### 1AC Growth

#### Stimulus now is key – sequestration and other austerity have stunted demand – no impact to stim bad args either

Fieldhouse 3/5/13 (Andrew is a federal budget policy analyst with The Century Foundation and the Economic Policy Institute, primarily covering tax policy and the role of fiscal policy on economic recovery. “Forget Spending Cuts, the U.S. Economy Really Needs a $2 Trillion Stimulus <http://www.thefiscaltimes.com/Columns/2013/03/05/Forget-Spending-Cuts-the-US-Economy-Needs-a-2-Trillion-Stimulus.aspx#VdshlgPI2vy8o2Kh.99>)

More than five years after the start of the Great Recession in December 2007,

AND

full recovery as opposed to banking on its emergence perpetually four years away.

#### Transportation Infrastructure is crumbling now – that will decimate the economy – only fixing it solves – that also destroys our manufacturing industry.

EDR Group 11 (Economic Development Research Group, Inc.—a consulting firm focusing specifically on applying state-of-the-art tools and techniques for evaluating economic development performance, impacts, and opportunities, comprised of economists and planners who are specialists in evaluating the impacts of transportation infrastructure, services, and technology on economic development opportunities, 2011 “Executive Summary,” Failure to Act: The Economic Impact of Current Investment Trends in Surface Transportation Infrastructure, Report Prepared for the American Society of Civil Engineers by the Economic Development Research Group, Inc., http://www.asce.org/uploadedFiles/Infrastructure/Report\_Card/ASCE-FailureToActFinal.pdf, p. 3-6)

The nation’s surface transportation infrastructure includes the critical highways, bridges, railroads, and

AND

goods and services, relative to competing product prices from around the globe.

#### There have been improvements but transportation infrastructure is still crumbling – fixing it is vital

**Poole, 13** – Robert, Director of Transportation Policy and Senior Freedom Trust Transportation Fellow at the Reason Foundation, Advisor for the Reagan, Bush, and Clinton administrations, MS in Engineering from MIT, “Funding Important Transportation Infrastructure in a Fiscally Constrained Environment”, <http://www.ainonline.com/sites/default/files/pdf/reasonfoundation.transportation_funding_budget_constraints.pdf>

Nevertheless, these figures don’t call for complacency. There are still huge congestion costs

AND

of the system will reach that point during this decade or the next.

#### The simple question is how we should approach transportation investment – materials we have now will inevitably break down, only a transition to nanotech can be sustainable

Steyn 08 (Prof Wynand Steyn is a professional pavement engineer with an interest in pavement engineering, vehicle-pavement interaction, accelerated pavement testing and pavement materials and instrumentation. He has spent 19 years with CSIR in various technical and managerial positions and is currently associate professor of civil engineering (focusing on road pavement related subjects) at the University of Pretoria (UP). He is responsible for all pavement and pavement material related undergraduate and post graduate courses at UP, “RESEARCH AND APPLICATION OF NANOTECHNOLOGY IN TRANSPORTATION”, <http://repository.up.ac.za/bitstream/handle/2263/6352/Steyn.pdf?sequence=1>, pdf)

The client for most transportation engineering facilities is the general public, and therefore most

AND

process with elements in concrete to lower NOx pollution (Cassar, 2005).

#### And nanomods solve impacts of weather and terror

Khan 11 (Mohammud, The author is Senior Vice President, Professional Service Industries, Inc., Herndon, Virginia., “Nanotechnology in Transportation: Evolution of a Revolutionary Technology”, http://onlinepubs.trb.org/onlinepubs/trnews/trnews277.pdf)

Modeling and Nanosensors Advanced analytical techniques, such as computational fluid dynamics modeling, will

AND

such as earthquakes, hurricanes, or terrorist attacks (photo, below).

#### The Fed just implemented a new round of Quantitative Easing—this non-uniques their “stimulus bad,” “inflation,” and “downgrade” arguments.

Demint 2012 (Jim Demint, United States Senator (R-SC), 9/20/2012, “Fed Stimulus Goes From 'Shot In The Arm' To 'QE4-Ever',” *Investor’s Business Daily*, September 20th,http://news.investors.com/ibd-editorials-viewpoint/092012-626455-fed-stimulus-program-shows-no-end.htm)

We really ought to quit calling the Federal Reserve's latest round of quantitative easing "

AND

further reduces the value of the dollar and raises the price of commodities.

#### The third internal link is the manufacturing industry – it’s contracting now – jobs are key

**Singleton, 3/7** (Malik, international business times, “Sequestration Law Will Threaten Recent Growth In Manufacturing And Possibly Stall Obama's Manufacturing Agenda”, 3/7/13, <http://www.ibtimes.com/sequestration-law-will-threaten-recent-growth-manufacturing-possibly-stall-obamas-manufacturing>)

Manufacturing was priority No. 1 in President Obama's 2013 State of the Union Address

AND

130,000 manufacturing jobs in the coming years, peaking in 2014.

#### Infrastructure is the best stimulus

Blodget 12 (Henry Blodget, co-founder, CEO, and Editor-In Chief of *Business Insider*, former top-ranked Wall Street analyst, frequent contributor to the magazines *Slate*, *Newsweek*, and *New York*, 2012 “Yes, It's Time For A Massive Infrastructure Spending Program,” *Business Insider*, June 19th, Available Online at http://www.businessinsider.com/infrastructure-spending-program-2012-6?op=1, Accessed 09-03-2012)

I recently laid out the fundamental problem with the US economy: Massive consumer debts

AND

lousy shape and so many US workers idled by the construction industry slowdown.

#### Manufacturing means deterrence becomes effective – solves wars

**O’Hanlon et al 2k12** (Mackenzie Eaglen, American Enterprise Institute Rebecca Grant, IRIS Research Robert P. Haffa, Haffa Defense Consulting Michael O'Hanlon, The Brookings Institution Peter W. Singer, The Brookings Institution Martin Sullivan, Commonwealth Consulting Barry Watts, Center for Strategic and Budgetary Assessments “The Arsenal of Democracy and How to Preserve It: Key Issues in Defense Industrial Policy January 2012,” pg online @ <http://www.brookings.edu/~/media/research/files/papers/2012/1/26%20defense%20industrial%20base/0126_defense_industrial_base_ohanlon> //um-ef)

The current wave of defense cuts is also different than past defense budget reductions in

AND

civilian and military export opportunities for the United States in a globalized marketplace.

#### Slow growth causes every major problem – only institution building solves

Zakaria 08 (Fareed, Ph.D. in Government from Harvard University, & editor of Foreign Affairs magazine & Newsweek Internationa & professor of IR and political philosophy at Harvard and Columbia University, “Wanted: A New Grand Strategy”, 12/8/08, <http://www.newsweek.com/id/171249> )

The "Global Trends" report identifies several worrying aspects of the new international order

AND

reshape the world. This is his moment. He should seize it.

#### Best studies prove economic collapse results in conflict

ROYAL 10Director of Cooperative Threat Reduction at the U.S. Department of Defense

[Jedediah Royal, 2010, Economic Integration, Economic Signaling and the Problem of Economic Crises, in Economics of War and Peace: Economic, Legal and Political Perspectives, ed. Goldsmith and Brauer, p. 213-215]

**Less intuitive is how periods of economic decline may increase the likelihood of external conflict**

AND

not featured prominently in the economic-security debate and deserves more attention.

#### Growth eliminates the only rational incentives for war

**Gartzke 11** – associate Professor of political science at the University of California, San Diego PhD from Iowa and B.A. from UCSF Erik, "SECURITY IN AN INSECURE WORLD" [www.cato-unbound.org/2011/02/09/erik-gartzke/security-in-an-insecure-world/](http://www.cato-unbound.org/2011/02/09/erik-gartzke/security-in-an-insecure-world/)

Almost as informative as the decline in warfare has been where this decline is occurring

AND

the consolidating forces of prosperity prevail, that war becomes a durable anachronism.

### 1AC Plan

#### The United States federal government should provide substantial investment for nanomaterial based surface transportation infrastructure.

### 1AC Nanotech

#### R&D development spills over

**Marburger, 06** – John, Ph. D in Applied Physics from Stanford, Emeritus Professor of Physics and Electrical Engineering at the University of Southern California, Director of the Office of Science and Technology Policy at Congress, President of Brookhaven Science Associates and Director of the Brookhaven National Laboratory, “HEARING BEFORE THE SUBCOMMITTEE ON TECHNOLOGY, INNOVATION, AND COMPETITIVENESS OF THE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE ONE HUNDRED NINTH CONGRESS SECOND SESSION”, http://www.gpo.gov/fdsys/pkg/CHRG-109shrg65910/html/CHRG-109shrg65910.htm

While the President has given funding priority to specific physical science and engineering programs in

AND

important role to play in the context of markets with significant network effects.

#### Transportation uniquely is key to tech transfer

Khan 11 (Mohammud, The author is Senior Vice President, Professional Service Industries, Inc., Herndon, Virginia., “Nanotechnology in Transportation: Evolution of a Revolutionary Technology”, http://onlinepubs.trb.org/onlinepubs/trnews/trnews277.pdf)

Increased Understanding Nanotechnology will prove one of the most researched areas in the next decades

AND

increase the service life of transportation infrastructure to 100 and perhaps 150 years.

#### Cyber-attack is coming —-actors are probing grid weaknesses

Reed 12 John, Reports on the frontiers of cyber war and the latest in military technology for Killer Apps at Foreign Policy, "U.S. energy companies victims of potentially destructive cyber intrusions", 10/11, [killerapps.foreignpolicy.com/posts/2012/10/11/us\_energy\_companies\_victims\_of\_potentially\_destructive\_cyber\_attacks](http://killerapps.foreignpolicy.com/posts/2012/10/11/us_energy_companies_victims_of_potentially_destructive_cyber_attacks)

Foreign actors are probing the networks of key American companies in an attempt to gain

AND

power plants infected by Stuxnet very far away from Iran," Kaspersky said.

#### Nano key to quantum encryption

Koenig 2k8(Kelly, consultant with CSC's Global Business Solutions. extensive experience in business architecture, risk mitigation and process improvement solutions, master’s degree from Northwestern University (joint program with Kellogg School of Management and McCormick School of Engineering and Applied Science. December 2008, “ Bleeding Edge: Nanotechnological Applications In Quantum Cryptography)

**After considering the physical limits of today’s technology** and the energy needs we face today

AND

collaborations. Such collaborations ensure that the benefits of nanotechnology will be realized.

#### Leadership is necessary – falling behind in quantum encryption leads to cyber attacks

Shay 10(Christopher, Time Correspondent, “ China's Great (Quantum) Leap Forward,” Sep. 09, 2010, Time.com, <http://www.time.com/time/world/article/0,8599,2016687,00.html>)

**The advance in secure communications comes none too soon**. With ever-increasing computing

AND

secrecy. In these ways, **China has made a quantum leap forward.**

#### The threat is real—takes out C and C and causes nuclear war

Tilford 12 Robert, Graduate US Army Airborne School, Ft. Benning, Georgia, "Cyber attackers could shut down the electric grid for the entire east coast" 2012, http://www.examiner.com/article/cyber-attackers-could-easily-shut-down-the-electric-grid-for-the-entire-east-coa

To make matters worse a cyber attack that can take out a civilian power grid

AND

include the use of "nuclear weapons", if authorized by the President.

#### Nanotech solves Asteroid Deflection & Detection Drexler 86 (Eric, Leading nanotechnology expert, Foresight Institute, 1986, “LONG LIFE IN AN OPEN WORLD”, Chapter 8, <http://e-drexler.com/d/06/00/EOC/EOC_Chapter_8.html>)

As people have long suspected, the dinosaurs died because they were stupid. Not

AND

with technology available today. We can both heal Earth and protect it.

Extinction  
**Marusek 07** – (James, nuclear physicist and engineer, formerly with the US Navy, American Institute of Aeronautics and Astronautics, “Comet and Asteroid Threat Impact Analysis,” <http://www.aero.org/conferences/planetarydefense/2007papers/P4-3--Marusek-Paper.pdf>)

A deep impact produces two zones of destruction: one at the point-of

AND

deep impacts are not random. Rather they occur with regularity in geological time

#### Extinction is inevitable- only getting off the rock can solve

Austen 11 [Ben Austen, contributing editor of Harper’s Magazine, “After Earth: Why, Where, How, and When We Might Leave Our Home Planet,” popular science, http://www.popsci.com/science/article/2011-02/after-earth-why-where-how-and-when-we-might-leave-our-home-planet?page=3]

Earth won’t always be fit for occupation. We know that in two billion years

AND

will be more human beings who live off the Earth than on it.”

#### Plan solves space col

Globus et al 98 (Al Globus, David Bailey, Jie Han, Richard Jaffe, Creon Levit, Ralph Merkle, and Deepak Srivastava Published in The Journal of the British Interplanetary Society, volume 51, pp. 145-152, 1998., “NASA applications of molecular nanotechnology”, <http://www.zyvex.com/nanotech/NASAapplications.html>)

Laboratories throughout the world are rapidly gaining atomically precise control over matter. As this

AND

other technologies; technologies that may enable large scale space exploration and colonization.

#### Plan solves diseases and AIDS

Merta 2k (Ed Merta, Health Sciences Center Library, University of New Mexico, 2000, The nanotechnology agenda: molecular machines and social transformation in the 21st century, <http://www.checs.net/checs_00/presentations/nanotech.htm>)

Nanorobots could also serve as artificial immune devices, attacking the viruses and bacteria that

AND

with a telescopic sight that kills only a specific target. [21]

#### Uncontained disease leads to extinction

Toolis 09 , the director of a major television series on the history of plagues, 09(Kevin, The Express, April 28, 2009 U.K. 1st Edition “Pandemic Pandemonium” lexis)

**It destroyed the Roman Empire, wiped out most of the New World and**

**AND**

**new H1N1 virus it had travelled halfway across the world via international flights**.

#### Specifically AIDS leads to global nuclear war

Koblentz, 10 (Deputy Director of the Biodefense Program @ GMU, Assistant Professor in Public and International Affairs, March, "Biosecurity

Reconsidered: Calibrating Biological Threats and Responses." *International Security* Vol. 34, No. 4, p. 96-132)

Pandemics are disease outbreaks that occur over a wide geographic area, such as a

AND

the "single greatest reversal in human development" in modern history. 118