## Contention 1-MELTDOWN

#### The U.S. economy is stalling. Only a strong rebound in job creation will be sufficient to boost declining consumer confidence, and boost consumer demand which is the linchpin of the U.S. economy.

HOMAN & CHADRA 5 – 17 – 12 Bloomberg Economics Reporters

Timothy R. Homan and Shobhana Chandra, Confidence Sinks As U.S. Job Market Progress Stalls: Economy, <http://www.bloomberg.com/news/2012-05-17/jobless-claims-in-u-s-were-unchanged-at-370-000-last-week.html>

Consumer confidence fell last week to the lowest level in almost four months and more people than forecast filed claims for unemployment benefits, showing a lack of progress in the job market is rattling Americans. The Bloomberg Consumer Comfort Index dropped in the week ended May 13 to minus 43.6, a level associated with recessions or their aftermaths, from minus 40.4 in the previous period. Jobless applications were unchanged at 370,000 in the week ended May 12, Labor Department figures showed today in Washington Diminishing employment gains, falling stock prices and the prospect of government gridlock over the budget heading into the November presidential election may continue to hurt household sentiment. The lack of a sustained rebound in hiring damps the outlook for consumer spending, which accounts for about 70 percent of the world’s largest economy. “A mix of policy questions and some ongoing softness in employment growth” is weighing on confidence, said Sam Coffin, an economist at UBS Securities LLC in Stamford, Connecticut. “We’re hearing more and more about fiscal negotiations. Last year that talk seemed to derail confidence, and that’s coming up as a topic again.” Coffin and the UBS team, led by Maury Harris, were the most accurate in forecasting the unemployment rate for the two years through April, according to data compiled by Bloomberg. Other reports today showed manufacturing in the Philadelphia region unexpectedly shrank this month and the index of leading indicators dropped in April for the first time in seven months. Shares Drop The disappointing data and growing concern over the European debt crisis sent the Standard & Poor’s 500 Index down for a fifth day. The gauge dropped 1.5 percent to 1,304.86 at the 4 p.m. close in New York, the lowest closing level since January, amid reports that Moody’s Investors Services was about to downgrade shares of Spanish banks. Elsewhere today, a report from the National Statistics Institute in Madrid showed Spain’s gross domestic product declined 0.3 percent in the first quarter from the previous three months, when it fell the same amount, signaling the nation succumbed to its second recession since 2009. Japan’s economy expanded at an annualized 4.1 percent pace in the first quarter, faster than estimated, from the previous three months, data from the Cabinet Office showed. The rate was boosted by spending on projects to rebuild areas devastated by last year’s earthquake and tsunami. One-Month Drop The Bloomberg U.S. consumer comfort index’s 12.2-point decline over the past four weeks has erased almost all of this year’s gains. The gauge began the year at minus 44.8 and reached a four-year high of minus 31.4 in the week ended April 15. The Thomson Reuters/University of Michigan sentiment gauge reached a similar four-year high with this month’s preliminary reading, led by gains among upper-income Americans, a report on May 11 showed. The group’s final reading is due May 25. Readings lower than minus 40 for the Bloomberg index are correlated with “severe economic discontent,” according to Gary Langer, president of Langer Research Associates LLC in New York, which compiles the index for Bloomberg. The gauge has averaged minus 15.3 since its inception in December 1985. All three of the Bloomberg Consumer Comfort Index’s components declined last week, today’s report showed. The gauge of personal finances fell to minus 12.9, the fourth straight drop and the weakest reading since November, from minus 11.2 in the prior week. A measure of whether consumers consider it a good or bad time to buy decreased to minus 48.2, a three-month low, from minus 45.8. Americans’ views on the state of the economy fell to a 10-week low of minus 69.6 from minus 64.2. Customers ‘Struggling’ “I do not feel like the economy has come back,” James Reid-Anderson, chairman and chief executive officer of Grand Prairie, Texas-based theme-park operator Six Flags Entertainment Corp., said during a May 16 investor conference. “Every week there is a different story. One week we’re up. Next week we’re down, but there isn’t that confidence yet that the economy is back. We’re assuming that our guests might be struggling financially.” Employers added 115,000 workers to payrolls last month, the weakest gain since October, according to Labor Department figures released May 4. The same report showed the unemployment rate fell to 8.1 percent as more Americans left the labor force. The trend in jobless claims indicates little improvement in job-market conditions since then. The four-week moving average, a less volatile measure than the weekly figures, fell to 375,000 last week from 379,750. Survey Week Last week included the 12th of the month, which coincides with the period the Labor Department uses in its survey of employers to calculate monthly payroll growth. The employment report for May will be released on June 1. The four-week average for this month’s survey week was little changed from the 375,500 during the corresponding period in April. An increase in applications for jobless benefits last month and a drop in consumer expectations about the economy depressed the index of leading indicators. The Conference Board’s gauge of the outlook for the next three to six months decreased 0.1 percent after a 0.3 percent gain in March, the New York-based group said today. “The economy is in a midst of a soft patch, but I don’t think it’s going to be anything worse than that,” Ryan Sweet, a senior economist at Moody’s Analytics Inc. in West Chester, Pennsylvania, said before the report. “Economic growth this quarter will come right around where it came in last quarter.” Slower Growth The economy grew at a 2.2 percent annual pace in the first three months of 2012, down from 3 percent the prior quarter. The rate of growth from April to June will probably be the same as last quarter, according to the median estimate of economists surveyed by Bloomberg from May 4 to May 9. A report from the Federal Reserve Bank of Philadelphia today cast doubt on the outlook for manufacturing. The central bank’s general economic index fell to minus 5.8 this month, the lowest reading since September, from 8.5 in the previous month. Economists forecast the gauge would rise to 10, according to the median estimate in a Bloomberg survey. Readings less than zero signal contraction in the area covering eastern Pennsylvania, southern New Jersey and Delaware. The report was at odds with other regional data. Manufacturing in the New York area expanded at a faster pace in May, a report this week from the New York Fed showed. “We’re in a choppy and uneven recovery,” said Sean Incremona, a senior economist at 4Cast Inc. in New York, who had the lowest estimate in the Bloomberg survey. “The recovery as a whole isn’t gathering any momentum.” Government gridlock may hold back growth. Washington policy makers remain at a standoff over the debt ceiling after President Barack Obama met with House Speaker John Boehner yesterday. Their impasse raises the prospect of an election-year showdown on the federal debt.

#### The economy is teetering on the brink of a double dip recession as a direct result of inadequate aggregate demand, and the sustained failure to create jobs. Continued U.S. economic weakness when paired with the European debt crisis will plunge the entire world into a deep recession

UN/DESA 11 (United Nations Department of Economic and Social Affairs. “World Economic Situation and Prospects" 20 December 2011, http://www.un.org/en/development/desa/policy/wesp/wesp\_mb/wesp\_mb38.pdf)

The world economy is teetering on the brink of another major downturn. Output growth already slowed considerably to an estimated 2.8 per cent in 2011. Based on relatively optimistic baseline assumptions, the United Nations foresees world gross product (WGP) growth of 2.6 per cent for 2012 and 3.2 per cent for 2013. If the European sovereign debt crisis were to spin out of control and the weaknesses in the United States economy interact to create a downward spiral, the world economy could plunge into a double-dip recession. Alternatively, policy coordination that boosts aggregate demand and more directly attacks unemployment could improve prospects for economic growth (see figure 1)1. Premature fiscal austerity in developed countries hampers recovery The most pressing challenge is the continued jobs crisis and the declining prospects for economic growth. Most developed economies are suffering from remnants of the global financial crisis that erupted in 2008. Subsequent private bank bailouts and higher unemployment weakened public finances and economic activity, plunging some vulnerable countries into sovereign debt crises. The sovereign debt crises that started in 2010 in a number of European countries worsened in the second half of 2011 and aggravated the weakness in the balance sheets of banks sitting on related assets. Even bold steps by the Governments of the euro area countries to reach an orderly sovereign debt workout for Greece were met with continued financial market turbulence and heightened concerns of debt default in some of the larger economies in the euro zone, in Italy in particular. The fiscal austerity measures taken in response are further weakening growth and employment prospects, making fiscal adjustment and the repair of financial sector balance sheets all the more challenging. Fiscal austerity measures curtail aggregate demand in the short run with negative effects on employment and incomes. However, as more and more workers are out of a job for a long period, especially young workers, medium-term growth prospects also suffer because of the detrimental effect on workers skills and experience. Failure of policy makers, especially in Europe and the United States, to address the jobs crisis and prevent sovereign debt distress and financial sector fragility from escalating, could send the global economy into another recession.

A double dip recession and prolonged economic weakness, combined with the failure to create jobs, will lead to renewed demands for protectionism in the United States, resulting in a collapse of the global financial architecture, renewed U.S. isolationism, global instability, nuclear adventurism, and a third world war-this time with nuclear weapons.

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

**Crumbling transportation infrastructure undermines economic activity, diverts critical business resources, and will result in an annual economic drain of nearly one trillion dollars, while simultaneously cutting household income by $7,000, further undermining consumer demand**

Jim Jennings 2011, 8/3/11, citing American Society of Civil Engineers“New Report Shows Failing to Invest in Transportation Will Cause Job Losses, Shrink Household Incomes”, http://www.asce.org/PressRelease.aspx?id=12884909810

#### WASHINGTON, D.C. - The nation’s deteriorating surface transportation infrastructure will cost the American economy more than 876,000 jobs, and suppress the growth of the country’s Gross Domestic Product by $897 Billion by 2020, according to a new report released today by the American Society of Civil Engineers. The report, conducted by the Economic Development Research Group of Boston, showed that in 2010, deficiencies in America’s roads, bridges, and transit systems cost American households and businesses roughly $130 billion, including approximately $97 billion in vehicle operating costs, $32 billion in delays in travel time, $1.2 billion in safety costs, and $590 million in environmental costs. If investments in surface transportation infrastructure are not made soon, those costs are expected to grow exponentially. Within 10 years, U.S. businesses would pay an added $430 billion in transportation costs, household incomes would fall by more than $7,000, and U.S. exports will fall by $28 billion per year. “Clearly, failing to invest in our roads, bridges and transit systems has a dramatic negative impact on America’s economy,” said Kathy J. Caldwell, P.E., F.ASCE, president of ASCE. “The link between a nation’s infrastructure and its economic competitiveness has always been understood. But today, for the first time, we have data showing how much failing to invest in our surface transportation system can negatively impact job growth and family budgets. This report is a wake-up call for policymakers because it shows that investing in infrastructure contributes to creating jobs, while failing to do so hurts main street America.

#### A strong consensus agrees that transportation infrastructure must be updated in order to revive the economy, and create the conditions for continued economic strength, but there is little agreement on who should pay for it. Attempts to shift the burden to the states will only accelerate the erosion of U.S infrastructure. States lack the necessary resources, or ability to plan and finance large, multi-modal, and cross boundary projects.

Yonah Freemark 2012, January 1, 2012, specialized writer in transportation and writes for Transportation Politic, *The Atlantic*, “How to Pay for America's Infrastructure”, http://www.theatlanticcities.com/politics/2012/01/solution-americas-infrastructure-woes/845/#

America's transportation infrastructure is in desperate need of an update, and most politicians would agree that more funding should be dedicated the nation’s highways and mass transit systems. Yet there is little consensus about where to find those new funds and Democrats and Republicans disagree stridently over whether Washington should increase its role. One potentially fertile place for compromise may be in the form of state infrastructure banks, which have gained support from both the left and right in recent months. These public agencies, provided some government funds, would be designed to encourage significant private investment. And they would do so with little interference from the national government. "I-banks" could lend states, municipalities, and perhaps even private sector agencies a significant portion of project funds that would later be paid back through user fees, public-private partnerships, or dedicated taxes. The idea is to get more transportation projects under construction without significantly expanding the national deficit. And the idea is not particularly new: Infrastructure banks have been on the radar since 1995, when state banks were initially authorized to receive federal funds. Now, more than thirty states have them in operation. But most operate on a small scale, and are unprepared to fund large-scale projects. They are also strongly tilted toward highway infrastructure, not multimodal needs.

#### Current federal infrastructure spending is dominated by political considerations, and fails to consider expected levels of economic return in making decisions on what projects to fund, undermining possible short and long term economic benefits of the investment

Jonathan Cohn 2011, 8/11/11, Senior Writer for The New Republic and specializes in domestic policy, http://www.tnr.com/blog/jonathan-cohn/93496/infrastructure-bank-roads-airports-funding-obama-kerry-hutchison

The primary rationale for the bank – and the reason it should, in theory, appeal to skeptics of government – is to insulate decision-making from the usual political influences. And **that doesn’t simply mean staying away from legislators’ pet projects. It also means moving away from funding formulas that have distributed infrastructure funds with little regard for actual need, particularly when it comes to transportation. As Ethan Pollack, of the Economic Policy Institute, explains: The problem goes beyond the earmarking process – in in fact, the program formulas are often written to reapportion funding to certain states at the expense of others for the sake of parochial interests, with little regard for overall efficiency of allocation**. … In order to garner sufficient political support (especially in the Senate), the funds are spread evenly across the country. This was not a problem in the past, as funds were needed across the country during the construction of the interstate highway system. But as the system neared completion, this investment strategy began exhibiting steep diminishing returns. The bank, by contrast, would make its decisions based on cost-benefit analysis, without all the congressional meddling. It might sound like a pipe dream, but the Recovery Act launched a working model for that sort of program in 2009. It’s called the Transportation Investment Generating Economic Recovery program, or TIGER. And it counts among its fans journalist Michael Grunwald, who knows a thing or two about government waste. (Yes, that's twice today I'm quoting him.) As Grunwald writes: The so-called TIGER program doesn't just hand out cash to every project with the proper paperwork; it rewards the applicants with the most impressive economic and environmental benefits, and it's attracted $40 worth of applications for every dollar in grants. The winners have included several freight-rail projects that will take thousands of trucks off the road, a green-themed revitalization of a Kansas City neighborhood, and a multi-modal transportation center at the intersection of three interstates, a major rail corridor and a popular 26-mile bicycle and pedestrian pathway in Normal, Ill.

**America’s crumbling transportation infrastructure is a critical reason for the nation’s current economic malaise. Deteriorating transportation infrastructure severely constrains private sector investment and economic growth, and has pushed manufacturing, and the middle class jobs its supports, abroad. The nations soaring debt has undermined any support for the level of government investment necessary to restore critical infrastructure and kick-start the economy. Only a national infrastructure bank can create new era of public-private partnership, drawing private capital and investment off the sideline, and attract sufficient investment to rebuild transportation infrastructure and lay the foundation for sustainable economic growth**

Michael, Likosky 11(Michael is an Expert on public-private-partnerships to the Organization on Economic Cooperation and Development and he co-chairs the Task Force to Modernize California’s State Infrastructure and Economic Development Bank, 7/12/11, Banking on the Future, http://www.nytimes.com/2011/07/13/opinion/13likosky.html)

FOR decades, we have neglected the foundation of our economy while other countries have invested in state-of-the-art water, energy and transportation infrastructure. Our manufacturing base has migrated abroad; our innovation edge may soon follow. If we don’t find a way to build a sound foundation for growth, the American dream will survive only in our heads and history books. But how we will pay for it? Given the fights over the deficit and the debt, it is doubtful that a second, costly stimulus package could gain traction. President Franklin D. Roosevelt faced a similar predicament in the 1930s when the possibility of a double-dip Depression loomed. For this reason, the New Deal’s second wave aggressively pursued public-private partnerships and quasi-public authorities. Roosevelt described the best-known of these enterprises, the Tennessee Valley Authority, as a “corporation clothed with the power of government but possessed of the flexibility and initiative of a private enterprise.” A bipartisan bill introduced by senators including John Kerry, Democrat of Massachusetts, and Kay Bailey Hutchison, Republican of Texas, seeks a similar but modernized solution: it would create an American Infrastructure Financing Authority to move private capital, now sitting on the sidelines in pension, private equity, sovereign and other funds, into much-needed projects. Rather than sell debt to investors and then allocate funds through grants, formulas and earmarks, the authority would get a one-time infusion of federal money ($10 billion in the Senate bill) and then extend targeted loans and limited loan guarantees to projects that need a push to get going but can pay for themselves over time — like a road that collects tolls, an energy plant that collects user fees, or a port that imposes fees on goods entering or leaving the country. The idea of such a bank dates to the mid-1990s. Even then, our growth was hampered by the inadequacy of our infrastructure and a lack of appetite for selling public debt to cover construction costs. Today we find ourselves trapped in a vicious cycle that makes this proposal more urgent than ever. Our degraded infrastructure straitjackets growth. We resist borrowing, fearful of financing pork-barrel projects selected because of political calculations rather than need. While we have channeled capital into wars and debt, our competitors in Asia and Latin America have worked with infrastructure banks to lay a sound foundation for growth. As a result, we must compete not only with their lower labor costs but also with their advanced energy, transportation and information platforms, which are a magnet even for American businesses. A recent survey by the Rockefeller Foundation found that Americans overwhelmingly supported greater private investment in infrastructure. Even so, there is understandable skepticism about public-private partnerships; Wall Street has not re-earned the trust of citizens who saw hard-earned dollars vacuumed out of their retirement accounts and homes. An infrastructure bank would not endanger taxpayer money, because under the Federal Credit Reform Act of 1990, passed after the savings and loan scandal, it would have to meet accounting and reporting requirements and limit government liability. The proposed authority would not and could not become a Fannie Mae or Freddie Mac. It would be owned by and operated for America, not shareholders. The World Bank, the Inter-American Development Bank, the Asian Development Bank and similar institutions helped debt-burdened developing countries to grow through infrastructure investments and laid the foundations for the global high-tech economy. For instance, they literally laid the infrastructure of the Web through a fiber-optic link around the globe. Infrastructure banks retrofitted ports to receive and process shipping containers, which made it profitable to manufacture goods overseas. Similar investments anchored energy-intensive microchip fabrication. President Obama has proposed a $30 billion infrastructure bank that, unlike the Senate proposal, would not necessarily sustain itself over time. His proposal is tied to the reauthorization of federal highway transportation money and is not, in my view, as far-reaching or well designed as the Senate proposal. But he recognizes, as his predecessors did, the importance of infrastructure to national security. For Lincoln, it was the transcontinental railroad; for F.D.R., an industrial platform to support military manufacturing; for Eisenhower, an interstate highway system, originally conceived to ease the transport of munitions. America’s ability to project strength, to rebuild its battered economy and to advance its values is possible only if we possess modern infrastructure.

## Contention 2- INNOVATION DRIVEN COMPETITIVENESS

#### Deteriorating transportation infrastructure forces businesses to incur significant additional costs resulting in underinvestment in business improvements that are critical to sustain innovation, driving down exports and reducing economic competitiveness. The losses are disproportionately concentrated in the highest value sectors that drive national innovation

Jim Jennings 2011, 8/3/11, citing American Society of Civil Engineers“New Report Shows Failing to Invest in Transportation Will Cause Job Losses, Shrink Household Incomes”, http://www.asce.org/PressRelease.aspx?id=12884909810

WASHINGTON, D.C. - The nation’s deteriorating surface transportation infrastructure will cost the American economy more than 876,000 jobs, and suppress the growth of the country’s Gross Domestic Product by $897 Billion by 2020, according to a new report released today by the American Society of Civil Engineers. The report, conducted by the Economic Development Research Group of Boston, showed that in 2010, deficiencies in America’s roads, bridges, and transit systems cost American households and businesses roughly $130 billion, including approximately $97 billion in vehicle operating costs, $32 billion in delays in travel time, $1.2 billion in safety costs, and $590 million in environmental costs. If investments in surface transportation infrastructure are not made soon, those costs are expected to grow exponentially. Within 10 years, U.S. businesses would pay an added $430 billion in transportation costs, household incomes would fall by more than $7,000, and U.S. exports will fall by $28 billion per year. “Clearly, failing to invest in our roads, bridges and transit systems has a dramatic negative impact on America’s economy,” said Kathy J. Caldwell, P.E., F.ASCE, president of ASCE. **“The link between a nation’s infrastructure and its economic competitiveness has always been understood**. But today, for the first time, we have data showing how much failing to invest in our surface transportation system can negatively impact job growth and family budgets. This report is a wake-up call for policymakers because it shows that investing in infrastructure contributes to creating jobs, while failing to do so hurts main street America. “ American businesses and workers will suffer The report shows that failing infrastructure will drive the8 cost of doing business up by adding $430 billion to transportation costs in the next decade. It will cost firms more to ship goods, and the raw materials they buy will cost more due to increased transportation costs. Productivity across the business sector will also tumble. Those increased costs will cause businesses to underperform by $240 billion over the next decade, **which will drive the prices of goods up. As a result, U.S. exports will fall by $28 billion,** including 79 of 93 tradable commodities. **Ten sectors of the U.S. economy account for more than half of this unprecedented loss in export value – among them key technology sectors like machinery, medical devices, communications equipment, which produces much of this country’s innovations. America would also lose jobs in high-value sectors as business income goes down. Almost 877,000 jobs would be lost by 2020, primarily in the high-value, professional, business and medical sectors which are vital to America’s knowledge-based service economy**. Ultimately, Americans will get paid less. While the economy would lose jobs, those who are able to find work will find their paychecks cut. “The cost to businesses will reduce the productivity and competitiveness of American firms relative to global competitors significantly. By 2020, American families will lose more than $7000 because of the ripple effects that will occur throughout the economy,” said Steven Landau of the EDR Group. “Business will have to divert increasing portions of earned income to pay for transportation delays and vehicle repairs, draining money that would otherwise be invested in innovation and expansion.”

#### Investing in transportation infrastructure is essential to maintaining the nations competitiveness

Felix G. Rohatyn, 2011, member on Foreign Council Relations Ambassador Board also president of financial advisory company, July 12, 2011, “Time for a U.S. infrastructure bank”, http://dyn.politico.com/printstory.cfm?uuid=6BE822D5-CF87-4FF7-973C-50DACE25B188

President Barack Obama talked at his news conference Monday about creating a national infrastructure bank that could help rebuild and repair America’s roads, bridges and ports and also address our serious unemployment problem. He cited the bank as one crucial way to stimulate the economy. I would urge the president to move forward on this so we can begin to restore America’s infrastructure and strengthen our economy for the long term. Even as Congress debates fiscal strategies, our country’s competitors and partners around the globe make massive investments in public infrastructure. Meanwhile, our nation’s roads and bridges, schools and hospitals, airports and railways, ports and dams, waterlines and air-control systems are rapidly and dangerously deteriorating. We should view infrastructure financing as an investment rather than an expense and should establish a national, capital budget for infrastructure. This idea is not new.

#### Innovation of technological structure is key to the future sustainability of growth – solves the environment, biotech, nanotech, disease, warming, famine

Baker 2k– Former Industrial Economist

Brent Barker, electrical engineer, and manager of corporate communications for the Electric Power Research Institute and former industrial economist and staff author at SRI International and as a commercial research analyst at USX Corporation, “Technology and the Quest for Sustainability.” EPRI Journal, Summer, INFOTRAC

Sustainability has been the subject of much discussion and a steady stream of policy forums since the World Commission on Environment and Development, headed by Dr. Gro Brundtland, put it on the world stage in 1987. The Brundtland Commission defined sustainable development as growth that meets the needs of the present generation without compromising the ability of future generations to meet their needs. Assuch, sustainability carries with it the distinct feeling of a modern problem. But it is not. We have been on a seemingly unsustainable course for hundreds of years, but the rules, stakes, and speed of the game keep changing, in large part because of our ability to use technology to extend limits and to magnify human capabilities. As long as the population continues to consume a finite store of resources, we must continue to change our course or fail. If, with the global population approaching 9-10 billion people by midcentury, we were to lock in current technologies and development patterns, we would likely find ourselves heading toward environmental disaster or worse. Our best hope--perhaps our only hope--is to evolve rapidly enough, using our ingenuity, our technology, and our growing ethical framework of inclusiveness and respect for the diversity of life, to stay ahead of the proverbial wolf. Despite the environmental pessimism of the current age, there are a handful of signs that suggest we are struggling in fits and starts in the right direction, possibly even gaining more ground than we are losing. Farm productivity is one of the most significant of the great reversals in human fortune that have occurred in recent times, reversals that offer both hope and strategic guidance. Largely as a result of crop yields growing at 1-2% per year, the millenniaold pattern of clearing forests and grassland for farms and pastures has begun to be reversed in some regions of the world. According to one of the world's leading scholars on technological change, Arnulf Grubler of the International Institute for Applied Systems Analysis, some 18 million hectares (45 million acres) of cropland in Europe and North America have been reconverted to forest and grassland between 1950 and 2000, while agricultural output in those regions has continued to grow. Great reversals are also beginning to occur in areas as diverse as population, resource utilization, energy, and transportation. Fertility rates continue to drop below the replacement level (2.1 children per woman) in affluent nations. First evident in France more than a century ago, the preference for smaller families is spreading throughout the world as economic development expands. As a result, roughly 90% of the population growth in the next 50 years will occur in today'spoorest nations. Overall, we are looking at a new demographic dynamic in which population is exploding in some parts of the world while imploding in others. Nevertheless, it is significant that year after year the United Nations continues to crank down its projection of global population in the twenty-first century, suggesting greater certainty that the population is leveling off. Although the consumption of resources continues to grow with population and economic prosperity in all parts of the world, there are some intriguing counter-trends. Technology continues to expands [sic] the menu of material resources--for example, alloys, composites, and ceramics--as well as to increase the efficiency with which we use them. Both trends help keep resource depletion at bay Moreover, usage patterns are now rapidly shifting, at least in the developed nations, toward lighter materials (aluminum, plastics, paper) and toward the recycling of heavier materials (steel, copper, zinc) and of manufactured components. Perhaps most important for the future, however, is the trend toward the "immaterial." The information age is rapidly knitting together a new economy based on immaterial, knowledge-based assets, electronic commerce, and virtual transportation--an economy that is growing much faster than the old economy. We can barely glimpse the networkedworld of the future, but we can assume it will be much less dependent on natural resources. The reversal in energy use is more clearcut. Energy is in the middle of a 300-year trend away from fossil fuels. After more than 100,000 years of wood use, the global energy system began in the nineteenthcentury to move toward progressively cleaner, less carbon-intensive fuels (shifting from wood to coal to oil to gas). In fact, the decarbonization of the global energy system has been systematically proceeding at an average rate of 0.3% per year for the last 150 years, whilethe economic productivity of energy use has been improving at a rateof about 1% per year. The combined result (1.3% per year) is a healthy rate of reduction in the carbon used (and emitted) in producing a dollar of goods and services around the world. Even though the energyproductivity improvements have thus far been eclipsed by the growth in energy consumption (as more people engage in more economic activity), the trend is telling. The eventual result may be the same as in agriculture, with productivity improvements overtaking aggreg ate demand. In terms of decarbonizing the energy system, the transition is likely to be complete sometime in the next 75-150 years, depending on how fast we push the innovation process toward a clean, electricity- and hydrogen-based system. We would eventually get there even without a rigorous push, but as we will see later, the urgency of the climatechange issue may force us to speed up the historical trend by a factor of 2 or 3. The power of technology These historical trends in agriculture, land use, resource consumption, and energy use point to some profound opportunities for the future. There are at least four major ways in which technology has great potential for helping us achieve a sustainable balance in the twenty-first century The first area of opportunity for technology is in the acceleration of productivity growth. In agriculture, for example, corn yields inthe world today average only about 4 tons per hectare, while the United States averages 7 tons per hectare and the best Iowa farmer can get 17 tons. Simply bringing the world as a whole up to today's best practices in the United States would boost farm productivity to unprecedented heights, even without considering what the biological and genetic revolutions may hold in store for agriculture in the next century As for the overall productivity growth rate in industry and business, we are finally starting to register an increase after nearly 30 years of subpar performance at around 1% growth per year. Computerization appears to be taking hold in the economy in new and fundamental ways, not just in speeding up traditional practices but in altering the economic structure itself. One historical analogy would be the introduction of electric unit drives just after World War I, setting in motion a complete reorganization of the manufacturing Floor and leading to a surge in industrial productivity during the 1920s. In the twenty-first century, industrial processes will be revolutionized by new electrotechnologies, including lasers, plasmas, microwaves, and electron beams for materials processing, as well as electrochemical synthesis and electroseparation for chemical processing. Manufacturing will be revolutionized by a host of emerging technology platforms--for example, nanotechnology, biotechnology, biomimetics, high-temperature superconductivity, and network technology including the combining of advanced sensors with information technology to create adaptive, intelligent systems and processes. Future industrial facilities using advanced network technologies will be operated in new ways to simultaneously optimize productivity energy use, materials consumption, and plant emissions. Optimization will extend beyond the immediate facility to webs of facilities supporting industrial and urban ecology with the waste of one stream becoming the feedstock of the next. In the aggregate, the penetration of all the emerging tech nologiesinto the global economy should make it possible to sustain industrial productivity growth rates above 2% per year for many decades. The same technology platforms will be used to improve the efficiency of land, energy and water use, For example, distributed sensors and controls that enable precision farming can improve crop yields and reduce land and water use. And doubling or even tripling global energy efficiency in the next century is well within our means. Given the inefficiencies that now exist at every stage in the process--from mining and drilling for fuel through the use of energy in automobiles, appliances, and processes--the overall efficiency of the energy chain is only about 5%. From a social standpoint, accelerating productivity is not an option but rather an imperative for the future. It is necessary in order to provide the wealth for environmental sustainability, to support anaging population in the industrialized world, and to provide an economic ladder for developing nations. The second area of opportunity for technology lies in its potential to help stabilize global population at 10-12 billion sometime in the twenty-first century, possibly as early as 2075. The key is economics. Global communications, from television to movies to the Internet,have brought an image of the comfortable life of the developed worldinto the homes of the poorest people, firing their own aspirations for a better quality of life, either through economic development in their own country or through emigration to other countries. If we in the developed world can make the basic tools of prosperity--infrastructure, health care, education, and law--more accessible and affordable, recent history suggests that the cultural drivers for producing large families will be tempered, relatively quickly and without coercion. But the task is enormous. The physical prerequisites for prosperity in the global economy are electricity and communications. Today, there are more than 2 billion people living without electricity, or commercial energy in any form, in the very countries where some 5 billion people will be added in the next 50 years. If for no other reason than our enlightened self-interest, we should strive for universal access to electricity, communications, and educational opportunity. We have little choice, because the fate of the developed world is inextricably bound up in the economic and demographic fate of the developingworld. A third, related opportunity for technology is in decoupling population growth from land use and, more broadly, decoupling economic growth from natural resource consumption through recycling, end-use efficiency, and industrial ecology. Decoupling population from land use is well under way. According to Grubler, from 1700 to 1850 nearly 2 hectares of land (5 acres) were needed to support every child born in North America, while in the more crowded and cultivated regions of Europe and Asia only 0.5 hectare (1.2 acres) and 0.2 hectare (0.5 acre) were needed, respectively. During the past century, the amount of land needed per additional child has been dropping in all areas of the world, with Europe and North America experiencing the fastest decreases. Both crossed the "zero threshold" in the past few decades, meaningthat no additional land is needed to support additional children andthat land requirements will continue to decrease in the future. One can postulate that the pattern of returning land to nature will continue to spread throughout the world, eventually stemming and then reversing the current onslaught on the great rain forests. Time is critical if vast tracts are to be saved from being laid bare, and success will largely depend on how rapidly economic opportunities expand for those now trapped in subsistence and frontier farming. In concept, the potential for returning land to nature is enormous. Futurist and scholar Jesse Ausubel of the Rockefeller University calculates that if farmers could lift average grain yields around the world just to the level of today's average U.S. corn grower, one-half of current global cropland--an area the size of the Amazon basin--could be spared. If agriculture is a leading indicator, then the continuous drive to produce more from less will prevail in other parts of the economy Certainly with shrinking agricultural land requirements, water distribution and use around the world can be greatly altered, since nearly two-thirds of water now goes for irrigation. Overall, the technologies of the future will, in the words of Ausubel, be "cleaner, leaner, lighter, and drier"--that is, more efficient and less wasteful of materials and water. They will be much more tightly integrated through microprocessor-based control and will therefore use human and natural resources much more efficiently and productively. Energy intensity, land intensity, and water intensity (and, to a lesser extent, materials intensity) for both manufacturing and agriculture are already heading downward. Only in agriculture are they falling fast enough to offset the surge in population, but, optimistically, advances in science and technology should accelerate the downward trends in other sectors, helping to decouple economic development fromenvironmental impact in the coming century. One positive sign is thefact that recycling rates in North America are now approaching 65% for steel, lead, and copper and 30% for aluminum and paper. A second sign is that economic output is shifting away from resource-intensive products toward knowledge-based, immaterial goods and services. As a result, although the U.S. gross domestic product (GDP) increased 200-fold (in real dollars) in the twentieth century, the physical weight of our annual output remains the same as it was in 1900. If anything,this trend will be accelerating. As Kevin Kelly, the editor of Wiredmagazine, noted, "The creations most in demand from the United States [as exports] have lost 50% of their physical weight per dollar of value in only six years.... Within a generation, two at most, the number of people working in honest-to-goodness manufacturing jobs will beno more than the number of farmers on the land--less than a few percent. Far more than we realize, the network economy is pulling us all in." Even pollution shows clear signs of being decoupled from population and economic growth. Economist Paul Portney notes that, with the exception of greenhouse gases, "in the OECD [Organization for Economic Cooperation and Development] countries, the favorable experience [with pollution control] has been a triumph of technology That is, the ratio of pollution per unit of GDP has fallen fast enough in the developed world to offset the increase in both GDP per capita and the growing number of 'capitas' themselves." The fourth opportunity for science and technology stems from their enormous potential to unlock resources not now available, to reduce human limitations, to create new options for policymakers and businesspeople alike, and to give us new levels of insight into future challenges. Technically resources have little value if we cannot unlock them for practical use. With technology, we are able to bring dormant resources to life. For example, it was only with the development of anelectrolytic process late in the nineteenth century that aluminum--the most abundant metal on earth--became commercially available and useful. Chemistry unlocked hydrocarbons. And engineering allowed us to extract and put to diverse use untapped petroleum and gas fields. Over the course of history, technology has made the inaccessible accessible, and resource depletion has been more of a catalyst for change than a longstanding problem. Technology provides us with last-ditch methods (what economists would call substitutions) that allow us to circumvent or leapfrog over crises of our own making.Agricultural technology solved the food crisis of the first half of the nineteenth century. The English "steam crisis" of the 1860s, triggered by the rapid rise of coal-burning steam engines and locomotives, was averted by mechanized mining and the discovery and use of petroleum. The U.S. "timber crisis" that Teddy Roosevelt publicly worried about was circumvented by the use of chemicals that enabled a billion or so railroad ties to last for decades instead of years. The great "manure crisis" of the same era was solved by the automobile, which in a few decades replaced some 25 million horses and freed up 40 million hectares (100 million acres) of farmland,not to mention improving the sanitation and smell of inner cities. Oil discoveries in Texas and then in the Middle East pushed the pending oil crisis of the 1920s into the future. And the energy cr isis of the 1970s stimulated the development of new sensing and drilling technology, sparked the advance of non--fossil fuel alternatives, and deepened the penetration of electricity with its fuel flexibility into the global economy Thanks to underground imaging technology, today's known gas resources are an order of magnitude greater than the resources known 20 years ago, and new reserves continue to be discovered. Technology has also greatly extended human limits. It has given each of us a productive capability greater than that of 150 workers in 1800, for example, and has conveniently put the power of hundreds of horses in our garages. In recent decades, it has extended our voice and our reach, allowing us to easily send our words, ideas, images, and money around the world at the speed of light. But global sustainability is not inevitable. In spite of the tremendous promise that technology holds for a sustainable future, there is the potential for all of this to backfire before the job can be done. There are disturbing indications that people sometimes turn in fear and anger on technologies, industries, and institutions that openlyfoster an ever-faster pace of change. The current opposition to nuclear power genetically altered food, the globalization of the economy and the spread of American culture should give us pause. Technology has always presented a two-edged sword, serving as both cause and effect, solving one problem while creating another that was unintended and often unforeseen. We solved the manure crisis, but automotive smog,congestion, and urban sprawl took its place. We cleaned and transformed the cities with all-electric buildings rising thousands of feet into the sky. But while urban pollution was thereby dramatically reduced, a portion of the pollution was shifted to someone else's sky. Breaking limits "Limits to growth" was a popular theme in the 1970s, and a best-selling book of that name predicted dire consequences for the human race by the end of the century. In fact, we have done much better than those predictions, largely because of a factor the book missed--the potential of new technology to break limits. Repeatedly, human societies have approached seemingly insurmountable barriers only to find the means and tools to break through. This ability has now become a source of optimism, an article of faith, in many parts of the world. Today's perceived limits, however, look and feel different. They are global in nature, multicultural, and larger in scale and complexity than ever before. Nearly 2 billion people in the world are without adequate sanitation, and nearly as many are without access to clean drinking water. AIDS is spreading rapidly in the regions of the world least able to fight it. Atmospheric concentrations of greenhouse gases are more than 30% greater than preindustrial levels and are climbing steadily. Petroleum reserves, expected to be tapped by over a billion automobiles worldwide by 2015, may last only another 50-100 years.And without careful preservation efforts, the biodiversity of the planet could become as threatened in this coming century as it was at the end of the last ice age, when more than 70% of the species of large mammals and other vertebrates in North America disappeared (along with 29% in Europe and 86% in Australia). All these perceived limits require innovation of a scope and intensity surpassing human kind's current commitment. The list of real-world problems that could thwart global sustainability is long and sobering. It includes war, disease, famine, political and religious turmoil, despotism, entrenched poverty, illiteracy, resource depletion, and environmental degradation. Technology can help resolve some of these issues--poverty and disease, resource depletion, and environmental impact, for example--but it offers little recourse for the passions and politics that divide the world. The likelihood is that we will not catch up and overtake the moving target of global sustainability in the coming century, but given the prospects fortechnology, which have never been brighter, we may come surprisinglyclose. We should put our technology to work, striving to lift more than 5 billion people out of poverty while preventing irreversible damage to the biosphere and irreversible loss of the earth's natural resources. We cannot see the future of technology any more clearly than our forebears did--and for much the same reason. We are approaching the threshold of profound change, moving at great speed across a wide spectrum of technology, ranging today from the Internet to the Human Genome project. Technology in the twenty-first century will be turning toward biological and ecological analogs, toward microminiature machines, toward the construction of materials atom by atom, and toward the dispersion of microprocessor intelligence into everyday objects subsequently linked into neural networks. Computing power continues to double every 18 months, as postulated in Moore's law, promising to enableus to create much more powerful tools for everyday tasks, optimize business services and processes along new lines, understand complex natural phenomena like the weather and climate, and design technical systems that are self-diagnostic, self-healing, and self-learning. The networked, digital society of the future should be capable o f exponential progress more in tune with biological models of growth than with the incremental progress of industrial societies. If history tells us anything, it is that in the long term we are much more likely to underestimate technology than to overestimate it. We are not unlike the excited crowds that in 1909 tried to imagine the future of flight as they watched Wilbur Wright loop his biplane twice around the Statue of Liberty and head back to Manhattan at the record-breaking speed of 30 miles per hour. As wild as one's imaginationand enthusiasm might have been, it would have been inconceivable that exactly 60 years later humans would fly to the moon and back. Electricity's unique role Electricity lies at the heart of the global quest for sustainability for several reasons. It is the prerequisite for the networked world of the future. It will be the enabling foundation of new digital technology and the vehicle on which most future productivity gains in industry, business, and commerce will depend. And to the surprise of many, it will remain the best pathway to resource efficiency, quality of life, and pollution control. In fact, the National Academy of Engineering just voted the "vast network of electrification" the single greatest engineering achievement of the twentieth century by virtue of its ability to improve people's quality of life. It came out ahead of the automobile, the airplane, the computer, and even health care in its impact on society. The electricity grids of North America, Europe, and Japan are said to be the most complex machines ever built. Although they are not yet full networks--that is, not every node is connected to every other node--these networks have been sufficiently interconnected to become the central enabling technology of the global economy. They will have to be even more interconnected and complex to keep pace with the microprocessors and digital networks they power. In the developed world, electricity has become almost a transparent technology lost in the excitement surrounding its latest progeny--electronics, computers, the Internet, and so forth. Still, its role should be as profound in this century as it was in the last. "How and in what form global electrification goes forward in the next 50 years will determine, as much as anything, how we resolve the global 'trilemma' posed by population, poverty and pollution," says Kurt Yeager, president and CEO of EPRI. "This trilemma is destined to become a defining issue of the twenty-first century" Chauncey Starr, EPRI's founder, has captured the strong historicalcorrelation between access to electricity economic prosperity and social choices. A large majority of the world's population is now trapped at a low economic level, where the focus of everyday life is on survival and on acquiring the basics now taken for granted in developednations. As Starr shows, only after electricity consumption reaches a threshold of approximately 1000 kWh per capita do people turn theirattention from the basics of immediate survival to the level of "amenities," including education, the environment, and intergenerational investment. Given the chicken-and-egg nature of the process of socialadvancement, it is not possible to point to electricity as the initial spark, but it is fair to say that economic development does not happen today without electricity. Electricity has been extended to more than 1.3 billion people overthe past 25 years, with leveraged economic impact. In South Africa, for example, 10 to 20 new businesses are started for every 100 homes that are electrified. Electricity frees up human labor--reducing the time people spend in such marginal daily tasks as carrying water and wood--and provides light in the evening for reading and studying. These simple basics can become the stepping stones to a better life and a doorway to the global economy. Because electricity can be effectively produced from a wide variety of local energy sources and because it is so precise at the point of use, it is the ideal energy carrier for economic and social development. Distributed electricity generation can be used to achieve basic rural electrification goals in the developing world, thereby helping to counteract the trend toward massiveurbanization. People in rural areas and villages need to have accessto the opportunities and jobs that are now attainable only by migrating to large cities. Electrification should also help with efforts to improve deteriorating urban air quality in the growing megacities of the world. Mortality from respiratory infections may be as much as five times higher in developing countries than in developed countries. The health costs can be debilitating; it is estimated, for example, that the total health cost of air emissions in Cairo alone now exceeds $1 billion per year. How global electrification proceeds--on a large or a small scale, with clean or dirty technology--will influence the planet socially economically and environmentally for centuries. Ultimately our success or failure in this endeavor will bear heavily on whether we can effectively handle the issues of the habitability and biodiversity of the planet. Ironically, electricity may also become the focal point for growing animosity in the coming century, for the simple reason that it is taking on more and more responsibility for society's energy-related pollution. Electricity accounted for only about 25% of the world's energy consumption in 1970. Today in the developed countries, its share of energy consumption is nearly 40%, and by 2050 that figure may reach60-70%. If transportation is fully electrified through fuel cells, hybrids, and the like, electricity's energy share could climb even higher. This growth accentuates the need to ensure that future electricity generation and use are as clean and efficient as possible and thatbest practices and technologies are available to developing countries as well as affluent ones. Fortunately for the world, electricity has the greatest potential of all the energy forms to deliver in the area of environmental stewardship. Roadmap's call to action The Electricity Technology Roadmap Initiative, which was launched by EPRI in 1998, began by bringing representatives of more than 150 diverse organizations together in a series of workshops and meetings to explore ways to enhance the future value of electricity to society.They staked out some ambitious destinations through time, leading tothe ultimate destination of "managing global sustainability." They also established some specific goals to ensure that the tools will be in hand by 2025 to reach various sustainability targets, including universal global electrification, by midcentury. Among these goals are the acceleration of electricity-based innovation and R&D and the benchmarking of our progress toward sustainability. Universal global electrification means bringing everyone in the world to at least the "amenities" level defined by Starr. At this level, it becomes more likely that the rich and poor nations will find common ground for pursuing sustainability policies. The roadmap stakeholders are calling for a bare minimum of 1000 kWh per person per year to be available by 2050. This would raise the average in today's developing countries to around 3000 kWh per person per year in 2050, just above the level in the United States a century earlier, around 1950. Moreover, projections suggest that it will be possible to reduce the energy intensity of economic growth by at least 50% over the next 50 years through universal electrification, with about half the reduction resulting from end-use efficiency improvements. Consequently, the 3000 kWh of 2050 will go much further in powering applications--lighting, space conditioning, industrial processes, computing, communications, and the like--than an equivalent amount of electric energy used in the United States in 1950. Already, for example, the manufacturing and widespread application of compact fluorescent lightbulbs has become a priority in China for reasons of both energy efficiency and export potential. Even with the large efficiency improvements that are anticipated in electricity generation and end use, building enough capacity to supply 9-10 billion people with power will be an enormous challenge. Total global generating capacity requirements for 2050 could reach a daunting 10,000 GW--the equivalent of bringing on-line a 1000-MW power plant somewhere in the world every two days for the next 50 years. This is a tall order, and achieving it affordably and with minimal environmental impacts will require an unusual degree of dedicated R&D, supported through public and private collaboration, to accelerate the current pace of technological development. According to the roadmap stakeholders, reaching the destinations that they have defined calls for at least an additional $4 billion peryear in electricity-related R&D by the United States alone. One of the key destinations, resolution of the energy-environment conflict, would in itself require an additional $2 billion per year in U.S. R&D over the next 10 years to speed up the development of clean power generation. This is more than double the nation's current level of funding in this area from both the public and private sectors. The rate of innovation is especially critical to sustainability. The roadmap participants have concluded that a "2% solution" is neededto support a sustainable future. By this, they mean that productivity improvements in a range of areas--including global industrial processes, energy intensity, resource utilization, agricultural yield, emissions reduction, and water consumption--have to occur at a pace of 2% or more per year over the next century. If the advances are distributed on a global basis, this pace should be sufficient to keep the world ahead of growing social and environmental threats. It will also generate the global wealth necessary to progressively eliminate the root cause of these threats and will provide the means to cope with theinevitable surprises that will arise. For example, a 2% annual increase in global electricity supply, if made broadly available in developing countries, would meet the goal of providing 1000 kWh per year toevery person in the world in 2050. This means extending the benefitsof electricity to 100 million new users every year. Maintaining a 2% pace in productivity improvements for a century will be formidable. It is in line with the cumulative advancement in the United States during the twentieth century, but at least twice theworld average over that period. The disparity has been particularly great in the past 25 years, as population growth has outstripped economic development in many parts of the world. The result has been massive borrowing to maintain or enhance short-term standards of living. Staying ahead of population-related challenges is now in the enlightened self-interest of all the world's peoples, and the 2% solution offers a benchmark for success. Sustaining efficiency gains of 2% per year throughout the twenty-first century would allow essential global economic development to continue while sparing the planet. This pace, for example, should help stabilize world population (to the extent that wealth is a primary determinant of population growth), limit atmospheric levels of greenhouse gases to below agreed-upon strat egic limits, provide sufficient food for the bulk of the world's people (as well as the wherewithal to buy it), and return significant amounts of land and water to their natural states. Roadmap participants envision technology and the spread of liberal capitalism as powerful agents for the 2% solution in that they can stimulate global development and foster worldwide participation in market economies. However, the participants have also expressed some concern and caution about unbridled globalization overrunning local cultures and societies and creating instability, unrest, and conflict. Atits worst, globalization could lock weaker nations into commodity-production dependencies, leading to a survival-of-the-fittest global economy in which the rich get richer and most of the poor stay poor. Establishing greater dialogue and cooperation among developed and developing nations is therefore considered critical to ensuring that globalization delivers on its promise to be a vehicle of worldwide progress that honors the diversity of nations and peoples. Targets of sustainability There is no single measure of sustainability; rather, it will require continued progress in a wide variety of areas that reflect the growing efficiency of resource utilization, broad improvements in the quality of life for today's impoverished people, and acceleration of the historical shift away from resource-intensive economic activity. The roadmap's sustainability R&D targets provide a first-order approximation of what will be required. In many cases, the targets representa significant stretch beyond today's levels, but they are all technologically achievable. The roadmap sets an optimistic course, certain that with accelerated R&D and a much stronger technological foundation in hand by 2025, the world could be well on a path to economic and environmental sustainability by midcentury. The goals for sustainability are simply too far-reaching to be achieved solely through governmental directives or policy. Rather, they will be reached most readilyvia a healthy, robust global economy in which accelerated technological innovation in the private sector is strongly encouraged and supported by public policy. The challenges of bringing the world to a state of economic and environmental sustainability in the coming century are immense but not insurmountable. Technology is on the threshold of profound change, quite likely to be broader, faster, and more dramatic in its impact than that which we experienced in the twentieth century. Fortunately, the impact appears to be heading in the right direction. Much of the leading-edge technology is environmentally friendly and, from today's vantage point, is likely to lead to a global economy that is cleaner, leaner, lighter, and drier; many times more efficient, productive, and abundant; and altogether less invasive and less destructive of the natural world. History teaches us that technology can be a liberating force for humanity, allowing us to break through our own self-made limits as well as those posed by the natural world. The next steps will be to extend the benefits of innovation to the billions of people without access and, in the words of Jesse Ausubel, to begin "liberating the environment itself." This entails meeting our needs with far fewer resources by developing a "hydrogen economy, landless agriculture, and industrial ecosystems in which waste virtually disappears....and by broadening our notions of democracy, as well as our view of the ethical standing of trees, owls, and mountains." In many ways, the material abundance and extended human capabilities generated through hundreds of years of technology development have led us to a new understanding and heightened respect for the underlying "technologies of life." Offering four billion years of experience, nature will become one of our best teachers in the new century; we are likely to see new tech nology progressively taking on the character and attributes of living systems. Technology may even begin to disappear into the landscape as microminiaturization and biological design ensue. Still, though technology is heading in the right direction, what remains principally in question is whether the pace of innovation is adequate to stay ahead of the curve of global problems and whether newadvances in technology can be quickly brought down in cost and readily distributed throughout the world. Can we achieve the 2% solution of progressive improvement in economic productivity, land and water use, recycling, emissions reduction, and agricultural yield, year afteryear, decade after decade, in nation after nation? It's a formidable challenge, but with better tools we just might be able to pull it off, If so, the key to success will not be found in one small corner ofthe world. The challenge will be met by making the basic building blocks of innovation--education, R&D, infrastructure, and law--available in full measure to future generations everywhere in the world. Thatfuture begins now.

#### Boosting economic competitiveness are key to prevent the collapse of U.S. power---that causes global great-power wars

Khalilzad 11 Zalmay Khalilzad was the United States ambassador to Afghanistan, Iraq, and the United Nations during the presidency of George W. Bush and the director of policy planning at the Defense Department from 1990 to 1992. "The Econom and National Security" Feb 8 www.nationalreview.com/blogs/print/259024

Today, economic and fiscal trends pose the most severe long-term threat to the United States’ position as global leader. While the United States suffers from fiscal imbalances and low economic growth, the economies of rival powers are developing rapidly. The continuation of these two trends could lead to a shift from American primacy toward a multi-polar global system, leading in turn to increased geopolitical rivalry and even war among the great powers.

The current recession is the result of a deep financial crisis, not a mere fluctuation in the business cycle. Recovery is likely to be protracted. The crisis was preceded by the buildup over two decades of enormous amounts of debt throughout the U.S. economy — ultimately totaling almost 350 percent of GDP — and the development of credit-fueled asset bubbles, particularly in the housing sector. When the bubbles burst, huge amounts of wealth were destroyed, and unemployment rose to over 10 percent. The decline of tax revenues and massive countercyclical spending put the U.S. government on an unsustainable fiscal path. Publicly held national debt rose from 38 to over 60 percent of GDP in three years.

Without faster economic growth and actions to reduce deficits, publicly held national debt is projected to reach dangerous proportions. If interest rates were to rise significantly, annual interest payments — which already are larger than the defense budget — would crowd out other spending or require substantial tax increases that would undercut economic growth. Even worse, if unanticipated events trigger what economists call a “sudden stop” in credit markets for U.S. debt, the United States would be unable to roll over its outstanding obligations, precipitating a sovereign-debt crisis that would almost certainly compel a radical retrenchment of the United States internationally.

Such scenarios would reshape the international order. It was the economic devastation of Britain and France during World War II, as well as the rise of other powers, that led both countries to relinquish their empires. In the late 1960s, British leaders concluded that they lacked the economic capacity to maintain a presence “east of Suez.” Soviet economic weakness, which crystallized under Gorbachev, contributed to their decisions to withdraw from Afghanistan, abandon Communist regimes in Eastern Europe, and allow the Soviet Union to fragment. If the U.S. debt problem goes critical, the United States would be compelled to retrench, reducing its military spending and shedding international commitments.

We face this domestic challenge while other major powers are experiencing rapid economic growth. Even though countries such as China, India, and Brazil have profound political, social, demographic, and economic problems, their economies are growing faster than ours, and this could alter the global distribution of power. These trends could in the long term produce a multi-polar world. If U.S. policymakers fail to act and other powers continue to grow, it is not a question of whether but when a new international order will emerge. The closing of the gap between the United States and its rivals could intensify geopolitical competition among major powers, increase incentives for local powers to play major powers against one another, and undercut our will to preclude or respond to international crises because of the higher risk of escalation.

The stakes are high. In modern history, the longest period of peace among the great powers has been the era of U.S. leadership. By contrast, multi-polar systems have been unstable, with their competitive dynamics resulting in frequent crises and major wars among the great powers. Failures of multi-polar international systems produced both world wars.

American retrenchment could have devastating consequences. Without an American security blanket, regional powers could rearm in an attempt to balance against emerging threats. Under this scenario, there would be a heightened possibility of arms races, miscalculation, or other crises spiraling into all-out conflict. Alternatively, in seeking to accommodate the stronger powers, weaker powers may shift their geopolitical posture away from the United States. Either way, hostile states would be emboldened to make aggressive moves in their regions.

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#### NIB will increase critical transportation infrastructure investment, creating jobs in the short term, fueling economic activity, and increasing competitiveness

Ryan McConaghy and Jim Kessler 2011, January 2011, “A National Infrastructure Bank”, The Economic Program- Schwartz Initiative on American Economic Policy, pdf

The NIB will reform the system to cut waste, and emphasize merit and need. As a bank, the NIB would inject accountability into the infrastructure investment process. Since the bank would offer loans and loan guarantees using a combination of public and private capital, it would have the opportunity to move away from the traditional design-bid-build model and toward project delivery mechanisms that would deliver better value to taxpayers and investors.35 By operating on principles more closely tied to return on investment and financial discipline, the NIB would help to prevent the types cost escalation and project delays that have foiled the ARC Tunnel. America’s infrastructure policy has been significantly hampered by the lack of a national strategy rooted in clear, overarching objectives used to evaluate the merit of specific projects. The politicization and lack of coordination of the process has weakened public faith in the ability of government to effectively meet infrastructure challenges. In polling, 94% of respondents expressed concern about America’s infrastructure and over 80% supported increased federal and state investment. However, 61% indicated that improved accountability should be the top policy goal and only 22% felt that the federal government was effective in addressing infrastructure challenges.36 As a stand-alone entity, the NIB would address these concerns by selecting projects for funding across sectors based on broadly demonstrated need and ability to meet defined policy goals, such as economic benefit, energy independence, improved health and safety, efficiency, and return on investment. The NIB will create jobs and support competitiveness. By providing a new and innovative mechanism for project financing, the NIB could help provide funding for projects stalled by monetary constraints. This is particularly true for large scale projects that may be too complicated or costly for traditional means of financing. In the short-term, providing resources for infrastructure investment would have clear, positive impacts for recovery and growth. It has been estimated that every $1 billion in highway investment supports 30,000 jobs,37 and that every dollar invested in infrastructure increases GDP by $1.59.38 It has also been projected that an investment of $10 billion into both broadband and smart grid infrastructure would create 737,000 jobs.39 In the longer-term, infrastructure investments supported by the NIB will allow the U.S. to meet future demand, reduce the waste currently built into the system, and keep pace with competition from global rivals.

#### NIB investments in transportation infrastructure will create needed jobs and address infrastructure problems that threaten the economy

Bloomberg View 2011, 8/10/11, “A Bank That Can Get Americans on the Road and on the Job: View”, http://www.bloomberg.com/news/2011-08-11/a-bank-that-can-get-americans-on-the-road-and-on-the-job-view.html

Among the legion of problems facing the U.S., two stand out: Unemployment remains appallingly high, and the public works undergirding our economy are in alarmingly bad shape. Creating a national infrastructure bank presents a harmonized solution to these two problems that should be feasible even in austere times. Airports and transportation networks, levees and dams, water and energy systems are deteriorating. The American Society of Civil Engineers estimates that 25 percent of our bridges are deficient, 7 billion gallons of clean water are wasted each day because of leaking pipes, and a third of our major roads are in poor or mediocre condition. The costs of all this to U.S. businesses -- in delays, accidents, lost productivity, red tape -- are enormous. Yet improving such facilities adequately, the ASCE estimates, would require a five-year investment of $2.2 trillion. If you’ve been within shouting distance of Washington lately, you know that finding anything near such a sum is an impossibility. So a revitalization program that doesn’t rely entirely on federal munificence is crucial. Enter the infrastructure bank, which would provide loans or loan guarantees for big projects deemed to be in the public interest -- and attract private investment by offering cheap access to capital and a path to profit from tolls, fares and other charges. The bank could leverage the government’s outlay to lend more. An initial $5 billion a year for five years could result in $50 billion or more in loans. And because these loans would be paid back with interest, the institution could become self- sustaining. Financing for such a bank should be seen as an investment, not “spending.” Replacing Jobs The resulting projects would not only improve lives and safety, but would also go some way toward replacing the many construction jobs lost in the recession and housing meltdown. Every dollar spent on public infrastructure yields a $1.59 boost to gross domestic product, estimates Mark Zandi of Moody’s Analytics. There are many suggestions for how to structure such a bank, including a Senate proposal sponsored by John Kerry, Democrat of Massachusetts, and Kay Bailey Hutchison, Republican of Texas, which earned the strange-bedfellow support of both the AFL-CIO and the U.S. Chamber of Commerce. Representative Rosa DeLauro, Democrat of Connecticut, has introduced a House bill, and President Barack Obama has advanced a plan that mixes loans and grants.

**Creating a National Infrastructure Bank is the best way to use scarec governmental resources to attract private investment in transportation infrastructure. That investment multiplier is the only way to generate sufficient investment to address the nation’s collapsing infrastructure and avert the oncoming double-dip recession**

**MARHSALL & THOMASSON ‘11** - president and founder of the Progressive Policy Institute (PPI); found the Democratic Leadership Council, serving as its first policy director; AND\*\*\* Scott Thomasson - director of economic and domestic policy for the Progressive Policy Institute and manages PPI's Innovative Economy Project and E3 Initiative (Will, Scott Thomasson, “Sperling on “Deferred Maintenance””, October 7, <http://progressivepolicy.org/sperling-on-%E2%80%9Cdeferred-maintenance%E2%80%9D>)

**It’s hard to imagine a more myopic example of the right’s determination to impose premature austerity on our frail economy**. From Lincoln to Teddy Roosevelt to Eisenhower, the Republicans were once a party dedicated to internal nation building. Today’s GOP is gripped by a raging anti-government fever which fails to draw elementary distinctions between consumption and investment, viewing all public spending as equally wasteful. But as the White House’s Gene Sperling said yesterday, Republicans can’t claim credit for fiscal discipline by blocking long overdue repairs of in the nation’s transport, energy and water systems. **There’s nothing fiscally responsible about “deferring maintenance” on the U.S. economy**. Sperling, chairman of the president’s National Economic Council, spoke at a PPI forum on Capitol Hill on “Infrastructure and Jobs: A Productive Foundation for Economic Growth.” Other featured speakers included Sen. Mark Warner, Rep. Rosa DeLauro, Dan DiMicco, CEO of Nucor Corporation, Daryl Dulaney, CEO of Siemens Industry and Ed Smith, CEO of Ullico Inc., a consortium of union pension funds. Fiscal prudence means foregoing consumption of things you’d like but could do without if you can’t afford them – a cable TV package, in Sperling’s example. But if a water pipe breaks in your home, deferring maintenance can only lead to greater damage and higher repair costs down the road. As speaker after speaker emphasized during yesterday’s forum, that’s precisely what’s happening to the U.S. economy. **Thanks to a generation of underinvestment in roads, bridges, waterways, power grids, ports and railways, the United States faces a $2 trillion repair bill**. **Our inadequate, worn-out infrastructure costs us time and money, lowering the productivity of workers and firms, and discouraging capital investment in the U.S. economy**. Deficient infrastructure, Dulaney noted, has forced Siemens to build its own rail spurs to get goods to market. That’s something smaller **companies** can’t afford to do. They **will go to countries – like China, India and Brazil – that are investing heavily in building world-class infrastructure**. As Nucor’s DiMicco noted, a large-scale U.S. infrastructure initiative would create lots of jobs while also abetting the revival of manufacturing in America. He urged the Obama administration to think bigger, noting that a $500 billion annual investment in infrastructure (much of the new money would come from private sources rather than government) could generate 15 million jobs. The enormous opportunities to deploy more private capital were echoed from financial leaders in New York, including Jane **Garvey, the North American chairman of Meridiam Infrastructure, a private equity fund specializing in infrastructure investment**. Garvey **warned** that what **investors need** from government programs is **more transparent and consistent decision making**, based on clear, merit-based criteria, **and** noted that **an independent national infrastructure bank would be the best way to achieve this**. Bryan Grote, former head of the Department of Transportation’s TIFIA financing program, which many describe as a forerunner of the bank approach, added that having a dedicated staff of experts in an independent bank is the key to achieving the more rational, predictable project selection that investors need to see to view any government program as a credible partner. Tom **Osborne, the head of Americas Infrastructure at UBS Investment Bank, agreed that an independent infrastructure bank** like the version proposed by Senators Kerry, Hutchison and Warner, **would empower private investors to fund more projects**. And contrary to arguments that a national bank would centralize more funding decisions in Washington, Osborne explained that **states and local governments would also be more empowered by the bank to pursue new projects with flexible financing options**, knowing that the bank will evaluate projects based on its economics, not on the politics of the next election cycle. Adding urgency to the infrastructure push was Fed Chairman Ben Bernanke’s warning this week that **the recovery is “close to faltering**.” **Unlike short-term stimulus spending, money invested in modernizing infrastructure would create lasting jobs by expanding our economy’s productive base.** Warning that **America stands on the precipice of a “double dip” recession,** Sperling said it would be “inexcusable” for Congress to fail to act on the president’s job plan. He cited estimates by independent economic experts that the plan would boost GDP growth in 2012 from 2.4 to 4.2 percent, and generate over three million more jobs.

#### The NIB would revive business investment and spending, creating jobs, reduce unemployment, and prevent the oncoming recession

Christopher Alessi 2011, 9/8/11, Associate writer for the Council of Foreign Relations, “Banking on U.S. Infrastructure Revival”, http://www.cfr.org/economics/banking-us-infrastructure-revival/p25782

U.S. President Barack Obama is expected to propose an employment stimulus package worth over $300 billion (Bloomberg) in a speech to both houses of Congress on Thursday. The plan will aim to create new jobs through a combination of tax cuts and--more contentiously--government spending on infrastructure projects. The most sweeping proposal for government investment in public works being debated around Washington is the creation of a national infrastructure bank (CNN). Such an institution would require an initial, one-time investment by the government of approximately $10 billion. Most urgently, the bank would be a means of creating jobs in the construction, manufacturing, and retail trade sectors of the economy. With unemployment stuck above 9 percent, a plan to get fourteen million unemployed Americans back to work is a top government priority. Moreover, as the U.S. economy continues to stagnate--and fears of a global double-dip recession abound--generating jobs is seen as crucial. Investing in infrastructure, along with education and technology, is a way to tackle unemployment by addressing longstanding structural problems on "the tradable side of the economy," economist and Nobel laureate A. Michael Spence recently told CFR. At the same time, U.S. infrastructure is undoubtedly deteriorating, undermining the foundations of the country's economy. In turn, this is weakening the ability of the United States--the world's largest economy--to exercise economic leadership throughout the globe. The World Economic Forum's 2011-2012 Global Competitiveness Report said the United States declined in competitiveness for the third year in a row, dropping to fifth place. The Global Competitive Index is composed of twelve pillars, including infrastructure. "For decades, we have neglected the foundation of our economy while other countries have invested in state-of-the-art water, energy, and transportation infrastructure, wrote Michael B. Likosky, a senior fellow at New York University's Institute for Public Knowledge, in a July 12 New York Times op-ed. Congressional Democrats (WSJ)--and President Obama--are Washington's biggest proponents of an independent, national infrastructure bank. They argue that the bank would incite private investment and spur job creation in the short term--while strengthening the foundations of the economy in the long run. But many congressional Republicans say that, as with the stimulus package implemented during the height of the financial crisis, U.S. workers would not immediately feel the effects of infrastructure spending, if at all. Senate Republican leader Mitch McConnell says more government spending (NYT) would only strangle already-anemic economic growth.

#### Infrastructure investment generates both jobs and economic activity

Jerry Costello 2011, 3/14/11, U.S. Representative (Illinois) Senior Member of House of Transportation and Infrastructure Committee, “Infrastructure investment is key to economic recovery”, http://thehill.com/blogs/congress-blog/economy-a-budget/149389-infrastructure-investment-is-key-to-economic-recovery

Our nation is coming out of the worst economic recession since the Great Depression, and as a result, we are going to have to make serious and often painful cuts in federal spending to get our country back on track. However, even as we move forward with these tough decisions and work to find ways to do more with less, it is imperative that we continue to spur growth and recovery by making smart, targeted investments in key sectors of our economy. I can think of no better place to start than by getting serious about investing in our national infrastructure. As a senior member of the House Transportation and Infrastructure Committee, I have seen the economic benefits of infrastructure investment. In addition to the critical role we know our nation’s roads, bridges, railroads, airports and waterways play in maintaining our way of life, it is estimated that every $1 billion invested in national infrastructure creates 35,000 jobs and generates $6.1 billion in economic activity. That is why, when we passed the President’s economic stimulus package two years ago, I wanted to put every dollar in the stimulus bill toward our national infrastructure. Unfortunately, the bill only included $48.1 billion for infrastructure investment, just a fraction of the hundreds of billions of dollars needed to make vital improvements to our highways, railroads, bridges, airports and waterways. We should have done more then, and two years later, despite the many known economic benefits, we still are not investing enough in our nation’s infrastructure. There is no question that we need to move forward in Congress with legislation making necessary improvements to our nation’s highways, which will create a number of good-paying jobs in communities across the country and enhance our ability to move people and goods quickly, safely and efficiently. While there are challenges involved, including issues of funding, I am convinced that any policy differences can be resolved with bipartisan cooperation.

**The NIB would address the failures in the current federal process for infrastructure investment, eliminating political influence on project funding and creating a competitive, inter-modal, multijurisdictional approach for funding projects is key—only federal action solves**

**Istrate and Puentes 9** (Istrate, Emilia, senior research analyst and associate fellow with the Metropolitan Infrastructure Initiative specializing in transportation financing, and Puentes, Robert, Senior Fellow and Director of the Metropolitan Infrastructure Initiative, December 2009, “Investing for Success Examining a Federal Capital Budget and a National Infrastructure Bank”, Brookings Institute)

A properly designed NIB is an attractive alternative for a new type of federal investment policy. In theory, an independent entity, insulated from congressional influence, would be able to select infrastructure projects on a merit basis. The federal investment through this entity would be distributed through criteria-based competition. It would be able to focus on projects neglected in the current system, such as multi-jurisdictional projects of regional or national significance. An NIB may introduce a federal investment process that requires and rewards performance, with clear accountability from both recipients and the federal government. These advantages are described below. Better selection process. At its heart, an NIB is about better selection of infrastructure projects. The bank would lend or grant money on a project basis, after some type of a BCA. In addition, the projects would be of national or regional significance, transcending state and local boundaries. The bank would consider different types of infrastructure projects, breaking down the modal barriers. This would be a giant step from the current federal funding for infrastructure, most of which is disbursed as federal aid transportation grants to states in a siloed manner. Multi-jurisdictional projects are neglected in the current federal investment process in surface transportation, due to the insufficient institutional coordination among state and local governments that are the main decisionmakers in transportation.102 The NIB would provide a mechanism to catalyze local and state government cooperation and could result in higher rates of return compared to the localized infrastructure projects. An NIB would need to articulate a clear set of metropolitan and national impact criteria for project selection. Impact may be assessed based on estimated metropolitan multipliers of the project. This criterion would allow the bank to focus on the outcomes of the projects and not get entangled in sector specific standards. Clear evaluation criteria would go a long way, forcing the applicants, be it states, metros or other entities, to have a baseline of performance. This change, by itself, would be a major improvement for the federal investment process, given that a major share of the federal infrastructure money goes to the states on a formula basis, without performance criteria. Keeping the recipients accountable. An NIB would have more control over the selection and execution of projects than the current transportation grants within broad program structures. It would be able to enforce its selection criteria, make sure that the projects are more in line with its objectives and have oversight of the outcomes of the projects. The new infrastructure entity should require repayment of principal and interest from applicants. This would bring more fiscal discipline and commitment from the recipients to the outcomes of the project. The extensive use of loans by an NIB contributes to the distinction between a bank and another federal agency. The interest rates charged to the state and local recipients of NIB loans might be set to repay slowly the initial injections of federal capital, while still maintaining a sufficient capital base.103 Some experts argue that an NIB would be able to be sustainable and effective only if it is truly a “bank”.104 Correcting the maintenance bias. The mere establishment of an NIB would not correct for the problem of deferred maintenance.105 However, through the selection process, the bank could address the current maintenance bias in the federal investment process. For example, the bank could impose maintenance requirements to recipients including adequately funded maintenance reserve accounts and periodic inspections of asset integrity. Better delivery of infrastructure projects. An NIB could require that projects be delivered with the delivery mechanism offering best-value to the taxpayer and end user. The design-bid-build public finance model has been the most commonly used project delivery method in the transportation sector in the United States.106 Until very recently, there has been little experimentation with other delivery contracting types. Evidence from other federal states, such as Australia, shows that private delivery saves money on infrastructure projects.107 Filling the capital structure of infrastructure projects. Although the United States has the deepest capital markets in the world, they are not always providing the full array of investment capital needed —especially for large infrastructure projects with certain credit profiles.108This has been even more obvious during the current recession, with the disruptions in the capital markets. An NIB could help by providing more flexible subordinate debt for big infrastructure projects. Generally bonds get investment-grade ratings, and have ready market access, only if they are senior obligations with secure repayment sources. For more complicated project financings that go beyond senior debt, there is a need for additional capital, such as equity capital or subordinated debt. However, this market gap is relatively small relatively to federal investment.109 An NIB would build upon the current Transportation Infrastructure Finance and Innovation Act (TIFIA) by providing subordinated debt to public or private entities in leveraging private co-investment.110

#### The NIB will be cost-effective—generating the maximum economic return and will be uniquely effective in funding regional and cross-border projects

**McConaghy and Kessler 11**

(McConaghy, Ryan, Deputy Director at the Schwartz Initiative on Economic Policy, and Kessler, Jim, Senior VP at Third Way, January 2011, “A National Infrastructure Bank”, Schwartz Initiative on Economic Policy)

Financing the infrastructure upgrades needed to support America’s economy and meet its new challenges won’t be cheap, but **there are billions in efficiencies that can be wrung out of the system with real structural changes,** and the economic costs of inaction will be higher. **By leveraging private resources, the NIB will ensure that future spending on infrastructure will get the utmost bang for the taxpayer buck. It will also cut down on waste by supporting only projects that serve demonstrated regional or national needs and satisfy goal-based criteria.**

Won’t this just turn into another big-spending program or bailout? How will the bank be repaid on investments in infrastructure? No, loans and financing issued by the NIB could be repaid by recipients. The existing European Investment Bank raises capital in the private markets and lends it at a higher interest rate in order to achieve profit and maintain sustainability.44 Repayments on infrastructure assets are often derived from tolls and user fees, but can be provided through other means such as availability payments and gross revenues.45 As part of its project evaluation criteria, the NIB would be required to assess repayment prospects and to ensure that it remains a viable entity.

#### Current investment processes are inefficient- NIB would address current failures in federal and state infrastructure investment and spur growth

Brookings Institute 2010, June 2010, “Economic Growth and Institutional Innovation: Outlines of a Reform Agenda”, http://www.brookings.edu/research/papers/2010/06/01-innovation-galston

The investment deficit has a public face as well. Since the early 19th century, government has financed and helped build major infrastructure projects—roads, bridges, ports and canals, among others, have spurred economic growth and opened new domestic and international markets. Recently, however, public infrastructure investment has fallen well short of national needs, and often has been poorly targeted. Americans travelling and working abroad are noticing that U.S. infrastructure is falling behind not only advanced countries’ but rapidly developing countries’ as well. A study by Emilia Istrate and Robert Puentes of Brookings’s Metropolitan Policy Program, presented in a December 2009 report entitled “Investing for Success,” documents three key shortcomings of federal infrastructure investment: it lacks long-term planning, fails to provide adequately for maintenance costs, and suffers from a flawed project selection process as benefits are not weighed rigorously against costs. Istrate and Puentes explore several strategies for correcting these deficiencies. One of the most promising is a National Infrastructure Bank (NIB), to require benefit-cost analyses of proposed projects, break down financial barriers between related types of investment (facilitating inter-modal transportation, for example), and improve coordination across jurisdictional lines. The NIB could be funded through a modest initial infusion of federal capital designed to attract private capital. Projects receiving loans from the NIB would have to provide for depreciation and document the sources of funds to repay the face amount of each loan, plus interest. In short, the NIB would be more than a conduit for the flow of federal funds; it would function as a real bank, imposing market discipline on projects and making infrastructure investments attractive to private capital, partly by providing flexible subordinated debt. Istrate and Puentes identify diverse problems that designers of an NIB would confront. Insulating the selection process from political interference would pose serious difficulties, as would providing federal seed capital without increasing the federal deficit and debt. Requiring the repayment of loans could skew project awards away from projects that cannot easily charge user fees—wastewater and environmental infrastructure projects, for example. Despite these challenges, a properly designed bank could increase the quantity of infrastructure investment while improving its effectiveness, reducing bottlenecks and promoting economic efficiency. The potential benefits for long-term growth would be considerable.

#### Nationally coordinated strategy is the only way to make sure that investment in transportation infrastructure generates the needed financial returns-only an NIB can achieve that result

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#### NIB would resolve the lack of a national strategy and accountability of projects- solves delays and escalating costs

Ryan McConaghy\* and Jim Kessler\*\* 2011, January 2011, \*Deputy Director of the Third Way Economic Program, \*\* Vice President for Policy at Third Way, “A National Infrastructure Bank”, The Economic Program- Schwartz Initiative on American Economic Policy, pdf

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