

# THE TIME VALUE OF MONEY

## What to buy, when to buy, how to buy

It is not that we don't know or aren't aware that assets change their net worth over time. In the times in which we live it does not take more than a couple of years to experience that the cost of purchasing a commodity can vary considerably. Our problem is, when faced with so many possible assets to buy, what to buy, when to buy it and how to buy it?

### Why should you acquire assets?

Because the future is uncertain, it is often this very uncertainty that makes most of us want to provide for any eventuality that may occur. Essentially, you may be wanting to:

1. Provide for retirement;
2. Take advantage of any opportunities that may present, for instance, a holiday, car or house; and
3. Prepare for any misfortunes that may present.

To achieve this, some short term sacrifices (usually money) need to be made. This is only worthwhile if there is some form of compensation in the future, particularly with respect to wealth.

By making the sacrifice, the expectation is that at some stage in the future wealth will be generated by the sacrifices made today. The problem is that a haphazard approach to accumulating assets, that we hope will one day fulfil our future expected needs, is unlikely to deliver the desired results.

A haphazard approach to accumulating assets, without a basic knowledge of the factors to consider when purchasing an asset, may not only create hardship at the time of purchase, but also at the time when the money is most needed. What are these factors? How should they influence the choice of which assets to buy?

Assets are usually defined as either fixed or current. Money is a current asset. Buying a retirement annuity or pension is an example of a current asset. Acquiring property, Persian carpets or other goods are examples of fixed assets. How do you decide what to buy and which asset is likely to have the greatest value in the future? In other words, which investment is likely to bring the best rewards?

In order to find the answers to these questions, some predictions need to be made about the future. Inflation is one example. This task can be done by considering the track record, i.e. what has happened and what the trend has been in the preceding years. The issues to consider about any asset you intend purchasing are:

- Whether it is likely to appreciate or depreciate in value;
- How secure it is likely to be;
- Its availability.

Financing the purchases of assets is always a very important consideration. Financing or the purchase of money, a current asset, with borrowed money, is almost always guaranteed to make a loss. This situation occurs if an overdraft facility is used to finance the monthly payments on a retirement annuity. The same is not necessarily true when purchasing a fixed asset. However, some basic calculations need to be done to ensure that the future value of the acquired asset will be more than the cost of borrowing the money to acquire it.

### Acquiring current assets

Some examples of current assets are:

- Annuities and deferred annuities;
- Perpetuities;
- Unit trusts;
- Equities.

The advantage of acquiring current assets is that they are readily available as cash. In addition, current assets usually earn interest. The way that the interest is structured is always an important con-

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Year	Doctor X borrows R100 @ 22%	Doctor Y invests R100 @ 18%	Difference in value
0	-100,00	+100,00	200,00
1	-122,00	+118,00	240,00
2	-148,84	+139,24	288,88
3	-181,58	+164,30	345,88
4	-221,53	+193,88	415,41

**Table I**

sideration. Interest can be either simple or compound. Compound interest has the advantage that you can start to earn interest on interest. This leads to an exponential growth in the money that you invest.

Consider Table I. Dr X has borrowed money, whereas Dr Y has invested the money. Interest can be accumulated at different time intervals. Ideally one would prefer to earn interest sooner rather than later because, as has been stated, cash can be used to earn cash. Interest paid daily or monthly has a greater value than interest paid annually.

It is also important to distinguish between the nominal and effective rate. A nominal rate of, for example, 15% paid monthly translates to a higher effective rate than 15% paid annually. An important consideration when acquiring a current asset that bears interest, is the tax rate. Interest is almost always subject to tax. It is important therefore to do the calculations to ensure that the final value of money (the current asset) will be more, or at least equal to, the present value, taking into consideration tax and devaluation.

### Acquiring fixed assets

As the name implies, fixed assets are not immediately available as cash. They usually have to be sold in order to generate the cash. This makes the cash less readily available. An important consideration when acquiring a fixed asset is to decide how desirable or sought after that fixed asset is likely to be when the conversion to cash needs to take place. Fixed assets usually only materialise in value at the time when they are "cashed". However, some fixed assets can generate regular cash flow. For example, the purchase of a commercial property, providing it is fully let and costs do not exceed income, can generate positive cash flows (income). In addition, certain fixed assets may also provide an aesthetic value for the investor. Consider, for example, the purchase of art or Persian rugs. However, fixed assets are usually unlikely to have a predictable final value. Since most providers prefer predictability and security, conscientious investors have tended towards accumulating current assets.

### Depreciation

Depreciation, or the loss of value of an asset, occurs when unfavourable economic indicators prevail. At this point, it is important to distinguish between cost and value. It should be obvious that an increase in cost is not necessarily accompanied by an increase in value. However, further discussion of this point involves the intricacies of economic theory and need not be considered at this stage.

In the light of what could be regarded as common knowledge about:

- the unemployment rate;
- the bankers' acceptance rate;
- the gross domestic product; and
- the consumer price index (CPI), which is an indication of the inflation rate;



consider whether or not it would be a good idea to buy a farm as an asset that is likely to increase in value.

As each of these indicators deteriorates, i.e. the inflation, unemployment and bankers' acceptance rates increase while the gross domestic product decreases, the more likely it is that the farm (asset) — which can only be exchanged within that country where it is held — is likely to decrease in value. The increase in inflation and bankers' acceptance rate is likely to increase the cost of borrowed capital which would be used to purchase the farm. The increase in the unemployment rate and concomitant decrease in productivity is likely to aggravate the overall economic position. Therefore, at present, if you have to borrow money to buy this asset, you are likely to end up paying too much for the farm. The farm will probably increase in cost, but decrease in value as compared to a farm in another country with favourable economic indicators.

Therefore, in this example, the farm within the country with unfavourable economic indicators is likely to lose value much faster than would be the case if the inflation, the unemployment rate and the bankers' acceptance rate could be brought under control.

**Appreciation**

As certain commodities become scarce and sought after, their value often increases. The following example helps to explain the principle of appreciation. In an area where a new suburb is about to be established, there are relatively more pieces of land available than in an established suburb. Because more erven are available, the price of any one erf is likely to be less than in a suburb where an erf is more difficult to obtain, for example in a developed suburb. Once the erven within the developing suburb have all been sold, and assuming there is an ongoing demand for erven within that suburb, then the price of each erf is likely to rise.

Prime sites within the suburb will command a greater price or value because they will be in greater demand and also because there are likely to be less of them. An increase in demand for the erf results in an increase in price for that erf.

Valuable assets are ones that over time will be in greater

demand and can be exchanged within a sound economy.

In both these examples of depreciation and appreciation, fixed assets have been used. Unfortunately most of us do not have the know-how or experience to invest or speculate meaningfully in fixed assets. We are often restricted to dealing in cash. However, if you are ever tempted to invest in fixed assets, always ask the question, how much will I end up paying for this asset and, once paid for, what will it be worth?

It has been suggested that some very basic economic indicators can be used to make informed decisions about which fixed assets to buy. Equally important is the management of the liquid asset, cash. Both inflation and interest can have a major impact on the time value of cash. The decision that we have to make is: is the asset we wish to purchase worth it? In every instance, the decision is usually unique.

Another consideration is that although value can be expressed in monetary terms, the extent to which each one of us values an asset can also be unique. Our own personal value systems obviously differ. It therefore becomes very difficult in many instances to advise anybody else about which assets to invest in.

For whatever reason, it may be worth it to you to purchase a motor car that costs R100 000 on credit and end up paying R200 000 over four years for a car that is likely to depreciate at 20% per annum and only be valued at approximately R41 000 by the time it is paid for.

Somebody else may instead elect to pay off R41 000 on a smaller car at R3 151 (the normal monthly installment of the R100 000 car over four years) and have it paid for in 12 months. This would allow them to invest R3 151 per month for the remaining three years, which, at 18% interest, will be worth R217 332 at the end of the term.

If our assets are unmanaged, we can end up working a lifetime to acquire assets that have depreciated and have very little value. Because of the rapidly changing economic factors within our country, now more than ever before, we need to assess the value of our assets regularly and to make informed decisions about how to use hard-earned money. ●



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	R434,10

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