

Gerald's Column *by Gerald Fitton*

A couple of months ago I related to you some of my life's experiences and, as a result, I received many letters urging me to continue with my reminiscences – so I shall do so.

Correspondence from last month is dealt with in the separate articles 'BASIC Solutions' and 'ArgoNet or ANT'.

Copper Tube

I left Vickers in 1972. With hindsight it might have been a mistake. The main reason I left was that I wanted more control over company resources than Vickers would give me. As I said last month, I have always seen employment as a way of commandeering resources beyond my own means and an opportunity to use my employers' resources to do what I wanted to do. With my second employer I was promised and was given almost total control over the resources of the company I ran. I say "almost" because I knew I had to make a profit if the company (and the flow of resources) was to continue. So profits had to have a high priority. I did make good profits for the company and I was rewarded by being given more control over resources given to me to 'play with'. There is a famous story about talents (meaning money and resources rather than innate skills) which makes the point that a wise employer backs winners and not losers. I knew that in the eyes of my employer I had to be a 'Winner' if I wanted to use his resources for my own ends.

The products which 'my' company made used lots of copper tube. On behalf of the company I bought hundreds of tons of copper tube. The key to our good cash flow was to get the copper tube delivered just before we needed it. I was so good at controlling the flow of copper tube that most of the time we received money from our customers before we had to pay our suppliers. I gave customers a discount for prompt payment and always paid suppliers a few days before the due date. Indeed, the capital employed by my company was negative! However, running with marginal stocks has its risks as I found out one day when copper tube was in short supply; I had to pay over the odds to keep up my scheduled deliveries.

Once bitten, twice shy. I discovered that I could buy copper on the metal market so that it was earmarked for me and delivered to my tube suppliers at the price agreed with the metal market. I got this process up and running and then started looking at the way in which the price of copper varied.

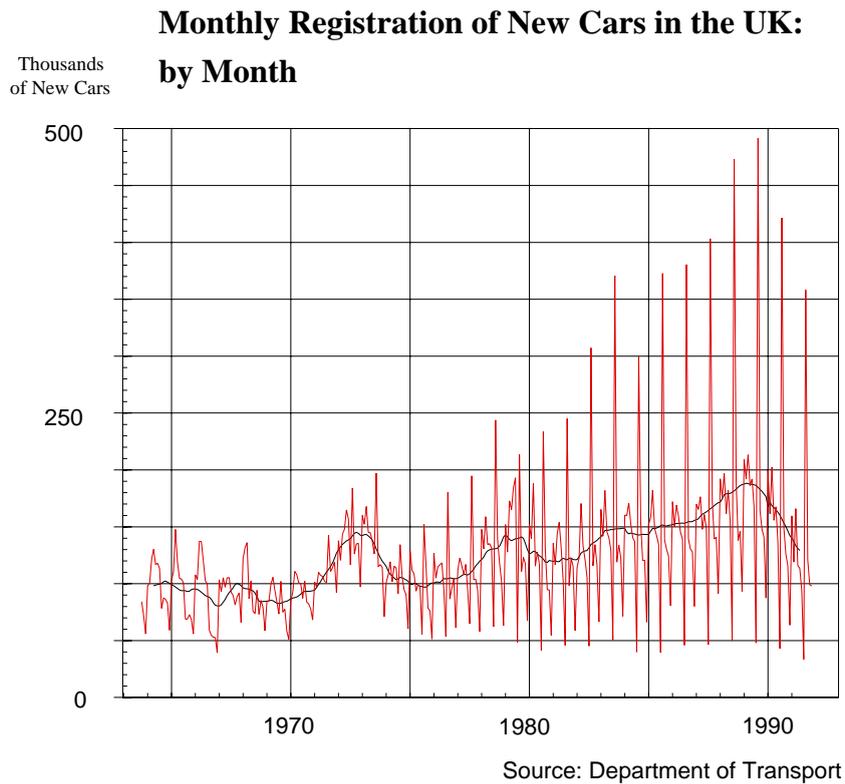
Cyclical Effects

What has this copper tube got to do with computers? Whilst with my second employer I bought one of the earliest Sinclair computers and programmed it (in BASIC) to study the daily price of copper and analyse its variation.

Motor Cars

Let me leave copper for the moment and let's have a look at something else which is

probably more familiar to you:



I have deliberately truncated the graph about five years ago so that those of you who are interested can add more recent data to it and see what is happening to the Trend in 1997. The file from which I have produced this graph is in PipeDream format. This file is on the Archive monthly disc in PipeDream and CSV format. Part of it is reproduced below.

	A	B	C	D	E
1	Yr Month	Actual	Trend	Raw	
2				Seasonal	
3					
328	1990 Jan	199700	167650	32050	
329	Feb	161600	172008	-10408	
330	Mar	202500	168437	34062	
331	Apr	155800	166879	-11079	
332	May	167600	164904	2696	
333	Jun	136800	162850	-26050	
334	Jul	43000	160187	-117187	
335	Aug	421500	156742	264758	
336	Sep	148800	153446	-4646	
337	Oct	125800	150267	-24467	
338	Nov	115600	146362	-30762	
339	Dec	63600	142333	-78733	
340	1991 Jan	159600	140154	19446	

In column B of this file, [Cars], you will find the number of cars newly registered during each month from the early 1960s onwards. The section of the file in the screenshot above shows that in January 1990 there were 199 700 cars newly registered. I have avoided using the word ‘sold’ because I am reliably informed that ‘sold’ and ‘newly registered’ are not synonymous.

Look at the data in the file or better, look at the the chart. You will see that there is a peak in new registrations every August; nowadays about a quarter of all cars registered during a year are first registered in August. There is no need to explain this phenomenon to UK readers but those overseas might not be familiar with the way we register our cars here. A new registration letter is issued in the August of each year. Last year (up to July 1997) the registration letter was P; since August 1997 it has been R. Q is omitted because it implies a car built from a kit of parts.

In order to analyse these monthly car registrations it is necessary to average out the variations which take place just because some months are more popular for car registrations than others. The special average used for this sort of thing is called a ‘twelve month moving average’ and appears in column C of the spreadsheet. You will see that in July 1990 this average value (called the Trend) was 160 187 and in August 1990, a little lower at 156 742. The final column, D, headed Raw Seasonal is more usually called the ‘Seasonal Effect’ or ‘Seasonal Variation’. For August 1990 this value is +264 758 and is calculated as $(\text{Actual} - \text{Trend}) = (421\,500 - 156\,742) = (264\,758)$.

The interpretation of the three numbers for August 1990 in columns B, C and D is as

follows: The actual number of cars registered was 421 500. This is made up of two parts: in an average month (at this stage in the economic cycle) we might expect to register 156 742 cars but the 'August Effect' is worth an extra 264 758 cars. The 'August Effect' is worth about a quarter of a million cars!

The formula in C334 adds together the Actual sales for twelve months centred on July 1990 (six months before and six months afterwards), this sum is divided by twelve to find the moving average. There is a complication which might be stated as: "Which January do we use?" The answer is "Use the last half of January 1990 and the first half of January 1991." If you work it out that's what the formula does (half of each of the Januaries plus the eleven months in between them).

Interpreting the Chart

One thing I find interesting is that the Seasonal Effect has varied over the last thirty years gradually getting stronger as buyers become more and more aware of the prestige value of the new registration letter. I'd like you to consider for a moment what these means in terms of a car production line. Making cars is not like selling ice cream; selling ice cream is labour intensive so you can hire and fire on a seasonal basis to match the demand. Making cars is capital intensive. You set up your production line to make a certain number of cars a day and you're stuck with it. Just think of the money tied up in stock waiting for the August Sale. There are moves afoot to get rid of the annual registration letter because it costs too much.

Now look at the Trend. Car ownership was rising steeply during the early 1970s until the oil crisis hit us. I remember that time during my second career. The price of oil shot up from about \$3 a barrel to about \$20 overnight when the OPEC countries got their cartel together and simultaneously reduced the supply of oil and increased the price. The economist at the back of this economic miracle was a certain Sheik Yamani (who wasn't a real Sheik – it was an honorary title).

During the 'Thatcher Years' the Trend followed the minor fluctuations in the economic cycle but rose inexorably until the recession of the early 1990s caused a serious cut back in car buying.

Leading Indicators

The Trend in new car registrations is an excellent economic indicator and I recommend it to you. It is what is called a 'Leading Indicator' because it starts to rise (or to fall) earlier than most other indicators such as the Trend in unemployment (about a six month lead) or house prices (you work this out for yourself). Part of the reason for this is that about half the cars bought are first registered to a company address. By this I mean that about half of all new cars bought are company cars. If a company believes that cash is going to become a bit tight then the first thing to be hit is company cars – the old ones have to last just a bit longer.

Marketing Departments look for reliable leading indicators for the products which they sell – all the Marketing Departments I know about use car registrations as one of their leading indicators. Even if your product is an Archimedes magazine (such as Archive) or software

for a StrongArm machine then you'll find that car registrations are a useful indicator of how your business will be doing about six months from now.

I remember in September 1989 I told anyone who cared to listen to me that it was a bad time to expand their business. In 1989 too many people thought that the expansion would never stop and bought up new premises or expanded their manufacturing facilities. If they had studied the trend in new car registrations and knew about leading indicators then they would not have made the mistake they did.

My challenge this month is twofold. Firstly, can you extend the data for motor cars to include the most recent data available? Look in the Annual Abstract of Statistics and, for the most recent data, the Monthly Digest of Statistics. Are we undergoing a period of economic expansion or is it a mirage? Would you expand your business now? Secondly, can you find an economic indicator which leads the economic cycle in advance of new car registrations? One which has been suggested to me but, so far as I know, has never been investigated is the price of Gold and Gold Shares. The strange thing about gold at the moment is that the demand is increasing but the price is historically low at about \$300 per ounce. Kruger Rands which contain exactly an ounce of gold sell for £200.

Copper Cycles

Away from gold. Back to a more base metal.

What I discovered with nothing more sophisticated than the earliest Sinclair computer (it cost about £50) was a weekly cycle in the price of copper. The price generally (but not always) went down on Fridays and back up on Mondays. So, each Friday I bought more than I needed and on Monday I sold back the surplus.

For the technically minded what I was buying and selling was not copper but an option to buy copper in the future at a price determined 'now'; this entity is called 'copper futures'. Buying futures is gambling. Of course I realised that I was gambling and, just like Nick Leeson, I had a system which worked so I knew (as did Nick) that in the longer term I would be a winner. However, unlike Nick's exploits in derivatives (a kind of second level futures market) in the Far East, I knew and obeyed Gerald's Second Law of Gambling: "Never bet what you can't afford to lose". So, unlike Nick, I never let it get out of hand and I never broke the bank and I stayed out of prison. I made enough profit out copper futures to buy the copper I actually used at a bit less than half price. I split this 'virtual profit' with my customers so undermining the competition whilst boosting the salaries of my willing workers, making more profit for the shareholders (I owned 5%) and splitting some of the profit with my tube suppliers.

It was late in the 1970s that the 95% owner of the company decided to sell out. I couldn't stop him. Cutting a long story short, my new masters took a much greater interest in how I ran the company than the earlier owner. They wanted even more profit and demonstrated (on paper) how it could be achieved by squeezing the willing workers I had recruited. I rebelled and got pushed out. Within two weeks they lost forward orders worth £0.5M because the quality of the product and the service fell below the standard I had "foolishly guaranteed". Redundancies followed rapidly and the company collapsed in a heap of rubble within six months.

My next job

My next job was my last. My exploits there will have to wait until next month when I shall tell you about the mathematical analysis of screening tests and student motivation.

<http://www.abacusline.demon.co.uk/>

Since last month's Archive was published a few days ago over 100 people have visited the Abacus Training web site. I hope that by the time you read this you'll find it has been added to with more material and worth another visit.

Snail mail

In the meantime, if you don't have access to the Internet but require some assistance then please send a disc, self addressed label and return postage. My address is that of Abacus Training (see back inside cover).