy—the perception that one’s role and purpose is acceptable and one’s power is used justly—is** indispensable for maintaining power **and influence in world politics**. As we witness the emergence (or re-emergence) of great powers in other parts of the world, we realize that **American** predominance cannot last forever. It is inevitable that the distribution of power and influence will become more balanced in the future, and that the United States will necessarily see its relative power decline. While the United States naturally should avoid hastening the end of this current period of American predominance, it should not look upon the next period of global politics and international history with dread or foreboding. **It certainly** should not seek to maintain its predominance at any cost, devoting unlimited ambition, resources, and prestige to the cause. In fact, contrary to what many have argued about the importance of maintaining its predominance, **America’s position in the world—both at home and internationally—could very well be** strengthened **once its era of preeminence is over**. It is, therefore, necessary for the United States to start thinking about how best to position itself in the ‘‘post-unipolar’’ world.

###  AT Stimulus IL

**Economic crisis doesn’t cause war—prefer statistical studies over abstract IR theories**

**Miller, PhD in economics, 2k**—PhD in economics from McGill U, MSc in economics from the London School of Economics, fmr adjunct professor at U of Ottawa, fmr executive director of the World Bank in Washington D.C. (Morris, August 2000, “Poverty as a Cause of Wars?”, University of Ottawa Center on Governance, <http://www.management.uottawa.ca/miller/poverty.htm>, AL)

It seems reasonable to believe that a powerful "shock" factor might act as a catalyst for a violent reaction on the part of the people or on the part of the political leadership. The leadership, finding that this sudden adverse economic and social impact destabilizing, would possibly be tempted to seek a diversion by finding or, if need be, fabricating an enemy and setting in train the process leading to war. There would **not appear to be any merit in this hypothesis** according to a study undertaken by Minxin Pei and Ariel Adesnik of the Carnegie Endowment for International Peace. After studying **93 episodes** of economic crisis in 22 countries in Latin America and Asia in the years since World War II they concluded that

Much of the conventional wisdom about the political impact of economic crises may be **wrong** …..The severity of economic crisis - as measured in terms of inflation and negative growth – bore **no relationship** to the collapse of regimes….(or, in democratic states, rarely) to an outbreak of violence…In the cases of dictatorships and semi-democracies, the ruling elites responded to crises by **increasing repression** (thereby using one form of violence to abort another.)

**Government stimulus must be financed—this prevents it from growing the economy**

**Foster 10** (JD, PhD in economics from Georgetown and the Norman B. Ture Senior Fellow in the Economics of Fiscal Policy at The Heritage Foundation, “Obama Jobs Deficit Further Evidence of Failure,” October 8, 2010, PM)

The centerpiece of Obama’s short-term stimulus program was the $862 billion in poorly targeted tax cuts and ineffectual spending increases he signed into law in February 2009, which has since been supplemented by a number of smaller budget-busting “jobs” bills, including the most recent, a $26 billion state aid package. Obama had one big shot at really helping the economy and he took it, holding nothing back. As short-term economic stimulus, it was doomed from the outset because it was based on the erroneous assumption that deficit spending can increase total demand in a slack economy. The theory underlying Obama’s stimulus was that the economy was weak because total demand was too low. The suggested solution is then to increase demand by increasing government spending, exploding the deficit in the process. This theory of demand manipulation through deficit spending ignores the simplest of realities: Government spending must be financed. So to finance deficit spending, government must borrow from private markets, thereby reducing private demand by the same amount as deficit spending increases public demand. In effect, the theory says that if I take a dollar from my right pocket and put it in my left, then I’m a dollar richer. No wonder it always fails.

**Deficit reduction is the only way to avoid a double-dip**

**Business Insider 11** (Mamta Badkar, “Moody's Mark Zandi Explains Why He Sees A 40% Chance Of A Recession,” October 11, 2011, PM)

The U.S. economy is growing at a pace that leaves it vulnerable to a recession, according to Moody's analytics chief economist Mark Zandi. He believes there continues to be a 40% probability of a recession in next six months to a year. In his latest report, U.S. Macro Outlook: Barely Staying Afloat, Zandi points out three distinct threats to the U.S. economy: The European debt crisis - Already in a mild recession, austerity is crushing growth, exports are weakening, and European banks are taking too long to mark down the value of their sovereign debt holdings. The EFSF needs to be ratified soon and must be expanded, because delays will only create more turmoil in the banking system and financial markets. The U.S. foreclosure crisis - A further decline in home prices could threaten the U.S. recovery. "Key to the near-term price trend is the share of home sales that involve foreclosures, short sales, and other distressed properties. We expect a settlement before the end of 2011, meaning the foreclosure process will gear up this winter. ...Moreover, with falling house prices pushing more homeowners under water (more than 14 million homeowners owe more than their homes' market values), there is a risk this will ignite a self-reinforcing negative cycle of even more defaults, distress sales and price declines." The rift between the Obama administration and Congress If Congress and Obama continue to butt heads over fiscal policy and do nothing, it could shave 1.7 percentage points from real GDP growth in 2012. It is critical that policymakers agree to extend and increase the payroll tax holiday for workers through 2012 because this would reduce the fiscal drag to a manageable 1 percentage point. Zandi says only good policy making can save the economy from another recession. More than anything the government needs to arrive at some consensus on cutting its long-term deficit if it wants to shore up investor confidence and bring forth an economic recovery.

### AT Env/Emissions Adv

**There’s no environmental benefit—empirics prove**

**O’Toole, CATO senior fellow, 10**—Senior Fellow working on urban growth, public land, and transportation issues at the CATO Institute, distinguished author on urban land use and transportation (Randal, June 2010, “High-Speed Rail”, The CATO Institute, <http://www.downsizinggovernment.org/transportation/high-speed-rail>, AL)

2. Environmental Benefits. The environmental benefits of high-speed rail would be **negligible at best**. President Obama's moderate-speed trains are expected to be powered by diesel locomotives, which burn petroleum and emit pollutants and greenhouse gases. Even electrically powered, true high-speed rail is **unlikely to be clean**. California rated its proposal as environmentally sound only by projecting **impossibly high ridership numbers** and unrealistically assuming that future automobiles and airplanes would be no more energy-efficient than they are today.

In 2005, Florida's High-Speed Rail Authority proposed a 125-mph rail line between Tampa and Orlando. The environmental impact statement for the proposal estimated that the trains would produce **more nitrogen oxide pollution and volatile** organic **compounds than would be saved** by the automobiles taken off the road.35 It also calculated that operating and maintaining the gas-turbine locomotives would consume **3.5 to 6.0 times as much energy as would be saved** by the cars replaced.36 The statement concluded that "the environmentally preferred alternative is the No Build Alternative" because it "would result in less direct and indirect impact to the environment."37

**Current efficiency standards are sufficient**

**O’Toole, CATO senior fellow, 10**—Senior Fellow working on urban growth, public land, and transportation issues at the CATO Institute, distinguished author on urban land use and transportation (Randal, June 2010, “High-Speed Rail”, The CATO Institute, <http://www.downsizinggovernment.org/transportation/high-speed-rail>, AL)

3. Automobile and Airplane Assumptions. In considering the costs and benefits of high-speed rail, fast trains should be compared not to today's cars and planes, but to **tomorrow's more efficient cars and planes**. If automakers are able to meet the administration's latest fuel-economy targets, and consumers continue to replace the nation's auto fleet at the usual rate, cars and light trucks on the road in 2020 will be almost 25 percent more energy efficient than they are today, on average, and by 2030 they will be **38 percent more fuel-efficient**.

Meanwhile, the energy efficiency of air travel has increased an average 2 percent per year since 1980.39 Boeing promises that its 787 plane will be 20 percent more fuel efficient than comparable planes today.40 Jet engine makers have set a goal of **doubling fuel efficiency by 2020**.41

The California high-speed rail authority claims that high-speed trains will produce large energy savings.42 Yet the authority's own environmental impact statement (EIS) reveals that the benefits will be **negligible**. The EIS projects that the energy savings from operating high-speed rail will repay the energy cost of construction in just five years.43 But the EIS assumes that the energy efficiency of autos and planes won't improve.44 But if, over the lifetime of a high-speed rail project, autos and planes become 30 percent more fuel efficient, then the energy payback period for high-speed rail rises to **30 years**. Since rail lines require expensive (and energy-intensive) reconstruction about every 30 years, high-speed rail is **not likely to save energy at all**.

**Increases overall CO2 output—your studies are biased and wrong**

**O’Toole, CATO senior fellow, 9**—Senior Fellow working on urban growth, public land, and transportation issues at the CATO Institute, distinguished author on urban land use and transportation (Randal, 9/9/2009, “High-Speed Rail Is Not “Interstate 2.0””, CATO Institute Briefing Papers, No. 113, <http://www.cato.org/pubs/bp/bp113.pdf>, AL)

These are examples of what Danish planning professor Bent Flyvbjerg calls “**optimism bias**.”52 Such bias, says Flyvbjerg, explains why large public works projects almost inevitably **cost more** and **produce smaller benefits** than originally promised. In addition, nearly 1 billion pounds of the projected annual reduction of CO2 were from the Boston-to-Washington Corridor, which is not part of the FRA plan.53 That means the plan itself is projected to save only 2.3 million metric tons per year.

Substituting more realistic assumptions greatly changes the results. In the 19 years between 1975 and 1994, automobile fuel economies increased by 33 percent and commercial airline economies increased by 44 percent. 54 If they achieve similar efficiencies in the 19 years between 2006 and 2025, and if the average auto carries 2.4 people in intercity travel and the average high-speed train fills only 51 percent of its seats, then rather than save 2.3 million metric tons of CO2 per year, highspeed trains would instead **add 220,000 metric tons of CO2** to the atmosphere each year. Moreover, not building high-speed rail would **save huge amounts of energy** and **millions of tons of CO2** that would otherwise be used and released during construction.

**No consensus for warming—their authors are less-qualified doomsayers who have a financial incentive to cherrypick studies and have inaccurate instruments**

**Horn, meteorologist, 11**—degree in meteorology with honors from Lyndon State College, regular speaker at the annual International Climate Change Conference, fmr meteorologist for the Weather Services Corporation (11/30, Art, “The Confused Climate Change Consensus”, Energy Tribune, <http://www.energytribune.com/articles.cfm/9264/The-Confused-Climate-Change-Consensus>, AL)

It would appear that the much claimed consensus among leading climate scientists is not in such general agreement these days. If there really is such a consensus, then the opinions from leading climate scientists should be reasonably consistent among them. What I am seeing instead is an increasing divergence among the man made climate doom community. Let’s set one thing straight from the get go. The data from all of the sources of earth’s measured average global temperature clearly show that **there has been a pause in global temperature increase since 1998. People who claim otherwise simply don’t look at the data** or believe someone who wrote a story that said warming is accelerating and it’s really, really bad. Don’t trust me on this, look for yourself. There are those who see the pause and as a reaction to it, have now begun to focus on “extreme weather events” to keep the public engaged and convinced that civilization is gagging Mother Earth with its carbon dioxide pollution. Since the temperature is no longer increasing **some other scare tactic needs to be employed to keep the research funding from drying up**. In a time of economic turmoil research funding is threatened. For instance at Penn State University funds allocated for research for 2010/11 were $805,000,000, more than half of that lofty sum, $470,000,000 was Federal grants and contracts. An undetermined amount of that money goes to climate research at Penn State. If the lack of warming for over a decade begins to influence how congress doles out money for global warming research, large cuts in grants and contracts could result. Claims of increases in “extreme weather” due to global warming could be the prod that keeps the government funding spigot open. The problem with trying to compare weather events today to the past is that observational networks have improved dramatically in the years after World War Two. Weather events in the past were vastly underreported due to a lack of reporting stations and primitive communications technologies. In its 2007 report the United Nations Intergovernmental Panel on Climate Change (IPCC) said "At continental, regional, and ocean basin scales, numerous long-term changes in climate have been observed. These include changes in Arctic temperatures and ice, widespread changes in precipitation amounts, ocean salinity, wind patterns and aspects of extreme weather including droughts, heavy precipitation, heat waves and the intensity of tropical cyclones." What the report does not say is that multi-decadal ocean temperature oscillations lasting 60 years or more reveal climate fluctuates on time scales that overwhelm our relatively short period of reliable observations. What the report also does not say is that changes in Arctic temperature and ice, widespread changes in precipitation amounts, ocean salinity, wind patterns and aspects of extreme weather including droughts, heavy precipitation, heat waves and the intensity of tropical cyclones are **just as likely to be from natural variability as any man made global warming**. The attempt to attribute changes in weather over decadal time scales to man made global warming is extremely limited by our short period of reliable weather records and a fundamental lack of understanding what causes climate to change in the first place.

**Clouds make feedback loops turn net negative—halts warming**

**Watts 11**—American meteorologist (AMS seal holder, retired), editor of the blog, Watts Up With That? (WUWT), owner of the weather graphics company ItWorks, and founder of the SurfaceStations.org project that documents the siting of weather stations across the United States (Anthony, 9/20, “New peer reviewed paper: clouds have large negative cooling effect on Earth’s radiation budget”, Watts Up With That Blog, <http://wattsupwiththat.com/2011/09/20/new-peer-reviewed-paper-clouds-have-large-negative-feedback-cooling-effect-on-earths-radiation-budget/>, AL)

Oh dear, now we have three peer reviewed papers (Lindzen and Choi, Spencer and Braswell, and now Richard P. Allan) based on observations that show a **net negative feedback for clouds**, and a strong one at that. What will Trenberth and Dessler do next? Maybe the editor of Meteorological Applications can be persuaded to commit professional suicide and resign? The key paragraph from the new paper: …the cloud radiative cooling effect through reflection of short wave radiation is found to dominate over the long wave heating effect, resulting in a net cooling of the climate system of −21 Wm−2. After all the wailing and gnashing of teeth over the Spencer and Braswell paper in Remote Sensing, and the stunt pulled by its former editor who resigned saying the peer review process failed, another paper was published last week in the journal Meteorological Applications that agrees well with Spencer and Braswell. This new paper by Richard P. Allan of the University of Reading discovers via a combination of satellite observations and models that **the cooling effect of clouds far outweighs the long-wave or “greenhouse” warming effect**. While Dessler and Trenberth (among others) claim clouds have an overall positive feedback warming effect upon climate due to the long-wave back-radiation, this new paper shows that clouds have a large net cooling effect by blocking incoming solar radiation and increasing radiative cooling outside the tropics. This is key, because since clouds offer a negative feedback as shown by this paper and Spencer and Braswell plus Lindzen and Choi, it **throws a huge monkey wrench in climate model machinery that predict catastrophic levels of positive feedback** enhanced global warming due to increased CO2.

**Livestock emissions are more than 51% of total GHG emissions**

**Goodland and Anhang 9**—\*retired as lead environmental adviser at theWorld Bank Group after serving there for 23 years. In 2008 he was awarded the first Coolidge Memorial Medal by the IUCN for outstanding contributions to environmental conservation, \*\*research officer and environmental specialist at theWorld Bank Group’s International Finance Corporation, which provides private-sector financing and advice in developing countries (\*Robert, \*\*Jeff, November/December, “Livestock and Climate Change: What if the key actors in climate change are…cows, pigs, and chickens”, WorldWatch, <http://www.worldwatch.org/files/pdf/Livestock%20and%20Climate%20Change.pdf>, AL)

Livestock are already well-known to contribute to GHG emissions. Livestock’s Long Shadow, the widely-cited 2006 report by the United Nations Food and Agriculture Organization (FAO), estimates that 7,516 million metric tons per year of CO2 equivalents (CO2e), or 18 percent of annual worldwide GHG emissions, are attributable to cattle, buffalo, sheep, goats, camels, horses, pigs, and poultry. That amount would easily qualify livestock for a hard look indeed in the search for ways to address climate change. But our analysis shows that livestock and their byproducts actually account for at least 32,564million tons of CO2e per year, or **51 percent of annual worldwide GHG emissions**. This is a strong claim that requires strong evidence, so we will thoroughly review the direct and indirect sources of GHG emissions from livestock. Some of these are obvious but underestimated, some are simply overlooked, and some are emissions sources that are already counted but have been assigned to the wrong sectors. Data on livestock vary from place to place and are affected by unavoidable imprecision; where it was impossible to avoid imprecision in estimating any sum of GHGs, we strove to minimize the sum so our overall estimate could be understood as conservative.

### DA Obama Good—Links

**Even if the GOP likes the idea of rail they’ll backlash to federal spending on it**

**Weigel 11**—political reporter for Slate Magazine (David, 3/8/2011, “Off the Rails: Why do conservatives hate trains so much?”, Slate Magazine, <http://www.slate.com/articles/news_and_politics/politics/2011/03/off_the_rails.html>, AL)

Libertarians, of course, have **no problem with trains** (see, e.g., Atlas Shrugged). They do have a problem with **federal spending on transportation**, as do many Republicans. Atlas Shrugged was published in 1957; Amtrak took over the rails in 1971. Since then, conservatives will sing the praises of private rail projects but **criticize federally funded projects** that don't meet the ideal. Rep. John Mica, R-Fla., for example, pushed a high-speed rail initiative through Congress in 2008. By 2010, he was denouncing "the **Soviet-style Amtrak operation**" that had "trumped true high-speed service" in Florida. In 2011, as the chairman of the House Transportation Committee, he is interested in saving the Orlando-Tampa project by building 21 miles between the airport and Disney World. This is about 21 miles farther than local Republicans want to go.