A FINE BALANCE SHEET ACT

ALAIN STANGROOME OF HSBC FINDS OUT HOW FIRMS HAVE READJUSTED THEIR BALANCE SHEET STRUCTURES AND FOCUSED ON GEARING TO COMBAT THE BURSTING OF THE TMT BUBBLE.

Modigliani and Miller made their seminal analysis of corporate financial structure in the late 1950s. As we know, their conclusions were that in a model world (no taxes, perfect information, no 'bankruptcy effects') capital structure was irrelevant to the value of a company and hence there could be no value added (or destroyed) by changing the structure. But, as Benjamin Franklin said, "nothing is as certain as death and taxes" and hence the MM framework has been developed over time to encompass the tax shield available for interest payments (and other real world effects). This modification when applied with the capital asset pricing model (CAPM) has shown that companies do have an optimal gearing percentage where the weighted average cost of capital is minimised and entity value maximised.

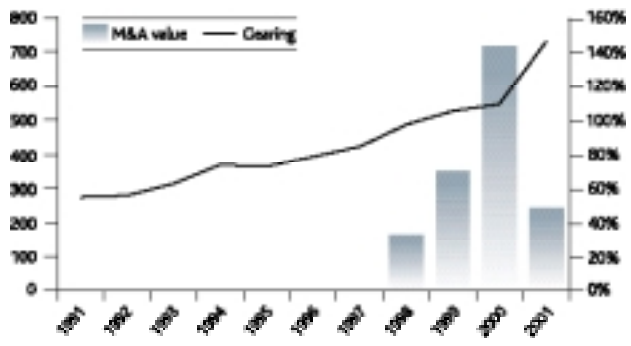
The fully developed CAPM framework came into common usage during the early 1980s. During the late 1980s and 1990s it was applied with rigour in Anglo-Saxon markets to justify a re-gearing of corporate balance sheets, using the mantra of "maximising shareholder value". Clearly, with the benefit of hindsight, theory then combined with a late-stage financial bubble during the late 1990s, with increasing debt burdens used to fund increasing amounts of goodwill (*see Figure 1*).

With the bursting of the financial bubble that encompassed the internet and technology, media and telecoms (TMT) sectors, attention has reverted to appropriate gearing levels, as debt burdens are now perceived as unsustainable. The abrupt unwind of the bubble has, however, created another problem for company balance sheets – stagnation[1]. In this environment (low inflation, low growth), it is proposed that balance sheet structure be reconsidered by increasing the weighting of bankruptcy effects of weighted average cost of capital (WACC) analysis.

POST-BUBBLE ECONOMICS[1]. Low inflation, low growth economies (recessions) can arise from two paths: planned recessions where policy is adjusted to slow growth to a sustainable long-term trend and unplanned recessions where demand collapses due to a loss of private sector confidence. The recession underway in the US (and via globalisation, the world) is very much of the unplanned variety. A bubble in financial asset prices has deflated rapidly and this shock has been translated directly into individual expectations. Furthermore, the financial bubble caused a mis-allocation of resources (over investment) which will only be unwound as demand recovers, and this recovery itself may be postponed by the deterioration of private sector expectations.

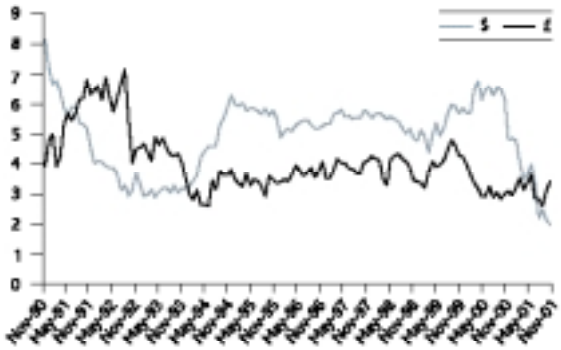
In this environment, the usual tools available to governments may be unable to engineer a recovery in demand and so the economy may be fated to a lower growth profile. Policymakers may find that the creation of a low inflation environment via the steady accumulation of anti-inflation credentials may prove a liability when the economy enters a slump as conventional monetary levers become less effective. A recovery would ordinarily be engineered through the creation of negative real interest rates (to assist investment) and a positive yield curve (to allow bank balance sheets to recover). If actual inflation is low (as now), real rates will tend to 'stick' at a positive level, with the possibility of a rise if inflation subsequently declines (deflation). Meanwhile, a steeply positive yield curve may be difficult to sustain due to investor perception of a continued benign inflationary outlook (see *Figures 2* and *3*). The recent performance of the US economy appears to reflect these

FIGURE 1
BALANCE SHEET GEARING VS M&A (UK).



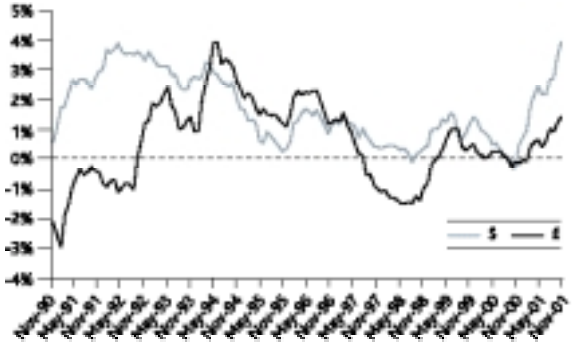
Source: Datastream

FIGURE 2
10-YEAR – THREE MONTH SPREAD.



Source: Bloomberg

FIGURE 3
REAL INTEREST RATES.



Source: Bloomberg

concerns and suggests that, even assuming continued strong retail sales, the authorities will be unable to engineer a rapid recovery to the prior (excessive) growth rates. The US domestic picture therefore suggests that growth will be anaemic for several years. This has clear implications for global growth, given the significance of the US economy (32% of global GDP), however, the picture is worsened by the existing global environment:

- **Japan –** continuing recession, expanding debt burden, significant demographic change.
- **Europe –** weak growth in Europe, structural inefficiencies, un-funded pension liabilities.
- **Emerging markets –** ongoing problems in Turkey and Argentina, continued debt overhang.

This background will be challenging for UK businesses, despite the relatively benign local economic picture, and will ensure that UK inflation remains to the low side of the Bank of England's target range. Such a low growth/low inflation environment will create additional cashflow and balance sheet pressures, which suggest that the debt/equity balance may need to be reviewed.

IMPACT OF LOW INFLATION. An environment of low growth and low inflation will impact both revenues and expenses in the following ways:

☐ PROFIT AND LOSS

- Forecast revenues are dependent on a combination of real and inflationary growth. Inflationary growth will decline in line with broad measures of inflation (and will track any deflationary trend), while real growth will be constrained by intense competitive pressure in a slowly growing economy (-).
- Direct inputs will clearly track inflation, but wages will be resistant to downward pressure and hence will become an increasing burden in an environment of sustained low inflation – see comments on pensions below (+/-).
- Nominal depreciation will only reflect the impact of inflation through the replacement cost of assets and therefore will remain a fixed cost to be borne by the variable (inflation-linked) revenues (-).
- Interest will be tax shielded but will nevertheless represent a nominal drain on inflation-linked (declining) revenues. Floating rate debt will respond to the changed inflation environment with a lag but rates will establish a floor at low levels and the fixed credit margins will not respond to falling nominal yields (-).
- Although dividend expectations should decline in a low growth/low inflation environment, investors will be largely unwilling to see dividends reduced. Nevertheless, dividend policy could be used to reduce the cashflow impact of servicing capital (-).

☐ CASHFLOW

- The cost of maintaining working capital will reduce as inputs become relatively cheap to replace. However, this effect may be clouded by deteriorating trading conditions (+).
- The cash cost of servicing capital (dividend plus interest) will track the treatment in the profit and loss account – that is, capital service costs will represent an increased percentage of free cashflow (-).
- Although depreciation will represent a fixed (nominal) cost against declining (inflation-linked) revenues, this problem will be partially offset by the (inflation-linked) cost of replacing fixed assets (+/-).
- The key cashflow impact of a low growth/low inflation environment is that the real cost of the debt repayment burden will increase as inflation declines – nominal debt repayments made from declining, inflation linked revenues (-).

☐ BALANCE SHEET

- The nominal amount of debt will be unchanged in the balance sheet but the low rate of inflation will mean that cash balances only slowly accumulate to offset the debt burden, and so balance sheet gearing increases (-).
- Other balance sheet items (fixed assets, working capital) will be broadly maintained as real balances and therefore reflect the slow growth in retained earnings – absent a change in dividend policy (+/-).

☐ DEFINED BENEFIT PENSION FUNDS

As a result of FRS17, companies are required to recognise changes in pension fund assets and liabilities in their reserves. The impact of the low growth/low inflation environment on these assets and liabilities

may therefore have a material effect on balance sheet gearing and dividend policy.

- Pension liabilities comprise of the accumulating cost of current members, together with the indexed-linked guarantee shared by existing retirees. The accumulating cost will clearly decline with lower inflation, but movements in retirees' benefits will be constrained by the existing 0% floor (+).
- Bond assets will generally be revalued at a significant profit due to the low level of nominal rates. However, the poor trading environment may significantly increase the incidence of corporate bond default and the low yields will reduce re-investment rates (+).
- Low nominal rates should encourage the equity market due to the reduced attractiveness of alternative assets (bonds/cash) and a reduction in the risk-free rate (rf). However, the environment of low growth and low inflation will be reflected in sluggish equity markets (-).
- The (present value) cost of pension liabilities will be broadly constant as low growth will be offset by lower nominal rates used for discounting. Assets will reflect the above (that is, a positive revaluation impact on bonds and a negative impact on equities). As UK pension funds hold a high percentage of equities these asset and liability movements will therefore have a negative impact which will be reflected in movements on reserves (-).
- The profit and loss impact of the asset and liability revaluation under FRS17 will be relatively muted (only the asset and liability yields will be taken to P&L). However, any mis-match between asset and liability values (under MFR) will have to be made up through a charge to the profit and loss account (increase in employment costs) (-).

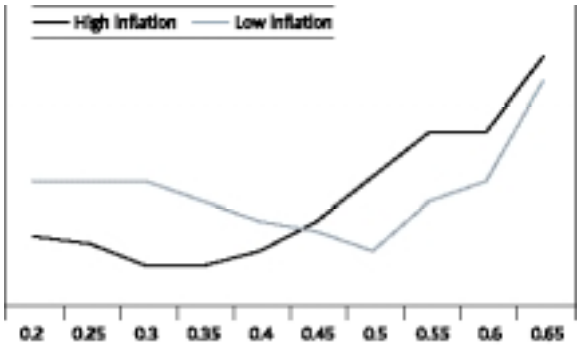
ADJUSTED CAPITAL STRUCTURE. A conventional (nominal) WACC analysis for a hypothetical UK manufacturer is shown in *Figure 4*. This illustrates how nominal WACC can be decreased in a tax paying environment by increasing the ratio of debt to equity in the corporate balance sheet. It is therefore presumed that the optimal capital structure is where the WACC is minimised (that is, debt/equity ratio in the range 40%-50%).

As described above, an environment of low growth and low inflation will have a material impact on companies' cashflows and financial statements. In particular, the relative cost of debt will increase because the nominal interest and principal payments will have to be repaid from revenues growing at a far-reduced rate (lower prevailing inflation rate than was assumed in the pricing of the outstanding debt). These changed expectations suggest that certain aspects of the assumptions made in the CAPM should be adjusted in an environment of low inflation and therefore that a 'real' WACC analysis is more appropriate for determining the optimal capital mix.

An inflation-adjusted WACC calculation can then be carried out which shows that in the current environment an optimal gearing level is closer to 30%, as shown in *Figure 4* above.

Alternatively, companies should attempt to reduce the real cost of finance by either increasing the amount of index-linked liabilities (preferably linked to RPI rather than LPI) and preparing shareholders for a revised dividend policy to reflect the environment of low nominal yields.

FIGURE 4
WACC VS GEARING.



Source: HSBC

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Note: [1] *Decline and Fall (Bubbles, Bursts and Deflation)* – Stephen King HSBC