

Joseph Ellis: The Thought Leader Interview by Art Kleiner and Melissa Master

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by Art Kleiner and
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Joseph Ellis: The Thought Leader Interview

The author of *Ahead of the Curve* explains the mysteries of the business cycle.

Every economic theory is, at heart, a kind of detective story. Hidden within misleading and contradictory data are clues to the mysteries of growth and decline. Why does inflation strike? What causes recessions? What are our prospects for the months and years ahead?

Since the mid-1970s, in a quest that continues to the present day, Joseph Ellis has been tackling such questions — first from an investor's perspective and then more generally. As a partner at Goldman Sachs and a research analyst covering the retail sector, he began looking closely and rigorously at the correlations of economic trends. His relentless efforts gave him a distinctive stature in his industry: For 18 consecutive years, *Institutional Investor* ranked him as the number one retail analyst on Wall Street.

Along the way, Ellis gradually developed his own theory about the cause of economic cycles. The mysterious culprit, he says, is not capital or industry, but the broad base of consumer power. (In effect, hourly wages make the biggest difference.) Although his ideas had gained a quiet reputation in the world of

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financial services, it wasn't until he retired, in 1994, that he began putting his research together for the general business reader; and it wasn't until 2005 that he published *Ahead of the Curve: A Commonsense Guide to Forecasting Business and Market Cycles* (Harvard Business School Press).

As some of his critics have pointed out, Joseph Ellis's method for tracking causal relationships is narrowly focused on a few key indicators, and its predictive power depends on the way people apply it to their own industry. But his insights also provide a more complete intuitive understanding of the factors that drive the economy.

Ellis himself is only a part-time prognosticator these days. He posts up-to-date charts of economic cycles and indicators to his Web site, www.aheadofthecurve-thebook.com, and he is the co-founder of a gift and stationery shop chain, based in the northeastern U.S., called Blue Tulip. We met with him in October 2006 in the *strategy+business* offices in New York. It soon became clear that what compels him is the desire to educate, fueled by the belief that if decision makers everywhere learn to see

trends and interrelationships as he does, they can avoid many of the false starts and pitfalls that come from following the curve, rather than leading it.

S+B: It almost seems that there are two separate literatures on navigating the economic future, one for managers and one for investors. You seem to have written one of the rare books aimed at both audiences. Was that deliberate?

ELLIS: Yes. The economic cycle, as it affects investors, is really the same one that affects business decision makers. They have different ways in which they time their ups and downs, but their two worlds are so closely related cyclically that I thought they would both receive value by looking more critically at the sequences and timing that recur cycle after cycle.

At Goldman Sachs, I and my colleagues in the retail research group studied economic cycles historically, covering a period of more than 40 years. We tracked indicators in the macro economy — consumer spending, employment, inventory levels, corporate profits, and so on — alongside bull and bear markets, to see which were leading indicators

(advancing before the stock market advanced and declining before it declined) and which were lagging. Once you know that, then you can focus on the few key indicators driving the economy. And doing so really serves both audiences — business managers and investors.

S+B: Don't most economists attempt to do exactly that?

ELLIS: They do. But they often do it in a way, based on wildly fluctuating month-to-month and quarter-to-quarter changes in data, that obfuscates the repeating cause-and-effect relationships that exist among economic indicators. This often obscures key relationships and makes it impossible for them to demonstrate these relationships to noneconomists, who need to see the pattern for themselves.

We also have to address what I call the "recession obsession." Strictly speaking, a recession is an absolute decline in gross domestic product [GDP] for at least two quarters. Economists and much of the business press focus on recession as the key measure of an economic downturn. But by the time we reach a recession, most of the slowdown in growth is pretty much behind us.

The bear market occurs well before the recession, and the recession is therefore a relatively useless, lagging indicator of economic slowdown.

S+B: So when a recession starts, that's actually a signal that things are going to improve?

ELLIS: It's not quite that simple. The key is understanding the difference between growth and rates of growth. Let me explain.

Most commentators on the economic news tend to divide the economic cycle into two parts. They call the good part of the cycle "growth," meaning absolute increases in real GDP, and they see the bad part of the cycle as "recession." But by the time a cycle gets to the point where the economy is declining in absolute terms, the rate of growth in the economy may have been slowing for as long as two years. Most of the damage to businesses' sales and corporate profits, and to the stock market, is already done.

When we look back over 40 years of economic cycles, we see that the economic damage in a cycle begins when the rate of growth peaks at, say, 6 percent, and then slows first to 4 percent year-to-year,

and then to 2 percent year-to-year, and then to zero. (A chart on my Web site shows this in detail, www.aheadofthecurve-thebook.com/04-01.html.) And here's the grabber: In almost every cycle, the bear market also begins when the rate of economic growth peaks at 6 percent or 4 percent. That peak in the growth rate of the economy is the point at which corporate profit growth is the greatest, optimism is the strongest, and inventory creation is the highest. Business conditions and stock market performance turn downhill from there. By the time you get to the 2 percent growth rate, and before the recession begins, the crisis is usually nearing its end.

S+B: You're explaining the old adage "buy low, sell high" through a kind of historical analysis.

ELLIS: Exactly. "Buy low, sell high" is a saying that is almost self-mocking in its own delusion, because most people buy high and sell low. The very reason that markets reach highs is that investors are extrapolating good conditions when growth rates are at their peak.

S+B: What, then, is the consistent leading indicator — the factor that's

"ahead of the curve," as your book title puts it?

ELLIS: In the broadest sense, it's real personal consumption expenditures, or PCE. In other words, consumer spending. For the 40-plus years of data that I tracked, consumer spending always preceded most other economic indicators by one or two quarters; it points the way, more than any other signal, toward whether economic life is about to get better or worse. Most economists recognize this, although a surprising number actually think business investment leads consumer spending, which it demonstrably does not.

Unraveling Spaghetti

S+B: What led you to begin tracking the data that way in the first place?

ELLIS: When I joined Goldman Sachs in the early 1970s as an analyst specializing in retail, I faced an issue common to most analysts: Where does my industry fit into the overall cycle of economic growth and decline? And, specifically, when would retailing outperform other industries, and when would it underperform?

Like all analysts — and all portfolio managers and businesspeople, for that matter — I had a flood of anecdotal economic data coming at me every month. But I (and others) couldn't make sense of it. I wanted to develop my own, more systematic approach to getting a leg up on the process.

My first step was to start tracking economic numbers in terms of year-to-year change. Government bureaus and economists present their data on a month-to-month or quarter-to-quarter basis to show short-term momentum. But if you

“The process of forecasting individual industries could be much less random.”

look at a chart that shows, say, monthly retail sales changes for the last 10 years, or real consumer spending quarter-to-quarter, it looks like a plate of spaghetti. You rarely go two or three periods in a row without a significant change in monthly or quarterly direction. This makes economic reporters optimistic one month and pessimistic the next, and the true underlying trend almost impossible to discern. How often have you heard, “Retail sales rose 1.4 percent last month, after falling 0.6 percent the month before,” with the prior month also having been materially restated?

S+B: The noise of month-by-month ups and downs, in other words, obscures the important signals about economic direction.

ELLIS: That’s correct. But when you take that same data and chart it on a year-over-year basis, you give yourself a 12-month span in which the patterns of change can become apparent. Also, when you measure those data against those of the same period, one year earlier, you eliminate the seasonal adjustment vagaries, which can be considerable and are often filled with errors.

The next important thing is to

run *pairs* of indicators on this year-over-year basis, to see how they rise or fall in sequence. I like to say, “Let’s go to the videotape!” — i.e., the chart — where we can test every thesis about which indicator drives the other. In short, we needn’t wonder. This is just common sense, not rocket science, and yet it’s remarkable how little it’s done on Wall Street or elsewhere.

Starting in the mid-1970s, for example, we compared 45 years of year-over-year rates of change in consumer spending in the United States with year-over-year growth for industrial production. The picture was really consistent. Relatively small ups and downs in consumer spending growth precipitated more volatile ups and downs in industrial production. The effects of the inventory cycle were well known, but the consistency of the sequence and relative volatility were impressive. This was the inventory cycle at work, driving production to fill the pipelines when the economy was accelerating and collapsing when business slowed down. In another chart, we showed that swings in industrial production were leading — by 6 to 12 months — somewhat more volatile swings in year-over-

year growth in capital spending, which therefore lags.

And yet there was a whole school of economic thought — and it still exists today, in fact — that states that you can drive the economy, even cyclically, with capital spending.

S+B: Did this approach change the way you thought about research and recommendations?

ELLIS: I realized that the process of forecasting individual industries could be much less random. Every Monday morning on Wall Street, every research department has a meeting of all its analysts. They’ve all been talking to companies for the past week, and this is the big moment when they offer their “real-time analysis.” But typically, the research director will randomly say, “Well, OK, Harry, how did capital spending do last week? And Mary, how did the hotel industry and the airlines do? And Jack, how is retail spending?”

That unsystematic approach misses the consistent sequence in which the cycle passes through our business sectors. In every single cycle, momentum starts in retail and consumer spending and then

moves to manufacturing and then to capital spending. The research director should review them in that order. These three business sectors — I didn't mention services, because it's much harder to measure — are the backbone of corporate profits. Whatever happens to them will also drive the ups and downs in profit growth. And corporate profits, in turn, drive the employment rate, which is the *last* indicator in the economy to turn.

Drivers of Consumer Spending

S+B: If retail drives the economy, and consumer spending drives retail, what then causes consumer spending to rise or fall? Is it the employment rate?

ELLIS: Not really. This is one of the most interesting issues to emerge from this work. Most of us are so personally invested in the concept that “my job allows me to spend” that we tend to think that jobs are *the* primary influence on consumer spending. We forget that consumer spending, which is over two-thirds of our economy, also in turn drives employment. So the big question is, “Which leads which?” Well, when we “go to the videotape,” the charts

prove that growth patterns in employment lag changes in consumer spending. And this is not so surprising. Workers get hired after business gets good, and they get fired after business turns poor.

My son, Jonathan Ellis, who teaches philosophy at the University of California at Santa Cruz, labeled this phenomenon “asymmetrical circular causality,” meaning that although consumer spending and employment drive one another, one of them — in this case consumer spending — drives the other to a much greater extent and therefore leads the cycle.

The same is true of consumer spending and capital spending. Conservative economists who say that capital spending drives consumer spending are about one-third correct and two-thirds wrong. Yes, when you put up a new plant, you create jobs and wages and, therefore, consumer spending power. But that impact pales relative to the causality that exists in the other direction: the influence of consumer spending on capital spending. Consumer spending represents the demand for goods and services that strain capacity, leading to orders to build those factories and equipment. So, cyclically, capital spending lags consumer spending, and the charts pretty much prove it. Like employment, capital spending tells us where the economy has been, not where it is headed. That role belongs to consumer spending.

I can't overemphasize this point. If we don't correctly identify the lagging indicators like employment and capital spending, we are vulnerable to being told that employment or capital spending actually *leads* the economy. This almost guarantees that we pin our

hopes on the wrong, lagging measures, which in turn means staying positive well past the peak of the cycle or negative well past the trough.

S+B: Where do changes in consumer spending come from?

ELLIS: Of course, consumer spending is affected by hundreds of different factors, from the stock market to terrorism to changes in mortgage rates. The key is to boil your analysis down to the one or two “true drivers,” the factors that have the most consistent influence, cycle after cycle. And there are two primary drivers. The first is the average wages per worker, adjusted for inflation — in other words, the purchasing power of the employed. The U.S. Bureau of Labor Statistics publishes this statistic in a series called “real average hourly wages.” It is a much more significant leading indicator than what people typically pay attention to — the unemployment statistics. The second key driver of consumer spending is interest rates.

S+B: So in any given society, growth in the real average wages is the best predictor of consumer spending and thus of economic growth?

ELLIS: Cyclically, in the U.S., there is a fairly good leading relationship, and it's evident from our charts. Now, there are some weaknesses. Because average hourly wages is a pretax measure, changes in taxes affect consumer spending as well.

The Taxi Stand Fallacy

S+B: How can using consumer spending as a point of entry help people in business make better predictions?

ELLIS: Well, for any company whose business produces machines to manufacture consumer products, it makes sense to say, “What part of consumer spending would drive my piece of industrial production or capital spending? Might I find an analog in the consumer sector to forecast for my industry or even my own company’s sales?” For example, we could take the growth in retail sales of appliances or other metal consumer products, and use that to forecast sales. Companies really need to understand this methodology — the approach to running year-over-year charts of cause and effect that I describe in my book — to adopt it for their own business.

Then you can use that information to make better decisions. It’s when you’re at the peak rate of growth and nobody sees any clouds on the horizon that you have to resist the temptation to think you’ve reached a new nirvana. The charting process can help enormously. Sometimes just the fact that business is great should be enough for a CEO to say, “Let’s not plan on trees growing to the sky. Let’s watch our leading indicators, and when they start to slow, let’s take that seriously as a signal for a slowdown in business a year from now.” Trim your inventory and perhaps trim your labor, or at least stop adding even more labor and infrastructure when you’re nearing a cyclical peak. Then, when business is at a low but the leading indicators are telling you the next upturn is coming, at least prepare to start expanding again in time to take advantage of the early accelerating part of the cycle.

S+B: Are most retailers and manufacturers equipped to act that way?

ELLIS: I don’t think they are,

mainly because it is such a challenge to actually observe the cycle. An article several years ago in the *New York Times* asked chief executives what they looked at when they were trying to forecast their markets. It was all very anecdotal. One CEO said he looked at taxi lines; if the taxi lines were long, then people had money and were ready to spend. That’s kind of interesting and even amusing, but forecasting your business should not be based on personal hunches. There should be some attempt at empirical economic analysis, beyond just reading the newspapers. Back in the 1970s, retail companies like Sears and Federated Department Stores had economists on staff. Many of these companies, especially in the age of downsizing, let that function go. They gave up on an endeavor that actually could have had great value, but not in the way traditional economists were doing it.

The very value of charting leading and lagging indicators empirically is that, if we keep the charts in front of us at all times, they don’t let us off the hook. They don’t let us revert to our intuitive assumptions or hunches. At Goldman Sachs, we used to keep the charts up-to-date

and pasted in front of our desks where we had to see them on an ongoing basis. I think it’s a much more viable approach than letting data get lost in abstruse computerized statistical models.

Some economists will undoubtedly look at the intentionally simplified methodology in my book and conclude that these are the unsophisticated musings of an undereducated Wall Street analyst. But I think the methodology can empower investors, business executives, and anybody else who’s interested in the cycle of the economy. If you have a modicum of economic knowledge, a computer, and a working knowledge of Excel, then your ability to track and explore these phenomena, the causal relationships, and the sequence of events is endless.

I also strongly believe that this concept of cause-and-effect charting should be part of the way economics is taught. Today the field is dominated by the teaching of economic theory, with no numbers attached. Students need to be able to understand basic economic indicators, choose the ones relevant to the issues they care about, track them over time, and understand the se-

“One CEO said when taxi lines were long, it was time to expand. But forecasting your business should not be based on hunches.”

quence of cause and effect. To me, not teaching first-year economics students an accessible and pragmatic approach for mastering the numbers in today’s economy is like teaching chemistry or physics without a lab.

Imagine an economics professor assigning a student to track the cyclical outlook for a paper carton producer. The professor would say, “What would your common sense tell you to look for as a leading indicator?” It might be year-over-year growth in consumer spending for the kinds of goods, like cosmetics or toys, that are shipped in paper boxes, or, more broadly, combined consumer spending on durable and nondurable goods. That method of investigation becomes empowering. The student might uncover a useful cause-and-effect sequence, i.e., a leading indicator, and in the process learn how to use this approach later in his or her career. But even learning that there is *not* a predictive relationship can sometimes be valuable.

S+B: What are the implications for economic policy? If I were a government official, looking to create relative prosperity in my country, should I focus less on creating jobs and

more on raising the income of jobs at the bottom of the pyramid?

ELLIS: I think you have to separate the secular from the cyclical here. Obviously, creating jobs over the longer term is the first economic priority. Cyclically, you can’t just make jobs happen, short of government “works programs,” unless there is growing consumer demand to get the economy moving. So, in that sense, you’re absolutely correct.

One effective policy, from a cyclical standpoint, would be tax cuts distributed to low- and middle-income wage earners. These have a greater economic effect than tax cuts to wealthier people, because there is a much higher labor and production input as a percentage of total value in a \$10 shirt than there is in a \$100 shirt. And whatever stimulates growth in consumer demand, as opposed to dollar growth, is probably going to have a greater eventual effect on labor markets. Similarly, tax cuts to manufacturers won’t have much effect. Of course, manufacturers will happily take that tax cut, but because they won’t build a factory or buy equipment until consumer spending comes around and drives demand for their product, tax cuts to busi-

nesses in economic downturns are really like pushing on a string.

I do think the Bush administration’s 2003–2004 tax cuts were generally well timed, although too canted to higher incomes. The question is, How long should the tax cuts run, especially in the context of government spending, the size of the deficit, and the longer-term government debt burden?

S+B: Some parts of the GDP are not driven by consumer spending — for example, defense, energy prices, or global financial services. What influence do those factors have on economic growth?

ELLIS: That’s a very interesting issue. Obviously, major increases or decreases in defense or energy spending have an effect on the economy. But in my work, I ignored them. There was simply no effective way to take them into account in a forecasting method like mine, which was based on empirical, historical observation of economic relationships, as opposed to anecdotal, one-off factors.

But some of these international or political factors are reflected in the economic data. Energy prices, for instance, are a major factor in

inflation indices and therefore are immediately taken into account in the measurement of real average hourly wages. Other external events, like Hurricane Katrina or the war in Iraq, are also taken into account because they affect inflation, which in turn affects prices.

In general, I don't think it is helpful for economists to try to "psych it out." I'm not a big fan of using consumer psychology, or "behavioral economics," which is all the rage — at least not in forecasting consumer spending at the macro level. It gets us into endless anecdotal thinking. And, because they are based on today's consumers' answers to today's economic questions and thus reflect today's attitudes — many of which will change tomorrow — the consumer confidence indices have also had little predictive value. But when you look at the numbers on spending power and interest rates, and there are historic, proven lead/lag relationships, you have something to work with.

S+B: In your own small chain of gift stores, Blue Tulip, do you use this kind of forecasting?

ELLIS: No, in our business it has no value. There are too many other

local and internal factors that affect a small business. When we have 500 stores and are more closely tied to the national economy, then this will have more relevance!

However, I have tried my methodology with a variety of larger retailers. For instance, when Wal-Mart became a \$30 billion retailer in the mid-1990s, it became large enough that its business was tied to the national economy, at least to some extent, and real wages have in fact proved to be a decent leading indicator of Wal-Mart's revenues. We also looked at the cyclical sales growth of Home Depot and Lowe's. In those cases, unlike with Wal-Mart, we were not looking at general merchandise. They sell things that are affected by changes in the housing cycle. So we charted their sales against a series called "housing turnover," the combination of sales of new homes and sales of existing one-family homes. And here we found a good leading relationship.

S+B: Most of the data in your book, and your examples, are American. Do you see the same cycle in other countries?

ELLIS: Yes, to the extent that I've been able to tell. Lacking a full-

blown staff and not particularly caring to become an economics research house all by myself, I have run only the data for consumer spending, industrial production, capital spending, and employment in several developed economies: Great Britain, France, Germany, Canada, and Japan. In general, we find relationships among consumer spending, industrial production, capital spending, and employment to be similar to those in the U.S. But it has been difficult to find strong, consistent measures of real hourly wages that might be used to forecast consumer spending in these countries. Economists there might know or create better indicators and thus be able to make better forecasts using this approach.

S+B: You haven't looked at, say, China or India?

ELLIS: Cyclical analysis is best applied to stable, modern, fully developed economies. If a country has exceptional growth and a huge net export or import balance compared to its home market, the close relationship between consumer spending on the one hand and industrial production and capital spending on the other might be altered considerably. The United States is an ideal place to apply the method because, despite our trade deficit, our net import ratio is still only 5 percent.

Now that I'm officially retired from Goldman Sachs, I maintain the updated charts for the overall U.S. economy on my Web site. But I don't have the capacity to update them for overseas economies or particular sectors.

It's crucial for businesspeople and investors to construct these charts and update them on their

own. Even when I was an analyst, when clients asked me to interpret the data, I'd often show them the chart and ask, "Well, what do *you* think?" When lay businesspeople and investors undertake this kind of analysis themselves, it is often more sophisticated, by virtue of its very simplicity, than the analysis they'd get from a professional economist or from an analyst like myself. The single most important point is that you can do this analysis; you are not helpless.

S+B: How do you see globalization affecting the cycle?

ELLIS: That's a really good question. Because imports and exports still largely balance each other out, I think that it's not likely to change the value of these indicators in the U.S. in the short run. Imports in the U.S. still represent, net, only about 5 percent of our economy. But in the long run, if exports or imports on a net basis become 20 percent of our economy, then you would see a short-circuiting of the relationship between consumer spending and industrial production.

S+B: What do the charts suggest about the economic prospects for the next two years?

ELLIS: As always, everything depends on consumer spending, and that in turn depends on real average hourly wage growth and interest rates. Real average hourly wage growth was in a protracted downturn from 2002 through 2004, offset by the 2003 tax cut. Then it rebounded somewhat in 2006 with declining energy prices. But because of the unusual degree and extended period of consumer borrowing, particularly on homes, consumer spending did not reflect

the full effects of that earlier decline in purchasing power. We had never before been through a period where consumers consistently spent more than they earned — that is, we had a negative savings rate — and I suspect we'll have to pay the piper, cyclically, at some time before the end of 2008. Also, if interest rates go up much from here, then a very difficult scenario is conceivable. But the fact is that, as of late 2006, real wages are coming back a bit and even interest rates seem more benign than you'd expect at this stage of the cycle.

S+B: Overall, you are cautious about the economy in general.

ELLIS: Yes, but I must acknowledge that my lead/lag indicators have been pessimistic for two years now, and the degree of slowdown in the economy has been far more modest than historical relationships would have suggested.

An important comfort in watching cycles in these charts is that, whether from the peaks or from the troughs, the U.S. economy almost always returns to its mean growth rate of 2 to 3 percent. We've had other times when pundits felt there were crises nearing, but you learn after a while that the economy — in the U.S., and perhaps in the rest of the world as well — has a way of correcting itself. +

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