

Refurbishing older Housing Step by Step

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abstract

Market conditions demand flexible strategies of refurbishment

For long times conditions of the housing market in Germany were in favour of landlords. Since the middle of the 90ies of the last century, however, perspectives for a change can be observed. The demand has decreased and for the first time in Germany empty housing is not only a theoretical problem but is going to touch the economic foundations of housing companies in Eastern Germany. To hold their position in the market even under conditions of increasing competition, housing companies have to adapt their offers to a changing demand and its respective conceivable development. A look at the structure of their housing stocks shows that over the years large parts of it have fallen behind the general development and current standards of new buildings.

So housing companies are facing new tasks with regard to managing and refurbishing their stock. Taking into account the demand, decisions on the scope of refurbishment can no longer be taken by looking at technical urgency and feasibility alone, also the financial means at the disposal of the companies as well as market conditions for letting housing at present and the perspectives for the near and distant future have to be considered thoroughly. For the refurbishment of the housing stock differentiated concepts including specific measures for a limited scope of refurbishment are, therefore, needed, in order to be able to refurbish dwellings, housing and housing areas according to demand and customers' interests. Refurbishing housing from bottom to top, leading issue of former renewal programmes, may be an option only in cases of severe damages when refurbishment has been neglected over a very long time as may be the case in parts of the stock of east German housing companies.

Objectives of the study

Refurbishment activities restricted to specific objectives must be based on different considerations of technical aspects and must be carried out in a different way than refurbishment activities aimed at refurbishing a building as a whole¹. The interventions must fit into the frame of the existing building, and should not be an obstacle to further refurbishment. In a study elaborating solutions for step by step refurbishing, which had been produced for the RKW (the German Economic Centre for Rationalisation and Innovation, Eschborn) the technical conditions to optimise scope and succession of defined steps of refurbishment are presented in detail². The study presented here, however, focuses on eco-

1 Former publications on the technical aspects of refurbishment – even if tenants' interests were respected – were focussed on refurbishing a building as a whole equal to the standard of new construction; cf. e.g. Gesamtverband der Wohnungswirtschaft (GdW) (ed.): Modernisierung und Entwicklung des Wohnungsbestandes. Ziele, Verfahren, Standards, Techniken, Kosten, Akzeptanz. GdW Schriften 43, Köln 1994

2 Krings, Edgar: Stufenlösungen bei der Altbaumodernisierung. Study contracted by Bundesverband Freier Wohnungsunternehmen (BFW) and Rationalisierungsgemeinschaft Bau / Rationalisierungs- und Innovationszentrum der Deutschen Wirtschaft (RG-Bau im RKW); Eschborn 2000

conomic and organisational questions of maximising the efficiency of refurbishment of the housing stock step by step as well as on the companies' marketing strategies³.

How do housing companies plan the stock refurbishment?

There is an increase in strategic management efforts to optimise the revenues of the companies by way of the most effective investment or their financial means. For this purpose the companies depend on profound knowledge of the actual condition of their housing stock. The use of modern information technology to collect data in detail efficiently and objectively and the development of a digitised data basis containing information of all buildings and dwellings is just at its initial stage. As could have been expected, steps in this direction had first been undertaken by the largest companies. And still expectations exceed the practical usefulness. Yet the development is on its way.

Regarding the application of modern information technology the immense differences in size between the housing companies and their respective housing stocks must be taken into consideration. For small and smallest companies with only some hundred dwellings, members of the board of directors and quite often also the executive managers are working on a honorary basis. Yet they usually know very well every single house of the company. Also the figures and positions of the budget plan are easily surveyable. Rough guiding figures can be helpful for planning the refurbishment investments: e.g. one third for planned refurbishment, one third – following the experience of the last years – for refurbishment of dwellings after a change of tenants, and the remainder for repair work in cases of damage. The latter finally determine the scope of planned refurbishment measures that can actually be performed.

Quite different are the conditions to be found in big companies as due to their size they must rely on professional work. Decisions on investments in refurbishment for some 10 millions EUR and more require a basis of differentiated information, a survey of the stock of dwellings, a market analysis etc. to optimise the economic results.

Chances of rationalisation investment decisions by using real estate economic optimisation models

Increasingly principles of portfolio management are being used in one of the biggest companies included in the inquiry. It is based on a formalised procedure of assessment due to characteristics of site and building. Yet the portfolio analysis⁴ only serves as a support for decisions to be taken. As has been done before technicians and economists are consulted, and their respective preferences are taken into account as well. And dwellings will also be modernised, if certain groups of tenants are important to the company for different reasons. The result of these inquiries and considerations as well as the portfolio analysis will then be used as a basis for decisions.

Analysing the portfolio, also social aspects have to be considered, and overall objectives in the mission of the companies must be respected. The question is: Can the clientele of the company afford rents after modernisation? For this kind of information local housing markets and their specific sections have to be analysed to enlarge the basis of decisions on investments in refurbishment. This may

3 Empirical basis of the study is a written inquiry of all member companies of the Association of South West German Housing Companies (Verband der Südwestdeutschen Wohnungswirtschaft) and an additional selection of housing companies in Northern and Eastern Germany. This was followed by 24 interviews with experts of the different companies having answered the written inquiry. The empirical studies had been performed and finished in 2001.

4 The portfolio analysis is based on the collection of all relevant data of all buildings of the company due to homogeneous criteria. For the valuation of the data a scheme is used divided into four fields named: "invest", "hold", "analyse", "sell". Factors of site are measured on the y-axis, factors of the building are measured on the x-axis. The factors referring to the site of the building are compiled by merchants of the company and are referring to long term perspectives of letting the dwellings, to the equipment of the area with infrastructure etc. The factors referring to the building are compiled by technicians of the company and refer to state, equipment, functionality etc. There is a maximum of 100 points to be given, of which at least 25 are necessary to rank a building in then field "invest". The evaluation of the different buildings is the basis of a ranking in order to determine priorities of refurbishment.

lead housing companies to not simply refurbish in order to achieve highest rents but to optimise the overall economic result with regard to the financial capabilities of their tenants and perspective clients.

Other approaches and optimising models to rationalise decisions on refurbishment and repair work are considered to be only of theoretical value, e.g. calculation models designed to determine the right time for refurbishment, when costs are lowest. Even in the biggest companies such approaches did not find practical application. In the every day practice of the companies, especially of the smaller ones, practical knowledge built up over years is dominating the decisions. And often there is not even the necessity to base investments in the existing housing stock on considerations of profitability, as the refurbishment does not lead to higher revenues when only repair work has been done and no substantial improvement has been achieved.

Table: Steps of Refurbishment Works

Partial Steps	Main Steps
1 roof 2 windows 3 outside walls	1 outside surfaces of the building
4 stair case 5 interior thermal insulation 6 heating	2 heating and access
7 altering partitions 8 sanitary installation, 9 electrical installation 10 green spaces	3 modernisation of dwellings, improving the green spaces

source: after Krings/RKW 2000, op cit., synopsis of tables

Doing the refurbishment work all at once or divided into separate successive steps?

If refurbishment work is being done all at once, the intended works follow each other immediately due to technical effectiveness and particular local conditions, and they will be finalised conclusively. But not in all cases buildings are to be refurbished in a way that after refurbishment they reach the standard of new construction as a whole. In order to keep rents low or in case the financial means are not available this objective may be postponed for quite a long time. Such partial refurbishment measures are likewise looked upon as done “all at once” in so far as subsequent refurbishment works are not intended.

If, however, the refurbishment is done step by step, the refurbishment work – full or partial modernisation of a building - for various reasons is divided into separate parts or “steps”, limited in scope and time. A step may be restricted to rather specific works (partial step) or some more related works may be compiled (main step) (cf. tab.). After having finished work of any step, the building may be used again without restrictions, though it will not have gained the standard of new construction as a whole.

Reasons for doing the refurbishment work all at once

Housing companies may for different reasons decide to do intended refurbishment work all at once or step by step. From a technical point of view it may it may turn out to be cheaper to refurbish all at

once for the following reasons:

- Some works will have to be carried out several times when refurbishment is not done all at once and cause extra costs; e.g. for organising the construction site, providing scaffoldings etc.
- Parts of the building already refurbished will suffer damage from the work of subsequent steps; e.g. when the staircase is refurbished prior to the dwellings etc.
- Costs for planning and organising the refurbishment process will rise, as the expenses for the company as building contractor and expenditures for the architects and engineers will be specifically higher⁵

The results received from a questionnaire sent out to housing companies, however, show that these cost benefits do not determine the decision of whether to refurbish all at once or step by step; they hold only the second place among the different reasons (34% of all answers). Housing companies are much more concerned about their tenants and the conditions of letting than on possible cost benefits⁶. So the interests of the tenants are at the top of the reasons to refurbish all at once (42%) in order to disturb the tenants only once. Likewise the third reason decisive for housing companies, to improve the economic conditions of letting (in case this demands refurbishing all at once) is connected with this (21%). Further reasons, as e.g. the sustainability of the refurbishment, and to avoid having more than one construction site in the area” are only of minor significance (3%).

Reasons for doing the refurbishment work step by step

There may be, however, a number of reasons decisive in specific cases to do the refurbishment works step by step⁷.

- The financial means for a complete refurbishment are not available.
- In some of the dwellings works cannot be carried out, as tenants disagree.
- Some measures may contribute to profitability much more than others.
- To reduce taxation, investments shall be done over a series of fiscal years.
- It may be demanded by law that some works are to be executed by a certain date.
- Subventions are available only for a certain amount and within a certain time.
- Irrespective of scarce financial means urgent repair work leads to the decision to do also some additional, technically related refurbishment work to make it a “partial“ or “main step“ of refurbishment.

On the basis of the results received on the above mentioned questionnaire sent out to housing companies these reasons likewise may be brought into an order due to their importance for housing companies: Among the reasons for refurbishing step by step interests of the tenants as well are on top of the ranking (31% of all answers) followed by lack of financial resources (24%) and urgency or repair work (20%). Other reasons for doing the refurbishment work step by step mainly were related to scope and size of the refurbishment measure as a whole, causing a division into steps. Legal aspects of letting the dwellings (7%) and making use of public subventions (6%) were of some significance whereas the fact that subventions were limited (2%) and considerations referring to taxation (1%) practically did not influence the decisions. And only in one case balancing the books was named a relevant aspect.

5 cf. Krings/RKW 2000, op.cit., p. 62

6 cf. Michels, W., and Lydia Naarmann: Rentabilität bei Wohnungsbestandsmaßnahmen, Münster 1999, p.23

7 cf. Krings/RKW 2000, op.cit., p.65

Respecting tenants' interests is basic for decisions on refurbishment

Intending refurbishment in larger parts of their housing stocks, housing companies may have to divide the work into several work packages that they are well able to perform with the personal capacities and financial means at their disposal. Possibly they could have the subsequent works being performed in the whole stock either step by step or refurbish one building after the other completely. Expenditures per year and the work to be done by every employee could be the same, and the works as a whole could be finished at the same time. A housing company with a stock of 5 000 dwellings decided to divide the works necessary for the refurbishment of 500 dwellings – i.e. equal to one tenth of its stock – into three steps and to have the works done in three years. Decisive were the expected effects on the tenants in the neighbourhood. The intention was to involve a greater part of the tenants in the refurbishment going on, so that the housing company could not be blamed to disadvantage the tenants at the end of the row. The works having just been started there were indeed a lot of demands of tenants, desiring refurbishment of their homes as well. This also shows that the activities of the housing company are well perceived in the neighbourhood. Planning refurbishment works, housing companies must consider that by no means all of the tenants will agree, as was the case here. The task of convincing the tenants that the measures intended are conform with their own interests to be done on the first step of refurbishment, pays itself when the work is advancing, as tenants have the – hopefully good – results of the first step right in front of their eyes.

In any case refurbishment covering a building as a whole cannot be performed when tenants disagree although they are forced by law to tolerate the works to be done in the building and even their own dwelling. The interviews with experts of housing companies, however, showed that housing companies try to avoid conflicts with their tenants. Refurbishing a building as a whole in one measure to the standard of new construction would involve all tenants - and their unanimous agreement with this is the most unlikely to be expected.

Yet even the decision to do the refurbishment work all at once is taken with respect to tenants' interests. Every day life of the tenants may be severely disturbed if profound refurbishment work is being performed in the dwellings and the tenants are still living there. What kind of disturbances may be looked upon as tolerable by the tenants of course depends on the degree to which the tenants themselves are interested in the refurbishment. So it was reported that tenants in Eastern Germany after the political change were very much interested in improvements and there was a lot of pressure on the housing companies for an immediate improvement of housing conditions. On the other hand tenants willingly tolerated stress and trouble caused by the works. In the meantime due to changed conditions of the housing market the willingness of the tenants to accept disturbances has - so to speak - "normalised".

Dividing the works of refurbishment for a residential building dating from the beginning of the last century into three steps caused a lot of trouble for the tenants as was the experience of one housing company in Eastern Germany. Doing so was quite comfortable for the company from a financial point of view but the tenants were troubled three times and this induced a lot of complaints: "Why did you not do this all at once?" The company learned it better should have tried to have the building free from tenants and have them live some where else temporarily or even better permanently. Likewise a smaller housing corporation with a stock of 600 dwellings in a Western German urban area may also be successful to relocate tenants before refurbishing even under conditions of a high demand for housing if it works together closely with the tenants and is respective of their interests.

Facing a high local rate of empty dwellings another Eastern German housing company had to make the experience that after they had announced their intention to refurbish the dwellings, a substantial part of the tenants made use of their specific right of notice in this case. This caused the decision of the

housing company to only refurbish the buildings and not the dwellings in the future. The refurbishment of the latter is mostly left to the tenants. Dwellings will only be refurbished by the company in case of a change of tenants respectively if an empty dwelling is to be let to a person actually willing to rent it⁸.

Lack of financial resources, urgency of repair work to be done immediately and further reasons to refurbish step by step

In case repair works have to be done, this is often seen as an opportunity to do additional refurbishment for a substantial improvement of buildings or dwellings. If, however, the necessary financial means are not at hand and the repair work cannot be delayed, the solution of the problem may be to perform the work in separate steps and spread the expenses over several budgetary years. Even very complex refurbishment measures in large residential housing areas may be divided in this manner and expenditures may be spread over several years to fit within the financial scope of the company.

Aspects of performance criteria in the books or of taxation are of comparably low significance. It is especially the corporate philosophy and the legal form of the company as well as its general economic surroundings that count. Expenditures on refurbishment may only contribute to raise the asset values if they go beyond mere repair work and lead to a substantial increase of the value of the estate⁹. A higher value of the assets in the books is only relevant when credits are sought for. To the merchants in the company it simply goes without saying that “the company must appear prosperous and present good profits in the books”. The granting of credits, however, likewise depends on the specific economic surroundings of the company. Local banks usually know the economic situation of local housing companies quite well due to long-standing co-operation. In relation to BASEL II such criteria as the general economic performance of the company, qualitative aspects of its management and the way in which the activities of the company are directed to the future, may become increasingly more important preconditions for new credits than asset values in the books.

To the extent that there is no taxation on formerly non-profit housing companies because of high losses in the past, expenditures for refurbishment only leading to an immediate reduction of the actual taxation are of no economic interest. It would, therefore, be much more in the interest of the company to do refurbishment work in such a way that expenses could lead to a reduction of taxation over a longer period in the future. But even that is not very attractive economically to some of the housing companies that still dispose of a high volume of former losses or expenditures relevant to reduce taxation. So the issues of housing policies to be pursued by the housing companies are clearly in the foreground and may only be modified by considerations referring to taxation and to the performance criteria in the books.

Likewise accepting subsidies from the different state’s modernisation programmes may affect the scope of intended refurbishment. As the amount of the subsidies is usually linked to the volume of the refurbishment performed, the works covered by the programmes are consequently preferably carried out all at once for financial reasons - by the way also simplifying application and verification of performance.

8 Wegener, Sylke, and Carmen Sagert / Team Lernendes Unternehmen / Wohnungsbaugenossenschaft Chemnitz West e.G.: Nach dem etwas anderen Leerstandscontrolling nun das etwas andere Sanierungskonzept. In: Die Wohnungswirtschaft (2000) 11, 48f.

9 Most experts interviewed for the study experienced that if refurbishment covers only one single step a raise of value of the building is often denied by taxation authorities. This might lead to the decision to widen the scope of an intended refurbishment measure in a way that it would lead to a higher asset in the books. Refurbishing dwellings after a change of tenants, as is common practice of most of the housing companies inquired for this study, is looked upon as maintenance work only; so this causes an immediate reduction of taxation in the year concerned. Only under certain conditions, e.g. if a new central heating is installed in the dwelling replacing single stoves, the expenditures may lead to a higher value of the building and consequently to a higher asset.

Conception of steps of refurbishment due to technical and economic efficiency

For the conception of steps of refurbishment the necessary technical measures are compiled following the experience of the company due to aspects of technical efficiency and conditions of practical realisation. As a result of the interviews of housing company experts, regarding the actual demand for housing the following steps turned out to be most adequate:

- modernisation of particular dwellings after a change of tenants,
- refurbishing entrance zone and staircase and
- measures to reduce energy consumption; under certain conditions divided into further partial steps.

Almost all housing companies involved in the inquiry in the last years have decided to modernise dwellings of their older housing stock upon a contemporary standard before letting them again. This refers mainly to dwellings of the sixties and seventies. The quality of these buildings is normally good so that the refurbishment of the surface of the buildings and of the staircases is not necessary. In most of the cases caused by subsidy programmes single glazed windows have already been replaced in the course of the last decades. Refurbishment can therefore be restricted to the refurbishment of the interior of the building. Almost all housing companies invest in new bathrooms and kitchens as well as mostly in the refurbishment of the surfaces of ceilings, walls and floors.

This is why some of the companies called the resources determined for this purpose “kitchen-and-bathroom-programme”. It is used by many housing companies not only after a change of tenants but also when tenants ask for it. One of the housing companies involved in the inquiry offers this kind of improvement only if tenants are willing to change their dwelling. So the company not only avoids potential problems when working in dwellings still being used by the tenants but also creates a new contractual situation when it lets the new dwelling. This enables the company to adapt the terms of the contract to the regulations it currently uses in new contracts (regulations referring to the payment of a security deposit, of all operating costs etc.)

When bathrooms and toilets are to be refurbished often the vertical ducts are in need of improvement too and should be replaced. This is normally handled pragmatically. Either the ducts are replaced (which leads to additional costs in all bathrooms not to be refurbished as the damage caused by the works has to be repaired) or the ducts are left as they are (while holding back a sufficient amount of tiles in case the duct will be renewed in the future).

A further step of refurbishment being practised in many cases is the modernisation of the staircase and main electric cables installed there, usually including the refurbishment of the entrance zone (canopies, places of garbage containers etc.) For security reasons building entrance doors are equipped with closing systems which cause the installation of an intercommunication system as well. New installations for this do not create high extra costs if new main vertical electric cables have to be installed there as well. This may be necessary if gas fired kitchen ranges are to be replaced by electric kitchen ranges.

Finally energetic modernisation of the buildings is not always realised at once and including all components. A reasonable division into three partial steps may look as follows:

- installation of a central heating system and installation of main electrical cables with high performance;
- thermal insulation of the ceiling of the dwellings on top of the building and of the basements;
- insulation of outside walls and installation of windows with thermal protection glazing.

The different works of the three steps can be realised independently from each other. Yet, if installing the heating system before the thermal insulation is finished, it must be made sure it is efficient enough to cover the demand even in very cold days.

Particular conditions of refurbishment in Eastern Germany

In the times of the former GDR housing economy was very much oriented towards quantitative objectives. In order to enlarge as much as possible the existing stock of housing, investment was put nearly exclusively into new construction. As a price for this the existing housing stock was neglected, thus causing severe damage as repair work was not done sufficiently. Immediately after the political change in Eastern Germany the housing companies involved in the inquiries started first refurbishment works. At first they focussed on the prevention of further damage and the preservation of the material substance of the buildings. This followed the device: Start outside! First the roofs, then outer walls and windows, then the heating systems, and only then bathrooms and kitchens were refurbished. As repair work was very urgent it was a common approach to divide the whole range of refurbishment works into different steps, especially in the case of houses in industrialised construction. This was the best way to spread repair work on a broad scale in order to save the substance of the buildings.

Referring to the question whether to do refurbishment step by step or all at once, there is great conformity in opinion and practice among Western and Eastern German housing companies. The lack of repair work over many years, lower capital stock of the companies, running payments to reduce former credits dating back to GDR times, but especially the lower demand for housing and the lower rents people can afford, bring about the fact that companies are more likely to apply for subsidies from states' programmes, and the lack of capital more often induces the performance of refurbishment step by step. Irrespective of empty dwellings, that are a heavy financial burden for Eastern German housing companies, refurbishment must go on in order to keep up with the conditions of local housing markets so that dwellings are in a lettable state. It is obvious that under these conditions the step "refurbishment of dwellings for new tenants" is of great importance to the companies' refurbishment strategies.

Perspectives

When refurbishing their stock of housing the companies increasingly look after the sustainability of their investments: dwellings are to be fit to compete with other offers in the market. Following this perspective, one of the possible options is to adapt the stock to market conditions step by step.

The orientation of the housing companies towards optimal profits, however, cannot be understood only as orientation to the most solvent part of demand of the market. As the companies may be municipal, co-operative or related to an industrial establishment the objectives may be not exclusively market oriented and directed to high profits. Municipal housing companies may be quite willing to accept tenants with lower incomes or – if the municipality would ask for it – households with social problems as well. Refurbishment in steps can be an option to adapt refurbishment to a clientele which is dependent on cheap housing.

Looking at the practice of housing companies refurbishing their stock of dwellings, there is a lot of pragmatism to be seen, fulfilling the social issue of providing housing even if this is increasingly expressed in notions of market economy. It can be recognised that tenant orientation has gained more importance, thus leading e.g. to better service and a greater variety of different offers. Looking at tenants' interests as well as at the economic results, housing companies developed quite different and unique approaches that may be used as examples of "best practice" and provide helpful information to find the best solution for refurbishment in a specific situation.

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