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Growth

The state (government) in America has promoted growth schemes that are bad and likely don't cause much growth either, good or bad. I want the state to have better policies. People accept these schemes because people wrongly think all growth is good and all growth will benefit them. People need to have more sense about good growth and bad growth, and the state. This essay explains a simple theory of growth that is used by the state to justify interference, why the theory is wrong, and why we keep using it anyway.

I am not against all economic growth. I like economic growth as long as it is good.

I would protect nature by foregoing some growth, even good growth, but I do not oppose all growth as a way to protect nature and I do not want to protect nature as an indirect way to fight capitalists. I want to find that right balance between good growth and protecting nature.

Take good growth to mean this:

-Growth increases the total number of goods (material goods, services, and situations).

-Not only does the nation as a whole get wealthier but the wealth per person for most people goes up. Think of 100 people. Suppose their total wealth doubles, but, at the same time, 5 of the people get all the increase, 5 of the people are worse off, and 90 of the people don't change. The group as a whole is wealthier but it is not better off. On the other hand, suppose 5 people get much richer, 5 people stay about the same, and 90 people each get noticeably richer but not wealthy. Then the group as a whole is richer and better off, and we can say the growth was overall good. Economists have ways to assess various scenarios like these but I won't go into that here. All we need to do is keep in mind that growth should benefit most people.

-We don't lose more by "eating" nature than we gain in economic growth. I don't here explain how to assess these gains and losses.

-In the long run (and hopefully in the short and medium runs), growth creates jobs. Good growth does not cause a loss in jobs. The average job will pay more, as explained above. In fact, some growth might cause a loss of jobs because people are not smart enough to work with the technology that is part of the otherwise good growth. This is a special case that I discuss in other essays, and is not taken up here.

-Growth does not concentrate political power.

-If possible, growth implements good technology, especially good "green" technology.

-The growth is in long-term capital rather than in short-term fads or crap. If everybody suddenly has to have a green rock, the country might grow superficially richer through painting rocks green and buying and selling them, but we would not be better off. On the other hand, when Tesla perfects the electric car, and everybody has to have one, we will develop a long-term investment and all Americans will be at least somewhat better off. We all would be better off if the state would promote one single high-speed cable system that went into every America house and apartment.

So, the question is not "is growth good?" but:

-What kinds of growth are good?

-What kinds of growth are bad?

-Is too much good growth bad?

-Can the state (government) do anything to promote good growth and-or prevent bad?

-Can the state promote good growth so much that it becomes bad growth?

I said the state is promoting bad growth through schemes that intrude into the economy. The schemes include subsidies, tax "write-offs", depreciation, and tax reductions on rich people.

The basic error: "Diminishing returns" applies to almost everything in the economy but some politicians and business people think it does not apply to forced investment so as to make the economy grow. There is no limit on how much we can make the economy grow if we keep investing in it. To get forced investment, politicians try to force savings. Instead of more savings causing more good investment which causes more good economic growth, forced savings leads to bad investment and bad growth or no growth.

We can get an idea of the wrong theory by thinking of a farm (we can get the same idea across with a factory but it is easier with a farm).

Imagine a farmer with 1000 undeveloped acres (hectares will do just as well). This is more than he-she needs to feed his-her family, so also imagine that the farmer can sell off most surplus above what is needed to feed the family at a reasonable rate. Imagine we are still in the days when farmers still kept

their own seeds such as for corn, tomatoes, etc. For the farmer to stay in business, he-she has to have as much seed as needed to get a big enough crop to feed the family. If that is 0.9 tons (nine tenths of 1 ton) of grain per year, the farmer needs enough seeds to grow enough grain to harvest 0.9 tons. To get 0.9 tons of grain to eat, the farmer needs 0.1 (on tenth) of a ton of seed. So, to keep feeding the family, stay alive, and in business, the farmer needs a production of 1 tons per year (0.9 + 0.1).

Suppose the farmer also grows 9 tons of grain to sell, for a total of 10 tons of production. In that case, he-she has to save enough seed to harvest 10 tons in total. The farmer needs 1 ton of seeds (0.1 tons per ton, times 10 tons, for 1 ton of seed). The farmer has to produce a crop of 10 tons to have enough to eat, and to sell 9 tons, and enough seed left over to plant enough to grow another 10 tons next year.

The seed that the farmer saves to start production next year is the investment in the farm. The amount of seed that the farmer saves for production next year is also the amount of savings. Here, the amount saved equals the amount invested. In these cases, savings always equals investment. This would not be true in some cases, but we don't have to worry about those here.

As long as the farmer has enough land that is not yet developed (and we forget the cost of developing the land), there is a clear relation between seed (investment) and outcome: the more seed saved, the greater the production at the end.

The farmer has to have enough initial crop (production) out of which to save the seed to plant more next year. If the farmer plants only enough to harvest 1 ton this year, then the farmer has to use all the seed to eat and to plant enough for 1 ton next year. The farmer does not have any left (saved) to plant (invest) to increase production next year.

Without specifying how, imagine the farmer has a good year and gets 2 tons where he-she had hoped only for 1 ton. The family needs to eat 0.9 tons, and the farmer needs 0.1 tons for seed, so now the farmer has 1 ton left over to do more with. The farmer can't eat the extra production; once a belly is full, it is full, and stuffing it more only leads to getting fat and health problems. The farmer could sell all the extra 1 ton. But this farmer has longer eyes. Instead of selling all the extra 1 ton, the farmer turns it all into seed grain. This does not hurt his-her family.

Each 0.1 ton of seed grain produces a total of 1 ton of seed. The farmer grew 2 tons this year, of which the family ate 0.9 tons. The farmer has 1.1 tons of seed. The 1.1 tons of seed will grow 11 tons of new food. Of the 11 tons, the farmer and his-her family will eat 0.9 tons, leaving 10.1 tons of seed. Now the farmer hardly ever has to worry about going hungry.

The farmer does the same thing next year. With 10.1 tons of seed, the farmer produces 101 tons of grain. Out of the 101 tons of grain, the family east 0.9 tons, which remainder leaves 100.1 tons to plant for next year.

In real life, the farmer would not plant all the "surplus" crop, especially after the first or second year, but would plant most of it, and would sell some of it to buy fun things such as clothes, furniture, a tractor, a dog, some flowers, wine, etc. To consider this consumption complicates the arithmetic so much that I don't go into it here.

How long does the expansion go on? It goes on until the farmer runs out of land to develop. If 1 unit (acre) of land is needed to produce 1 ton of grain, it goes on until the farmer has 100 tons of seeds to plant to produce 1000 tons of food on 1000 units of land.

Then what? Then stop with this method. The farmer can go on no more with this method. The land is all run out.

Stopping is not a disaster. The farmer and his-her family still eat 0.9 tons of food per year. They need 100 tons of seed to produce 1000 tons of food. So they have a surplus of 899.9 tons of food every year that they can sell to buy stuff (899.9 = 1000 − 100 − 0.9). Out of the total production of 1000 tons, the farmer has to save 100 tons every year for planting. It does no good to save more than this because there is nothing to do with the extra saved beyond 100 tons. At the endpoint, the amount saved equals the amount invested.

Again, in real life, long ago the farmer likely needed to hire help and to buy machines to help but I don't complicate the arithmetic by bringing in those costs. It is easy to do in theory but the actual arithmetic confuses people, especially if we start considering factors such as depreciation.

After developing all of the land for the first time, the farmer and the family are not necessarily through. They can continue to improve the land. They can take away big rocks, then medium sized rocks, then small rocks. They can cut channels for irrigation, first big channels, then medium sized channels, and then little channels. They can raise some animals to provide fertilizer. They can multi-crop and even mix crops at the same time. All of this can be financed in the same way. The farmer does not use up all his surplus food for fun "useless" stuff but instead sells it to buy improvements with.

In the end, though, the improvements run out too. What do you do after you have removed all the little rocks, dug all the little trenches, and are growing mushrooms, tomatoes, beans, and corn all together in the same field.

The farmer could continue to do things but it wouldn't really pay off. The added yield that the farmer got from another change would not produce enough more food to make up for the food that the farmer sold to finance the improvement. Suppose the farmer sold 100 tons of food to buy organic fertilizer for the farm but the yield improved by only 60 tons.

To really get across the lessons of this example, it would be useful to embed the farmer in an economy with other farmers, with manufacturers such as of tools, and with people who provide services such as planning for irrigation or music lessons for the children. That bigger model takes a lot of space. I did

something of that in my "First Book in Economics" and other writers on basics in economics have given similar models. In any case, the end lessons are the same whether we take the famer and the family in isolation or as part of a community.

Diminishing returns eventually come into play, even with a really prosperous economy. At any given time, the amount saved is about equal to the amount invested. This relation is true up to the point of diminishing returns and at the point of diminishing returns. It does no good to save more than we can invest unless there is ample scope for growth, as with undeveloped land. If we saved more than that and tried to invest it – as in the organic fertilizer – then the amount saved would not equal the amount invested. Something would be wrong. We would have to adjust (backwards) until the amount saved equals the amount invested.

Here are some facts about a mature modern capitalist economy, of which the United State is one:

-In the beginning, the economy is like the farmer when he-she first finds out that he-she can grow more food by saving more seed and planting more, and before the land runs out. Everything happens quickly, and is seems as if it will go on forever. This is what America was like until the Great Depression, what Japan was like after World War Two, and what China was like after about 1985.

-Eventually, the economy gets to be like the farmer when the land runs out by he-she can still invest in some improvements such as irrigation and fertilizer. More precisely, the economy gets to be about like the farmer when the farmer is down to removing medium and small sized rocks and digging medium and small sized irrigation ditches. Improvements are generally small except when somebody comes up with a big invention such as electricity or bio-technology. Unlike the farmer, usually some improvement can be done all the time, so the economy does continue to grow, but not very fast. 1% to 3% per year is quite fast.

-Sometimes the economy is like the farmer when even the small rocks are gone and the small ditches have been dug. There is not much left to do. We just stay where we are.   Then, trying to save more to invest more just does not make sense. Japan entered this phase about 1990 and has been pretty much stuck there since. Except for out bubbles and busts, America has been near this phase since about the end of the 1990s. Taiwan has been there since about the same time.

-Luckily, like the farmer, and for reasons I don't go into, in most mature modern capitalist economies, the endpoints mean most people are fairly well off most of the time.

-All the time, savings equals investment. People need to save something to have enough to invest to keep it all going. You can't eat your seeds. But it does not do much good to save much more than we need to keep it all going.

-We also need to save a little bit more to take advantage of innovations when they come up, such as irrigation ditches for the farmer or bio-technology for America. But this is usually not hard to do. The surplus is available during the normal operation of the economy as it was for the farmer.

Here are the mistaken ideas about savings, investment, and growth:

-The economy always is potentially in the situation of the farmer when he-she first starts out. There is always land to develop. We are never at diminishing returns.

-To grow, we need to invest. The more we invest, the more we grow. We never hit diminishing returns in investing. We always get out more in total than we put in. Of course, some particular projects do fail such as the organic fertilizer for the farmer or a strip mall in Atlanta. But, overall, the economy as a whole can always absorb and make more out of any investment.

-To have money to invest, we save. Whatever we save goes directly into investment. Investment always equals savings. When we save, we always put so much into investment that the return we get from the investment is always more than the amount that we saved. If we save $1000, we will invest $999, and we will make $2000.

-There is no end to this process. There are no diminishing returns.

-To get more to save, to invest, we have to make sure the money goes into the hands of the people who save and invest.

-Simply put, we have to make sure the money goes into the hands of rich people. I do not here explain why it should go into their hands rather than anybody else's hands; see other essays. With their large incomes, they save a lot, all that they save goes into investment, and all the investment pays off.

-We can get money into the hands of rich people by giving them subsidies directly in business such as through grants, and we can reduce their taxes.

Here is what is wrong with these ideas:

-We are not at the stage of the economy where it is like the farmer with 1000 undeveloped units of land. We are like the farmer when he-she was removing rocks and digging ditches.

-There are diminishing returns on investment. After a point, the returns begin to dwindle. After a point, it is like digging small ditches and removing small rocks. After a point, the returns are no longer worth it. After a point, it is like investing in expensive organic fertilizer.

-There are diminishing returns on savings. After a point, more savings does not go into more investing. Sometimes it just sits around in banks, as it did in Japan, Taiwan, and the United States from 2009 until about 2012.

-The economy, all by itself, finds the point of balance between savings and investment. The economy, all by itself, knows how to save enough, so we have enough to invest, to keep going for next year and to take advantage of any improvements that might come up. The economy, all by itself, knows how to make sure we have seeds and have enough surplus crop to grow when we can. The economy does not need any help. Any interference usually does more harm than good.

-Forcing the economy (people) to invest more than the natural balance usually does more harm than good.

-Forcing the economy (people) to save more than the natural balance usually does more harm than good.

-When people have more, they don't always save it. Sometimes they spend it on overseas good.

-When people save more, the savings doesn't always go into investment. Sometimes it just sits there.

-When people save more, often the extra savings goes into investments overseas and sometimes it goes into bad investments here such as deforestation and strip malls.

-When people have more money, they often invest it not in sound economic projects but in politics. They use it to buy elections, buy issues, and buy politicians. When people have only as much as the economy needs for natural re-making and to take advantage of innovation, then people do not have as much left over to invest in politics.

Here is why people push the idea of "more savings, more investment, and more (bad) growth through favoring business and the rich".

-All capitalist economies have some endemic unemployment even among people with skills and a good attitude. The US has about 5%, and no program we have tried so far can get rid of this. No economic boom or economic growth can get rid of this. All capitalist economies have some bad employment, jobs with low wages and few benefits or no benefits. The number of bad jobs in the United States has been growing since about 1970 so that now about 25% of jobs in America are bad jobs. Employment issues add to problems of race, gender, age, and religion.

When people face this situation for themselves and their children, they will do anything to try to cure employment problems. They will accept any silly story from economists or politicians about growth, savings, investment, tax breaks for business firms, and tax breaks for rich people, if it promises to help

with jobs. Even if they are fairly sure the policy is false, they repeatedly try again, like the definition of an insane person.

-Politicians, business firms, and rich people gain from policies that give them subsidies and reduce their taxes. This likely is the single biggest reason we try to give money to rich people and business firms.

-Politicians who try to be more realistic soon get kicked out of office. The average voter doesn't want to hear it. Business firms and rich people fund a alternative candidate who will support "more growth, more jobs, more tax breaks for savings and investment". The alternative candidate wins. Soon all we have are candidates who support this bad dogma and who are in debt to rich and powerful backers.

-You don't have to be flagrantly rich to benefit from these policies. People in the upper middle class who have investments also benefit from these policies, and these people are a powerful political block.

-In the case of subsidies, a local area, such as an apartment complex project, strip mall, or mine, might benefit from policies of "forced savings, forced investment, more growth" even while the country as a whole suffers. This effect is similar to what happens often with gambling. So politicians and local business people are happy to push policies that will help them. They are happy to work against any politician who tries to tell the truth and so stop their personal local benefit.

Here is what to do. I doubt if any of this can be done realistically. I don't know what to do realistically.

-Tax reform. See other essays. Mostly stop subsidies for business and stop unusually low taxes on rich people.

-Find the truth about the theories that support the idea that savings can be forced, more savings equals more investment, more investment produces more good growth, more growth is always good growth, and more growth of any kind always pays for itself.

-Find out how much forced savings and forced investment leads to good investment and how much it leads to bad investment. From what number crunching I have done, most savings and investment that results from bad policies leads to bad growth.

-Find out how much forced savings leads not to investment in the United States but to investment in other countries.

-Tell other people. Don't crusade, just tell the truth.

-Explain to other people that bad growth policies don't really end unemployment or bad jobs. At best, in some limited cases, they only alleviate it locally for a while.

-Please see other essays for projects and policies that the state should support and not support. What the state should support is more limited in scope and more specific than what it does now.