15.012 Spring 2001
Sections C & D Professor Lester Thurow

Lecture Notes – Friday, 9 February 2001

Understanding the genetic characteristics of capitalism.

Since the invention of the steam engine and industrialization over the past 200 years, only capitalism has survived and shown sustained growth.

Basic characteristics: Capitalism = greed
Socialism = helping others/selflessness

Because of this characteristic, capitalism is inherently unstable. It is subject to booms and busts, to high inflation and high unemployment. Greed is the cause of instability. Exactly what causes all the good qualities of capitalism is also produces the bad qualities – they cannot be separated.

Example of boom/bubble: Tulip bulbs in Holland in the 1620's. Three black bulbs good buy you a (nice) house. Everyone knew it was crazy but no one could do anything about it until it collapsed. Even the supposed smartest man in history (Isaac Newton) fell victim to overzealous speculation during a bubble market.

For capitalism to work, prices must be rising: with rising prices, debts are reduced as money flows from passive people (lenders) to active people (borrowers). With falling price, money flows the other way, investment stops and capitalism falls apart. For example, over the last ten years in Japan, there has been no growth combined with falling prices. Additionally, if prices are falling, the best investment is to hold on to your money because all other investments will earn a lower rate of return. Falling prices also take away any control of the economy by monetary policy. Even a zero interest rate won't make a difference if you are experiencing deflation.

<u>National Income Accounting:</u>

Equation 1. $GDP = Y = C + I + G + NX$

GDP = Gross Domestic Product
Y = Total Income
C = Consumption (Cons. spend)
I = Investments
NX = Net exports
= X – M = exports – imports

Equation 2. $C = \overline{C} + C^{*}(1 - t)Y$

$\overline{C}$ = spending due to wealth effect
C^{*} = propensity to consume
t = tax rate
Y = income

Plug Equation 2 into Equation 1 and do some algebra. You come up with:

$$Y = \frac{\overline{C} + I + G + (X - M)}{1 - C^{*}(1 - t)Y}$$

so 1/[1-C*(1-t)Y] is the multiplier which raises GDP (with a value of around 2.5 for the US). Any changes in national accounting are magnified by the multiplier to have a greater effect than a straight one-to-one dollar ratio. The government can increase I (by lowering i), raise G, or lower imports to directly affect the GDP. It can also lower taxes to increase the multiplier and affect all the parameters. It is difficult to determine which action has the larger effect.

Equation 3. $I_t = \bar{I}_t + k(Y_{t-1} - Y_{t-2})$

$\bar{I}_t$ = investment due to new tech.
k = capital output ratio (avg. = 3)
(i goes down, k goes up)
t = period of time

If $Y_{t-1} < Y_{t-2}$, then I goes to zero.

These three equations together are known as the multiplier-accelerator model for national income accounting.

The Great Depression

What caused the Great Depression?

1. Slowdown in dominant industry (automobiles).
2. Highly agricultural economy
3. Stock market skyrocketing while economy was tanking.

   In October/November 1929, the stock market fell 40% (this reduces $\overline{C}$ which drives down the economy). But in 1929, the wealth effect was small because not many people owned stock. Also by February 1930, stocks had gained 80% of what they lost. The stock market crash *did not* cause the Great Depression.

What does affect normal people if not the stock market?

Banks breaking has a huge effect. The first few banks closed because of bad loans at the start of depression. This started a trend that spiraled out of control. By 1933, 100% of American banks had closed causing a huge financial and economic crisis. Crisis occurred because of two reasons:

1. No deposit insurance in the 1930's.
2. Results in a run on banks – everyone clamoring to withdraw all their money and all the banks go broke.

These actions resulted in the banks calling in all their outstanding loans and stopping all loan rollovers and new loans. This caused credit to freeze up and the banking system was paralyzed. During the Depression, the whole investment sector collapsed.

During these times, the best investment was putting money in your mattress – it was the safest and highest paying investment. This caused the money supply to sharply contract which caused the velocity of money to plummet. These effects all combined to make prices fall drastically.

Herbert Hoover tried to stop prices from falling by limiting supply (closing factories, telling farmers not to plant crops…) but this failed miserably. Roosevelt tried to this for a long time as well until he adopted the Keynesian theory of trying to increase demand instead.

World War II eventually brought the U.S. out of the Great Depression – G skyrocketed which pulled up GDP. Economically, having a depression before a war is a good thing – there is no need to lower consumption to make room for military spending because it is already so low and there is already excess capacity available for military production. Government can spend vast amounts of money to raise the GDP and not really have to justify it.

What the government learned from this is that you can't pick off people's deposits and expect the economy to work. To insure that this doesn't happen again, the government created the FDIC and the Federal Reserve now promises to bail out banks that have a run on reserves. As a result, not one person since the 1930's has lost a single dime due to bank closure.

Additionally, American bankruptcy laws have grown out of this situation. Government realized that is important to relieve people of their debt in order to keep banks open. The cost of this debt restructuring is shouldered by the taxpayers, which causes grumbling, but it is necessary to save the system. Japan is currently drowning because they don't believe in debt restructuring. They don't allow for bankruptcy which is what is dragging down their whole economy.

Recessions and depressions only happen because of incompetent governments who don't what to do. Like before, it is best to take hyperinflation over depression.