

How Abandoning Science Has Led to Economic Collapse

The following is an edited excerpt from the LaRouchePAC Weekly Report webcast of April 17, detailing certain crucial parameters of the collapse of the U.S. physical economy (the graphics have been revised for use in EIR). Speaking is Creighton Jones, a member of the LaRouchePAC Basement science team. Jones's presentation was preceded by a review by Liona Fan-Chiang of the perspective presented at the April 13-14 Forum for a New Paradigm conference held by the Schiller Institute in Frankfurt, Germany, and was followed by a discussion initiated by Lyndon LaRouche on shifting the level of discussion to looking at man in relationship to the Solar System as a whole. The full show is archived at <http://larouchepac.com/node/26253>.

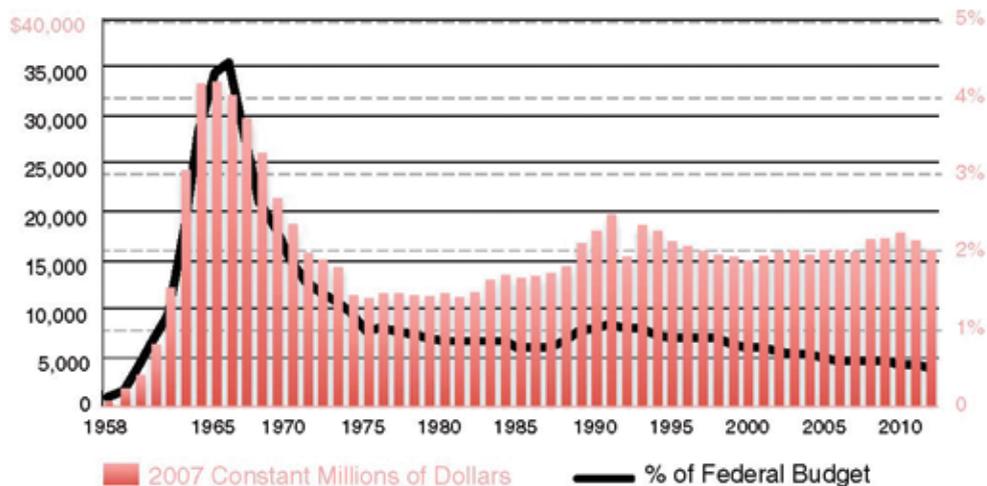
Jones: First, I'll give people a sense of what has been the process of physical collapse, over the past 40-60 years, which has brought us to this point of desperation, to where you've got not only the economic crisis as people understand it, with the collapse of jobs and the collapse of currencies, but also the moral desperation:

the collapse of the morale and the morality of the population. We see the level of violence, the school shootings, the terrorist activity, the ongoing, never-ending wars; all these things driven by an intention on the part of the British Empire, to destroy industry, destroy science, destroy populations, and really create a condition for a dark age, which is, in fact, what we're facing now.

So, let's take a look at some of the indicators of how we got here, and the process that has brought us to this point of sheer desperation.

What you see in **Figure 1** is the percentage of the

FIGURE 1
NASA Budgets Since 1958
(2007 Constant Million Dollars and % of Federal Budget)



Sources: U.S. Office of Management and Budget; Wikipedia

FIGURE 2
Manufacturing vs. FIRE

Percentage of GDP



Source: Bureau of Labor Statistic

Federal budget that goes to NASA, the space program, back to 1958: So you see, there's been a steep collapse, in terms of the actual percentage of the budget that goes toward NASA. It peaked around 1966, and this is what led into our ability to get to the Moon, where you had the initiative of John Kennedy, to say: We're going to do what we've never done before; we're going to do that which is right now impossible, but because we're man, because we're creative, we believe it's achievable.

And so, NASA's percentage of the budget peaked in about 1966; and then, you see, from that point on, you've had a dramatic collapse down to the current state, which is a mere maybe 1% of the budget going toward NASA, going toward advancing space, technology, and everything that goes along with it.

Fan-Chiang: It looks like it's actually at a level below what it was before the Apollo project!

Jones: Right! Actually, going back to right when we started, before we even initiated Apollo; we had more of the actual percentage of expenditures going toward space research and scientific research than we have now today. And it's an indicator of the backward thinking, and the impulse of the Empire to destroy science, to destroy progress. But it also reflects a certain lack of understanding in the population about the role

of science, the role of technology, the role of progress, in creating real wealth. And you'll see how this paralleled another aspects of the economy.

What Are We Producing?

Figure 2 is an image of the change in the percentage of GDP that comes from manufacturing, versus the percentage of GDP that comes from finance, insurance, real estate, and rental and leasing, what they call "FIRE," the FIRE economy. Which really I think is appropriate, because it indicates how we've gone ablaze in this country!

So you see, going back to 1947, where this starts, 25.6% of our GDP was generated as a function of manufacturing. We had a real manufacturing economy; only 10% came from finance and these kinds of things. This stuff sort of peaked in the 1950s. At the end of World War II, we had the intention of taking the industrial machine that we had built up to win the war, to defeat fascism—Roosevelt's intention had been to eliminate the imperial system from the planet, to re-gear our war machine into a global nation-building machine.

Now, you see how this has changed. Since then, you've had a steady collapse of manufacturing, but the steady rise of finance, to the point now, where you actually have things pretty much inverted: Manufacturing as of 2009—and it's worse now, but these statistics only go to 2009—manufacturing only represents now 11% of GDP, whereas finance, insurance, etc., represent 21%.

This really parallels what Lyndon LaRouche has developed with his Triple Curve: that you had a dynamic of a hyperinflated increase, in money pumping and growth of financial speculative instruments, paralleling, and acting as a parasite, and sucking from the real physical economy. So the real physical productive economy has been intentionally collapsed, and sucked off of, to feed this growing, hyperinflationary bubble—which produces, physically, nothing! And in fact, what it produces, is a certain level of psychosis and demoralization, in the population and on the planet.

Fan-Chiang: I think they even consider other things as manufacturing, like "manufacturing" burgers, now.

Now Look at the Labor Force

Jones: Right. Look at some of these other images: **Figure 3** shows that the percentage of employment in manufacturing going back to the 1950s was up around 30%; now, it's down below 10%. Whereas you see the growth in other things, like services—which also includes things like finance, and anything from working at Wal-Mart as a checkout clerk, to working at JPMorgan—these are all services. That's what's been growing, while manufacturing employment has been collapsing.

In **Figure 4**, you see employment, in terms of millions of workers employed in goods-producing activity, versus service-producing. So, in terms of the actual number of employees engaged in production, it's been pretty much steady, but then collapsing even further, really going back into the 1940s, up to now—though we've had a massive increase in population, the actual number has been steady and going down a bit. But if you then look at the number of people engaged in providing services, it's gone from about 2 million up to 120 million.

So, you look at the difference there: You have had this massive, hyperbolic climb in the number of employees engaged in services, versus a flat line in the number of employees engaged in actual manufacturing of goods and productive activity.

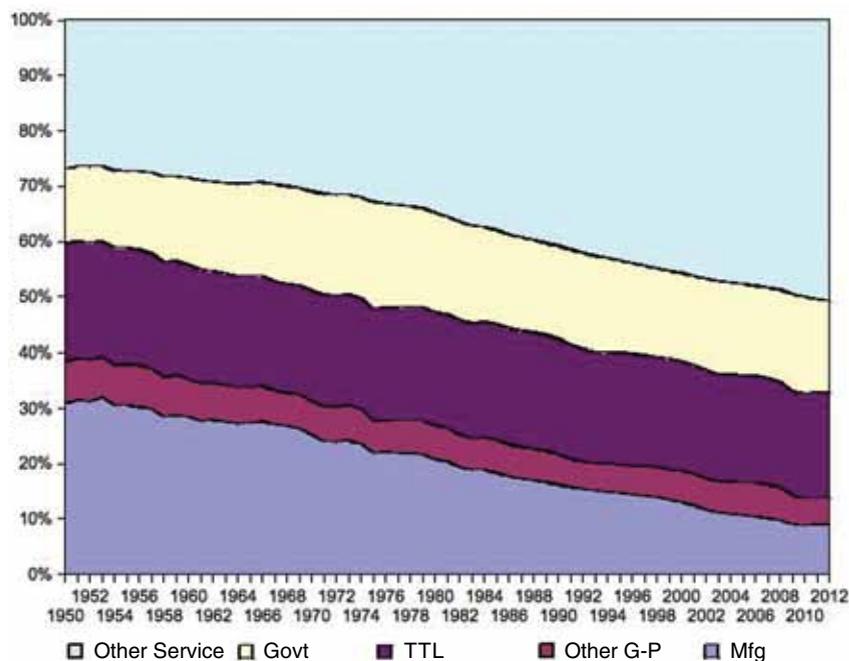
And what has this produced? People have seen these charts, like the growing disparity between the so-called upper 1% and the rest. **Figure 5** shows the share of income, in terms of the total income in the economy which goes toward the upper 1%, which are those engaged in finance, versus everyone else, who lost manufacturing jobs, and those were replaced, if at all, by employment with simple services, mostly non-union, low-wage services. And so you see, things were somewhat on an even keel going back to the '70s, whereas now, you're up over 120% in terms of the change in the share of income: It's changed by over 120%, going toward the upper 1%, and it's been collapsing for the lower 80%.

So that's been the general trend that we've been

FIGURE 3

Composition of the Work Force Employment by Sector

Percentage of Total Workers

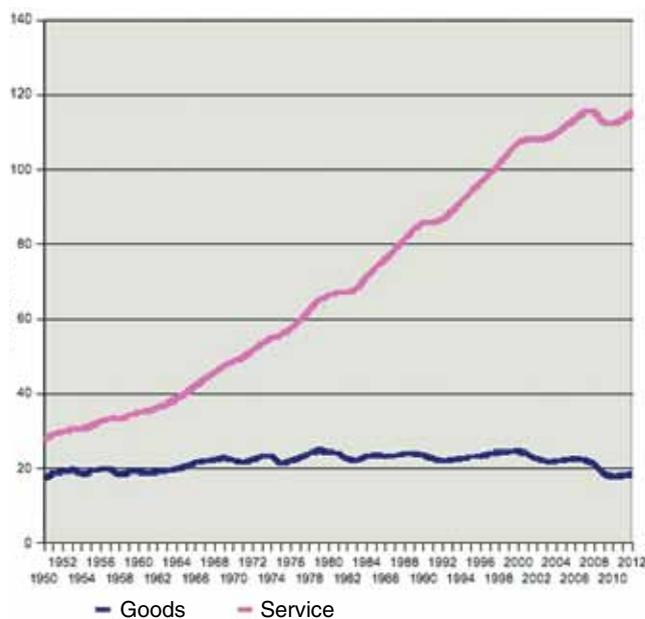


Source: Bureau of Labor Statistics

FIGURE 4

Goods-Producing vs. Service Workers

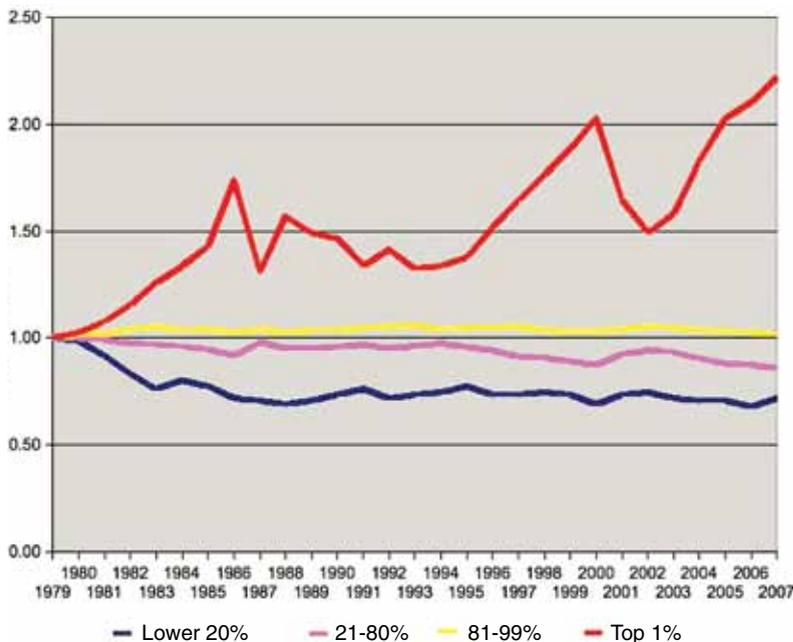
Millions of workers



Source: Bureau of Labor Statistics

FIGURE 5
Changes in After-Tax Income, 1979-2007

Indexed to 1979 = 1.00



Source: Congressional Budget Office

seeing in the economy: We've had a precipitous collapse of manufacturing, collapse in employment in productive activity, with a hyperbolic growth in finance, in speculation. And it parallels what's been happening with the NASA budget, a collapse of intention toward these kinds of front-end programs, the space program, etc.

Losing Our Scientific Capacity

And now, we see where that's leading us today. Here's another image: **Figure 6** shows terms of current in-orbit and planned NASA/NOAA, Earth-observing missions: These are satellites that are up there, looking at the Earth, studying things like the weather, and other aspects of the dynamics of our planet. This peaked in around 2010, when we had roughly 26-27 satellites, looking and trying to understand the dynamics of the planet and how it works. But because of this trend away from productivity, away from science, toward speculation, toward a hyperbolic increase in money pumping, we have moved to where now, from a peak in 2010, with about 26-27 satellites, the projection is, by 2020, we're going to have about six.

Now, what does it mean to say we're going to lose this kind of capability? I'll just point out two things that

are indicative of the capability that we get from these kinds of satellites, and then, what we face without them. There are two recent events that we can look at that give us an idea of how these satellites, as sort of an extension of our sensory apparatus, have enabled us to make appropriate forecasts to deal with the kind of extreme weather events which we're increasingly facing in this day and age.

The first one goes back to 2010. People might remember "Snowmageddon": This was when the East Coast got pounded with a massive amount of snow which created all kinds of chaos, but fortunately, because of things like the polar-orbiting satellites, we were able to make pretty accurate forecasts about what was coming, about a week or so before the event, to where we could then prepare for it. People could make emergency preparations, stockpile food, water, etc., and that did a lot toward mitigating the damage that this could have led to.

Now, what we're facing is a period where we're going to go blind, for at least a year or more, because one of the crucial weather satellites is going to go blind. Now they're saying, because of sequestration, that blindness could be extended up to another two or three years, when we're not going to have any polar-orbiting satellites with these capabilities that can lead to this kind of forecasting.

This is what someone from NOAA had to say about this period of going blind: "A seven-day forecast today is as accurate as a 36-hour forecast was 20 years ago. Having a full complement of satellites is also important." To illustrate the point, they cite "Snowmageddon." The blizzard dumped between 38 and 56 cm of snow on the mid-Atlantic in 2010. NOAA's forecasting models, using data from multiples satellites, predicted five days in advance, that 38-45 cm of snow would fall! So, very accurate.

Now, they did a model where they just took one of the satellites, and said, "Okay, what would our forecasts be, without one of these satellites?" The prediction changed to 18-25 cm. A forecast that would have left tens of thousands of people unprepared for what was to come.

So they did modeling where, with these satellites, they were able to have a point-on prediction of when

this was going to hit, how much snow, and then they could prepare for it. You take one of these satellites out of the equation—

Fan-Chiang: You get half of the difference.

Jones: Right. And as we said, we're about to face a 70% or so decline in the number of satellites that we have flying.

One other example of this is something more recent, which is Hurricane Sandy: Now, here we have an image of two different forecasts of what was going to be the effect of Hurricane Sandy. **Figure**

7a is what was forecasted to happen with Sandy as it hit, and it was precisely what happened: that this thing was going to hit the East Coast, it was going to dump this much water, it was going to have this much power, this much force, and it enabled people to prepare for that.

Fan-Chiang: That was a case where, even days before, it could have gone either way. It could have done what normal storms do, which is go back out over the Atlantic Ocean. It had a possibility of picking up more strength in Gulf, which it did, and so on, but those were all up in the air.

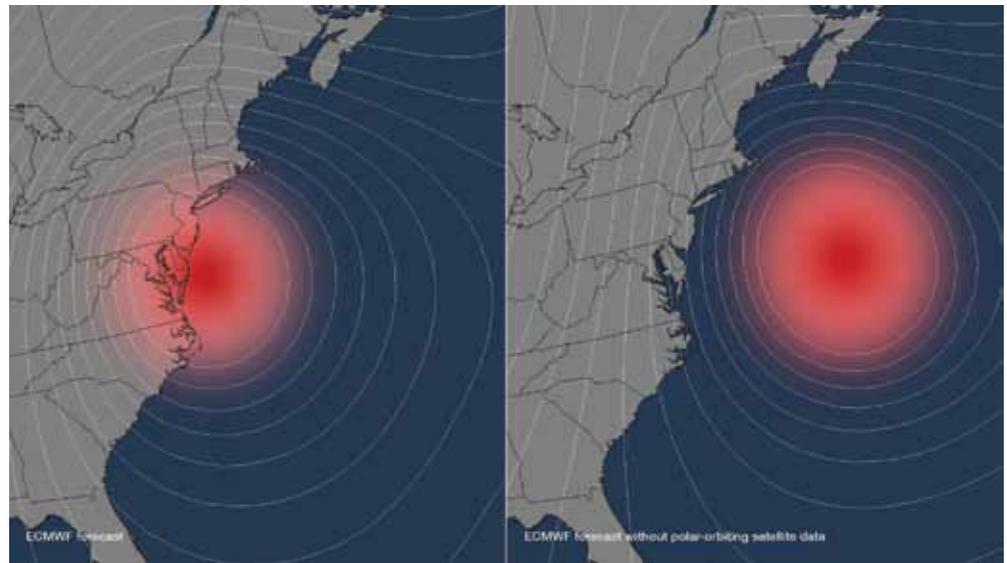
Jones: Right. And because of these satellites, they were able to accurately forecast where it was going to hit, and that in fact it was going to hit the coast, and give people at least some level of preparedness, forewarning, to prepare for this kind of hit. Now, they ran the model again (**Figure 7b**), where they took out one of these polar-orbiting satellites, and the forecast they had with the removal of one of the satellites, was in fact, this: that the storm *would miss the East Coast*, and would tail off and just go out to sea!

Now, imagine if that had been the forecast they were putting forward: "This thing's not going to hit, it's just going to tail out to sea."

Fan-Chiang: People would still be driving, airlines would still be flying, the airports would be open.

Jones: Right. And so you see the kind of damage, the kind of crisis we face in losing this kind of capabil-

FIGURE 7a, 7b
Hurricane Sandy, 2012



ity, and losing this "extrasensory" capability. It just highlights where we're heading, how we're actually devolving as a species, under the current economic paradigm, to where, even what little capabilities we were able to continue to develop up to this point, we are now losing! We're creating the conditions where man is becoming more and more vulnerable to the forces of nature, whereas at one point we were developing and evolving to where we were able to mitigate and forecast and prepare against that.

This is highlighted again, more recently, with the earthquake that just hit in Iran, a 7.8 magnitude earthquake, a massive earthquake, which—and this is something we've been looking at—occurred two days after a coronal mass ejection from the Sun. Now, what the exact relationship is there, we still need to investigate. These are the things that NASA could be investigating; these are the kinds of things we could be looking at as we increase our extrasensory capability, so to speak. What is that relationship between the activity of the Sun, and things like volcanoes, earthquakes, extreme weather?

Fan-Chiang: And also health.

Jones: Health, right: We've seen relationships between epidemics and changes in solar activity. All these things are questions, but we do see definite relationships between the activity of the Sun, the activity of other cosmic events, and then, extreme weather, extreme geological changes, health changes here on Earth.

But again, we're moving into a period where we're flying blind, because of this paradigm of anti-science, anti-culture, anti-progress, even as we're moving into a period which seems to be increasingly turbulent in terms of extreme events in our cosmos, as they affect things here on Earth. We're making ourselves more and more vulnerable to these kinds of forces.

And so, I think it really highlights the necessity for a paradigm shift, to get back to the Classical paradigm, where science, culture, morality, and the human creative spirit really are the driving forces of mankind, and mankind's relationship to the universe around us.

Appendix

What Creates Wealth? Production vs. Overhead

by John Hoefle

There is a critical need to put people back to work, to restore employment that will allow them to survive. But putting people back to work in the same types of jobs they had before the financial system exploded will not solve our problems. Jobs are not just about providing money to pay the bills; what a population does for its living determines whether that society will prosper or decline.

Economic activity is best measured in terms of production versus overhead. These are not value judgments on how well a person does his or her job, but are based upon the nature of the work being performed. A good example of productive activity is manufacturing, such as the chain of processes that turn ores into finished metals, and turn those metals into products like machine tools and power plants. Wealth is created in this manner, since the value of the outputs are greater than the costs of the inputs and the processing.

On the other hand, banking is an example of overhead. Banks do not create wealth, but merely move it from one pocket to another.

The distinction is crucial. Productive activity creates wealth, while overhead activity consumes that wealth. Some of that consumption is necessary. We gladly pay the costs of caring for our children, and perhaps less happily pay the costs of the roads, water and

sewer systems, and related common infrastructure that allow our society to function. In fact, if we didn't make such investments—as in research and development, major infrastructure projects such as the TVA, and education—our society would stagnate and die. But in a properly structured economy, the wealth created by productive activity exceeds the amounts spent on necessary overhead by a considerable margin, making the necessary overhead easily affordable.

If a society abandons productive activity in favor of overhead—if it ceases producing wealth in favor of merely consuming its own surplus and wealth produced by others—then the costs of overhead activities become burdensome, even deadly. This is where we are today.

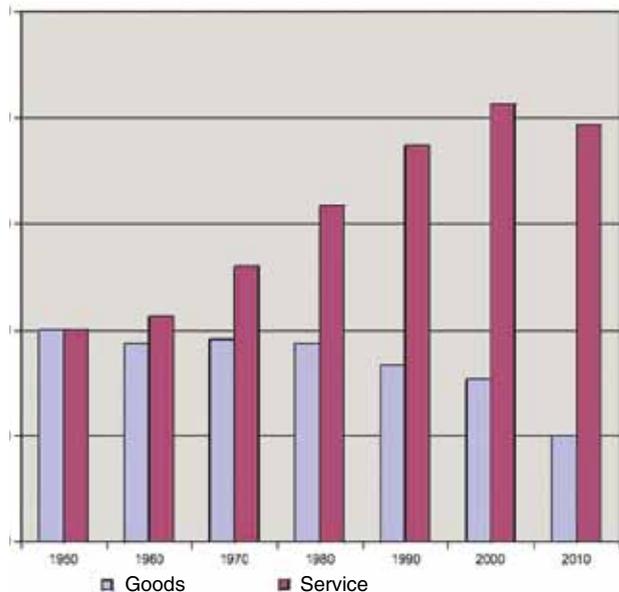
Look at Labor

The essence of the problem can be seen in Figure 2 (p. 36), which compares the contributions to GDP from the manufacturing sector with the contributions to GDP from the FIRE (finance, insurance, real estate) sector, as reported by the U.S. Bureau of Economic Analysis.

However, the truth is actually worse, as the graph itself is a constructive fraud, in that it presents the activities of the FIRE sector as *contributing* to the economy, when in truth, many of those activities are parasitical. According to the official GDP calculations, the egregious frauds by Wall Street, the derivatives bets at the big banks and AIG, and the run-up in real estate values caused by financial speculation—activities which blew a giant hole in the U.S. and global economies and threw millions out of work—all *contributed* to our economic product. It's the equivalent of counting the growth of a giant tumor as proof the patient is thriving, or counting shoplifting as sales.

Not everything in the FIRE sector is theft. The real estate market provides places for people to live and work, and the banking sector provides essential financial services, for example; overhead, but necessary overhead. However, much of what occurs in the FIRE sector is malignant. The same banking system that provides your checking account also manipulates interest rates, supports the drug trade by laundering its money, finances the movement of productive jobs offshore, jacks your credit-card interest payments through the roof, illegally forecloses on homes, funnels billions into Washington to prevent corrective regulations like the reinstatement of Glass-Steagall, and a host of other crimes. All of which, according to the Bureau of Economic Analysis, contribute to the fiction known as GDP.

FIGURE 1
**Goods-Producers vs. Service Workers,
 Per Capita**



Source: Bureau of Labor Statistic

Production Deficit

Now look at a related aspect of this problem, by comparing employment in the production of goods to employment in the providing of services (Figure 4, p. 37). The goods-producing category includes manufacturing, construction, mining and logging—all useful activities. The service-providing sector includes trade, transportation, utilities, information processing, financial activities, professional and business services, education, health care, leisure and hospitality, and other miscellaneous services.

Many of these services are quite useful, even essential. But economically speaking, they are a cost which must be paid out of the profits generated by production. Since 1950, employment in goods-production has remained essentially flat, growing from 17.3 million to 18.4 million, whereas employment in services has more than quadrupled, from 28 million to 115 million.

As bad as that is, it understates the problem, since our population has doubled since 1950. **Figure 1** shows the same employment figures on a *per-capita* basis, indexed to 1950 to give a different view of the changes. The accelerating decline in the proportion of our population involved in goods production is both obvious and ominous, but so is the decline between 2000 and 2010 in the service workers. We see the rise of an unsustain-

able system, and the beginning—but only the beginning—of its collapse, The worst is yet to come.

To put these changes in the context of the workforce as a whole, we have Figure 3 (p. 37), which shows the relative proportions of employment in manufacturing; non-manufacturing goods production; trade, transportation, and utilities (TTL); government; and other private services. The latter three categories (TTL, government, and other private services) collectively comprise the service sector.

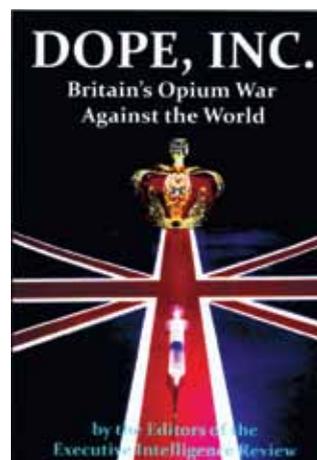
In 1950, manufacturing (31%) and non-manufacturing goods production (7%) accounted for 38% of total employment, but by 2012, that had fallen to 9% and 5%, respectively, or 14% of total employment. On the service side, TTL went from 21% to 19% for the same period, while government went from 14% to 16%, and other private services nearly doubled, from 27% to 51%. Overall, services grew from 62% of jobs in 1950 to 86% in 2012.

It should be obvious by this point that simply putting people back to work in the same types of jobs they had before, will not solve the problem. What we were doing before, collectively, *is* the problem. We became a nation of consumers, not producers.

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