

Is Rent Leading Construction?



Wsantha Edirisinghe BSc (Hons)

Currently working as Senior Quantity Surveyor
ASSOCIATE MEMBER” of “Association of Practicing
Quantity Surveyors & Estimators – Sri Lanka”

Considering the current circumstance in the economy, as toggle of construction work force; we are continuously thinking, is there is an end of the construction industry?

As a result of the higher demand for buildings, the rent will increase. The reason is that the construction of a building is a time consuming process and hence arrival of new building to the market is hang fire However, the higher the rent is the more interest the developers have to construct the new building as it gives the impression of a better investment. With time more buildings will be added to the market and eventually the rent will be reduced in the market due to increase of supply. A lower rent tends to increase the demand and a higher demand again tends to increase the rent. Thus the property development is a cyclical process which changes according to the market circumstances.

Is rent leading construction? In some instances, the market rent is leading the re-development process of the buildings but in certain others that may be no the case. Let us see how the market rent is leading the redevelopment process in the private and public sector.

The changes in the conditions of demand and supply will create an impact on making some structural changes in the nature of buildings to compile with the modern activities. That will take different forms such as, modification of existing building through conversation or refurbishment, redevelopment and new development on undeveloped land etc. Those are often seen as alternative solutions to adapting buildings and sites to new demands and economics use.

Above, redevelopment is the total replacement of existing buildings or any other structure. This gives a broad possible advantage in modifying land use, site coverage and density, introducing new building techniques, standards of construction, and specification design layout etc. As such, the redevelopment is forecast to be profitable.

With the elapse of time, buildings tend to become increasingly unsuited for the demands placed upon them by the market. This influences achievable rents. When the building becomes older, more expensive repairs become necessary. As well as periodic updating such as, compiling with new fire regulations, installation of new heating or ventilation systems and modifying to suit with modern trends etc, become more difficult and costly.

Thus, when the “Present Capital Value”¹ of the expected flow of future net returns from the existing use of the land resources becomes less than the present capital value of the “Cleared Site”² the redevelopment takes place.

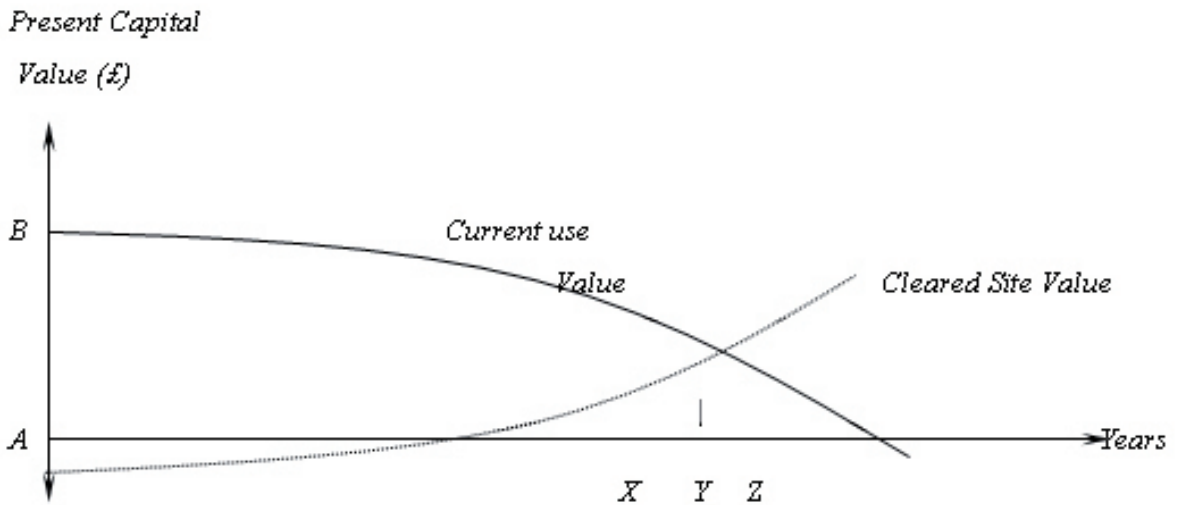
(The present capital value depends on the “Net Returns”³ expected in future years. Then the net return should be estimated and discounted to the present and then aggregated in order to arrive at the present capital value. To arrive at the present capital value of the cleared site at any one time, the cost of demolish and clearing the site and the cost of rebuilding for new use has to be deducted from the present capital value of the best alternative use.)

The present capital value of the current use falling to zero, is called “Physical Obsolescence”. Also, when the capitalised value of the present use falls to the level of

References:

- (1) The total present value (PV) of a time series of cash flows.
- (2) Cost of clearing the site and rebuilding to the new highest and best use.
- (3) Gross annual return less operating costs of

Diagram – 1: The timing of Redevelopment



C

AY = Economics Obsolescent of the building (redevelopment should take place)

AZ = Physical Obsolescent of the building

the capitalised value of the redevelopment (cleared site) is called “Economics Obsolescence”. These details are illustrated on above diagram 1. building

In the private sector

The private development is essentially profit motivated. The unity of the environment and quality, externalities and the interplay of social, political and economics factors thus may not be considered. Therefore, the timing of redevelopment in the private sector involves the “Opportunity Costs”⁴ of continued use. Thus, the year “Y” in the diagram – 1 takes the more important place in relate to the timing of redevelopment. That is when the distance increases between year “A” and “Y” the timing for redevelopment tends to delay. However, being profit maximise motivated, the redevelopment can be started after year “X”. Because in the year ‘X’, the value of cleared site is given a positive consideration.

In this condition, it is notable that the following influences determining the timing of redevelopment, especially in the private sector.

The capital value of property in current use.

This depends on the net returns expected to be earned in the future years. This return is estimated and discounted to the present and is aggregated in order to get the present capital value. Thus, the period of years over which gross returns can be earned in its current use is very important. As well as, the appropriate rate of discount (basically the interest rate) will give significant effect to the capital value of property in current use in order to time or begin redevelopment.

The net annual return in a building depends on the gross annual return (such as rent received) and the maintenance or repair (operating) cost. However, with time, the gross annual return will decrease, as a result of supernormal profit accrued by initial development which will tend to encourage similar developments. Parallel to the time elapsed, the “Opportunity Costs” rise as a result. For example, the older the buildings are the less adaptable they are to new technical requirements (such as lifts, modern air conditions systems, fire and safety, and modern office machinery etc.), and the structural, physical deterioration of the building.

References:

(4) the value of the next best alternative forgone as the result of making a decision.

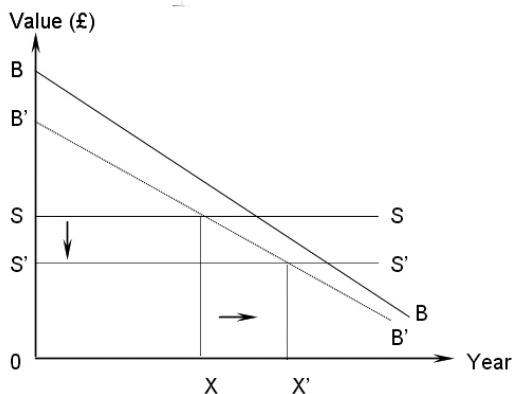
Thus, considering the present capital value of current use, the timing for redevelopment would tend to delay. The income of the building being greater than the operating cost, indicates that the net income of the buildings is positive. Also, the higher interest rate which influences to discount rate to calculate the present capital value of existing use.

The capital value of “cleared site”

The value of a cleared site is determined by deducting the cost of clearing the site, any land preparation costs and the cost of rebuilding a new building from the present value of the most profitable alternative use. To calculate the present capital value of a cleared site, the gross annual return in the best alternative use and in order to operating and maintenance cost for the same are considered. However, a higher value of demolishing and clearance cost will cause to lower the value of a cleared site. The lower value of a cleared site will tend to delay the timing of redevelopment. When the net annual return in the best alternative use is lower, the timing of redevelopment tends to delay.

Due to the calculation of the present capital value the interest rate takes a very important place, and it affects the cost of borrowing. The following diagram 2 will illustrate how the interest rate affects to delay of redevelopment.

Diagram – 2: Redevelopment delayed by rise in rate of interests (in order to cost of borrowing)

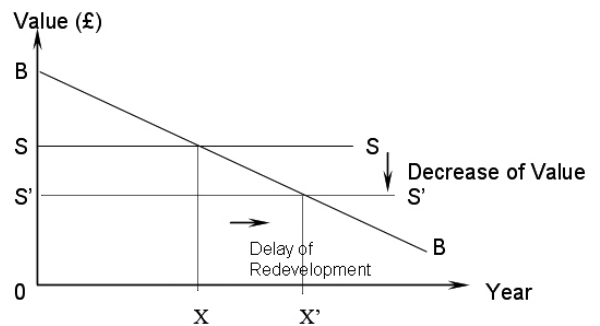


As per diagram- 2 above the redevelopment may occur in year X. However, the rise in the interest rate affects to lower the capital value of existing building (B'B') and therefore, the future net earnings are capitalised at a higher rate. Hence, a higher interest rate is applied to fewer net annual returns from the existing building. The redevelopment of the best alternative use will incur higher development costs, because the higher cost of borrowing (as higher interest rate) will increase the capital value of cleared site (S'S') according to the timing of redevelopment delay from X to X' years.

The cost of rebuilding of best alternative use.

The higher cost of construction materials, labour and plant, higher tax charges for the new construction, the work site in congested area (such as city centre) etc, will cause to increased the construction cost. Also, that will affect to decrease the capital value of a cleared site. In this condition the timing of redevelopment will tend to delay. This can be illustrated in the following diagram 3

Diagram – 3: The effect of higher construction cost



If there is no any competition, they can exercise their monopoly power.

In this condition, the private sector can increase their net annual income by getting a higher rent in order to delay the timing of redevelopment

Therefore, as a result of profit maximise motivation in the private sector, the above conditions the timing of redevelopment will tend to delay.

The public sector

The public sector development is non profit making or is only semi commercial. They take a longer, wider view than the private developers. In the most economic developments, the given constraints will be those showing the greatest returns in aesthetics or function to the community for the minimum capital invested. Also, only public developers have received special privileges, including extensive powers of compulsory purchase (under legislation, such as the "Community Land Act 1975" which abolished in 1980 in UK).

However, the development in public sector depends on the historical, social or architectural or prestige views. Thus, the public sector does not start the redevelopment as soon as it reaches the economics obsolescence condition in the building as private sector.

In the "Economic Obsolescence" situation, the value of a cleared site crosses over the current use of value (in year Y in the diagram - 1). But it can be noticed that the "Physical Obsolescence" will occur at in the year "Z". Hence, up to year "Z" the operating costs are not exceeding the gross annual return ("A" in the diagram - 1) in the current building. If the operation cost exceeds the gross annual return, it can happen in a situation such as the physical fabric of the building being deteriorated or it becoming technologically out dated. Hence in the public sector the redevelopment can be delayed by changing conditions.

Thus, in the public sector, the redevelopment may tend to delay in several conditions such as,

The historical building.

The historical buildings are economically viable but are under menace of redevelopment. For instance, the present capital value of historical buildings may be lower than the value of cleared site of highest best alternative use (year "Y" in diagram-1). However in this year, the redevelopment would be economically feasible. But if redevelopment is not contemplated in this situation, the building will be abandoned and left to decay after year "Z". Since the gross annual return of the historic building may continue to rise as a result of scarcity value over time, it is likely that the operating costs will tend to rise with structural deterioration. But once after periodic major expenditure the operating costs may increase and then

it may fall later. Hence in this condition the timing of redevelopment tends to delay.

Monument, prestige or architectural building.

Even the gross annual return is negligible in the this kind of building or structure, as the government giving permission to hold these kind of buildings considering the other external benefits, such as tourism shopping etc, and to redevelopment may tend to delay.

An example would be the Indian government not allowing clearing and redeveloping the building of "Taj Mahal" as it is one of the most important places of tourism. Another would be the world's tallest building constructed in Dubai for its prestige and improve Dubai business activities. However, in future even the gross annual return from this building becomes zero, considering the other benefits the redevelopment may tend to delay.

Social Benefits.

When calculating the present capital value of the existing buildings, the public sector is concerned about the external and social benefits. Hence, although the economics obsolescence in the building becomes zero, the public sector considers the social and welfare benefits rather than the economics benefits.

As an example, if there is a school in the city centre and that land can be utilised for any other financially profitable construction, the government may consider the social benefits and welfare rather than economics benefits.

Imperfect knowledge, immobility of factors, imperfections of capital market, legal restrictions and planning and regulations may cause to delay the timing of redevelopment.

Thus if the Economics Obsolescence arises the government tends to consider the other factors prior to starting the redevelopment and in the aforesaid situations, the redevelopment may tend to delay in the public sector.

Therefore the current rent is not the only contributing factor that convinces the developers to invest in the construction industry.