I was born and spent the first eighteen years of my life in Murmansk, a city in Russia, located above the Polar Circle. If the name of the city sounds familiar, that’s because it is the home of the northern Russian Navy fleet. You may also remember the name from the Tom Clancy’s Hunt for the Red October. Red October, a fictional submarine, was stationed in Murmansk. My whole family emigrated from Russia to the United States in 1991.

Despite writing and teaching a graduate investment class at University of Colorado at Denver, I am neither a writer nor an academic. I am an investor who thinks through writing and loves to educate others.

It took me about two thousand hours to write this book. I started in 2005 and finished in 2007. The book as well as my presentation has two parts: first we take a look at the U.S. markets during the 20th century, keeping in mind what Mark Twain said: “History doesn’t repeat itself, but it rhymes.” I’ll explain why research led me to believe that we are in range-bound markets. (By the way, about a month after the book came out I regretted the book’s subtitle, “Making money in range-bound markets”. People assume that I know what the range is. “Sideways markets” would have been a more accurate description, but what’s done is done.)

The second part of my presentation will focus on how to modify one’s investment approach to adapt it to this very different outlook. In the book I dedicate only 1/3 of the discussion to part one, and the rest of the book covers part 2.

In this presentation, due to time constraints, I’ll spend the bulk of my time on part one. (I am sure this will make Wiley, the book’s publisher, happy.)
When we think about secular (longer than five years) market cycles, we tend to relate to them in binary terms: bull or bear.

The reality is, all long-term markets in the last century, with one exception, were either bull or range-bound. Since we are fond of giving “pet” names to market cycles, I’d like to call range-bound (sideways) markets “Cowardly Lion markets,” where occasional bursts of bravery lead to stock appreciation, but ultimately are overrun by fear that leads to a subsequent descent.

“Bursts of occasional bravery lead to stock appreciation, but are ultimately overrun by fear that leads to a subsequent descent.”

— Active Value Investing: Making Money in Range-Bound Markets
So let’s take a look at the stock market in the 20th century. As you see, every protracted, secular bull market that lasted about 15-17 years was followed by a Cowardly Lion market that lasted about as long. The only exception was the Great Depression, where the bull market was followed by a bear market.

Ironically – and this really tells you how subjective this whole “science” is that we call investing – the Great Depression doesn’t fit into a “secular” definition, since it lasted less than five years. Traditional, by-the-book, secular markets should last longer than five years. I still put the Great Depression into the secular category, as it changed investor psyches for generations. Also, it was a very significant event: stocks declined almost 90%, and thus 80 years later we are still talking about it.

By the way, this marvelous chart was created and slightly modified for my book by Kevin Tuttle.

Our current range-bound market started on the heels of the 1982-2000 secular bull market: we entered into a range-bound market in early 2000.

I’ll be honest. If another guy with a funny Russian accent was making this claim at the podium today, I’d be very skeptical. After all, the past has passed and the future may be different. So if you are skeptical of what I’ve said so far, you have a right to be; but hang on.
First let’s take a look at what happened so far, since 2000. We had a two-and-a-half-year cyclical (short-term) bear market that was followed by a four-year cyclical bull market and then – all too familiar to the people in this room – the last 50% decline that has been followed by a nice bounce. OK. So far the market has gone sideways – it hasn’t gone anywhere in nine years. *The Wall Street Journal* called this market “the lost decade” in 2008.

I’ve done many presentations on this topic since the book came out. I found out that people are either very happy or extremely unhappy with this range-bound market argument. The reason behind the difference in emotional response has nothing to do with how I dress; it has everything to do with the (cyclical) stock market cycle we are in at the time of the presentation.

In 2007, when everyone thought we were in a continuation of the 1982 bull market, I was glad that eggs were not served at lunch or dinner while I was presenting, as for sure they would have been thrown at me.

In late 2008 and early 2009, though I don’t know of anyone who named a first-born “Vitaliy” after me (I don’t blame them), this range-bound market message was a ray of sunlight in comparison to the Great Depression II mood of the audience.

So now let me give you the rationale for why my research leads me to believe that we are in a range-bound market environment, and that this environment will last for quite a while.

As you are about to see, historically, in the 20th century, bull and range-bound markets were not caused by a super-good or super-bad economy, earnings or GDP growth, inflation, or interest rates. They were caused by valuation. Let’s take a look.
Take a careful look at these two tables: I dare you to find an economic metric responsible for a stock market cycle. In fact, in the book I take the bottom table, without the stock performance, and ask readers to tell which market was which – it’s impossible.

Economic performance of the economy did not vary much during bull or Cowardly Lion markets. In other words, as long as we had an average economy (not super-good or super-bad) the animal in charge of the market was either the bull or Cowardly Lion. Now let’s take a look at interest rates...

To understand the relationship between interest rates and stock market cycles, I charted a 12-month trailing P/E for the S&P 500 and the inverse of a 10-year T-bond – an implied P/E. This is the famous Fed model for you. As you see, in the time frame from 1960 to 2006, when interest rates were low (implied P/E were high), actual P/E were high too, and vice versa. This all sounds great, except, if you look at the next slide...
... from 1900 to 1960 there was absolutely no relationship between interest (implied P/Es) and actual P/Es. None. Zero. In the book I said that because of conflicting data I tend to think that interest rates don’t drive stock market cycles. I believe I was wrong. I came to that realization not because any new data came out, but simply because I gave that subject a lot more thought.

But I’ll answer the question of what impact interest rates have on stock market cycles in a few slides.

Let me provide you with a framework. I’m sure you already know, but it is paramount to understanding long-term market cycles: A return for a stock or stock market is driven by two variables, stock appreciation and dividend yield. OK, nothing earth-shattering there. Price appreciation in the longer run (longer than a day or month – a year) is driven by only two sources: earnings growth/decline and change in P/E.

So if you were to put these factors together, a stock’s or the stock market’s returns in the long run are driven or mathematically explained by three variables: earnings growth/decline + change in P/E + dividend yield.

I hate formulas, especially the ones with fancy Greek symbols, but this one I don’t think is too dangerous. Here is the punch line: as long as earnings growth was at, or slight above or below average, stock market performance was completely driven by change in P/E.
I find that most people (including myself) find discussions about stock markets a bit esoteric; we find it a lot easier to relate to individual stocks. Since a stock market is just a collection of individual stocks, let’s take a look at a very typical range-bound stock first – Wal-Mart. A company everyone is familiar with, and that everyone has shopped at, at least once (even if you won’t admit it in public). Here is a chart of Wal-Mart from January 2001 to January 2009. I don’t think anyone will argue with me, but this stock was visited by a Cowardly Lion. The stock has not gone anywhere for 9 years. So let’s figure out why that happened.

In this diagram I am breaking down Wal-Mart’s returns by applying the stock market math equation I offered two slides back. The stock’s price has not gone anywhere since 2000, and has actually declined slightly, from 57 to 47. However, notice this: earnings grew from $1.25 to $3.42, 11.8% a year growth – earnings almost tripled. This doesn’t look like a stagnant, failing company, though the stock chart would lead you to believe otherwise. But also look what happened to valuation – the P/E – it declined from 45 to 13.7, or about 12.4% a year.

Thus, despite impressive fundamental performance of the company, the stock has not gone anywhere, as all of the benefits from earnings growth were cancelled out by P/E compression. This is exactly what happens in range-bound markets.
On this slide I have stock market performance during the last three range-bound markets and the Great Depression. The stock market performance math for the last three range-bound markets looks very similar but let’s zero in on the last, 1966-1982, range-bound market.

Earnings grew about 6.6% a year, while P/Es declined 4.2%; thus stock prices went up roughly 2.2% a year. This is what happens in range-bound markets: two forces work against each other, the benefits of earnings growth are wiped out by P/E compression (the staple of range-bound markets), and thus stocks don’t go anywhere for a long time, with plenty of (cyclical) volatility while you collect your dividends, which in today’s environment are not much.

Now let’s look at what happens during a secular bear market – the Great Depression. P/Es declined at about 12.5% a year, but unlike what took place in range-bound markets, earnings growth was not there to soften that blow as P/Es collapsed. Thus stocks declined in magnitude by 37.5% a year! But let’s take a look what happened in a real secular bear market, the one that actually took place not in the US but in Japan.

As a side note let’s quickly touch on dividends. Current dividend yield for the S&P 500 is about 2.7%-3% – far below the historical norm of 4-6%. Dividends will be in vogue again very soon, after companies stop cutting them and start raising them again – dividend payout will increase. But remember, dividend yield is a function of two variables, dividend payout and earnings yield (the inverse of the P/E ratio). As you’ll see in a couple of slides, current P/Es are not superbly low, thus even with higher dividend payout, dividend yield for an average stock will not amount to much.
Since the late 1980s, Japanese stocks have declined about 80%. This decline was driven by a complete collapse of both earnings – they declined 53% – and P/Es, which declined 35%. As I understand Japanese “E’s,” they are very different from US “E’s,” due to different accounting and cross-ownership. The bottom line, Japanese stocks were in a secular bear market because stocks were expensive and earnings continued their descent over a long period of time.

Now let me take you back to a more cheery subject: let’s fantasize about what happens during secular bull markets. During the 1982-2000 bull market earnings grew about 6.5% a year and P/Es rose from very low levels of around 9 (though I’ve seen this number as low as 7, depending on what 12 months circa 1982 you use), to the unprecedented level, as you’ll shortly see, of 33.

This is what happens during secular bull markets: you take two positive numbers, put them together, and you get super juicy stock returns of 14.7% a year. Add a cherry – dividends – on top of that ice cream sundae, and you have incredible returns over almost two decades. No surprise the stock market became a favorite pastime sport in the late 1990s.
If you were to ask me what is the most important concept in investing, I’d put mean reversion close to the top of the list. It is usually underappreciated and misunderstood by many. Let’s look at P/Es over the last century. On average, the 12-month trailing P/E for the S&P 500 was about 15. That is the number you hear quoted by the media all the time.

I found it fascinating that stocks spent very little time in their “average” state. In fact, I found that in the last century stocks only spent less than 27% of the time between P/Es of 13 and 17 (two points above and below average). P/Es usually saw their average state only when they went from one extreme to the other. Also, they never stopped at 15 and went the other direction, they continued their journey to the other extreme. (I’ll answer the question of why this happens in couple of slides.)

But I want you to take away from this slide the following two points:

1) Bull markets always started at below-average P/Es and ended at above-average P/Es.
2) Range-bound markets always started at above-average P/Es and ended at below-average P/Es.

Where are we today? If you were to use reported earnings estimates for the S&P 500 for 2009 of $36, we are at a P/E of about 26. Not cheap, but let’s not waste much time on this number, as it means very little, and take a look at the next slide, which should shed more light on this very confusing topic.
This slide is a bit confusing at first, but let me clarify it. The green line represents actual, reported EPS for the S&P 500. The red shows “average” earnings, if earnings in 1990 grew with the rate of the economy of 6%. In other words, these are the earnings we’d see if profit margins stayed constant from 1990 till today.

While I was writing the book I spent a considerable amount of time explaining that profit margins always mean revert, and that the 2005-2007 earnings ascent to far above the red line was not sustainable. Well, that is behind us. Let’s try to figure out the earnings power of the S&P 500.

The current 2009 and 2010 estimates of S&P operating earnings are $55 and $74, respectively. I am skeptical of these numbers for several reasons:

First, they are almost double the estimates of reported earnings (2009: $36, 2010: $37). The percentage difference between 2010 reported and operating numbers is the second highest since 1988. (2008 holds the record.) During the 2001-2003 recession the difference was about 50%. “One time” write-offs are responsible for the difference. It is very likely that these “one-time” charges are not really “one-time;” thus operating estimates overstate the true earnings power of the market.

Second, 2010 estimates are only slightly below the all-time-high earnings the S&P achieved in 2007, when our economy was under the influence of several bubbles, which at the time severely inflated corporate profit margins, to unprecedented levels (I’ve written about this in Barron’s). Also, the bulk of excesses in margins came from the financial, materials, energy, and industrial sectors – the ones that are struggling today and will...
Finally, if earnings were to be as projected, we’d be following the last recession’s recovery path, which is unlikely. The last recession was corporate, while the current one is riddled with debt-laden consumers. Deleveraging the excesses of the housing bubble, in the face of higher future taxation and likely higher interest rates (both byproducts of large deficits) will be a lengthy process. The recovery will be slower and real earnings growth will be lower than in previous recessions.

It is hard to know the exact earnings power of the S&P 500, but it likely lies somewhere in between operating and reported earnings estimates, and thus closer to $40-60, putting the P/E of the S&P 500 at about the 16-25 range.

Let’s take a look at a ten-year trailing P/E. Its use doesn’t come natural to most investors, as we don’t value stocks, J&J for instance, on 10-year trailing EPS. But the 10-year trailing P/E is a great smoother of economic cycles. First, let me tell you how it is computed: P is the current price – in this case it is 1000, the price of the S&P 500 on August 5th, 2009. The “E” is slightly trickier, it is an average of earnings over the last ten years, which encompasses several economic cycles and is thus less easily distorted by super-high or super-low margins. In 2007, when I was writing my book, I used the 10-year trailing P/E to demonstrate that stocks were not cheap. At the time, 12-month trailing earnings showed that stocks were trading at below-average P/Es – the “E” was distorted by ultra-high margins.
The 10-year trailing P/E, as a number by itself, is not very useful; but in relation to long-term averages and past extremes it gains meaning. Therefore, let’s look at the next slide, where we have the same data but in percentage relation to the average 10-year trailing P/E.

Slide 19

**Bull Markets Start at Below-Average and End At Above-Average Valuations. Range-Bound Markets Start at Above-Average and End at Below-Average Valuations.**

Reversion Beyond the Mean - Above and Below Average P/E

10 Year Trailing P/Es for S&P 500

The main point to get out of this chart is that, overall, stocks are trading at an average valuation today. Another important point is that the range-bound markets of the past ended when stocks were between 28% and 39% below average – we are not there yet.
Human emotions are the main culprit responsible for market cycles. During a secular bull market, investors receive returns from both earnings growth and P/E expansion. Remember, in the beginning stages of the secular bull market the P/E was depressed, thus at first P/E expansion is normalization towards the mean (there is nothing magic about these numbers, I am just using them for demonstration). So let’s say that between earnings growth of 6% and 7% growth of P/E expansion, investors are receiving a terrific rate of return of 13%. Now that 13% price appreciation persists for a while, and investors become accustomed to it. The new paradigm is born: “This time it’s different,” and 13% price appreciation is the “new average.”

Fifty or 80 years ago explanations for the “new norm” were that railroads, electricity, telephones, and efficient manufacturing would make our economy more efficient, and thus stock market gains at the “new average” would continue for the foreseeable future.

In the late ’90s, in the latter stages of the 1982-2000 bull market, similar observations were made, except the names of game changers were now just-in-time inventory, telecommunications, and internet. It is rarely different, and never different when P/E expansion is the single source of the supersize return. P/E expansion went through the average (15) and far beyond it. Everybody “had to” own stocks. Expectations were that the “new average” would continue – 13% a year became your birthright rate of return.

P/Es can shoot for the stars, but they never reach them. In the late stage of the secular bull market P/Es stop expanding. Now investors receive “only” a return of 6% from earnings growth – they are disappointed. Their love affair is not over, but they are diversifying into other assets classes that recently offered better returns (real estate, bonds, commodities, gold etc.). Suddenly, return from stocks is not 13%, not even 6%, it is zero – P/E contraction of 6% is wiping out any benefits investors receive from earnings growth of 6% – the “lost decade” (or two) of a range-bound market ensues.

As time goes on the memory of the secular bull market gradually fades. Stock market volatility is driven for the most part by cyclicality of the economy. All the benefits of earnings growth are eaten away by P/E compression. Frustration over receiving no returns gradually pushes investors more and more into other asset classes. Earnings growth and unchanged price levels gradually chip away at P/Es, driving them down to high single digits or very low teens – stocks become incredibly cheap again and their yields finally become attractive. The range-bound market ends and a bull market begins. P/Es start expanding again and the secular bull, range-bound cycle is restarted.
Interest rates and inflation are very important, but they take a backseat to market psychology. They ultimately determine the length and the extremes of market cycles.

As I mentioned before, my thoughts on the role of interest rates and inflation have changed since the book came out. The historical data on the relationship between inflation, interest rates, and market cycles (P/Es) is not conclusive. The 1960-2006 period shows a very tight relationship between P/Es and interest rates, but the 1900-1966 period shows that was absolutely no relationship between market cycles (P/Es) and interest rates – none. Also, what happened in Japan over the last 15 years throws another wrench into the P/E and interest rate debacle. Despite a decline of interest rates to almost zero, Nikkei stocks have declined and P/Es contracted.

I have a theory that explains the role that interest rates play in stock market cycles. In this discussion I’ll be using interest rates and inflation interchangeably. As you can see from the chart, interest rates and inflation are closely correlated. Of course inflation is only one of the variables impacting interest rates. Risk (default) premium and opportunity cost (differed, forgone consumption) are others. I’ll ignore the latter ones as they are a subject for another long discussion. Until the UK was put on the negative watch list by S&P, default risk was only relevant for non-government bonds. And I have yet to see a good explanation or quantification of the impact of opportunity cost.

Let’s divide the interest/inflation chart into three zones: 1, 2, and 3. The division is fairly subjective, as is everything in finance. But I am trying just to be vaguely right, not precisely wrong. Zone 2 is the zone of peace. When interest rates and inflation are in this zone or thereabouts, they have little positive impact on P/Es. However, whenever inflation crosses into zone 3, investors become concerned about inflation, as they
Inflation erodes real returns from stocks. Interest rate is a significant part of the discount rate investors use to discount future cash flows. A higher discount rate means companies are worth less, thus lower P/Es.

Zone 1 is a tricky zone. In that zone the Fed-model argument falls apart. When inflation falls below a certain level, let’s say 1%, investors become concerned that we’ll slip into deflation – a prolonged decrease in prices. Deflation brings very different risks to the table: it drives corporate revenues down while costs, which are often fixed, lag behind.

Corporations start losing money; some go bankrupt. Also, unlike inflation, the Fed has few weapons to fight deflation; thus companies are for the most part on their own. Though the discount rate used in discounted future cash flows benefits from low interest rates, the risk premium, an integral part of that equation, skyrocketed. This to some degree explains why the Japanese market’s P/E collapsed while interest rates were declining. Low interest rates were a product of a very sick economy – not of strength.

Movements between these zones are very important, too. Ed Easterling, in his wonderful book *Unexpected Returns*, makes this point: movements towards stability (towards Zone 2 from Zones 1 and 3) are very positive for P/Es. Movements away from stability (Zone 2) are negative for P/Es.

Thus the revelation I have came to is very simple: interest rates/inflation play a secondary role in stock market cycles, while human psychology dominates that game. Interest rates and inflation are ultimately responsible for where a market cycle will settle in its end game. For instance, if in the mid-1990s interest rates had not resided in the lower part of Zone 2 (at very low levels), but had hovered around 6-9% instead, the secular bull market would have ended sooner and at a lower valuation, in the low twenties instead of the low thirties.

Also, if interest rates/inflation were not in the low double digits in the late 1970s, the 1966-1982 range-bound market might have ended sooner and at a higher P/E.

Inflation and interest rates are very important variables in stock-market-cycle equations, but they play second fiddle in the orchestra that is conducted by human emotion.

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**Slide 22**

Still in the Range-Bound /Sideways/ Market?

- Valuations are still high (above or average at best)
- *Real* earnings growth will be lower in the future due to higher future taxes, higher interest rates (caused by government borrowing), consumer deleveraging – a range-bound market may last longer than we expect.
- High inflation will shorten range-bound market duration, but the final P/E will be lower as well.
- If nominal earnings growth doesn’t materialize in the future (3, 5, 10 years), earnings decline – and we are set for a secular bear market

I believe this question is important to be answered:

Are we still in the range-bound market? Valuations are at or above average. But remember, stocks only see average valuations when they go from one extreme to the other; they never settle at the average. Also, there is another variable: time. It takes time for people to get disenchanted with stocks – the psyche that stocks are investments for the long run needs to be broken.

Think of it this way: earnings growth is THE factor that takes P/Es from above average to below average. The lower the earnings growth the more time it will take for P/Es to reach the below-average state.
Ironically, high inflation will work towards shortening the duration of the range-bound market. Higher nominal earnings growth will take P/E s to the below-average state faster. But, and this is a very important but, higher inflation (and lower quality of real earnings) growth means that investors will be willing to pay less for stocks; thus high inflation will drive the final P/E lower (i.e., instead of the very low teens, the market may settle in the mid to high single digits).

After I wrote the book I realized that inadvertently I had created a market-cycle framework. The great thing about this framework is that the user may enter his own inputs to get the answer.

The range-bound market thesis is based on one very important assumption: that we will have earnings growth in the not-so-distant future. When I wrote the book, the possibility of sustainable decline in earnings was very, very small. Recent developments in the markets have changed that probability significantly. Historically, secular bear markets happened when valuations were high and earnings growth was negative for a long period of time. The stock market is still not cheap.

I heard a lot people say in the late 1990s, “90% of return comes from asset allocation.” In this case, by asset allocation I mean a binary decision of being in fixed-income instruments (cash, bonds), or stocks.

Is it true or false? The answer may surprise you.
Let’s compare real (after-inflation) returns of stocks, bonds, and T-bills. On this chart we are looking at the 1982-2000 secular bull market. As you see, during secular bull markets a well-dressed, blindfolded monkey using a dart will pick 100 stocks from the Wall Street Journal that will do better than bonds – returns from stocks as a group are just that superior to bonds. So making a decision of being in stocks – be it an index fund, or whatever – is superior to being in fixed income.

Range-bound markets are a very different story. As you see, during the 1966-1982 range-bound, stocks barely outperformed long-term bonds and were bitten by Treasury bills.

There are several important lessons one should take away from this, which I’ll repeat in a few slides:

1) Being in stocks (broad-market index funds) is not a superior decision to being in bonds or cash. (One caveat: I am not really ecstatic about buying 30-year bonds that are yielding 3% or less. Inflation will show up at some point, or the Chinese will get sick of buying our bonds and interest rates may skyrocket, with or without inflation).

2) Opportunity cost of being in cash/bonds is a lot lower during range-bound markets than during bull markets. Remember these two points, because we’ll get back to them soon.
90% of Return Comes from Asset Allocations, True or False?

- Bull markets - True
- Range-bound markets – False

Additional point: the Fed is printing money faster than you can read this.
In the long run inflation will rise – bad for bonds.

Conclusion: Stock Selection Matters a Lot!

Investing as you did during the secular bull market will NOT work.
Your analysis and strategy needs to be modified.
Brief Summary of Strategy and Analysis for Today’s Environment

- Be a buy-and-sell investor. Buy-and-hold is in a coma (see next chart). Time (price) stocks through a strict buy-and-sell process. Buy when undervalued, sell when fairly valued. Secular (long-term) range-bound markets are full of many cyclical bull, bear, and range-bound markets (see next slide).

- Time stocks, not the market: Market timing is very difficult. In the short run, emotions are in the driver’s seat.

- Don’t buy for the sake of being invested. Don’t lose money by making marginal decisions. In the absence of good stocks to buy, be in cash. The opportunity cost of cash is not as high as in a secular bull market.

- Increase your margin of safety: Fewer (better) stocks will be in your portfolio.

- Favor dividend-paying stocks. Dividends were 95% of the return in previous range-bound markets. (Warning: dividends are part of the analytical equation, not the equation.)

- Look overseas – increases return without increasing risk.

Slide 30

Secular Range-Bound Markets
Are Comprised of Many Cyclical Markets

5 Bull + 5 Bear + 1 Range-Bound