Capital Strategy

A private circulation letter with ideas, comment and research aimed at managing capital intensive businesses better.

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Best Wishes for the new financial year 2002-03. *Capital Strategy* is a professional services company focusing on business strategy for capital intensive enterprise. We are not involved in the stock market or any other part of the securities industry. This newsletter is privately circulated on a no-charge, non-subscription basis to senior decision-makers in the minerals, energy (coal, oil, gas), power generation, transport, infrastructure, and knowledge-based industries.

For regular readers: *No*, you have not been cut off my mailing list ... the last issue of *Capital Strategy* was in 1999! It is an uncertain world today compared to 1999 – this issue offers some insights on how to understand it.

Feedback

And I know it was 3 years ago, but in the #99/1 issue I said the so-called millennium bug (remember that?) was a lot of humbug. Thanks to everyone who e-mailed me saying what a good call I had made and how much money you had saved following my advice (there weren't any!). At least my family had faith in my predictions ... at midnight on 31st December we were all aboard a 747 on our way back from Japan, along with about 25 other passengers. A comfortable flight. Not too crowded. *ICR*

The Business World – What Next?

Dot-coms ☹; Technology ☹; Telecommunications ☹; Enron ☹;. Celebrity CEO's ☹!

Is business strategy no more than following some fad? Fad - no. Trend - maybe. If you aren't following some trend, then you'd better be pretty sure where you're headed!

Right now there isn't an obvious trend, so until one emerges what guidelines can we adopt? This issue's main article on interest rates and uncertainty provides some guidance. In future issues I'll look at market share and growth - the focus of most of the simplified guidelines that have served us (relatively) well in the past.

> Like everything in life, we base our choices on hard-to-interpret imperfect information that comes to us only after some delay. So when we get momentum up following some trend we invariably overshoot.

Uncertainty ...

... business decision-making in 2002

In my latest book; *Capital and Uncertainty* (see description, page 3) I analyse in depth how people make choices under uncertainty, focusing primarily on large investment choices. Knowing how these choices are made provides us with some insight in how to read the market-not the stock market, but the market for our goods and services, and the capital goods and consumer goods markets generally.

The book title, *Capital and Uncertainty* highlights that my main focus is on how people following a process of large capital investment decision-making come to grips with uncertainty. The uncertainty is almost wholly about what might happen in the future, how confident we are or aren't about this materialising, and if it turns out different to what we expect how we accommodate it.

My emphasis in this newsletter is on interest rates, because it is the interest rate (or the discount rate) that allows us to translate values that materialise in the future into today's equivalent value. Interest rates are important signals. Unfortunately they are subject to distortion and require interpretation – the focus of this article.

And so a question: *Who determines the interest rate in an economy?* The received wisdom is: the FED. Alan Greenspan in the USA. In other countries the reserve bank sets the rate, taking cues also from the USA because of its all-pervading influence on the world economy.

As with many issues in economics, the question needs as much scrutiny as the answer.

We have gotten so used to hearing interest rate pronouncements, and announcements of impending pronouncements (from reserve bank governors) that it is too easy to lose sight of the fundamentals.

Issue #02/1

In this issue:

Yes, the government and reserve banks are very big players in the money markets and their views are too important to ignore. And yes they do make some of the rules that players in the game have to abide by. BUT the notion that interest rates are set by the government and that this is an indicator of intertemporal value is a fiction. Here's why.

'Interest Rates, Discount Rates, and the Net Present Value of Things

Why do we use exponential discounting to bring future valuation into the present?

George Ainslie reckons that as individual decision-makers we do not discount the future according to some exponential curve, but instead apply an *hyperbolic* function. What this means is that ❶ individuals effectively value future events much less than traditional formulas suggest, and ❷ the realisation of value (in the mind of the decision-maker), rather than changing steadily through time actually changes *dramatically* as the event in question comes closer to reality.

Ainslie is a serious researcher. He provides convincing support for his case. In my book *Capital and Uncertainty* I examine his findings and demonstrate further support for the proposition. There are important implications for entrepreneurship and large decision-making. Ainslie also sheds some light on why people procrastinate – the subject of one of my questions in a previous newsletter.

And in case you are wondering if we should throw out all of our corporate finance thinking by abandoning exponential discounting – rest easy. Even if individuals behave in hyperbolic ways, *markets* can still behave in exponential ways!

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see: Ainslie, George (1992) *PicoEconomics: The Strategic Interaction of Successive Motivational States within the Person,* Cambridge: Cambridge University Press.

The interest rate is fundamentally the value of things today relative to the value of future things. It is the premium people are prepared to pay to have things today rather than wait. Some of these things can be valued in money terms, some not. In active markets there will be a price (in money terms) but like the price of anything else this price is the balance point between supply and demand. The Reserve Bank benchmark rates are only an indicator (a *poor* indicator, and normally a *lagging* indicator) of this real rate. It is the real rate that drives intertemporal choices[1].

To understand what is happening in the world today we have to abstract ourselves from this preoccupation with "official" interest rates, and focus on how people value things today relative to future things, and how these valuations have changed over the last few years.

[Question: what happens if the interest rate is artificially lowered (like it was, and still is, after Sept 11) concurrently with a shift in sentiment *away from* long term thinking?]

Now lets look at changes in intertemporal sentiment in recent times:

- Thru most of the 90's the inherent "must have it today" premium was low. People were happy to wait. Security was not an issue-the cold war was over. High tech offered lots of future promise. Stock options (future value) were frequently preferred to salary (current value). Resources previously directed into defence were redirected into more productive activity, yielding real gains. Real gains also arose through *application* of computer technology throughout the whole economy. "Growth" was the catchcry. Corporate debt went up in line with this confidence. Companies were valued less on current earnings and more on expected future earnings – rendering P/E stock valuations somewhat meaningless (if there is no "E" today, what does a P/E ratio mean?).
- In my view the "must have it today" premium is now much higher, despite quoted interest rates being lower than they were in the 90's.

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[1] The term "real" rate here should not be confused with the real rate of interest in the finance world. In the finance world, the real rate of interest is the nominal rate corrected for the expected inflation. In this example the real rate is the value of things now (in the mind of whoever is making the valuation) compared to the value of things in the future. ICR

In microprocessors and PC's, much of the gain has been got – or at least this is the perception. In other industries some of the profit wasn't (due to creative accounting). The exuberance associated with the internet has abated. And who, after September 11th didn't pause and reflect on the fragility of life ... and perhaps reassess the value of family and friends and the good things available now ahead of work commitments? (more work = more *future* things) We are all re-assessing our security and we are not as relaxed as we were before.

There has been a fundamental shift in demand towards present, identifiable things and away from future, less-certain things. The birds in our hands that used to be worth two in the bush are now worth three in the bush. The real interest rate has gone up. Substantially.

What does all this mean if you are running a company or running your life? My suggestions are founded on the premise that it is better to be swimming with the tide than against it. Here is what I am doing in the companies I am involved in or chose to invest in:

❶ From a risk perspective, it is better to be producing consumer goods than capital goods. I am not passing over projects with long-term payback, but I want to see them advanced in stages, with each stage proving the assumptions and refining the guidelines for the next stage.

❷ Relative to yesteryear, current earnings are now valued more highly than expected future earnings. I am increasingly wary of any propositions that sacrifice identifiable earnings today for (vague) expectations of greater earnings tomorrow.

❸ Earnings have to be *real*. And shareholders have to *believe* they are real. Shareholders have lost trust in corporates. Q: How do good companies with real earnings differentiate themselves from companies whose earnings are suspect? A: Pay them out .... as dividends. Prediction: Microsoft will be forced thru market pressure to pay a dividend. Watch for it! Convertible notes (debt, but with some equity characteristics) are another manifestation of this trend.

❹ Share prices reflect the present value of expected future earnings ... discounted now at a higher rate than before. The higher discount rate hits the share price valuation of every company, not just the blue-sky outfits. Don't fight it. Earnings must be the benchmark of performance right now, not

New Book:

Capital and Uncertainty

My new book: *"Capital and Uncertainty – The Capital Investment Process in a Market Economy"* has been published by Edward Elgar (U.K.) and is available from the publisher, other booksellers such as Amazon.com, or from Runge Pty Ltd. Cost is AUS$143 plus GST.

Whilst the book is primarily written for an academic audience, it is quite readable by business people and/or any switched-on non-economist. Some of the points addressed:

- Why the long term capital investment decision is and is not like gambling
- How to value choices that have different risk/return characteristics.
- The impact on investment decision-making of unexpected events such as the Sept 11 terrorist attacks (I wrote the book before September 11 - the example in the book involves a meteorite strike!)
- How to decide when you've studied something enough and it is now "decision time." (And whose decision time is it?)
- The process of rational decision-making from the first germ of an idea to project go-ahead, and how to scope out the successive steps. Hint: ever more detail is not the key!
- Why capital choices are almost always at production rates below optimum.
- Why certain companies and certain processes lead to path-dependent (and wrong) choices and how to account for this.

The book also includes a 3-chapter step-by-step comprehensive example of capital investment choice examining the impact of the marginal cost of capital, changes in uncertainty, comparison of multiple technologies, real options, and other elements of the capital investment choice problem.

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share price (in fact, the best investments right now are probably unlisted companies with good profits).

❺ Don't use the interest rate signal to determine investment. Be wary of investments where the bulk of the value is lumped into the future. If it is lumped into the future, make sure there is plenty of scope to change if the future turns out to be different to what you now expect it to be (see my article in issue #99/1 on valuing real options).

And a final note: Right now there is no consensus on the way the world is headed. I'm saying that real intertemporal valuation is way out of sync with the signal suggested by current interest rates. But remember, sentiment can change as easily as interest rates can!

Economists, Engineers, and the Halcyon World of General Equilibrium

Auguste Walras, a French economist, tried to persuade his son, **Leon Walras** (b. 1834) to also become an economist, but Leon would not have a bar of it - he wanted to be a mining engineer! After trying this (and several other careers, including one as a romance novelist) he returned to economics and went on to co-discover and develop the marginal utility theory and the notion of general equilibrium-both hugely important (if often mis-applied) concepts in economics still today.

If the world was in a general equilibrium state, then there would be no shortages or surpluses, and the price of everything (including the interest rate) would reflect the true value of both the marginal buyer and marginal seller. Fortunately for us in business the world is not in such a state because if it were there would also be no opportunity for profit. The lesson: if you are seeking help towards profit-oriented business, then don't use economic tools that assume the world is in any sort of equilibrium!

About the *Capital Strategy* letter

Capital Strategy is sent at no charge, but it isn't free!

- We want to change the way capital intensive businesses go about making decisions. If you use the ideas (that's OK!) then at least let us know. Referrals are always welcome.
- Please confirm that you want to stay on the mailing list. If you respond in one form or another, we will keep you on the subscription list, and visa versa if we don't hear from you.
- More readers, more clients please! Do you know someone who also might be interested in these ideas? Will you help us connect? Thanks! *E-mail me!*

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