

The Autumn Equinox: Turning Points and the Business Cycle

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This article is the third in a year-long series about economics and holidays.

The autumn equinox (September 22nd) is a holiday that can easily pass us by unnoticed. We are more likely to notice the summer and winter solstices, the longest day/shortest night and shortest day/longest night of the year. But March and September mark the midpoints between those two more dramatic solar dates, the days when days and nights are exactly equal in length. One equinox is the herald of summer, the other the precursor of winter. In the language of mathematics, the equinoxes are inflection points, or turning points. The direction of the cycle turns. In autumn, the descent into winter that began the day after the summer solstice picks up speed. After the spring equinox, the ascent into summer gains momentum. The change is not that noticeable at the time, but the turning points are real and easily predictable.

To all those tribes of hunters and gatherers and herders and farmers from whom we all descend, that seasonal flow of solstices and equinoxes was a loud drumbeat. The rhythm of their days and weeks and months was not guided by watches, clocks, calendars, or day runners. They operated on a celestial clock and a sun-dominated calendar instead of a to-do list. And the loudness of that drumbeat was about survival. Bringing the herds in from pasture and grazing land for the winter, slaughtering some to provide food over the winter and to ensure enough food for those that would be kept over, setting aside the seed corn for spring planting. Lambing time, planting time, harvesting time. There was no supermarket to run to in February when the winter stores ran low. That kind of immediate dependence on the bounty of nature, that chronic threat of hunger and starvation if man and nature jointly did not produce enough to make it through the coming winter, anchored our ancestors to the land and the forces of nature very firmly. So these regular, recurring turning points meant much more in an agricultural economy without the benefit of the refrigeration, central heat, and high speed transportation that can keep us warm and well-supplied with fresh fruits and vegetables year round from the other half of the globe.

But if the seasons are less significant to our economy than previously, inflection points have other meanings in modern industrial and post-industrial economies. The cycle of the seasons bears a striking resemblance to the business cycle, and business cycles matter very much to households, firms, and governments. Recessions like the deep and long one that began in December 2007 involve job losses, profit declines, and reduced government revenue. Students who graduate from college during a recession have a hard time finding their first job. Retirees living on interest and dividends (along with Social Security) may see their income fall. Governments find more people signing up for food stamps and unemployment benefits, with less revenue to fund these programs. So it's important to be able to predict those downturns in order to be prepared to deal with them.

The business cycle was largely unknown until the 19th century, when industrialization picked up speed. Now, instead of the cycles of abundance and scarcity, planting and harvest, there were cycles of inventory buildup and drawdown, cycles of new products and firms being introduced and maturing into decline, cycles of boom and bust in production and sales of consumer durables (appliances, automobiles) and especially in housing. These cycles are much harder to predict than the steady ebb and flow of sunlight. A favorite joke among economists is that our forecasting models have correctly predicted nine of the last seven recessions! But business cycles of expansion and contraction, growth and recession, are just as regular in recurrence, even if it's not an annual cycle. Inventory cycles generally run around two years, housing cycles about 20 years, and cycles of innovation and maturity of products and firms lie somewhere in between, typically about eight years from recession to recession, peak to peak. Unfortunately, there is some variation in the length of each cycle, so economic forecasters can't anticipate exactly when a downturn will end, or an expansion will peak. In the United States, the duration of a recession from peak to trough has been as short as eight months and as long as six years (the Panic of 1973). From 1945 to 2007 there were 11 recessions with an average duration of 10 months from peak to trough. The current recession began in December 2007.

In fact, economic forecasters can't even tell that the turning point has occurred at the time. It's at least six to nine months after the start of a recession that statisticians are able to confirm that the nation has, indeed, experienced two successive quarters (six months) of decline in real Gross Domestic Product. That's the official definition of the start of a recession.

Recession watchers are all anxiously looking for signs that what's ahead is not more winter but some signs of an economic spring—more output, more income, more jobs. Those signs are usually found in the index of leading indicators, a composite number that includes ten measures of economic activity that have historically turned up about six months before the economy begins to recover and turns down about six months before the start of a recession. The ten components of the Leading Economic Index include average weekly hours in manufacturing, initial applications for unemployment insurance, new manufacturing orders (consumer goods and capital goods are entered separately), speed of delivery of merchandise, new residential building permits, the S&P stock index, the inflation adjusted money supply, the spread between long-term and short-term interest rates, and consumer expectations. While these indicators don't have the dependability of the autumn equinox in signaling a certain descent into winter, they can at least help families, firms and governments to do a better job of planning ahead for better (or worse) economic weather.

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