5.0 FINANCIAL ANALYSIS

5.1 General

Financial analysis (also called investment or assessment appraisal) addresses itself to the primary aim of advising investors as to whether or not there will result a surplus or deficit on the money invested in the project. The estimate can be made in the form of capital gain, income or cash flow, or a mixture of the three. The estimate can be made both "pre-tax" or "post-tax".{1}

For the purpose of the appraisal or assessment there are three recognised standard criteria:

(1) net present value: the present value (PV) of any project is found by discounting the firm's cost of capital and future net cash flows to their present value equivalent;

(2) yield (also known as rate of return, marginal efficiency of capital, discounted cash flow, internal rate of return, actuarial rate of return, interest rate of return and investors method): the yield on an investment project is defined as the "rate of interest" which discounts the future net cash flows of a project into equality with its capital costs; that is, it is the rate of "interest" which results in a zero net present value (NPV);

(3) annual capital charge: the average annual charge (depreciation plus interest) compared with the annual net cash flows.

5.2 The Residual Method of Land Valuations

While these methods are applicable to all investments of capital, they need adaptation when applied to real property, simply because the raw land is not man-made and has no resource cost. Its financial cost of acquisition (historical cost) may not reflect the market value of the land itself at the time of the development; it will certainly not do so if the acquisition has been made many years before. The value of the land in the market at the time of development is established by the nature of the development to be carried out (compare the value of the land for a tall office block with a house), whereas over time the value of the land (were it cleared of the buildings) could be less or more. This gives rise in practice to three kinds of circumstance:{2}

(a) to calculate the maximum value of a development site which is for sale in the open market, for comparison with the asking price;

(b) to calculate the expected profit from undertaking development where the site is owned by the developer;

(c) to calculate a cost ceiling for construction where the land has been acquired and is therefore a known cost.

Whatever the circumstances use is made of the residual method of valuation. The basic equation is the same, that is C = A-B where:

sale price of completed development	A
less cost of development works (including profit)	B
maximum which can be paid for purchasing the land while carrying out the development and protecting the profit allowance	C

This generic approach can be applied to any urban development rehabilitation, or redevelopment situation. Modification is needed in the two situations which are relevant to this Report, namely redevelopment and rehabilitation (whether or not aimed as conservation).

One of the uses of the residual method is to establish whether or not the value of the site in question will be greater or less than the current market value of the property if sold just as it is without investment. If it is less, then clearly it would not pay the investor to spend money to achieve a situation which is less valuable than that from which he starts. Clearly this will rarely arise with urban development on green field sites, for typically the value of intensive urban development is greater than the value for extensive farming, etc. But the position is less clear where there is redevelopment, since the threshold for the question is higher for typical farmland; even slums which are unfit for habitation are intensely occupied and could have a high market value, assuming that they are not to be demolished as unfit for human habitation without compensation. When the same approach is applied to rehabilitation the pertinent emphasis is: will the value of the property to be rehabilitated rise following the work by an amount which is greater or less than the cost of the rehabilitation including profit. If less the work is financially not worth doing. This will apply also where properties are rehabilitated in a manner which conserves their cultural heritage. But here the rise in cultural value could be considered to offset the fall in financial value.

There is another requirement for consistency. The development situations we have described (open site, rehabilitation, redevelopment) are features of the life cycle of <u>any</u> property; in the cultural built heritage, the only difference is that conservation is seen as a special case of renewal. Thus it is helpful in financial appraisal applied to any situation in the life cycle to have a systematic and regularised method in order to bring out the true

comparison between differing situations.{3}

5.3 Social Financial Analysis

Before leaving this method of valuation, reference should be made to "social" financial analysis. This follows the principles of the generic method. Instead of applying it to just one party in the process, the investor/developer, it reflects the financial position of each party on the same approach. Table 5.3 below presents an example whereby the situation of a particular project is worked out on comparable figures and principles for the owner of the property, developer, financier, occupier, etc.

TABLE 5.3
SOCIAL FINANCIAL ANALYSIS

Option in tables	Cost/benefit items	Developer	Landowner	Contractor	Financier	Professionals	Occupier	Conservation authority
	2		4		6	7		9
13.1	Cost	2,510	700	620	400	+	187 + o/c	–
	Benefit	3,030	1,200	690	400	174	V	H/V
	Surplus/loss	520	500	70	0	174	?	H/V
13.2	Cost	2,740	700	540	406	+	204 + o/c	–
	Benefit	3.307	1,525	600	406	169	V	H/V-
	Surplus/loss	567	825	60	0	169	?	H/V-
	Cost	4,690	700	1,080	772	+	320 + o/c	–
	Benefit	5,660	2,500	1,200	772	304	V +	0
	Surplus/loss	970	1,800	120	0	304	?	0
.3.4	Cost	1,960	700	675		–	140 + o/c	Sub
	Benefit	1,900	0	750	–	–	V	H/V
	Surplus/cost	(60)	(700)	75	0	0	?	H/V-Sub

Notes: Col. 3 Developer. Cost made up of (b) and (d), less developer's profit which is shown as surplus/loss. The benefit is (a).

4 Landowner. In each case the cost is the value of the property as it stands and the benefit is (e), with the surplus being (f).

5 Contractor. The benefit is the contract price, the construction costs in (b), against which must be found the cost to the contractor leaving a surplus, assumed here at 10% of contract.

6 Finance. The benefits here are the financing costs to the developer in (b) and (d), with no provision made for longer term finance when the development is completed. Since the money tied up could presumably have been lent at comparable rates elsewhere, it is assumed that the cost to the financier equals the benefit, leaving zero-surplus/loss.

7 Professionals. Here the benefits are the fees earned (professional, legal, agent) in (b) and acquisition costs in (d). For this time must be put in as costs, leaving the net position as zero (with partnership, etc. profits being seen as remuneration of partners).

8 Occupier. The cost of the net rental values and the occupation costs (not estimated). As against this are the values for occupation of the premises (v). Assuming an open market situation the surplus/loss would be zero with gross occupation costs equalling gross occupation value.

9 Conservation Authority. The intangible value of the heritage quality in the building is shown as H/V in option 1, with a reduction in option 2 and zero on redevelopment in option 3. There would be no direct costs to the conservation authority except for the subsidy payable in option 4 to avoid the redevelopment and the destruction of the heritage quality.

Source: Lichfield, Economics in Urban Conservation, ch.13.