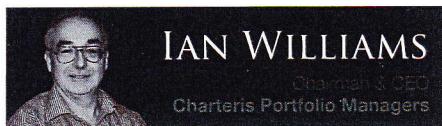


NEWS

WHY TIME CYCLES ARE KEY WHEN IT COMES TO PORTFOLIO CONSTRUCTION

Combining a study of time cycles in markets with other technical analysis can reap rewards



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One aspect of analysis that is not widely followed in the UK is the study of time cycles (as distinct from economic cycles). Time cycles reveal the length of recurring bull and bear phases in markets and processes of every kind in society – usually measured from low point to low point.

It is important to stress from the outset that a study of time cycles is best used in conjunction with other forms of technical analysis rather than in isolation.

This study is further complicated by the fact that several cycles are present and in operation simultaneously and as one cycle bottoms, another may be peaking.

The best book published on this subject was written by an American called Edward Dewey and entitled *Cycles: The Mysterious Forces That Trigger Events*, in which seemingly hundreds of unrelated cycles were identified – some spanning hundreds of years.

Furthermore, the same number seemed to appear in a variety of uncorrelated activities. For example, Dewey listed 37 versions of the 9.6-year cycle ranging from salmon abundance in the Atlantic to cotton prices in the US.

There is also evidence of a 9.6-year cycle in UK gilts though he does not cover this in the book.

Marriages, floods and property prices

Another cycle identified in the book was the 18.2 year cycle of (among other variables): marriages in the US, flood stages of the Nile, Java tree rings, building activity and property prices in the US, and many more (see graph right.)

Students of UK property prices will recognise this cycle as it has just peaked in 2007 (with its usual devastating consequences for the uniformed) having previously peaked in 1989 and before that in 1971.

Some of these cycles are quite famous and have names attributed to the person who discovered them. For example, the 40-month cycle (which appears in virtually everything) is known as the Kitchin cycle after Harvard University professor Joseph Kitchin, who discovered it in 1926.



At the time gilt yields were just under 10% and the model forecast gilt yields would drop below 5% around the turn of the century

Even more famous is the Kondratieff long wave. This 54-year cycle is named after the Russian economist who discovered it in English wheat prices going back to the 12th century.

What is not so clear is the inter-relationship between the various cycles: that is to say, whether the 54-year cycle is simply three 18-year cycles and so on.

So how does an investor profit from a knowledge of the above, given the complexities of a myriad of different cycles of which some are inter-related and others seemingly not related?

In 1995 while employed at the UK merchant bank Kleinwort Benson I decided to construct a cycle model of the UK gilt market with the help of my then colleague Steven Scott. I examined nine different gilt cycles identified by Tony Plummer in his book *Forecasting Financial Markets*.

Plummer identified 16 cycles present in the UK gilt market but after using regression analysis, we discarded seven as not reliable enough and used just nine.

These included old favourites such as the Kondratieff wave as well as the 9.6-year & 3.25-year Kitchin cycles. Having constructed the model giving a weight to each cycle, we could then churn out a forecast in perpetuity based on nothing other than the cycles.

At the time, gilt yields were just under 10% and the model forecast gilt yields would drop below 5% around the turn of the century.

UK Research - Gilts 12th January 1995



Time Cycles and The Gilt Market

Stephen Scott
Ian Williams

Introduction

A growing number of investors use time cycles in the analysis of bond markets. In an appendix to his 1989 book, 'Forecasting Financial Markets' (note 1), Tony Plummer discusses some major time cycles that are believed to influence gilt market prices. This article identifies which of these cycles most closely reflect the price movements of recent years.

The cycles

Plummer identifies 16 cycles, of periodicity from 3.4 years to 1 week, that affect gilt market prices. Our analysis concentrates on the 9 cycles with the longest periodicity, and uses these cycles to analyse monthly data. These cycles are of lengths: 54 years, 56 years, 36 years, 29.6 years, 23 years, 22 years, 12 years, 4 years and 3.25 years. Each cycle starts at a different point in time (see Table 1).

The cycles are not all equally important, and the importance of each changes over time. Our aim was to find which combination (if any) of the cycles gave a satisfactory fit to the recent movement in long gilt yields.

Looking ahead

If we are bold enough to assume that the same relationship that we have identified for the last 25 years will last for the foreseeable future, then we can estimate the timing of the next peak and trough of the market. The projection of the model into the future points to the bear market in gilts, which began one year ago, lasting until the latter part of 1995. A major turn is then signalled, and a bull market develops. According to the model, prices will peak in the year 2001/2002, in line with the turning point of the 54 year (Kondratieff) cycle. This cycle, which has proved to be the most dominant of all the cycles analysed, then suggests a long bear phase, lasting approximately 27 years.

As we have developed the model to cover major fluctuations in the gilt market, we have not included cycles of shorter length than 3 years. Therefore, the six year bull market that is predicted from late 1995 to 2001/02 may well incorporate smaller cyclical bear phases that we have not yet identified. We aim to study this phase in more detail at a later date.

This was greeted with incredulity at the time but the path of gilt yields then proceeded to do exactly as the model predicted. So we proved that cycles can predict the future path of markets and are especially useful if other technical indicators such as oversold or overbought indicators back up the cycle analysis.

So what do we make of the current cycles and how do we make some money? First, I have no idea what causes natural phenomena and financial markets to exist in tandem, although I am interested in the theories of why. Though cycles work, I am a lot more interested in the results. Second, cycles seem to occur particularly frequently in commodity markets – with gold being an excellent test case.

Watch the gold cycle

One of the most powerful cycles in gold is the 40-year cycle, with the commodity going up for 20 years and down for 20 years. The bear market in gold bottomed in September 1999 almost 20 years after it peaked in January 1980. Assuming this cycle is dominant, this cycle will hit a peak around the end of 2019 with the price of gold several times higher than it is today.

Ian Williams is chairman and CEO of Charteris Portfolio Managers. As well as the recently launched gold fund, he also runs the Elite Charteris Premium Income fund and the City Financial Gilt fund