

Short term financial planning;

*Working capital management within De Woonplaats,
being a Dutch public utility housing enterprise.*



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This Master Thesis is written for my graduation in the Master of Business Administration program, specialization Financial Management. With this paper my time of education at the University of Twente comes to an end.

Multiple organizations and people were involved in the process that resulted in this paper. Therefore I would like to use this moment to express my gratitude first of all to De Woonplaats, its employees that were involved in my research and most important, my supervisor Mr. Dreeyers for his guidance, comments and feedback.

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Last but not least, I would like to wish you a good time reading this paper!

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Patrick D. Stokkentre

Executive summary

This paper elaborates on a systematic approach regarding working capital management within De Woonplaats, being a public utility housing enterprise (further referred to as PUHE). Chapter 1 gives a brief description of De Woonplaats as it is the focal organization in this research. The research questions, method and approach are described in chapter 2 of the paper.

After the focal organization and the research structure are introduced this paper describes that De Woonplaats, by managing the working capital indirectly manages its operational cash flows, as chapter 3 points out this relation between the both notions. This chapter also shows that De Woonplaats significantly reduced its short term liabilities in the financial statements of 2007 by replacing it with long term liabilities. This does lead to higher financing costs for the organization, but this is inevitable because the organization needs to finance its investments.

Chapter 4 describes the working capital notion in general and gives the general definition of the working capital from a financial viewpoint, according to accounting legislation. It becomes clear that although it develops towards more positive values, the working capital position of De Woonplaats is every year negative in the 2003-2007 period. For organizations in general this could be an indication of financial distress, but for De Woonplaats and possibly PUHE's in general this is not necessarily the case.

Next it becomes apparent that not only De Woonplaats experiences a negative working capital position in 2007. The performed benchmark shows that from a sample of twenty-five PUHE's the average net working capital position is also negative. This could indicate that it is common for PUHE's to have negative working capital positions. From the comparison of De Woonplaats with the other PUHE's of the sample it is concluded that there mainly are deviations regarding the accounts payable of the organization, so improvements should be directed towards these accounts.

This chapter also provides an insight in the applicability of the general working capital ratios described. Some ratios have to be altered considering the specific characteristics of PUHE's. One can say that some ratios were altered from a financial perspective to a management perspective, because they do not completely follow the established financial principles, but have been operationalized to suit this specific situation and to provide the intended insights.

Chapter 6 describes different tools for managing working capital. From monitoring the working capital position to forecasting the working capital position and ultimately influencing the working capital position. Regarding the monitoring of the working capital position different ratios are described, some more applicable than others. Proper candidates are the current ratio and the net operating working capital measure. It becomes clear that periodical budgets are of significant importance in forecasting the future cash flows of the organization and ultimately determining the suitable working capital position. To influence the working capital position, several policies and practices for every separate working capital component are described.

Based on the described tools for managing working capital in chapter 6, chapter 7 elaborates on the possible improvements for De Woonplaats regarding its working capital management.

The improvements are directed at all the three main working capital components, but the focus for De Woonplaats lies on the accounts payable considering the deviations of this component in comparison to the twenty-five PUHE's from the benchmark.

The improvements can be splitted in two categories. Improvements regarding the determination of the working capital position and improvements regarding the control of the working capital position.

Improvements regarding the determination of the working capital position:

- Make use of the already available information regarding the working capital position like the current ratio and determine closely related ratios to monitor the working capital position on an incremental basis.
- Alter the net working capital in accordance with the net operating working capital measure as described by Van der Meer (2007) to get a specific view on the working capital position without the influence of the financial structure of the PUHE's.
- Categorize all the real estate destined for sale as inventories in order to contribute to improved insights in the working capital position.
- Categorize the pre-received rental income that is now subtracted from the accounts receivable as current liabilities to obtain a more accurate working capital position from the current ratio.

Improvements regarding the control of the working capital position:

- Integrate the working capital notion as a measure in the balanced scorecard which is being developed / implemented at this moment and integrate it into the management levels of the organization.
- Start undertaking a part of the projects for new real estate only when they have occupation rates above a certain percentage to assure future cash inflows, limit possible inventories and so, money being tied up in the inventories.
- Apply credit rating for commercial real estate when the monthly amounts of rent are significant to possibly prevent defaults in rental income.
- Negotiate for discounts for prompt payment and contractual arrangements for delays in projects to assure cash inflows and improve results. Related to this, improving the payment period would contribute to the image of the organization, delaying the payment period would harm the image of the organization.

The fact that De Woonplaats at this moment is developing and implementing a balanced scorecard in the organization is beneficial. In that way the working capital perception can be integrated into the organization through the balanced scorecard because the working capital can be monitored by developing measures at various levels in the organization, ultimately contributing to an improved working capital position.

Chapter 8 concludes this paper by formulating an answer on the main research question. It turns out that there are different steps that have to be taken to effectively manage the working capital position within De Woonplaats.

After elaborating on all the different aspects of managing the working capital position, figure 1 on the next page summarizes the most important steps in this process.

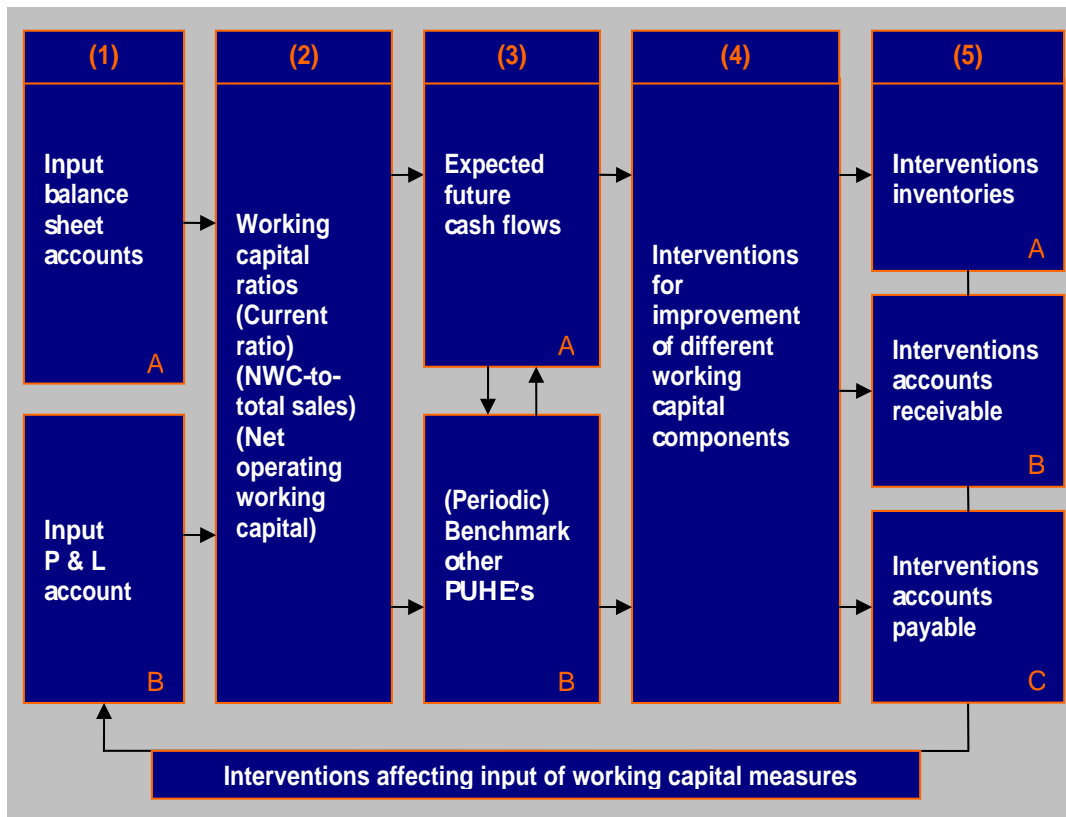


Figure 1: Process for managing working capital with ratios as monitor, different perspectives regarding an optimal position and the practices and policies of Maysami (2008) as interventions.
 Source: Personal research.

The figure above contributes to a systematic approach for managing the working capital within an organization, more specific De Woonplaats being a PUHE.

The figure is based on existing theoretical and empirical literature regarding working capital management.

The effectiveness of the complete figure in practice is not tested because De Woonplaats at this moment is implementing and preparing the organization for the balanced scorecard.

Part of the financial perspective in this scorecard should be the working capital component and working according to the above figure will prove its effectiveness after the organization has fully implemented the working capital notion in the organization.

However, considering the fact that the different aspects of the figure are based on existing theoretical and empirical literature it is likely to contribute to improvements in working capital management for De Woonplaats.

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1. Introduction public utility housing enterprise De Woonplaats

De Woonplaats is a real estate venture with a public purpose, also called a public utility housing enterprise (further referred to as PUHE). A real estate venture because the core business is investing in, and the exploitation of real estate.

By doing so, De Woonplaats in essence employs a dual policy within the organization. On the one hand, by investing in, and the exploitation of real estate, De Woonplaats strives to achieve an optimal financial result with commercial investments. In this context the commercial investments should be regarded as selling real estate, rental against regular prices within the legislations and rental of real estate for business purposes.

On the other hand these results from commercial investments are used to invest into public purposes. This latter means that De Woonplaats also executes investments with no direct positive financial result and that in essence there are more or less contradicting policies.

The challenge for De Woonplaats is to transform her mission and objectives into measurable and visible performances.

One of the core principles for De Woonplaats from a financial viewpoint is that she wants to have a healthy financial foundation. The future capacity for public investments with no direct return is determined by this. A good financial foundation is a requisite to be able to realize the public return.

With the establishment of real estate the starting point of De Woonplaats is a cost-covering exploitation. De Woonplaats deviates from this starting point when there is an immediate demand for public areas in municipalities. Examples of such projects are living/healthcare centres, properties or projects for people with a physical or mental disability and education and childcare services.

The rapid changing environment of De Woonplaats causes aspects that where certain until recently to become questionable now, or in the future.

1.1 Organization

De Woonplaats is a centrally organized organization with a general manager that manages three different units within the organization:

- The front-office organization.
- The strategy and real estate & development organization.
- The back-office organization, subdivided in a financial & general and technical service part.

For the complete organization chart see appendix 1.

1.2 Activities

The core activities of De Woonplaats are:

- The exploitation of real estate and control of the real estate portfolio.
- Providing services that are connected with the exploitation of real estate.

Other activities are:

- The rental of residences and to provide all other connected services.
- The initiation of projects.
- The purchasing and selling of real estate.

1.3 Services

De Woonplaats offers a wide variety of services. Within the wide range of housing services there are, among others:

1. Lease and rental: Next to the existing types of rental; casco rental, rental to communities, rental combined with healthcare, rental of caravans and customized rental.
2. Selling and purchasing: Selling of houses (from the own inventory or newly built houses) with or without maintenance, purchasing of residences and development of products that encourage buyers.
3. Complementary services: Like providing guidance to clients regarding insurances and mortgages and mediation in maintenance subscriptions for gardening and delivery of meals.
4. Living-healthcare products: The combination of living and healthcare is one of the headlines of the policy of De Woonplaats. For a big part of their clients the combination of living and healthcare becomes of increasing importance. De Woonplaats offers her clients products in which healthcare is guaranteed, without any obligations regarding the usage of this healthcare.

2. Research methodology

This chapter is used to describe the problem within De Woonplaats that initiated this research. It will also describe the goals of the research, the main research question and the sub questions used to answer this main research question. Last, this chapter will set out the methodology used for the research and it will explain the structure of the research.

2.1 Problem definition

Citation Mr. Catau, general manager De Woonplaats:

“I cannot remember that there was one moment in time in which our working conditions changed in such short notice. The private housing market is under pressure, the construction sector is expected to face a dramatic decrease. And maybe the most important: an economical breakdown will most severely strike our target population”.

Source: De Woonplaats, Begroting 2009.

Another citation that really outlines the recent changing conditions for PUHE's is a citation from the WSW (Waarborgfonds Sociale Woningbouw):

“Corporations are for their financing dependent upon the financial sector. The mutual trust between banks has fallen to the zero point. In addition to the autonomous development of a rising interest rate in the market, PUHE's are being confronted with a strongly increasing add-on by banks. This is partly due to the fact that banks are only able to finance themselves on the short term, while the demand for funding by PUHE's is focused on the long term (10-50 year). The average add-on last year was 0,4 base points, but the last weeks this has developed to 35 base points for 10-year financing. Durations of 50 years now have add-ons of more than 50 base points (with excesses to 70 base points)”.

The above developments also became apparent in a presentation of the CFO of the Rabobank, Mr. Bruggink. In his presentation, given on 11-05-09 at the University of Twente he also described the recent lack of trust between banks and the enormous increases in add-ons on the funding by banks.

Continuing the citation of the WSW:

“The credit crunch has, in addition to a price-effect, a possible effect on the availability of financing. BNG (Bank Nederlandse Gemeenten) and NWB (Nederlandse WaterschapsBank) state that financing is, and will be available. The question, however, is if public utility housing enterprises will remain to be able to raise financing against the desirable conditions and durations”.

WSW Actueel, 13^e jaargang, oktober 2008, nummer 2.

This shows that it is not only the increase in add-ons that organizations in general face, but also the availability of funding may become uncertain.

From these citations it becomes apparent that PUHE's already experience, or in upcoming times will experience, stiffened market conditions.

Financing their activities against favourable conditions has become much more difficult and has effects on the financial performance of PUHE's.

According to a research performed by Spelbos, Turkenburg, Vlak and Konings (2008) these conditions for PUHE's lead to increased importance of exploitation-, investment and financing cash flows for the management of PUHE's.

This research also states that cash flows are Euros, and a Euro is a Euro. In addition to this statement the comment, based on Brealey, Myers and Allen (2008) pp. 14/16 that *"a Euro today is worth more than a Euro tomorrow"* and that *"a secure Euro is worth more than an insecure Euro"* should be made. This means that the management of cash flows and working capital (short term) is not necessarily less important than long term financial planning for organizations.

The management of working capital can decrease the financing needs for PUHE's, which, certainly in these times, can be beneficial. In addition it can contribute to lower costs accommodated with the financing funds and create financial space to realize investments.

Therefore our interest in working capital regards the management of (components of) the working capital in general and more specific for PUHE's, in particular De Woonplaats.

In a conversation with Mr. Dreeyers, Teamleider Planning & Control of De Woonplaats, it became apparent that at this moment the treasury function at De Woonplaats only has a focus on long term financing. The treasury function is mainly regarded as the management of long term financing and the management of working capital, for example the consideration whether to use trade-credit or not, is not a core competence.

In essence, no attention is directed at the working capital (management). De Woonplaats has acknowledged this lack of attention and wants to give more direction towards the management of its working capital.

This means that we want to find answers to interesting questions like:

How can working capital be defined for a PUHE? How is this situated for De Woonplaats and how does this relate to other PUHE's? And ultimately how can De Woonplaats manage (components of) its working capital.

By answering these sub questions, among others, and the main research question we hope to contribute to a more structured management of the short term financing funds of De Woonplaats and PUHE's in general.

2.2 Goals of the research

The goal of this research first of all is to clarify the relation between the cash flows of an organization and its working capital. Although both notions are interrelated, they are not the same and this paper aims to set out this difference but also the relation that exists between the notions. To do this, the cash flows for De Woonplaats are identified and the contribution of the working capital to these cash flows is determined.

The next goal is to set out the notion working capital. Working capital on itself can be outlined in formula form, but from literature there are different formula's possible. The objective is also to create awareness as to why working capital is important for an organization and why the management of working capital can contribute to the financial performance of an organization.

After setting out the working capital notion this paper will be focused on the empirical application of the working capital notion for a PUHE. Also, an overview of the development of the working capital position of De Woonplaats will be provided by a trend analysis.

In order to be able to create a specific focus towards outlining some working capital management practices for De Woonplaats (being a PUHE) a benchmark is performed. The aim of this benchmark is not only to review the financial performance of De Woonplaats, but also to identify possible ratios for benchmarking working capital positions with considering their separate benefits and downsides, and considering the advantages and disadvantages of benchmarking.

After the significance of working capital management is outlined and the benchmark is performed, this paper aims to provide an overview of general practices and policies to manage the working capital for an organization.

From the direction that is provided regarding possible improvements in the working capital position of De Woonplaats the paper then tries to apply the described general practices and policies for working capital improvements to De Woonplaats.

The ultimate goal of this paper is to develop a structure for managing working capital in general and for managing working capital within PUHE's. To be more specific, to be able to give amendments for De Woonplaats in managing their working capital and directions for improvement, considering the importance that working capital has within an organization and the relation with the financial performance in the organization.

2.3 Research questions

It becomes apparent that in recent times financial performances like profitability are becoming more important while the pressure on these performances also increases. This is also the case for De Woonplaats that finances its public activities with income from regular rental, business rental and selling of real estate. This means that the interest in this research is directed at how to control the working capital in a PUHE in order to possibly contribute to an improved financial performance.

Based on this interest a main research question is formulated which will be tried to answer by multiple sub-questions that are formulated. The main research question is stated:

- Short term financial planning;
How to control / manage working capital within De Woonplaats, being a Dutch public utility housing enterprise?

The sub-questions that are formulated are stated:

1. What is the relation between working capital and the cash flows of an organization, in specific, De Woonplaats?
2. What is meant by working capital and how can it be defined for De Woonplaats being a public utility housing enterprise?
3. How does the working capital of De Woonplaats relate to other public utility housing enterprises?
4. Which instruments are there to control / manage the working capital for a public utility housing enterprise?
5. Which of the described instruments to control / manage the working capital are applicable for De Woonplaats?

2.4 Research methodology & structure

The first sub-question will elaborate on the relation between working capital and the cash flows that are partly determined by the working capital position for De Woonplaats in 2007. The answer of this question will be based on existing literature regarding cash flows and working capital, and will be applied to De Woonplaats.

The second sub-question will define the notion working capital, will give a description of its central components and will set out the working capital position of De Woonplaats for the 2003-2007 period. To outline the working capital position of De Woonplaats in the 2003-2007 period a trend analysis is performed based on the working capital notion defined in this chapter. The foundation for this question lies in existing literature and methodology on working capital with a practical application.

The third sub-question will give an overview of the working capital position of De Woonplaats in 2007 compared to twenty-five other PUHE's. This comparison is conducted in order to create a focus for De Woonplaats for possible improvements towards specific working capital components. The answer of this question will be based on a benchmark that was performed on twenty-five other PUHE's.

For the definitions and practical application of certain ratios regarding working capital, existing literature was used and multiple interviews with financial officers of De Woonplaats and other PUHE's were conducted (see appendix 5).

The type of analysis used in this chapter is cross-sectional because the working capital of De Woonplaats is compared to other organizations (PUHE's) in the related industry. The analysis however is not used to give a judgement about the entire PUHE-branch. Also an industry comparable analysis is performed to compare the performance of De Woonplaats with the average performance of the sample of PUHE's.

The fourth sub-question will give a description of general tools to control working capital positions of organizations and in particular PUHE's. The answer on this sub question will be focused on underlying policies and practices that determine the working capital position and will be based on existing theoretical literature.

Finally, the fifth sub-question will be used to define which of the tools described in sub-question four will be applicable to De Woonplaats, with considering the earlier created focus in sub-question three. The answer on this question will be based on the considerations in sub-question four and will be applied to De Woonplaats.

By answering these sub questions our ultimate goal is to find an answer to the main research question as how to control / manage the working capital within De Woonplaats, being a Dutch PUHE? To answer this question we will describe the general instruments for managing working capital and will ultimately obtain a more specific focus for De Woonplaats as a result of the benchmark we performed. Ultimately, by answering the main research question we hope to be able to provide De Woonplaats with recommendations regarding working capital management and in that way contribute to improvements in the financial performance of the organization.

The structure of the research is summarized in figure 2 on the next page.

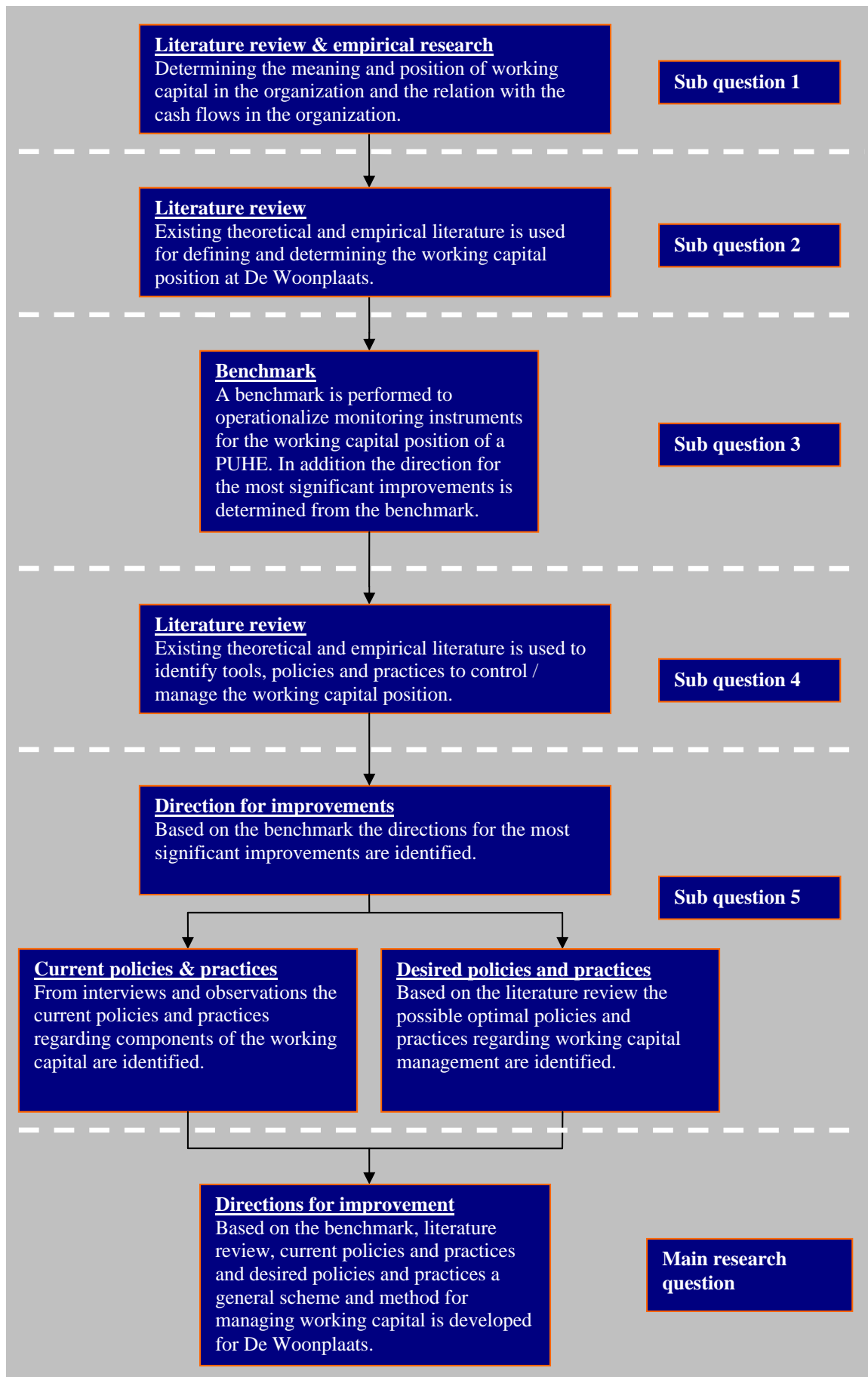


Figure 2: Research structure “Short term financial planning”.
 Source: Personal research.

3. What is the relation between working capital and the cash flows of an organization, in specific, De Woonplaats?

3.1 Kinds of cash flow

From theory, organizations can have three different kinds of cash flows in their cash flow statements (RJ 360.201):

- Cash flow from operating activities.
- Cash flow from investing activities.
- Cash flow from financing activities.

The working capital policies and practices of an organization regard the current assets and current liabilities and so, determine partly the above cash flows. In essence, the working capital position of an organization is the difference between the current assets and the current liabilities. Current assets in this case should be regarded as the inventories, receivables and cash of an organization and the current liabilities as all the liabilities due within 1 year. A detailed definition will be given in chapter 4.

In order to clarify the working capital positions and the development of these positions for De Woonplaats the relation between the cash flows and the working capital has to be investigated. Because there is a significant change in the working capital position for De Woonplaats of ultimo 2006 and ultimo 2007, and 2007 is the most recent year of publication of the financial statements at the time this research was conducted, we will concentrate the analysis on this timeframe.

The different accounts that influence the working capital of an organization will be described in detail in chapter 4. However, as figure 3 on the next page will show, it can be concluded that the three cash flows mentioned above are not all influenced by the working capital position of De Woonplaats in the same degrees. In the end, all the cash flows of an organization influence the liquidity position of the organization, but the operational cash flow has close relations with the working capital of the organization. Organizations want to have their operational cash flows to be as high as possible, because the higher the operational cash flow, the higher the liquidity from these cash flows and the more the organization can invest / the less it will have to use external funding.

3.2 Operational cash flow & working capital

To determine the operational cash flow for a specific period the starting point is the operating income of that period. Based on this operating income certain amendments have to be made. These amendments regard amounts in the profit and loss account specified as costs, but that in reality are not a cash outflow. In addition, possible investments made by an organization are activated and reported on the balance sheet. This means that these investments are not part of the profit and loss account although they do cause a cash outflow at that moment. A correction in the cash flows has to be made regarding these aspects.

On the next page in figure 3 an overview of the possible amendments that have to be made to determine the actual operational cash flow is given. This overview also shows the relation between working capital (management) and cash flows. In fact, by managing the working capital the operational cash flow of the organization is partly and indirectly managed.

From figure 3 below it becomes apparent that the operational cash flow for an important part is determined by the mutation in the working capital position (increase in receivables, increase in inventories and decrease in payables) during the financial year in question.

In general, a decrease in the current assets would result in an increase in the operational cash inflow (all other aspects being equal) and an increase in the current liabilities would limit the cash outflow at that moment.

An increase in the current assets would mean a decrease in the operational cash inflow at that moment and so, money being tied up in the working capital which can not be used elsewhere by the organization (all other aspects being equal). A decrease in the current liabilities would increase the cash outflow at that moment.

<u>Cash flow from operational activities</u>		
Operating income		X
+ Depreciation		X
Change in working capital:		
- Increase receivables	X	
- Increase inventories	X	
- Decrease payables	X	
	X	
		X
Cash flow from operating		X
+ Interest received	X	
+ Dividend received	X	
- Interest paid	X	
- Profit tax paid	X	
+ Extraordinary gains received	X	
	X	
		X
Operational cash flow		X

Figure 3: General overview operational cash flow statement.
Source: KPMG Jaarboek externe verslaggeving 2007/2008.

3.3 Interrelation working capital & cash flows

Although the notions working capital management and cash flow management are closely interrelated as became clear in the previous section, they are in fact two different notions.

Cash flow management can be regarded more as the timing and synchronization of cash- inflows and outflows, as Orgler (1969) states: “the cash management problem originates from the lack of synchronization between cash inflows and outflows which raises two interrelated issues: (1) How to finance cash requirements when cash outflows exceed inflows, and (2) How to invest a cash surplus when net cash flows are positive”.

Working capital management, as will be further explained in chapter 4 is about ensuring the ability of the organization to fund the difference between the short term assets and short term liabilities. Therefore, working capital management can have a significant impact on the financial performance of the organization and it influences the operational cash flows within the organization. The operational cash flow is on a higher level than the working capital, since the working capital is part of the (operational) cash flow of the organization as figure 3 outlined.

Working capital management can contribute to improved cash inflows and also decrease cash outflows, not only in the sense of delaying cash outflows, but also really decreasing cash outflows as will be shown later in this paper.

The interrelation between working capital and the cash flows of De Woonplaats can best be clarified in a cycle in which the working capital components, together with other cash flows are presented. This cycle is shown in figure 4 below. The figure consists out of two parts, because there are two central cycles within De Woonplaats. One concerns the real estate destined for sale and the other one concerns the rental of real estate. The most important working capital components in this figure are the trade debtors, projects in progress / finished goods and the trade creditors and so, regard the operational cash flow.

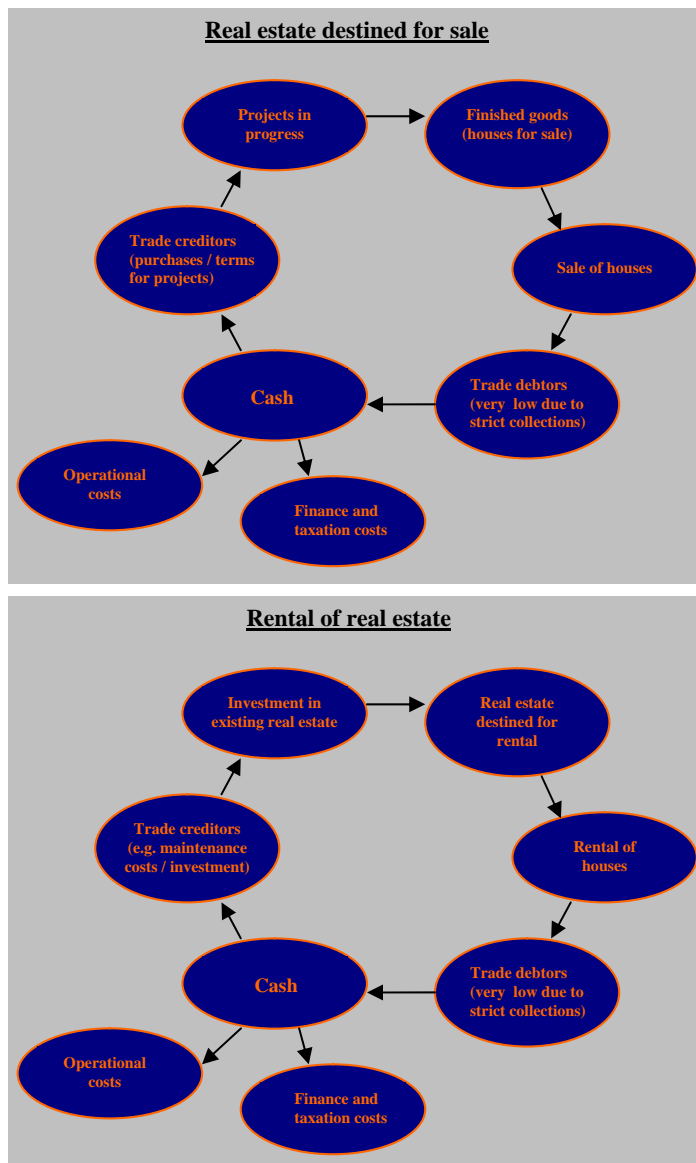


Figure 4: Cash flow cycles within De Woonplaats.
Source: Personal research.

3.4 Cash flow De Woonplaats

From the financial statements of De Woonplaats 2007 it becomes clear that the most significant cash flow for the working capital position is the cash flow from operating activities.

The mutations in the working capital components that influence this operational cash flow for De Woonplaats in 2007 according to the financial statements are:

- Mutation in inventories / work in progress.
- Mutation in receivables.
- Mutation in short term liabilities.

In addition to this, there are more streams of cash flow from operational activities, but on which the (management of the) working capital position of De Woonplaats has no direct effect. Under the operational cash flows these are the received interests and results from financial fixed assets, results from derivatives, taxes and paid interests. These are not directly originated by the working capital accounts, but for example the result of the long term debts, financial fixed assets and other operational activities. This means that in order to influence these cash flows attention needs to be directed at managing, for example, the financial fixed assets or the long term debts.

Under the cash flow from financing activities another indirect operational cash flow is listed. This is the mutation in the short term part of the long term debt. This again is the result of the long term debts.

For De Woonplaats, based on the singular financial statements year end 2007, the operational cash flows influencing the working capital position in table 1 occurred.

Mutation working capital De Woonplaats *1.000 Euro	2007
Mutation inventories / work in progress	-€ 2.092
Mutation receivables	-€ 227
Mutation short term liabilities	-€ 33.055
Mutation short term part of long term debt	€ 42
Total	-€ 35.332

Table 1: Mutation working capital De Woonplaats 2007.

Source: Composed of De Woonplaats financial statements 2003-2007.

These cash flows are partly determined by the mutations in the working capital of De Woonplaats in 2007 and are mainly the result of the policies De Woonplaats executes regarding these accounts. This shows that in total De Woonplaats has significantly lowered these accounts in 2007, but that this also caused a significant operational cash outflow.

3.4a Cash flow current assets

Below in table 2 the exact specification of the mutation in the current assets of De Woonplaats based on the singular financial statements of 2007 is given:

Mutation current assets De Woonplaats *1.000 Euro	2007
Inventories	-€ 563
Projects in development	€ 696
Trade debtors	-€ 134
Local authorities	€ 10
Receivables on allied organizations	€ 2.742
Other receivables	-€ 3.986
Transitorical assets	€ 1.595
Cash and cash equivalents	€ 5.357
Total	€ 5.717

Table 2: Mutation current assets De Woonplaats 2007.

Source: Composed of De Woonplaats financial statements 2003-2007.

The mutation in the inventories and work in progress (2.092K Euro) is not equal to the mutation in the balance sheet.

This difference is due to a change in value on a specific project which is deducted from the inventories / work in progress (1,960K Euro) and the actual mutation in the inventories (133K Euro).

The inventories are defined by De Woonplaats as newly built real estate that is ready for sale, and in that way do not include existing real estate destined for rental or in particular, sale. This definition may cause some problems for the benchmark that will be performed in chapter 5. These problems will be discussed there.

The change in the inventories is caused by completing some new housing estates, investments in inventories, the selling of inventories and a provision for losses on inventories.

The work in progress exists of expenses made for projects that are in development. In essence, the change in inventories is the result of cash inflows (sale of real estate) and multiple cash outflows (construction costs and costs accommodated with the finishing of work in process). A decrease in inventories during the year (other aspects being equal) results in a lower working capital position and an increase in the operational cash inflow or a decrease in the operational cash outflow.

The mutation in the receivables is equal to the mutation of the receivables in the balance sheet. A decrease in the receivables (other things being equal) results in a lower working capital position and a higher operational cash inflow.

The change in receivables is caused by multiple accounts.

First the receivables on trade-debtors entirely exist of tenants whose rental payments are overdue. The over dues vary from two months till more than three months.

If we take a closer look at the origin of the trade-debtors it becomes clear that it is caused by rental incomes from commercial real estate (approximately 10%) and rental incomes from public renting (approximately 90%). In essence, the mutations in the trade-debtors are the result of cash inflows caused by sale of real estate and rental incomes and the credit policy as enforced by De Woonplaats.

The amount of receivables on trade-debtors is offset by the pre-received common rental income, which means that the nominal overdue rental payments are higher than the balance sheet shows. To determine a more precise working capital position it may be better if De Woonplaats does not offset the trade-debtors account by the pre-received rental income. It means for 2007 that the current assets of De Woonplaats will increase with 732K Euro, just like the current liabilities due to an increase in pre-received rental incomes.

On balance, this does not have an effect on the net working capital amount, but it will lead to a higher current ratio. This ratio will be further clarified in chapter 5.

The best situation for De Woonplaats from a financial viewpoint would be to have the nominal receivables to be as low as possible, because it is indirect a form of financing for the debtors.

Further there are receivables on related organizations.

RJ 217.507 states that *“the consolidated balance sheet and profit and loss account of a group are not allowed to be influenced by transactions within the concern as a whole, as far as those positions resulting from those transactions are not realized by transactions with third parties. Results on transactions with other members within the concern in those cases have to be eliminated, both, in the balance sheet and profit and loss account”*.

This means that if De Woonplaats in general has predominant control (51% or more of the shares, majority of voting rights or the possibility to elect / dismiss more than 50% of the directors and governors) over these entities the receivables will be corrected in the consolidated financial statements just like the accommodated costs.

If not, they are receivables and without considering the financial situation of the related organization it is better if these amounts are as low as possible for De Woonplaats. This because every Euro tied up in the receivables can not be used elsewhere by the organization.

It may however be sensible to consider the financial situation of the related organization. If for example the related organization faces financial distress and a potential bankruptcy causes De Woonplaats to experience a significant loss it might be wise to allow some credit space which at least will keep the organization in business. This however will always be a trade-off between risk and profitability.

The other receivables consist for the biggest part of one account again categorized as other receivables. The transitorical assets in this way are the same, the biggest amount is described as other transitorical assets.

The transitorical accounts are the result of cash outflows like prepayments, which after payment are listed on the balance sheet as receivables because the payment is made in advance and (a part of) the actual costs still have to occur in the future.

Last, the cash and cash equivalents are a significant part of the total current assets of De Woonplaats and they increased between 2006 and 2007. This account can be considered the ultimate account of all the cash inflows and cash outflows, as also the cash flow statements of De Woonplaats indicate. All the received amounts and paid amounts are mutated on this account; rental incomes, sales incomes, construction costs, personnel costs, financial funding, repayments of funds etc. It ultimately is the result of all the cash flows that occurred in the organization in the given period.

3.4b Cash flows current liabilities

The significant change in the short term liabilities is, among others, due to a decrease in committed obligations on real estate. The entire specification of the significant change of the current liabilities is shown in table 3.

Mutation short term liabilities De Woonplaats *1.000 Euro	2007
Debts to financing companies	-€ 3.945
Debts to local authorities	€ 3.987
Debts to creditors	-€ 522
Taxes and social securities	-€ 695
Committed obligations on real estate	-€ 45.241
Other debts	-€ 1.066
Transitorical debts	€ 14.469
Total	-€ 33.013

Table 3: Mutation short term liabilities De Woonplaats 2007.
Source: Composed of De Woonplaats financial statements 2003-2007.

The decrease in the short term liabilities means that De Woonplaats has decreased its short term financing credit. After all, the short term liabilities are a form of financing your operational activities. Or as Borde & McCarty (1998) state regarding only the accounts receivable and accounts payable: “If a firm’s accounts payable exceeds its accounts receivable, it is receiving trade credit financing”.

An increase in the short term liabilities (other aspects being equal) results in a lower working capital position and lower cash outflows at that specific moment. At the moment of writing this paper, long term debts have a higher cost of capital compared to short term debts, due to the relative higher risk of long term debts. See appendix 2 (Interest rates 15-06-09, Financieele Dagblad) and appendix 3 (Interest rates 15-06-09, Wallich & Matthes).

At the same time when De Woonplaats decreased the short term liabilities, the long term debts increased with 44.074 million Euros against an interest rate of 4,93% and decreased with 5.248 million Euros against an interest rate of 4,85% (both interest rates are variable and are ultimo 2007). This means that one can conclude that De Woonplaats has replaced a part of its short term liability financing with long term debts.

When we assume that accommodated costs of the debts to financing companies and local authorities are due at the end of the year, the financial consequences of these changes in financing in 2007 are shown in table 4.

Financial consequences financing changes De Woonplaats 2007 *1.000 Euro	Amount	Interest rate	Interest
(New) debts to financing companies	€ 44.074.000	4,93%	€ 2.172.848
Decrease in existing debts local auth.	€ 5.248.000	4,85%	€ 254.528
Total			€ 1.918.320
Considering only the decrease in short term debt	€ 33.013.000	4,93%	€ 1.627.541
Total			€ 1.627.541

Table 4: Financial consequences of changes in financing 2007.
Source: Composed of De Woonplaats financial statements 2003-2007.

In this calculation we only take the interest of the debts to financing companies and local authorities into account. The interest rates in table 4 are based on the financial statements year end 2007 of De Woonplaats, since these are the effective interest rates applicable to De Woonplaats.

The first part of the table shows the assumed increase in interest costs for the total change in the debt structure. The second part only shows the increase in interest costs for the decrease in the short term liabilities, under the assumption that this is financed by extending the long term debt, considering the fact that the total assets remains approximately the same between ultimo 2006 and ultimo 2007 (-0.49%).

For financing purposes it might be profitable to increase the short term liabilities and, in that way, be less dependant upon long term debts with higher accommodated costs at this moment. However, not all the accounts in table 3 are proper candidates to finance the operational activities by extending the credit. The decrease in the short term liabilities in this case was necessary because the committed obligations on real estate became due.

The reason for this is that there was 45 million Euro in committed obligations (obligation to a part of a construction to be finished in 2007, so within one year) under the short term liabilities that was executed in 2007, so this could not longer be categorized as short term liabilities. At the end of 2007 this has been reported as fixed assets.

In addition to this, the WSW (an institution that provides guarantees to financiers of PUHE's and so provides better financing conditions for PUHE's) has committed their members to a maximum short term financing of the tangible fixed assets of 7,5% (De Woonplaats; Financieel beleidsplan).

This means that De Woonplaats can not obtain an unlimited amount of short term funding, but has to comply with these limits. For 2007 this results in a maximum short term funding of 59 million Euros. De Woonplaats however has no short term financing instruments in 2007 and has not utilized any part of an existing credit facility of 35 million Euros.

The debts to financing companies are the short term part (due within one year) of the long term debts. This amount cannot be influenced directly, only by mutations in the long term financing structure. The periodicity of this short term part will have its effect on the interest payments, because this account still bears the interest rate of the long term debt. Ultimately, at the due date this will cause a cash outflow.

The debts to local authorities are identical to the debts to financing companies, because this also is an interest-bearing debt. Again, this will ultimately cause a cash outflow at the time the redemption and interest are due.

The debts to creditors are invoices of suppliers / contractors that have not been paid yet. This kind of credit generally has no direct interest rate and because of that can be a cheap form of credit. On the other side, as will be pointed out later, it can also be the opposite and so, can be a very expensive form of credit.

The mutation in this account is caused by purchases on credit and cash outflows due to payments. The amount at year end will ultimately also cause a cash outflow in the upcoming periods.

Taxes and social securities are amounts regarding the sales taxes and wage taxes. Most generally the tax authorities allow some period of credit, but will charge interest and penalties when the amounts are overdue. These tax amounts are caused indirectly by the rental incomes, sales incomes and personnel expenses. In fact, those amounts could be regarded as going concern costs.

The committed obligations on real estate were commitments stemming from history that were evened at the end of 2007. This caused this account on the balance sheet year-end 2007 to be zero, but during the year 2007 caused a cash outflow.

The other debts are composed out of several smaller debts to allied companies and small amounts of pension payments and service costs.

Increasing the liabilities to allied companies (in case when predominant control can be executed) would not make sense, because these amounts will cause possible accommodated interest payments and ultimately will be corrected for consolidation purposes.

The transitorical liabilities are composed of two bigger amounts, which are pre-received rental incomes and not yet expired interest on debts due within one year. The remaining (smaller) amounts are other liabilities.

Before it was stated that for financing purposes it might be profitable to increase the current liabilities, but that not all accounts are proper candidates for this. An important remark that should be added to this is that not only the financial viewpoint should be considered, but that certain amendments can have non-financial consequences with ultimately financial effects.

One of the possible consequences of delaying payments for example is that the organization loses a part of its reputation because of the change in payment behaviour. In addition to this a financial officer of an other PUHE that was interviewed added to this: *“there also exists a trade-off between purchasing on the most favorable terms and purchasing from local organizations. A PUHE also has a local connection and it remains the question if purchasing on the most favorable terms will turn out to be the most favorable on the long term”*.

3.5 Conclusion

This chapter described the role of working capital (management) in the cash flows of an organization and in particular of De Woonplaats. It turns out that the working capital (management) is an important component of the operational cash flow for an organization and so, can significantly influence the financing needs and future investment capacity of the organization.

Furthermore this chapter outlined the different operational cash flows for De Woonplaats regarding the current assets and current liabilities of the organization.

In addition these important cash flows were analyzed and the financial consequences of a change in financing structure were determined.

4. What is meant by working capital and how can it be defined for De Woonplaats, being a public utility housing enterprise?

4.1 Importance of working capital

From literature it becomes clear that working capital and working capital management are important notions for organizations.

According to Sagan (1955): *“the cash manager’s management of the working capital accounts can vitally affect the health of the company”*.

Harris (2005) in his turn points out the significance of understanding the drivers of working capital management:

“By understanding the role and drivers of working capital management and taking steps to reach the “right” levels of working capital, companies can minimize risk, effectively prepare for uncertainty and improve overall performance”.

Nazir and Afza (2008), but also Deloof (2003) all point out the significance of working capital management for the performance of an organization. Nazir and Afza (2008) refer to a research of Smith (1980): *“the working capital management plays an important role for the firm’s profitability and risk as well as its value”*.

Deloof (2003) states that: *“it can be expected that the way in which working capital is managed will have a significant impact on the profitability of firms”*.

Deloof (2003) concluded based on a measure for working capital called the cash conversion cycle, that by “improving” this cycle, managers can increase corporate profitability. By improving he refers to limiting the working capital invested in the inventories and accounts receivable.

Based on the above statements it becomes clear that the management of working capital can significantly contribute to the (financial) performances of an organization. This is one of the reasons why it should be an important aspect of the policy of a PUHE which for its public activities is dependent upon the financial performance of the regular rental, business rental and the selling of real estate.

After all, every Euro tied up in the working capital can not be used for other purposes, in this case public activities.

4.2 Working capital components

This section is used to give an overview of the key components of the working capital. The foundation of this overview finds itself in the important rules and legislations that are applicable from the Dutch accounting standards. These are Titel 9 Boek 2 BW, the Regulations of the Counsel for Reporting Standards, Jurisdiction from the Commercial Chamber and the Law Lords, the IFR-Standards, the IASB and IASC and notions of business economics.

The necessity for determining and explaining the key components of the working capital comes from the fact that many interpretations of, for example inventories, are possible. By reviewing the above guidelines exact and agreed upon classifications of the different components of the working capital can be formulated.

Merville and Tavis (1973) also described in their article that the working capital can be divided into components. They describe two categories of funds: *“funds committed on a permanent basis and those committed temporarily. Permanent working capital increases or decreases as the activity level of the firm trends upward or downward respectively”*.

In addition to this, they also divide the permanent part of the working capital into two different components: *“Permanent working capital may be further divided. There is a basic level of cash-receivables and inventory required to service demand at the firm’s minimum activity level where credit terms are the most stringent possible and inventory investment is minimized. This minimum commitment would generally be financed through long-term sources only. In addition, there is a further commitment of permanent working capital required because of continuing credit and inventory policies. The financing of this incremental permanent commitment is not as clear, because it is tied to controllable variables and is a continuing commitment as long as the inventory and credit policies are maintained. Intermediate and short-term borrowing would be acceptable sources of financing for this incremental commitment”*.

In the next section the separate components of the working capital will be explained, to ultimately come to a formula to determine the working capital position based on the existing literature. The scope of this description is limited to the headlines, considering the purpose of the paper.

The purpose of the paper is not to give a thorough description of all the components of the working capital, but to give direction to the management of working capital. The description is based on the Dutch accounting standards as described in the first part of this chapter and is based on a publication by KPMG:

KPMG Jaarboek externe verslaggeving 2007/2008, Titel 9 Boek 2 BW, 2007 KPMG Accountants N.V.

As will turn out later on, defining these different components is of significant importance for determining working capital positions and related financial ratios.

4.3 Current assets.

Current assets are considered assets that have a short operational term, which can be defined as due within one year. This is, however, not the main differentiation between current assets and fixed assets. The main differentiation is made on the fact if the specific assets are intended for durable usage in the processes of the organization.

According to the KPMG Jaarboek externe verslaggeving 2007/2008 the following general accounts in the current assets exist:

- Inventories.
- Accounts receivable.
- Other short term financial investments.
- Other current assets.
- Cash and cash equivalents.

4.3a Inventories.

The inventories can consist of goods that are (RJ 220.105):

- Destined for sale.
- In development for sale.
- Used for production of goods or the delivery of services.

Inventories can consist partly of work in progress and can be divided in semi-manufactured goods and projects in progress.

Projects in progress are to be described as the development of products / services by third parties and orders to construct an asset or a combination of assets which are not yet finished on year end closure (RJ 221.102).

The valuation of inventories is prohibited by law to two theories known as the purchase price and the actual value (Art. 384.1 Titel 9 Boek 2 BW).

The fact that inventories can consist of work and / or projects in development is very important for an organization like De Woonplaats. One of their activities is developing / building new housing facilities of which some will most likely not be ready before year / period-end closure. However, De Woonplaats uses in their financial statements a separate and clear description for their projects in progress and makes a clear distinction from their “regular” inventories.

A comment that should be made, based on some interviews with financial officers within De Woonplaats is that the inventories for De Woonplaats only consist of newly build real estate that is ready, and destined for sale. Already existing real estate that becomes destined for sale is not a part of the inventories, but is categorized as fixed assets. This may not be according to the classification of the inventories above, but the financial auditors accepted it in the financial statements 2007.

4.3b Accounts receivable.

Accounts receivable can best be described as amounts on which the organization has a claim towards third parties, caused by the delivery of services, or other causes. The accounts receivable can also consist of accounts like pre-paid costs and amounts still to be received. Receivables that are destined to serve the organization on a durable basis have to be categorized under the financial fixed assets by law. If the receivables can not be categorized under the financial fixed assets they automatically are considered as current assets.

In the annual reports the following differentiation between the receivables should be made (Art. 370.1 Titel 9 Boek 2 BMJ):

1. Receivables on trade-debtors.
2. Receivables on related organizations.
3. Receivables on organizations that have stakes in the focal organization and on related organizations.
4. Deposits requested from shareholders.
5. Other receivables.
6. Transitorical assets.

According to law, receivables should be valued on nominal terms with a deduction for a provision for uncollectibles (RJ 222.201).

In addition to the accounts described above, there is also another account that should be considered as current assets. This is the securities account that can consist of shares, bonds, derivatives and other financial instruments, options, futures and warrants.

For the presentation of these categories the law only describes the differentiation between (Art. 371 Titel 9 Boek 2 BW):

1. Shares and other forms of stakes in other related organizations, for the part that does not have to be categorized under the financial fixed assets.
2. Other securities.

For the valuation of these accounts the law prescribes the historical purchase price or, when the actual value is lower than the historical purchase price, the actual value (Art. 384.1, 7-8 / 387.2 Titel 9 Boek 2 BW).

4.3c Cash and cash equivalents.

Cash and cash equivalents can be considered as cash on hand, possessions on bank accounts and changeables and cheques (Art. 372.1 Titel 9 Boek 2 BW).

Deposits that are executed for a certain period, but (with or without losses in interest) over which the organization has control, can be considered as possessions on bank accounts. (MvT Art. 372 Titel 9 Boek 2 BW / RJ 228.102).

If this is not the case and the duration is longer than a few weeks, they have to be categorized under the receivables.

The valuation of the cash and cash equivalents is generally done at nominal value. (RJ 228.103)

4.4 Current liabilities / debts

Under the current liabilities the on year-end closure existing and determined obligations of the organization that normally are settled with regular payments have to be listed (RJ 205.103). Financial obligations can come from agreements or from law.

In the balance sheet the organization has to list the obligations that are related to fixed assets and inventories that are economical possessions. There can also be pre-received amounts on orders and transitorical liabilities presented under the liabilities.

In principle, without considering some exceptions, liabilities should be valued at the nominal value.

Liabilities or debts, by law, have to be divided according to their duration (Art. 375.2 Titel 9 Boek 2 BW). Liabilities with durations shorter or equal to one year are considered short term liabilities and can be categorized as current liabilities (RJ 250.105).

Liabilities that have a duration that lies above one year are considered long term liabilities and can be categorized as long term debts.

The short term part (payments due within one year) of the long term debts is advised by the RJ to be categorized as short term liabilities (RJ 254.102).

According to law (Art. 375.1 Titel 9 Boek 2 BW), companies are obliged to differentiate the short term liabilities into the following categories:

- a. Bonds, mortgage certificates and other debts with separate disclosure of convertible loans.
- b. Debts to financing companies.
- c. Received pre-payments on orders as far as they are not corrected on assets.
- d. Debts to creditors.
- e. Exchanges and cheques.
- f. Debts to allied companies.
- g. Debts to legal entities and ventures that have material shareholdings in the legal entity or in which the legal entity has a share and is not yet disclosed under f.
- h. Debts concerning taxes and social securities.
- i. Debts concerning pensions.
- j. Other debts.

4.5 Definition working capital

Now that the different components of the working capital have been set out we can turn to the actual definition of the working capital.

From literature a definition of the notion working capital can be given in formula form, which is obtained from the book of Brealey, Myers and Allen (2008), p. 789:

Net working capital = current assets – current liabilities.

Similarly to this statement, Filbeck and Krueger (2005) state that:

“Working capital is the difference between resources in cash or readily convertible into cash (Current Assets) and organizational commitments for which cash will soon be required (Current Liabilities)”.

This definition is a bit more specific formulated, but also somewhat more broad compared to the formula of Brealey, Myers and Allen (2008).

Regarding the current assets it gives a more specific definition by referring to resources in cash, but also resources readily convertible into cash. These latter resources can be considered for example receivables and common inventories.

The definition of current liabilities, however, refers to organizational commitments for which cash will soon be required. When this definition is strictly used, it means that it does not only refer to the current liabilities that are shown in the financial statements, but also to not in the balance-sheet signified obligations. One can think of commitments for intended future investments that can become due within one year.

A third definition of working capital can be deducted from a citation of Nazir and Afza (2008) who refer to Harris (2005) for the working capital management notion from the viewpoint of an organization’s CFO: *“from the perspective of Chief Financial Officer (CFO), working capital management is simple and a straightforward concept of ensuring the ability of the organization to fund the difference between the short term assets and short term liabilities”.*

From this elaboration the definition of working capital can be obtained being the difference between the short term assets and short term liabilities.

This definition is in congruence with the definition of Brealey, Myers and Allen (2008).

The definition we use in this paper for the working capital notion is in congruence with Brealey, Myers and Allen (2008) and the definition used by Nazir and Afza (2008).

This means that the notion working capital in this paper should be regarded as the difference (positive or negative) between the current assets and current liabilities, or: Working capital = current assets – current liabilities.

This definition is chosen because of its use in multiple researches and its universal applicability to financial statements, which is necessary for the benchmark that will be performed later on.

The net working capital can be considered a Euro amount measure of the difference between an organization’s current assets and its current liabilities.

This Euro amount can be both positive and negative. A positive Euro amount would mean that the current assets exceed the current liabilities and that the organization has a current ratio above one, which is in general considered to be adequate because the organization can pay its short term liabilities completely with its current assets.

A negative Euro amount would mean that the current liabilities exceed the current assets and that the organization has a current ratio below one.

In general this can be considered inadequate, but this might not be the appropriate conclusion in all cases. It may depend on the future expected cash flows and the cushion the organization has regarding its credit facilities.

The calculation of the working capital as an Euro amount on itself does not provide much insights when it is used in a comparison between organizations. A better measure would be to have this Euro amount in relation to the overall size of the organization. This can be done by relating the average net working capital to the average assets according to Leach & Melicher (2006). As the description already implies, the average net working capital to average assets ratio is calculated by the following formula:

$$\frac{\text{Average current assets} - \text{Average current liabilities}}{\text{Average total assets}}$$

The outcome of this formula gives an indication of the organization's liquidity. When considering no other factors, the higher this percentage, the greater the liquidity. The averages that are applied in this formula contribute to a more even value of the components. If for example the organization under analysis has an excess in the figures in the year of analysis this can result in an exceptional value of the working capital. By applying average amounts this is partly mitigated.

Another comment that has to be made is the fact that this general formula relates the working capital to the total assets. In an analysis of a single organization this does not lead to problems, but as will turn out later in the benchmark of PUHE's this does lead to problems. In addition, the working capital has a close relation to the cash flows of the organization. Therefore it may make more sense to relate it to a parameter of the cash flows within the organization, for example the total sales.

The given formula above is the most general formula used for determining the working capital position. There are different alternatives possible. Some organizations, for example a typical service organization, have no real significant inventories so this component of the working capital will not play an important role in the formula. This however, does not mean that it should not be taken into consideration. The formula itself still is useful and does provide the insights it intends.

This is why it is important to understand the different components that are part of the working capital, as described in sections 4.2, 4.3 and 4.4.

4.6 Working capital De Woonplaats

Now that the definition and the different components of the calculation of the net working capital are clarified we turn to the actual calculation based on the financial statements of De Woonplaats for the period 2003-2007.

This five year period is chosen in order to be able to compare the working capital positions over time and this data is the most recent data available at the time this research was conducted.

An important note that has to be made regarding the focus on this period is the fact that De Woonplaats in 2004 has executed a merger with an other PUHE.

This means that some important changes occurred in the financial statements of 2005, as can be seen in the total assets in relation to the total assets of 2004. According to the financial statements the net working capital developed as shown in table 5 and figure 5 on the next page.

Net working capital De Woonplaats 2003-2007						
*1.000 euro	2002	2003	2004	2005	2006	2007
Current assets	€ 32.752	€ 38.545	€ 24.736	€ 35.081	€ 39.093	€ 44.810
Current liabilities	€ 54.466	€ 110.282	€ 102.901	€ 117.770	€ 100.010	€ 66.997
Net working capital		-€ 71.737	-€ 78.165	-€ 82.689	-€ 60.917	-€ 22.187
% change			8,96%	5,79%	-26,33%	-63,58%

Table 5: Development of the net working capital for De Woonplaats between 2003-2007.
 Source: Composed of De Woonplaats financial statements 2003-2007.

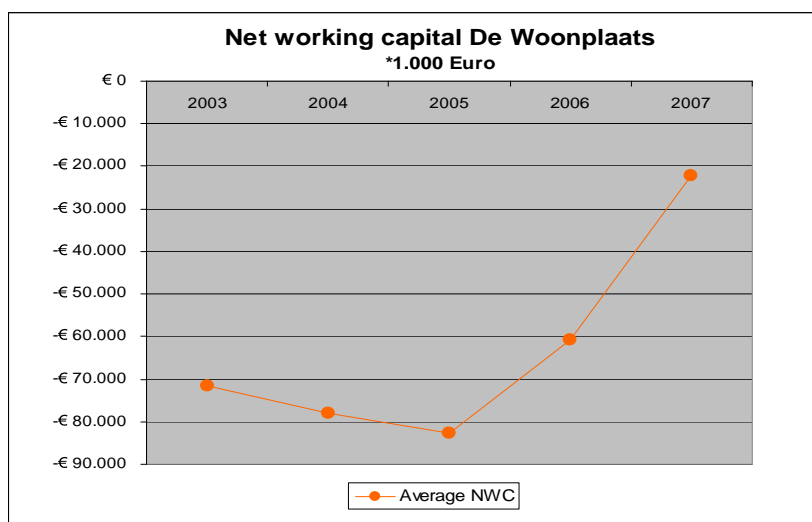


Figure 5: Development of the net working capital for De Woonplaats between 2003-2007.
 Source: Composed of De Woonplaats financial statements 2003-2007.

The first conclusion that can be drawn from table 5 and figure 5 is that the net working capital of De Woonplaats was every year negative, which means that the current liabilities exceeded the current assets. This, however, does not necessarily mean that these values are inferior. It can be the case that this is a common practice in the whole branch. This will become clear in the benchmark in chapter 5.

The negative working capital values can be explained to a large extent by the relative high values of debts to financing companies and transitorical debts. This last account mainly regards pre-received rental incomes and not yet expired interest on debts. In 2003, 2004, 2005 and 2006 another account is causing relative high current liability amounts. This is the committed obligations on real estate and commercial property. In 2007 these committed obligations became zero.

Although having negative working capital positions may be common in the branch, a negative working capital in general means that the organization has higher current liabilities than current assets and that it is not able to cover all its debts due within one year with its assets transferable into cash within one year.

An other conclusion that can be drawn based on table 5 and figure 5 is that since the year 2005 the net working capital has moved significantly towards more positive values. Again, this does not necessarily mean that this is a beneficial development. The main reasons for these developments will be discussed in the next chapter.

It is in these sorts of contexts that the average net working capital to average assets ratio proves its value, because the working capital position should be considered in relation to the size of the organization.

The fact that this ratio relates the working capital to the average assets makes that the comparison of the working capital over the period 2003-2007 in general should not be significantly biased by the different sizes of the organization. For PUHE's however this will turn out to be different as will be explained in chapter 5.

The development of the average net working capital to average assets ratio is shown in table 6 and figure 6.

Net working capital-to-average assets De Woonplaats 2003-2007						
*1.000 euro	2002	2003	2004	2005	2006	2007
Current assets	€ 32.752	€ 38.545	€ 24.736	€ 35.081	€ 39.093	€ 44.810
Average current assets		€ 35.649	€ 31.641	€ 29.909	€ 37.087	€ 41.952
Current liabilities	€ 54.466	€ 110.282	€ 102.901	€ 117.770	€ 100.010	€ 66.997
Average current liabilities		€ 82.374	€ 106.592	€ 110.336	€ 108.890	€ 83.504
Average NWC		-€ 46.726	-€ 74.951	-€ 80.427	-€ 71.803	-€ 41.552
Total assets	€ 457.347	€ 498.364	€ 548.682	€ 820.582	€ 841.594	€ 837.457
Average total assets		€ 477.856	€ 523.523	€ 684.632	€ 831.088	€ 839.526
NWC-to-average assets		-9,78%	-14,32%	-11,75%	-8,64%	-4,95%

Table 6: Development of the net working capital-to-average assets ratio for De Woonplaats between 2003-2007.
 Source: Composed of De Woonplaats financial statements 2003-2007.

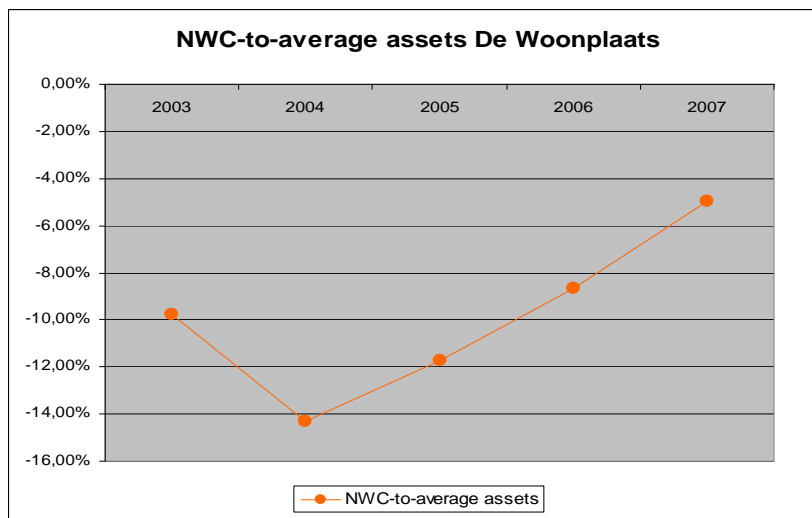


Figure 6: Development of the net working capital-to-average assets ratio for De Woonplaats between 2003-2007.
 Source: Composed of De Woonplaats financial statements 2003-2007.

From table 6 and figure 6 it can be concluded that in contrast to what table 5 and figure 5 outlined, the net working capital developed to a more positive value between 2004 and 2005.

In addition, it can be concluded from table 6 and figure 6 that since 2004 there is a trend visible with increasingly more positive values for the net working capital.

The main reasons for these developments are increases in the current assets and decreases in de current liabilities. The increase in the current assets in 2007 is caused by an increase in the cash and cash equivalents by 5,3 million Euros. The decrease in the current liabilities in 2007 is caused by a significant amount of committed obligations that was executed during that year.

4.7 Remarks

The value's in tables 5 and 6 and in figures 5 and 6 are obtained from the balance sheets in the financial statements, based upon the general categories mentioned (current assets, current liabilities and total assets), and the accounts they exist of.

Although these values in itself give insights into the development of the working capital position of De Woonplaats, it is important to consider these ratios relatively to other PUHE's. This means that it is important to compare the working capital of De Woonplaats on financial ratios with other PUHE's. Therefore a cross-sectional analysis and an industry comparable analysis of the working capital of De Woonplaats with other PUHE's are performed in chapter 5.

For this analysis we will use the general categories described in sections 4.3 and 4.4 in order to be able to compare the working capital of De Woonplaats with other PUHE's on the basis of their financial statements.

These financial statements all have a report of a financial auditor and therefore may be considered to give a true and fair view of the financial situation of the other PUHE's. However, the application of these categories and accounts for other measures regarding the working capital positions may be too broad. For this research they do provide the intended insights, so a further specification is not necessary.

4.8 Conclusion

This chapter described the importance of working capital in relation to the overall performance of an organization. The working capital notion was clarified by describing the different components that it exists of: the inventories, accounts receivable, cash and cash equivalents and the current liabilities.

This chapter also defined the notion working capital being the difference between the current assets and the current liabilities, or in formula:

Working capital = current assets – current liabilities.

This definition is also the definition that will be used further on in this paper.

Last, this chapter computed the working capital positions of De Woonplaats during the 2003-2007 period. It became clear that the working capital position of De Woonplaats was every year negative in this period, but developed towards more positive values in this period.

5. How does the working capital of De Woonplaats relate to other public utility housing enterprises?

As explained in section 2.4, a benchmark was performed on the working capital position of De Woonplaats with other PUHE's. It is important to perform such an analysis to be able to interpret the working capital position of De Woonplaats. As Spelbos, Turkenburg, Vlak and Konings (2008) state: *"Benchmarks tell something about your own position and with a thorough investigation they give direction to improvement courses"*.

Furthermore it helps to create a specific focus for further investigation and it ultimately will contribute to the ability to give specific amendments.

5.1 Research method for comparison and limitations

For the selection of other PUHE's a database of members of Aedes was used because of its public availability. Aedes is a branch association of PUHE's and related organizations in the public sector with more than 500 members. This database only includes the contact addresses of the member organizations. Collecting the financial statements required them to be published by the PUHE's on their own websites. In order to select PUHE's a random selection of members was made that at least had one or more establishments in addition to the headquarters as is the case with De Woonplaats. From these members the population was limited to twenty-five due to the limited timeframe.

With using the financial statements of the PUHE's, some possible biases should be addressed and prevented.

One possible bias in the figures from the financial statements is prevented by using the consolidated financial statements of the PUHE's. This bias regards the possible separate legal entity a PUHE can use for the development of real estate, thereby deferring some of the potential financial risks. If the singular financial statements would be used these separate entities and so, a big portion of possible inventories within these entities would not be included in the research.

Also members with total assets covering different sizes (from 214 million Euros to 2,468 billion Euros) were selected to prevent biases caused by certain sizes in the population. The locations of the different PUHE's were taken into account because this determines mainly the topographical market they are in. By taking this into account possible biases related to certain topographical locations in the Dutch public utility housing market were tried to be prevented.

Moreover, the year-end dates of the balance sheets of the PUHE's were verified to prevent biases caused by possible seasonal influences. Different year-end dates could cause biases in the comparison. All the PUHE's in the analyses have financial years that are congruent with the calendar year, ending on 31-12-2007.

The method used to select the PUHE's for comparison is a purposive sample which means that the outcomes will probably differ from other purposive samples. This means that there probably is a so called variety of samples.

An a-select sample method was not applied, because the figures are only used to be able to interpret the working capital of De Woonplaats. The goal is not to perform a total branch specific research, but only to give a focus and a more in dept analysis for further investigation.

Furthermore the database of Aedes only contains members of their organization and PUHE's are not obliged to be a member of this organization. This means that the population is already limited. In addition, a part of the members of Aedes did not publish the entire financial statements, but frequently only the general housing reports and not the financial statements like the balance sheet and the profit and loss account.

Last, an important restriction should be pointed out.

The cross-sectional and industry comparable analysis is not used to give a judgement about the working capital position of the entire PUHE-branch or other specific PUHE's, but is purely used for comparing purposes with De Woonplaats.

For a list of the organizations that are part of the comparison see appendix 4.

5.2 Measures for comparing analyses

For a comparing analysis of the working capital of De Woonplaats with other PUHE's some measures of the working capital need to be appointed. The starting point for these ratios is financial, however they also tell something about the processes behind the different components when the causes of the outcomes are analyzed.

In existing literature many different ratios regarding working capital are mentioned. In the literature used for the research the following ratios that are in congruence with the definition of the working capital in chapter 4 were denominated:

- Current ratio (Brealey, Myers & Allen 2008, Leach & Melicher 2006, Horrigan 1965, Lev 1969). *Formula: Current assets / current liabilities.*
- Quick ratio (Brealey, Myers & Allen 2008, Leach & Melicher 2006, Horrigan 1965, Lev 1969). *Formula: Current assets – inventories / current liabilities.*
- Net working capital (Brealey, Myers & Allen 2008, Leach & Melicher 2006) *Formula: Current assets – current liabilities.*
- Net working capital to-total-assets (Brealey, Myers & Allen 2008, Leach & Melicher 2006). *Formula: (current assets – current liabilities) / total assets.*

In order to operationalize the ratios described, interviews with financial officers within De Woonplaats and financial officers of other PUHE's were conducted (see appendix 5). In these conversations it became apparent that the calculation of these ratios could be a point of discussion, just like some of their components. This will be explained in the application of the different ratios below.

The first ratio we will use for comparing purposes is the current ratio. It is a traditional measure of liquidity which indicates how far an organization is able to pay for its short term liabilities with its current assets, if these suddenly become due.

The choice for this ratio is made due to the possible significant definition problem of the inventories for a PUHE. From multiple interviews that were conducted internally at De Woonplaats and with other PUHE's it became clear that De Woonplaats quantifies its newly build real estate destined for sale as inventories. An other PUHE only quantifies its soil positions as inventories and another one only considers the maintenance materials from an internal maintenance department as its inventories. In order to obtain a decisive answer to this question every organization from the sample should be interviewed. This however, does not lie in the scope of this research. Therefore, for comparing purposes, it is decided to also include organizations with inventory levels of zero in the calculations, because we have no evidence that shows that these organizations do have inventories, but do not categorize them as inventories.

If we use the quick ratio in this scope we would not take the inventories into consideration, thereby not considering the possible definition problems regarding the inventories.

On the other hand it may also have been sensible to use the quick ratio considering the inventories of PUHE's. For De Woonplaats the inventories consist of newly build real estate that is destined for sale or real estate which is in construction.

Although the accounting standards regard inventories to be current assets, the conversion time of such inventories in this case may be questionable.

However, there are multiple arguments to take the inventories into consideration in the current ratio calculation:

- The inventories (newly build real estate destined for sale) can represent a significant value, depending on how they are defined.
- Real estate in general can be assumed to keep this value (not considering the current economical situation)
- Real estate in general is considered not to be extremely specific therefore being marketable.
- Inventories are a core component of the current assets, however this may be questionable for PUHE's.

These arguments emphasize to take the inventories into account in the calculations. In addition, RJ 212.106 states that tangible fixed assets are assets that serve the activities of the organization on a durable basis. This is not the case with real estate destined for sale, so they should be considered as inventories and taken into account in the current ratio calculations.

A remark that should be made in this context is that the current ratio is often regarded as being a suitable ratio for window dressing, especially for external reporting purposes. This means that an organization can easily influence this ratio just before closing the financial year. This can be done by, for example, paying a large amount of short term liabilities and so, presenting a better ratio than it would be according to normal operating procedures. Because we use the financial statements of the PUHE's in this research, the possible effects of window dressing in these financial statements can not be prevented.

A second ratio concerns the working capital amount in relation to the size of the organizations. Considering the comparability of the working capital when related to the size of the organization a parameter that represents the size of the organization should be appointed. A well know parameter in this context is the total assets. However, considering the fact that the organizations in the benchmark are PUHE's, this results in some difficulties regarding the valuation of the tangible fixed assets of the organization. These difficulties arise because the total value on the balance sheet of a PUHE is mainly determined by the tangible fixed assets. After an analysis of the valuation of the tangible fixed assets of the PUHE's in the sample it became clear that 12 PUHE's value their tangible fixed assets based on the actual values. The other 13 PUHE's value their tangible fixed assets on historical costs. Without considering the current economical conditions, real estate is assumed to increase in value over the years. This means that that a valuation on actual values in general will always result in a higher value of the tangible fixed assets compared to a valuation on historical costs.

This results in significant differences in the values of the tangible fixed assets, and so, significant differences in the balance totals since the tangible fixed assets take up a big portion of the total assets for PUHE's.

Based on these considerations, relating the working capital to the size of the organization based on the total assets would not provide the intended insights. Therefore the decision is made to modify this formula and to relate the working capital to the size of the organizations by using the total sales. These total sales are a parameter for determining the size of organizations according to Dutch law (Art. 396 / 397 Titel 9 Boek 2 BW), just like the mentioned total assets. This means the formula becomes: (current assets – current liabilities) / total sales.

Before discussing the results of the benchmark a last significant remark should be made. The outcomes of the financial ratios or ratio analyses do not provide answers for an organization. It helps the organization to formulate questions on specific subjects as a result of the ratio outcomes, as Leach & Melicher (2006) p. 173 describe: “*While financial ratios may suggest some answers to inquisitors’ questions, they are more widely appreciated for suggesting useful questions about a venture’s past and potential future performance*”. This is why the financial ratios used should be regarded as monitoring devices and not as instruments to manage the working capital.

5.3 Sample

Now that all the measures have been explained and the calculations behind them have been set out, the next pages will show the results of the comparison. Below, in table 7, a legend is shown with the different PUHE’s used in the comparison. The numbers in the legend correspond with the numbers in the presented figures.

Legend:	
1.	Almelose Woningstichting Beter Wonen
2.	Aramis Alleewonen
3.	De Alliantie
4.	Dudok Wonen
5.	Nijestee
6.	Stichting Acantus Groep
7.	Stichting Eigen Haard
8.	Stichting Portaal
9.	Stichting Woonbedrijf SWS.Hhvl
10.	Stichting Woonwaard Noord-Kennemerland
11.	Talis
12.	Vivare
13.	Wonen Limburg
14.	Wonen Zuid Holding
15.	WonenBreburch
16.	Woningbouwvereniging Laurentius
17.	Woningcorporatie Domijn
18.	Woningstichting Haag Wonen
19.	Woningstichting Ons Huis
20.	Woningstichting Rochdale
21.	Woonbron
22.	Wooncompagnie
23.	Woonfriesland
24.	Woonmaatschappij ZO Wonen
25.	Woonpunt

Table 7: Overview of the PUHE’s used for comparing analyses.
Source: Personal research.

5.4 Results

This section will describe the results of the comparison between De Woonplaats and a sample of other PUHE's regarding working capital ratios for the financial year 2007. The figures below are a graphical overview of the results of this comparison.

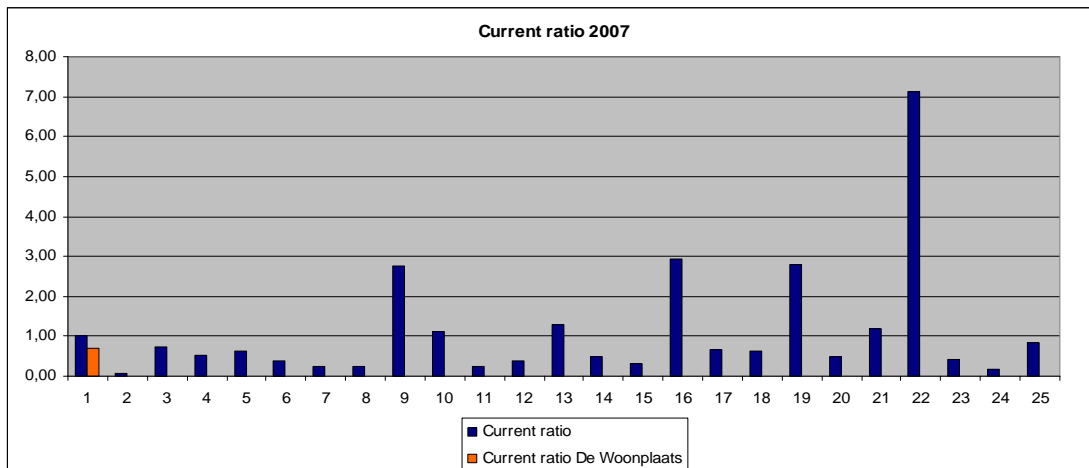


Figure 7: Current ratio De Woonplaats and sample of PUHE's 2007.
 Source: Composed of De Woonplaats financial statements 2007 and sample PUHE's financial statements 2007.

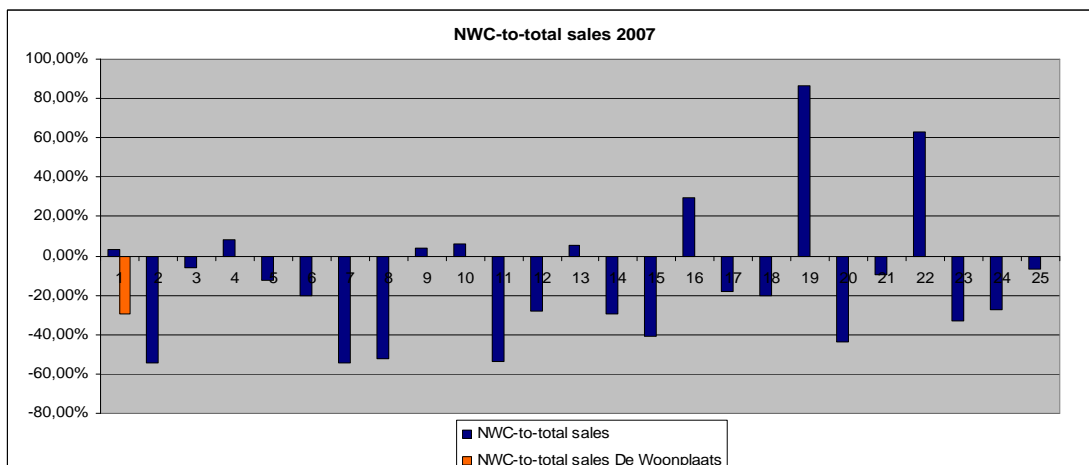


Figure 8: NWC-to-total sales De Woonplaats and sample of PUHE's 2007.
 Source: Composed of De Woonplaats financial statements 2007 and sample PUHE's financial statements 2007.

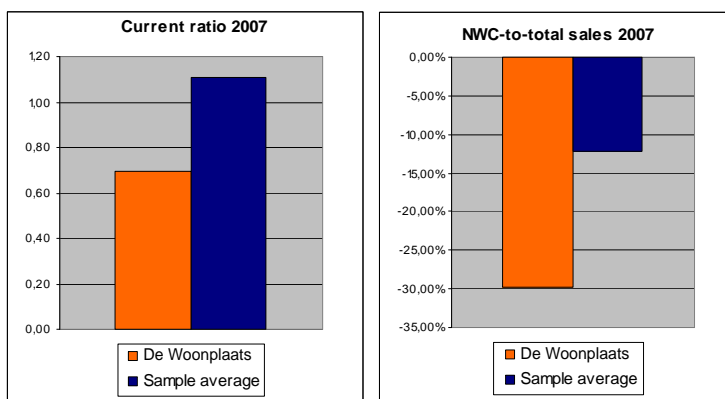


Figure 9: Current ratio and NWC-to-total sales De Woonplaats and sample of PUHE's 2007.
 Source: Composed of De Woonplaats financial statements 2007 and sample PUHE's financial statements 2007.

5.4a Current ratio

Figure 7 shows that the current ratio for the largest part of the PUHE's is below one, meaning that these PUHE's are not completely able to pay their short term liabilities with their current assets. The current ratio for De Woonplaats year end 2007 is 0,69. The outlier that is presented in figure 7 (with a current ratio above 7) is a PUHE which has extended its long term debt and did not utilize these funds, but transferred them to the cash and cash equivalents in the financial statements.

When this exception is taken out of the calculation in the comparison between the average of all the PUHE's of the sample and De Woonplaats, the current ratio of the sample turns out lower. In the current ratio graph in figure 9 the current ratio of the sample of PUHE's is 1,11. When this is corrected for the outlier, it becomes 0,86 and the difference between the sample of PUHE's and De Woonplaats becomes much smaller.

The 0,86 value of the sample of PUHE's shows that the working capital in general is negative. This can be explained by the relative high percentage of long term debt in the balance sheets. The PUHE's in the sample on average are for 70,43% financed with long term debts and the remaining part with equity. For De Woonplaats this is 71,65%. To give an indication, a research performed by KPMG (2006) over the 2000-2004 period showed that on average ventures in Twente are financed for 65% with long term debts. During this period this evolved to even lower values approaching 60%. The relative high percentage of 71,65% for De Woonplaats in 2007 causes relative high financing costs and redemptions as short term liabilities.

Fact remains however, that the current ratio of De Woonplaats is below one and below the average of the sample of PUHE's. This suggests, purely based on the outcome of the current ratio calculation that, in comparison to the sample of PUHE's, De Woonplaats shows a deviation that can be considered negative. This negative deviation is also identified in the next financial ratio.

5.4b Net working capital-to-total sales

The results in figures 8 and 9 show that, when compared to other PUHE's the net working capital to total sales of De Woonplaats is more negative. The average of the sample of other PUHE's is -12,22% while this for De Woonplaats is -29,76%. This means that the working capital position year end 2007 is more negative than the average of the other PUHE's when related to the total sales and that De Woonplaats has a relative higher negative working capital position. The fact that both, the net working capital-to-total sales of De Woonplaats and the average of the other PUHE's are negative indicates that negative working capital positions are common among the sample of PUHE's. 68% of the sample has a negative working capital position.

5.5 Negative working capital positions

To analyze the negative working capital positions of De Woonplaats and the other PUHE's in the sample a closer view on the current liabilities is taken. This because the working capital position is negative which indicates that the current liabilities are relatively high. To do this, the financial statements of De Woonplaats year-end 2007 are compared with the averages of the other PUHE's year-end 2007 that are part of this research. The breakdown and the comparison of the short term liabilities for both De Woonplaats and the averages of the other PUHE's that are part of the research are shown in figures 10 and 11 on the next page.

A remark that should be made in this context is that a negative working capital position for De Woonplaats is not an immediate indicator for financial distress. From an interview with the treasurer of De Woonplaats it became clear that, even in the current economical conditions De Woonplaats still is able to finance itself and that De Woonplaats has a 35 million Euro credit facility that has not yet been utilized. In addition, the financing structure of De Woonplaats plays an important role in the negative working capital position (high short term liabilities to financing companies) as a result of the long term financing component and so, is not only a result of the working capital practices.

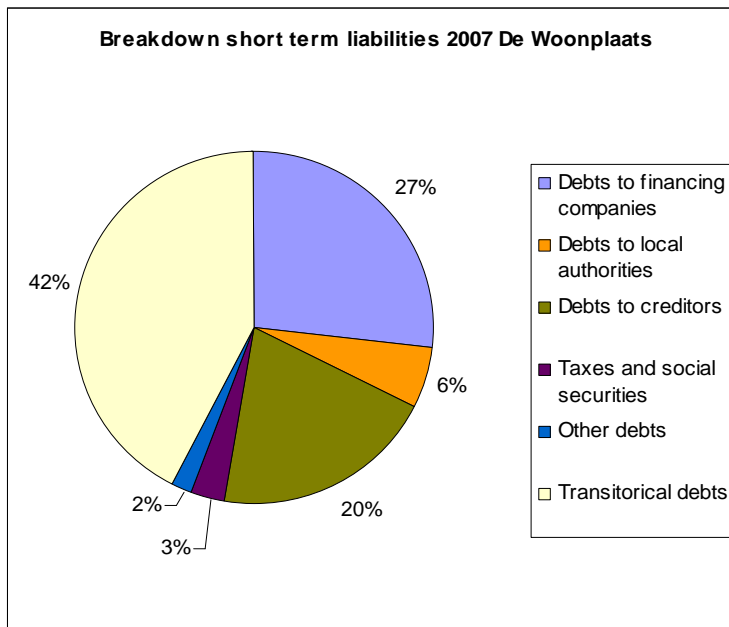


Figure 10: Breakdown of the short term liabilities of De Woonplaats 2007.
 Source: Composed of financial statements De Woonplaats 2007.

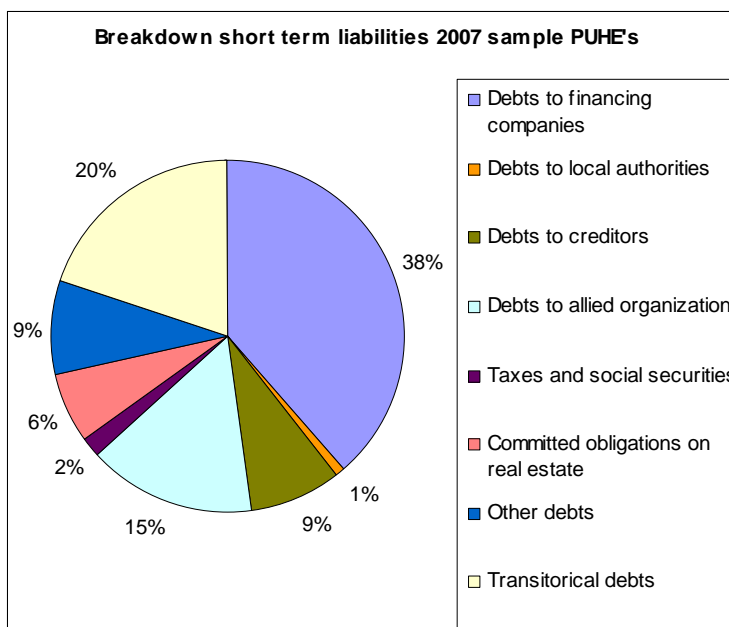


Figure 11: Breakdown of the short term liabilities of the sample PUHE's 2007.
 Source: Composed of financial statements of the sample of PUHE's 2007.

The debts to financing companies and local authorities are the result of the long term financing instruments, and concern the short term part of the long term debts and interest payments that are due at year end.

From the comparison between De Woonplaats and the other PUHE's of the sample it becomes clear that the debts to financing companies for De Woonplaats take up a relative low part of the short term liabilities at 27% where this for the other PUHE's is 38%. In order to understand this deviation the financing structure of all the PUHE's was analyzed by relating the long term debts to the total of the long term debts plus equity, as described by Brealey, Myers & Allen (2008), pp. 793-794.

In this formula the leases are left out of the calculation because the leases are not always explicitly mentioned in the supplements of the financial statements. This means that for comparing purposes only the long term debts plus equity are used in the calculations. The results show that for the sample of PUHE's the long term debts are 71% of the long term debts plus equity while this for De Woonplaats is 74%. This would suggest that the debts to financing companies of De Woonplaats would be relatively higher (assuming equal financing costs and redemptions). As we have seen from figures 10 and 11 the opposite is the case. This also becomes clear when the short term debts to financing companies are related to the long term debts of all the PUHE's. The average of the sample (minus four PUHE's with no debts to financing companies) is 5,66% while this for De Woonplaats is 3,50%. A possible explanation for the outcome that the sample of PUHE's has a relative higher part of debts to financing companies compared to De Woonplaats is the inclusion of short term credit facilities. Some of the PUHE's of the sample have short term credit facilities included in their short term liabilities. This influences the amount of the short term liabilities and considering the fact that De Woonplaats has not used its credit facility in 2007 this is a difference between some PUHE's of the sample and De Woonplaats.

The biggest part of the debts to financing companies of the PUHE's are the result of the long term debts being redemptions and interest payments.

To influence these accounts we should focus on the management of the long term financial structure. Since this paper is focused on working capital management there will not be further elaborated on these accounts.

The accounts on which De Woonplaats shows significant deviations from the average of the sample of PUHE's are the debts to creditors and the transitorical debts. The debts to creditors for De Woonplaats are 20% of the total short term liabilities, while this for the sample of PUHE's is 9% in 2007. The transitorical debts for De Woonplaats in 2007 are 42% of the total short term liabilities while this for the sample of PUHE's is 20%.

5.6 Focus for further research

As already explained, the comparing analysis of De Woonplaats and the other PUHE's found that in particular the accounts debts to creditors and transitorical debts show significant deviations. This means that De Woonplaats can direct potential improvements towards these particular accounts, but also does not necessarily mean that other parts of the working capital are not a subject for potential improvements. This, because from a profitability point of view an optimal working capital position would be around zero according to multiple financial officers that were interviewed.

When we take a closer view on the different components of the transitorical debts it shows that it is composed out of three main accounts.

There are not yet expired interests originated by long term debts, pre-received rental incomes and other transitorical debts.

The other transitorical debts are only a small part of the total transitorical debts (3%). The not yet expired interests (44%) and the pre-received rental incomes (53%) are much more significant.

As also already mentioned, the interests are a result of the long term debts. In order to influence this account one has to focus on the management of the long term debts. Since this research is focused on the management of the working capital there will not be further focused on the not yet expired interests.

The pre-received rental incomes in 2007 are rental incomes from a certain project which are presented as debt because the return service is not yet executed. This account did not exist in 2006, but does also exist in 2008. However, it only consists out of one project and although according to accounting standards it is a payable (Art. 375.1 Titel 9 Boek 2 BW), this can be argued. In this case the account relates to newly build real estate. The current real estate strategy of De Woonplaats only considers real estate to be a candidate for sale when it is older than 10 years. This means that it is very unlikely that the return service will not be realized.

It can be considered more as an obligation to repay in case of default rather than a pure debt. This is due to the so called sound business practice (goed koopmansgebruik) in which earnings only should be recognized in case they are realized (reality-principle) (art. 384.2 Titel 9 Boek 2 BW).

These pre-received rental incomes are not realized because the return service is not yet executed.

The debts to creditors are generally typical for every type of organization in contrary to the pre-received rental incomes. The debts to creditors account is a significant account (13,8 million Euros) within the current liabilities for De Woonplaats year end 2007. This means that, based on the directions from the benchmark, the debts to creditors are a suited account for possible improvements for De Woonplaats in 2007.

The upcoming sub-questions therefore will have to be considered within the context of the debts to creditors regarding PUHE's, when not explicitly mentioned.

5.7 Conclusion

This chapter described ratios relating to working capital found in the literature that was consulted. The relevance of these ratios was identified which resulted in a short-list of ratios that were used in the benchmark. These ratios are:

- Current ratio.
- Net working capital to-total sales.

The results of the benchmark showed that De Woonplaats had a relative low current ratio and a relative high negative working capital-to-total sales ratio. It also became clear that De Woonplaats has relative high current liabilities compared to the other PUHE's. The relative high current liabilities show deviations from the sample of PUHE's on the debts to creditors and transitorical debts.

6. Which instruments are there to control / manage the working capital for a public utility housing enterprise?

From theory, in general, different ratios and figures can be used to interpret and monitor the working capital position of an organization. To give a summary from existing literature there is the current ratio (Brealey, Myers & Allen 2008, Horrigan 1965, Lev 1969), the quick ratio (Brealey, Myers & Allen 2008, Leach & Melicher 2006, Horrigan 1965, Lev 1969), the net working capital to total assets ratio (Brealey, Myers & Allen 2008), the cash conversion cycle (Deloof 2003, Lazaridis & Tryfonidis 2006, Leach & Melicher 2006), the cash conversion efficiency (Filbeck, Krueger 2005), the cash burn/build rate (Leach & Melicher 2006) and the days working capital (Filbeck, Krueger 2005, Myers 2008).

This overview although it is extensive should not be regarded exhaustive. There may be more financial ratios representing the working capital in existing literature.

6.1 Monitoring working capital

Not all the above described ratios are useful measures to monitor the working capital position of an organization. The ratios that are in congruence with our definition of the working capital and so, are proper candidates, are the current ratio and the net working capital to total assets ratio. Maysami (2008) describes that small businesses should calculate and monitor financial ratios as part of their working capital management policy. These ratios though are also valuable to the management of larger sized businesses because they give an indication of the performance on an aggregate level. The working capital ratios are purely financial and the result of particular (common) policies and practices. Therefore De Woonplaats can use the financial ratios described in this section to monitor the working capital position, but to influence it, other steps have to be taken. These steps will have a focus on policies regarding the different components of the working capital and will be discussed in section 6.3.

In addition to the working capital ratios described above, Van der Meer (2007) describes in his article the cash conversion cycle as mentioned before. This is a popular ratio that is described in many researches. Based on the research performed we concluded that the cash conversion cycle is not practically applicable to De Woonplaats, because the ratio is mainly focused on typical trading organizations.

Van der Meer (2007) however has an other message. He comments that this ratio only covers a part of the working capital of an organization. Van der Meer (2007) recommends to complement the cash conversion cycle with the net operating working capital measure.

This net operating working capital measure is a modified version of the net working capital calculation. The difference is that in the calculation of the net operating working capital position, the cash and short term bank loans, just like interest costs are not included.

The argument that Van der Meer (2007) gives for this modification of the net working capital calculation is the following: *“These financing components, after all, are not an indicator of the working capital as a process, but are the result of the financing structure of the organization”*.

This is somewhat similar to the argument given to focus on the trade-debtors as part of the current liabilities for improvements in the working capital position.

The other significant accounts of the current liabilities of De Woonplaats in 2007 are the result of the financing structure of the organization. To obtain a more specific monitoring ratio De Woonplaats can choose to modify the working capital ratio by subtracting the cash and short term bank loans, just like the interest costs, because certainly in the PUHE branch, these accounts can contain significant amounts. This makes the net operating working capital measure a proper candidate as a more specific ratio to monitor the working capital position for De Woonplaats and PUHE's in general.

6.2 Forecasting working capital

An other tool for managing working capital may be the forecasting of cash flows. This is also confirmed by Bierman, Chopra and Thomas (1975) as they state that: *“The predictability of cash inflows and outflows is the most basic concern in managing working capital”*.

There is, however, a close connection between the efficiency, reliability and precision of these cash flow forecasts and the working capital management practices. This interrelation is also confirmed by Orgler (1969). He states that: *“The current practice of sequential attention to these problems fails to take into account the interrelationships among cash management decision variables and their intertemporal aspects”*.

The cash management variables he refers to in this statement are predicting changes in the cash balance, financing cash requirements, investing excess cash, and improving collections.

De Woonplaats makes yearly budgets that are transcribed to monthly budgets. In these budgets the operational cash flows, but also the investment and financing cash flows are forecasted for at least the next ten years ahead.

The forecasts of the operational cash inflows regard the rental incomes, reimbursements, government contributions, other debtors, other operating income, interest income, results from allied organizations and extraordinary income. The operational cash outflows regard the personnel costs, ground lease, maintenance costs, other short term debts, other operating expenses, other expenses, interest costs, interest costs for new debts and extraordinary costs.

Regarding the forecasting of the operational cash flows a comparing analysis is performed between the most recent overall budgets and the realization of these budgets within De Woonplaats. Both regard the financial year 2008. The comparison was made on the budgets with monthly durations and for the complete year 2008.

It turns out that the forecasts on a yearly basis are considerably accurate with only slight deviations (lower cash inflow (-1,1%) and lower cash outflows (-9,6%) compared to the budget). This is due to the rather stable “sales” forecasts due to the stable rental incomes. This means that regarding these cash flow forecasts no significant and specific improvements can be made. It comes down to expectations from the market and the position of De Woonplaats within this market.

The sales and rentals are reasonably stable, just like the personnel costs, maintenance costs etc. Despite the current deteriorated market conditions De Woonplaats does not experience a relapse in the rental incomes or sales incomes (smallest portion of total).

The most applicable improvements could regard irregularities caused by notions like “De Vogelaarheffing”, “De Integrale VPB-plicht” and “De Maximum Huurverhoging”. Such notions will affect the operational cash flows, but De Woonplaats already took the possible effects into account in their budgets. Based on these budgets De Woonplaats can determine the monthly or yearly excesses or shortages in cash and based on that, decide to set out expected excess cash in the capital market or source cash from the capital market.

The biggest deviations are visible in the forecasts of the investment cash flows and the financing cash flows.

Since this paper concentrates on working capital management, and so, the short term, possible improvements regarding these cash flows will not be attended in this paper.

6.3 Influencing working capital

The literature on working capital management describes a variety of possible practices and policies to manage / improve the working capital position within an organization. The practices described in theory will be outlined according to the three main components of the working capital as identified in chapter 4. This ultimately will result in a general overview of tools like policies and practices for working capital management.

Maysami (2008) describes in his article various possible practices to manage the three main components of the working capital. Below, two general and applicable practices are given to manage these working capital components.

This selection is made because the article of Maysami (2008) focuses on American organizations in which, for example it is common to use cheque’s for payments. In the Netherlands this is less applicable. This is the reason that not all the general practices from the article by Maysami (2008) are denominated in this paper.

The two applicable and general practices from the article by Maysami (2008) are:

- *“Synchronize cash flows: forecast the timing of receipts based on the past and arrange to pay suppliers accordingly”.*
- *“For more efficient payments consider trade credit discounts for early payment: compare the cost of not taking the discount to the benefits of using your cash elsewhere”.*

Synchronizing the cash flows mainly regards cash flow management and means that the organization is able to time the cash outflows with the rather stable and constant pattern of cash inflows. This way the organization can make sure it does not need additional financing or at least as minimal possible. It also enables the organization to set out structural excesses in cash flows into the capital market to possibly increase its profitability.

Although this is not a part of this research, future research may be directed to those possibilities for PUHE’s to set out excess cash into the capital market, with considering the legislations and regulations the PUHE’s have to comply with.

Maysami (2008), in addition to the two mentioned general practices, makes a distinction between the different components of the working capital. Based on these kinds of accounts the suggestions cited below for more effective management of the working capital are identified by Maysami (2008):

- *Accounts receivable:*
 1. *Monitor the (Euro) amount of your receivables position on an ongoing basis.*
 2. *Calculate the percentage of total sales that are sold on credit.*
 3. *Evaluate the “credit worthiness” of your customers, using the five Cs of credit (Character, Capacity to pay, Capital, Collateral, and Conditions).*
 4. *Establish the credit period, discount percent for early payments, the discount period and surcharge for late-payers.*
 5. *Calculate and evaluate your average collection (AC) period. As a rule of thumb: if the AC is more than one-third larger than the credit period, i.e., credit period of 30 days and an AC of more than 40 days, there may be a problem.*
 6. *Age your receivables. Identify and pursue slow-paying customers.*
 7. *Identify prompt-paying customers. Maintain and search for more like them by informing them of the discount for early payment and of any special sales.*
 8. *Send invoices immediately after the sale, rather than waiting until the end of the month.*
 9. *Identify and evaluate accelerating techniques for collecting your cash.*

- *Inventory management:*
 1. *Determine the ideal inventory level based on historical sales patterns and on projected future sales.*
 2. *Calculate the “economic ordering quantity”.*
 3. *Determine the lag order time and the optimal safety stock.*
 4. *Determine the average inventory turnover rate for the industry.*
 5. *Identify and maintain good business relations with all suppliers.*
 6. *Forecast the inventory purchase price. If possible, lock-in a favorable price by entering a supply contract.*
 7. *Calculate the inventory turnover rate for your business: the average number of times your inventory is sold within a specific period of time.*
 8. *Set a markdown policy for the times when a product doesn’t move quickly enough at normal price levels.*
 - a. *be able to recognize what part of your inventory needs to be marked down.*
 - b. *record the mark-downs as soon as the need is recognized.*

- *Purchasing goods on more favorable terms:*
 1. *Negotiate!*
 2. *Develop multiple sources of supply.*
 3. *Take advantage of discounts for early payment.*
 4. *Do not buy more than you need, or more than you expect to sell regardless of how favorable the sale or the credit terms may be at the time.*
 5. *If possible, negotiate for more favorable terms with your suppliers in return for additional discounts.*
 6. *If you have available cash, offer partial and/or advance payments in return for additional discounts.*
 7. *Set up a system to (send cheque’s) pay bills on time, just before they are due.*
 8. *Delay payments only if it does not harm the relationship with suppliers.*

All of the practices mentioned by Maysami (2008) are directed at managing the working capital and can also contribute to the efficiency, certainty and precision of the future cash flow forecasts, in particular regarding the operational cash flows. When the receivables are forecasted based on the past and, for example, the collection policy was not consistent until now, the forecasts of the cash inflow are unlikely to be certain and precise and the realization will most probably show deviations.

This however does not mean that managing working capital is the same as managing cash flows, as we have seen in section 3.3. Managing working capital is a part of managing cash flows, because it mainly regards the operational cash flows in the organization.

In addition to the practices described by Maysami (2008), another group of authors describe practices that are focused on the policies of components of the working capital. Chee, Smith and Smith (1999) describe practices related to the management of the accounts receivable and the accounts payable by creating a figure in which both accounts are represented. The figure also takes the time factor into consideration and is shown as figure 12 below.

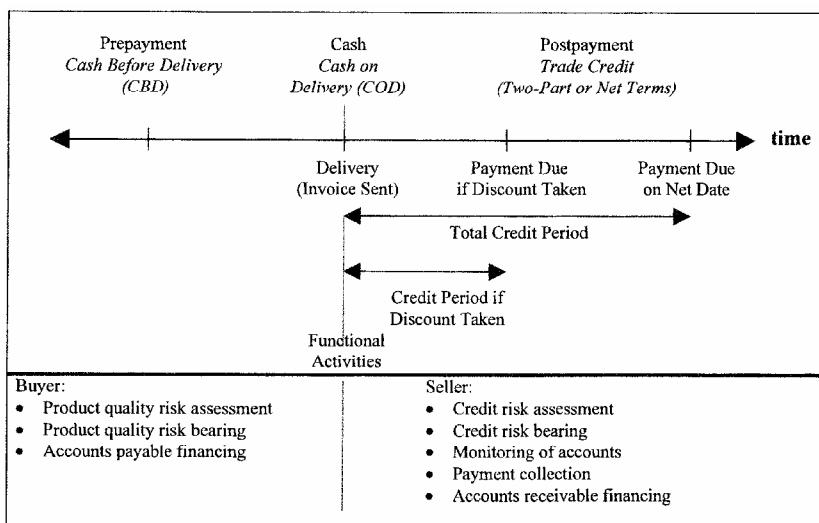


Figure 12: Time profile of payments and functional activities implied by payment policy.
 Source: "Evidence on the Determinants of Credit Terms Used in Interfirm Trade", Chee, Smith & Smith (1999).

Figure 12 by Chee, Smith and Smith (1999) describes practices for both, the use of trade credit and providing trade credit.

First the distinction is made between prepayment, payment on delivery and post payment (trade credit).

On the next level a distinction is made between post payments due with taking a discount into account and the net payment term. After this, the two different credit periods as described are shown.

At the bottom of the figure some practices for managing the accounts receivable and accounts payable are outlined.

The buyer faces more risk in case of prepayment compared to cash on delivery.

According to Chee, Smith and Smith (1999) the buyer faces greater product quality risk and the buyer needs to seek any needed financing from a third party such as a bank.

In the absence of any discounts for prepayment this will have a negative effect on the financing costs of the organization, assuming that the debts increase and any former excess cash decreases with decreased interest earnings as a result.

Chee, Smith and Smith (1999) also describe the possible financial effects of the different payment options for the buyer. This will be explained in chapter 7. If trade credit is extended the seller, according to Chee, Smith and Smith (1999), is responsible for assessing the credit risk, financing the accounts receivable and collecting the receivables. This means that from this model certain activities are related to certain trade credit policies.

When the activities of the model by Chee, Smith and Smith (1999) are compared to the practices described by Maysami (2008) there are some similarities. In particular the seller side in figure 12 shows similarities with the accounts receivable practices described by Maysami (2008).

6.4 Conclusion

This chapter described general tools found in existing literature for an organization to manage its working capital position. This chapter does not claim to be exhaustive. Despite the extensive research that was performed there may be more practices available in theoretical and empirical literature.

We identified tools for monitoring working capital positions, forecasting working capital positions and influencing working capital positions.

One of the ratios for monitoring found frequently in literature is the cash conversion cycle. It became clear that, although its frequent application it is not applicable to PUHE's. A measure that is a proper candidate in addition to the current ratio is the net operating working capital measure because it does not take the financing structure and its consequences into account in the calculations.

Most important in forecasting working capital positions turned out to be the overall budgets already applied effectively by De Woonplaats.

Tools to influence working capital positions are identified from a research performed by Maysami (2008).

In general these practices can contribute to the management of the working capital towards more optimal values. Which of these practices will be applicable for De Woonplaats will be explained in the next chapter.

7. Which of the described instruments to control / manage the working capital are applicable to De Woonplaats?

From the benchmark in chapter 5 it became clear that De Woonplaats can accomplish some improvements in its working capital position. Those improvements can be categorized as improvements regarding the determination of the working capital position and the control of the working capital position. In the conclusion of this chapter an overview of all the improvements deferred over the two categories will be given. The improvements mainly regard the current liabilities, but there are also improvements possible in the other components of the working capital. After all, the working capital is part of the management of the overall cash flows of De Woonplaats.

7.1 Monitoring working capital

One of the key points that De Woonplaats can use for managing the working capital are the financial ratios described in chapter 5. As explained, they need to be considered as a monitoring instrument to identify possible efficiency improvements and they can give directions towards a more optimal working capital position when related to a benchmark and to the cash flows the organization expects. As such, they are not a tool for improvements on themselves.

By reviewing the different components of the ratios De Woonplaats can obtain a more detailed view of its working capital position.

From this viewpoint De Woonplaats can then take specific steps regarding the applicable accounts for improvements. These accounts regard the receivables, inventories and payables. The inventories however turned out to be not an account that can be related to the core business of De Woonplaats and considering the weight it has in the financial statement year end 2007 (1,59%) this account will be less important.

A ratio that would be an important and proper candidate for De Woonplaats is the current ratio. From the financial statements year-end 2007 it becomes clear that De Woonplaats already calculates this ratio. From interviews with financial officers within De Woonplaats it became clear however, that the meaning is not entirely clear and that the ratio is not used within the organization.

Since De Woonplaats already calculates the current ratio this means that it can also easily calculate the net working capital amount, since it is comprised out of the same components. Also the net working capital ratio in relation to the total assets or total sales can be determined. A downside of the current ratio is the fact that it can be subject to window dressing, as described before. However, De Woonplaats should mainly use it as an internal ratio in the process of managing its working capital and therefore would present misleading figures to itself when it applies practices like window dressing. In addition, De Woonplaats should monitor the current ratio on a regular basis instead of only on year end and this also makes it a more representable ratio because by doing so, it relates better to the actual cash flows of the organization.

Another ratio that is a proper candidate for monitoring the working capital, particular considering the financing structure of PUHE's is the net operating working capital measure by Van der Meer (2007) as described in section 6.1. The measure makes a correction for financing effects in the general working capital measure, which certainly for PUHE's can contribute to improved insights in the working capital position.

The net operating working capital position for De Woonplaats year end 2007 was -9.459 million Euros. Again, this is a negative position, but it shows that it is much less negative than -22.187 million Euros as determined in chapter 4 as the working capital position. This shows the significant impact that financing instruments can have on the working capital position of a PUHE.

7.1a Balanced scorecard

An interesting point is the fact that De Woonplaats at this moment is trying to operationalize and implement a balanced scorecard within the organization, which was developed internally by the organization.

A possibility in this case could be to include a working capital ratio as a key performance indicator in the financial perspective of the balanced scorecard for the higher management level.

According to Kerklaan (2006) the convenience with which the performance indicators can be formulated is an important characteristic of a good performance indicator. This means that because the current ratio is already part of the financial indicators in the financial statements in such a way does not demand significant extra efforts from the organization to produce the ratio. That makes the current ratio a proper candidate to be adopted in to the balanced scorecard of De Woonplaats. Also the net operating working capital position as a variant on the working capital position would be a proper candidate as an addition because of the more specific view.

From this key performance indicator subsequently it becomes possible to develop performance indicators at lower levels of analysis. One of the lower level performance indicators for example is the percentage of the payments made on time. This is one of the lower level performance indicators that De Woonplaats has formulated and is inclined to implement. Other examples could be the average time it takes to sell real estate destined for sale, the average time it takes to collect receivables etc.

Possible performance indicators for lower level management can be deducted from the practices described by Maysami (2008) as mentioned in chapter 6.

Although the balanced scorecard is not a key part of this research it is important to comment that when integrating a performance indicator that is related to the working capital the management has to make sure the organization is ready for it. This means that the organization has to be aware why this performance indicator is there, what the changes will be for the organization and how this will affect the organization and the employees. Timely communication is of key importance in this, according to Kerklaan (2006).

Based on the benchmark that was performed in chapter 5 and the resulting focus, De Woonplaats can apply some practices to the working capital components that are likely to result in more efficient working capital positions.

7.2 Inventories

Although the inventories of De Woonplaats are not a part of the core business of the organization, this does not mean there are no improvements possible.

First of all, in congruence with the advice of the financial auditor it would be beneficial if real estate, existing and newly build, that is destined for sale would be categorized as inventories. After all, these do not generate rental incomes anymore, they are not of durable usage in the processes of the organization and money tied up in this real estate cannot be used elsewhere by the organization.

Categorizing them as inventories would contribute to improved insights in the actual inventories of the organization and so, to improved insights in the actual working capital position of the organization. This also would mean that some of the cash flows that until now are categorized as investment cash flows in the future should be regarded as operational cash flows (in the cash flow statements).

This changes because (dis)investments in existing real estate destined for sale then has to be mutated in the inventories instead of the tangible fixed assets.

An other point of attention for De Woonplaats also comes from the mentioned tools for managing working capital in chapter 6 as described by Maysami (2008).

He describes that organizations should not buy more than they need or expect to sell, regardless of how favourable the sale or the credit terms may be at the time.

From an interview with an officer of the Planning & Control department of De Woonplaats the conclusion was formulated that the inventories may be too high considering the market conditions and past experiences.

It became clear that at this moment De Woonplaats invests in new to build real estate, already before any of it is sold or rented. This means that there is a high uncertainty whether the cash flows from such investments will be realized on the short term or it will take a large time span.

A better policy / approach, certainly in the current market conditions, would be to only execute real estate investments if there is a security of cash inflow. This can be achieved if investments in real estate are only executed if they are rented or sold for e.g. 50% or even 70%. Also because the Manager Concern & Stafdiensten states in the interview that keeping inventories is not the core business of De Woonplaats.

Considering the time it takes to develop real estate it would be wise to keep developing part of the real estate without the secure cash inflows to be able to meet the future demand from the market in time. The other part then should be developed when a significant part of the cash inflows are secured.

This way the certainty about future cash inflows increases and potential markdowns, as described by Maysami (2008) as a policy for inventory management, can be (partly) prevented. By doing so, De Woonplaats can decrease its sales risk (not being able to sell real estate against the expected price and on the expected time) and vacancy risk (not being able to rent out real estate against the expected price) as they are described by De Woonplaats in the “Financieel beleidsplan”.

Although this approach mainly contributes to a more secure cash inflow at first, it in the end helps to prevent excessive inventories, limit money being tied up in the inventories and so, can lower the working capital of the organization.

The reasonable minimal inventory in this sense would be an inventory that is turned over within a reasonable amount of time but also does not lead to out of stock positions. In order to determine such a position De Woonplaats should review the past sales / rental incomes and inventory levels (budgets) with considering for example seasonal patterns and the market situation.

7.3 Accounts receivable

In chapter 6 multiple practices are described to improve the management of accounts receivable components of the working capital.

Also the current economic conditions play an important role in this aspect. As mentioned before, approximately 90% of the debtors of De Woonplaats are private persons and 10% commercial institutions. Considering the focus group of De Woonplaats it is important for the organization to carefully monitor its receivables, because defaults in payments are, certainly in these times, not unlikely. From a financial point of view a strict monitoring of receivables is always desirable, since an organization cannot utilize funds that are tied up in its receivables. From the benchmark it also already became clear that the accounts receivable of De Woonplaats are relatively low.

This is mainly due to the collection policy. Renters have to pay the monthly rent up front every month. This means that possible delays in receivables are identified on time and applicable actions can be undertaken.

The amount of trade debtors in the financial statements of 2007 are so small that they are only 0,12% of the total assets, which indicates that no significant advantages can be accomplished at these principles and policies. A possible improvement that was already identified in chapter 3 regard the pre-received rentals that are currently subtracted from the accounts receivable. To obtain a more accurate view on the working capital position this pre-received rental income should not be subtracted from the receivables, but categorized as current liabilities.

Regarding the commercial real estate a possible improvement could be to request for a credit rating when accepting a new commercial customer. Certainly in these times liquidity problems are not unlikely which ultimately could lead to defaults on rental incomes. The risk that counterparties can not comply with their commitments regarding financial instruments is called the opposition risk by De Woonplaats in their “Financieel beleidsplan”. In addition to the mentioned financial instruments also the risk that renters can not comply with their obligations can be considered such a risk.

By applying credit rating as mentioned, the potential opposition risk can be decreased.

In order to determine the adequacy of the collection policy of De Woonplaats the points of improvement for managing working capital by Maysami (2008) are considered.

Maysami (2008) described monitoring the receivables positions as one of the practices.

This is already applied by De Woonplaats and part of the general policy. Also calculating the percentage of sales made on credit is not a useful tool, since the rental incomes are paid up front and the income from sales is collected within one day because buyers do not receive the key to the real estate before the payment is in place.

Evaluating the credit worthiness may be a possible improvement, but only for the part of the real estate rented out to other organizations. The separate rental incomes from every public renter are so small, that the accommodated costs for a credit check would exceed the possible gains. The rental incomes from commercial real estate are more significant so potential default would lead to more significant losses on rental income. Credit periods are not applicable, again because of payment up front and discounts are not given since the rents are already relative low.

The average collection period will still be a useful tool for monitoring the accounts receivable. At this moment no significant improvements are identified for De Woonplaats, but this should remain at the current level. Possible deviations are identified by determining the average collection period on an incremental basis.

Aging the receivables is already applied by De Woonplaats since the overview of the accounts receivable also shows the days overdue. Proper actions based on this information are taken.

Customers that pay on time and prove to be proper renters are rewarded in a program called “Gold Service”. This program gives them additional benefits over regular renters. The program helps to stimulate renters to pay in time, decrease the percentage late payments and tries to keep the payment behaviour at a high quality.

Instead of giving discounts, the gold service program has the same effects of stimulating desirable payment behaviour from the customers.

Sending invoices right after the sale is made is not really applicable, because automatic collections are made every month. Identifying accelerating techniques for collecting cash are less applicable, again because of the pre-payment of the rent by the renters and the fact that the “Gold Service” program is already in place. This however, does not mean that De Woonplaats should not pay attention to this point. It is important to keep developing and thinking about techniques to improve the percentage of in-time payments and to keep reducing defaults.

By integrating such performance indicators in the lower level scorecards as part of the overall balanced scorecard this can be kept a point of attention at all times.

7.4 Accounts payable

From the results of the benchmark it became clear that due to the negative working capital position, possible improvements in working capital for De Woonplaats can be directed at the current liabilities. In particular regarding the debts to creditors. Based on the relative easier funding for PUHE’s that are participant of the WSW (which has a AAA-status) it becomes apparent that those PUHE’s, at least De Woonplaats, from this viewpoint has no direct reason to retain large amounts of working capital.

Negative working capital positions, however, are common among the PUHE’s that are part of the benchmark so this is no direct signal of financial distress. This does not necessarily mean that a negative working capital position is inadequate.

There is however the requisite that organizations with negative working capital positions should have short term funds in place that are immediately available, thereby creating a buffer.

De Woonplaats has a current account available which functions as a buffer and it has not yet utilized (a part of) this buffer. This also means that there is no need to stretch payments or not to take advantage of possible discounts offered for fast payments.

It certainly would make sense to negotiate with the suppliers that are paid up front about the terms of possible pre-payments, if not done already. This, however, will not have an effect on the accounts payable, but such a discount would lead to a decrease in the nominal amount of the accounts receivable. Pre-payments made by De Woonplaats are categorized as accounts receivable because the return service is not executed yet. It ultimately does cause a decrease in the actual cash outflow.

Elliehausen & Wolken (1993) describe the two main motives behind the use of trade credit. From the point of view of the issuer of the credit there is the transaction motive, which provides the issuer with information about future cash needs of the receiver of the trade credit. On the other side is the financing motive. This occurs because financial institutions apply credit rationing, which according to Elliehausen & Wolken means that: *“creditors are unwilling to charge each customer an interest rate that is appropriate to the customer’s risk class. As a result, some would-be borrowers have excess credit demand, which they can meet by using trade credit”*.

So from the viewpoint of De Woonplaats it would only make sense to make use of trade-credit in case they are not able to finance themselves with funds from the capital market. However, as became clear in an interview with the treasurer of De Woonplaats the funding is not an issue at this moment and is not expected to become an issue either. Long term funds have become harder to obtain as a result of the current economical situation, but because of the guarantees of the WSW and its AAA-rating, problems in funding are very unlikely to occur.

Referring back to the financing motive of trade-credit this means that there is no reason for De Woonplaats to make use of trade-credit.

From the interview with the Teamleider Registratie & Vastlegging of De Woonplaats it became clear that De Woonplaats typically applies a payment term of 30 days, including the invoices with discounts. The discounts on the invoices are always taken from the original amount. However, De Woonplaats only receives discounts on minor purchases like office supplies and not from contractors etc.

This means that the question for De Woonplaats is not immediately directed at whether to take a discount or not, but first at negotiating a discount, as also described by Maysami (2008).

In this economic climate the Dutch contracting sector is experiencing difficult times with an increased number of bankruptcies. According to Dun & Bradstreet there was an increase in bankruptcies of 68% in the comparison between February 2008 and February 2009 (<http://www.retailactueel.com/906859/aantal-faillissementen-in-bouw-stijgt-fors>).

This means that in terms of cash flows they are likely to force back their cash collection periods as much as possible, because in the end there is the statement by Brealey, Myers and Allen (2008) p.14: *“a Euro today is worth more than a Euro tomorrow because the Euro today can be invested to start earning interest immediately”*.

The earlier the organization receives its cash, the sooner it can control and use it. For De Woonplaats this can mean that they have a strong negotiation position regarding obtaining discounts for prompt payment. Together with the current policy in which every investment has to be tendered to at least three contractors, the payment behaviour can be part of the negotiations without significantly increased out of pocket costs.

In addition, it would make sense for De Woonplaats to actively negotiate on possible exceeding of delivery moments concerning for example the development of real estate. In the construction industry it is not uncommon that projects face delays. The Woonplaats can, for example, negotiate strict contractual (sub)delivery moments with the contractors.

If these deliveries are delayed there should be compensations documented in the contracts so that De Woonplaats does not encounter additional costs like foregone potential rental incomes and money being tied up in the projects in progress. Besides the possible discounts when projects are delayed the negotiation of such strict delivery moments can indirectly help to shorten the process of realizing real estate (not having to allow a discount because of delay as an incentive for the contractor) and so, speed up the cash inflows coming from these projects.

Before, it was mentioned that De Woonplaats only receives discounts on a limited amount of invoices and mostly invoices regarding low values. At this moment De Woonplaats does not actively negotiate for possible discounts for fast payments. Again, this can be negotiated with the suppliers if there is not already such a discount in place.

Contrary, De Woonplaats should also be alert to possible liquidity problems regarding such suppliers with the accommodated risks, if the return service or product is not delivered yet. If discounts are already in place, De Woonplaats should pay attention to these and, if possible, pay within the discount period.

As outlined in example 1 below, the advantage of the discount is much higher than the additional rental incomes for the additional delay of payment.

- *Example 1: Application of payment conditions with discounts.*

- Received an invoice for 10.000 Euros with terms of sale: 2/10 net 30.

This means that we receive a discount of 2% when we pay within 10 days. The payment is normally due within 30 days.

This means indirectly that when we pay within 10 days we provide a loan for $200/9800 = 2,04\%$ for 20 days (2% of 10.000 Euro = 200 Euro)

In order to calculate this interest rate on an annual basis we have to divide the total days per year through the 20 days loan: $365/20 = 18,25$.

This means that the effective annual interest rate for fast payment with discount is: $(1,0204)^{18,25} - 1 = 44,59\%$.

When we assume that De Woonplaats can negotiate a 2% discount on every invoice for payment within 10 days and De Woonplaats also manages to pay all the invoices within 10 days the financial benefits for only the debts to creditors at year-end 2007 are shown in example 2 below.

- *Example 2: Financial consequences payment discounts De Woonplaats.*

Assumptions: 2% discount on invoices paid in 10 days. Net term 30 days. Actual interest rate 4%.

The 2007 year end debts to creditors were (rounded) 14.000.000 Euro.

The discount amount would be 280.000 Euro ($14.000.000 * 2\%$)

The missed interest earnings due to faster payment would be 30.684,93 Euro ($14.000.000 * 4\% * (30-10)/365$)

Actual saving based only on year end debts to creditors: $280.000 - 30.684,93 = 249.315,10$ Euro.

When the assumption is made that this is the amount of debts to creditors every month, this saving has to be multiplied by 12 and becomes: 2.991.781,00 Euro.

The above example is under the most beneficial assumptions. It is unlikely that De Woonplaats will be able to negotiate a 2% discount on every invoice. For example, not all the contractors will offer discounts for fast payment, but as this example shows, it would be worth the effort of negotiating for it.

The current payment policy De Woonplaats practices is payment in 30 days. When the negotiation for a discount has not a result the net term of the invoice should be utilized, because it then becomes a source of financing without an interest rate and so, is a very cheap, but short term financing instrument. De Woonplaats then also can earn the extra twenty days of interest that is also taken into account in example 2.

The previous advantages of faster payments are purely financial. In addition, many authors also refer to improvements in the image of the organization, or deterioration when payments are stretched. Robichek, Teichrow and Jones (1965) state that: *“Although the stretching of payments for one additional period involves no further loss of discounts, it does involve the loss of goodwill on the part of creditors”*. And *“The short term financing decision of the financial officer is, however, usually based solely on interest costs. He must also consider the qualitative factors. Stretching payments involves a loss of the confidence of creditors”*.

So from these statements it becomes clear that there is not only a financial viewpoint to trade-credit and its use. This is also found in the interviews with financial officers of other PUHE's. In order to understand this duality and the effects of different decisions regarding the use of trade-credit figure 13 below is composed.

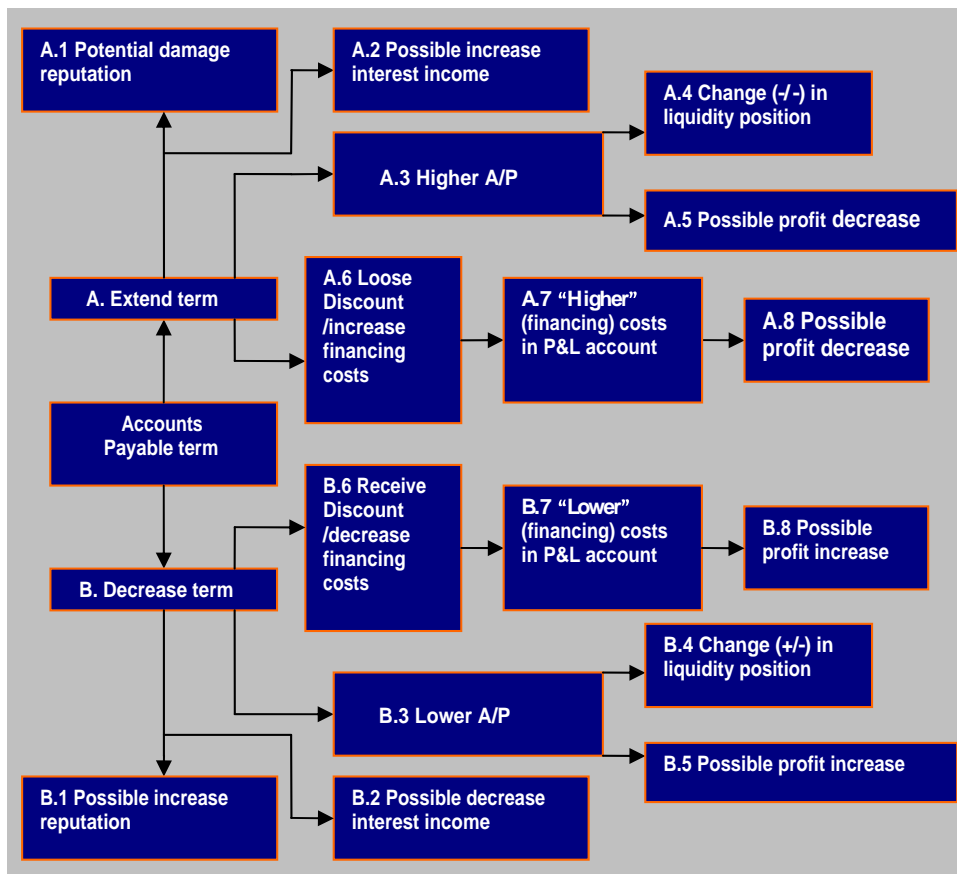


Figure 13: Effects of trade-credit use.
 Source: Personal research.

A: The organization can extend the current payment term by simply paying later.

- A.1: Delaying payments in relation to the current payment behaviour can harm the reputation of the organization.
- A.2: By delaying payments the organization can utilize its cash longer and possibly can earn higher interest income compared to speeding up payments.
- A.3: By delaying payments the organization builds up a higher accounts payable position.
- A.4: A higher accounts payable position can mean higher current liabilities and can ultimately lead to a deteriorated liquidity position.
- A.5: A deteriorated negotiation position can ultimately lead to higher financing costs due to a deterioration in liquidity position.
- A.6: By delaying payments an organization can lose possible payment discounts, which indirectly means that there is an increase in financing costs, since the discounts in essence are a form of financing the suppliers with an implicit interest rate.
- A.7: By not using the direct discounts which could be deducted from the original invoice amount means that the nominal costs in the profit and loss account are "higher" compared to speeding up payments.
- A.8: Ultimately, by not making use of discounts, the organization can have a relative "lower" profit compared to speeding up payments.

B: The organization can shorten the payment term by simply speeding up the payments.

- B.1 Speeding up payments in relation to the current payment behaviour can increase the reputation of the organization.
- B.2 By speeding up payments the organization has a shorter period to utilize its cash and decreases the possible interest income compared to delaying payments.
- B.3 By speeding up payments the organization lowers its accounts payable.
- B.4 A lower accounts payable position can mean lower current liabilities and can ultimately lead to an improved liquidity position.
- B.5 An improved negotiation position can ultimately lead to lower financing costs due to the improved liquidity position.
- B.6 By speeding up payments an organization can earn possible payment discounts, which indirectly means that there is a decrease in nominal costs when compared to delaying payments, since the discounts in essence are a form of financing the suppliers with an implicit interest rate.
- B.7 The direct discounts are deducted from the original invoice amount which means that the nominal costs in the profit and loss account are lower compared to delaying payments.
- B.8 Ultimately, by making use of discounts, the organization can have a relative "higher" profit compared to delaying payments.

7.5 Conclusion

From the elaboration in this chapter it becomes clear that De Woonplaats can apply some practices and policies in order to effectively manage its working capital. As described, these improvements regard the determination of the working capital position and the control of the working capital position.

Improvements regarding the determination of the working capital position:

- Make use of the already available information regarding the working capital position like the current ratio and determine closely related ratios to monitor the working capital position on an incremental basis.
- Alter the net working capital in accordance with the net operating working capital measure as described by Van der Meer (2007) to get a specific view on the working capital position without the influence of the financial structure of the PUHE's.
- Categorize all the real estate destined for sale as inventories in order to contribute to improved insights in the working capital position.
- Categorize the pre-received rental income that is now subtracted from the accounts receivable as current liabilities to obtain a more accurate working capital position from the current ratio.

Improvements regarding the control of the working capital position:

- Integrate the working capital notion as a measure in the balanced scorecard which is being developed / implemented at this moment and integrate it into the management levels of the organization.
- Start undertaking a part of the projects for new real estate only when they have occupation rates above a certain percentage to assure future cash inflows, limit possible inventories and so, money being tied up in the inventories.
- Apply credit rating for commercial real estate when the monthly amounts of rent are significant to possibly prevent defaults in rental income.
- Negotiate for discounts for prompt payment and contractual arrangements for delays in projects to assure cash inflows and improve results. Related to this, improving the payment period would contribute to the image of the organization, delaying the payment period would harm the image of the organization.

8. How to control / manage working capital within De Woonplaats, being a Dutch public utility housing enterprise?

This paper described various levels of working capital management, from monitoring the working capital position for higher management to policies for managing the separate working capital components.

To give an overview of the most important aspects that are described, figure 14 below is composed.

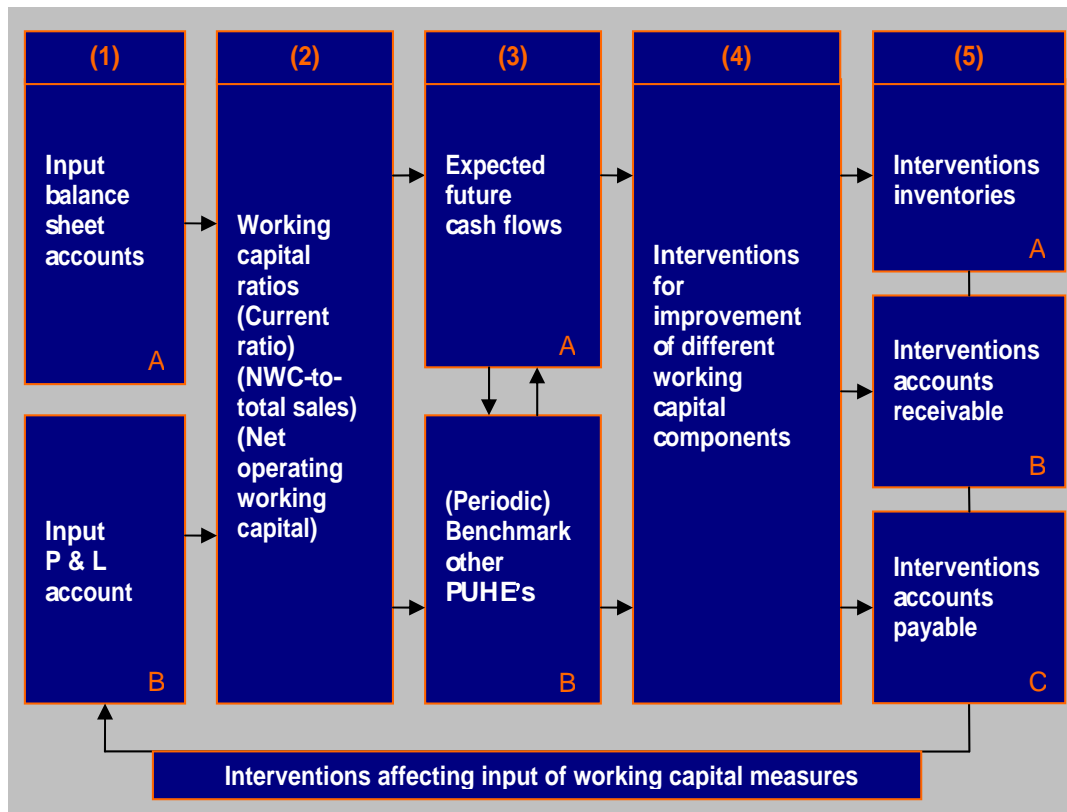


Figure 14: Process for managing working capital with ratios as monitor, different perspectives regarding an optimal position and the practices and policies of Maysami (2008) as interventions.
 Source: Personal research.

Column 1 shows the two information sources that are the foundation for determining the working capital position of the organization. We found that the working capital significantly influences the operational cash flows in the organization and we set out the accounts that determine the working capital position of the organization. In this case the figures in column 1 are the year-end figures, but to monitor the working capital position throughout the year, for example, the monthly figures or even smaller time periods should be used.

Column 2 shows some useful ratios which give one single outcome for the working capital position of the organization, which is useful for the general management of the organization. The ratios described in the figure are chosen because of their efficient applicability for De Woonplaats because the information needed for the ratios is already available in the organization, thereby not demanding extreme additional efforts from the organization. The current ratio is already determined in the financial statements of De Woonplaats, so it would be logical to use it as a parameter for the working capital position.

The net working capital-to-total sales can be used if a benchmark will be performed. If not and this ratio is only used for internal purposes, the original ratio related to the total assets can be used without being biased.

To create a more specific focus on the working capital position De Woonplaats could decide to apply the net operating working capital measure as described in chapters 6 and 7. Considering the significant external funding of De Woonplaats and PUHE's in general and the fact that this ratio does not include the cash, short term bank loans and interest payments this means that this measure can provide a more specific view on the working capital position for a PUHE.

Column 3 describes two different boxes. Box A regards the working capital in the context of the expected future cash flows in order to adjust the working capital position to these cash flows.

Box B regards the working capital position from the viewpoint of a benchmark. From the benchmark in this paper it can be concluded that the average working capital position from these PUHE's is negative and the working capital position of De Woonplaats is more negative compared to the sample.

The important difference between De Woonplaats and other organizations in general in this sense is the fact that De Woonplaats is able to finance itself under the hardest economic conditions and has credit facilities in place. This results in a position in which negative working capital positions should not immediately be regarded as a sign of financial distress, as would be more likely for organizations in general.

There is however the requisite that organizations with negative working capital positions should have short term funds in place that are immediately available, thereby creating a buffer.

From this position the organization should determine on a periodical basis the targeted working capital position considering the cash flow forecasts and compare it with the actual position. Based on this comparison the organization then can take proper actions regarding deviations in the working capital position.

Column 4 describes the general interventions for improvements in working capital management as described by Maysami (2008).

The complete list of these possible interventions is displayed in section 6.3.

Between column 4 and 5 the organization should determine (also based on the boxes in column 3) which working capital components require attention and which of the interventions should be directed at those components. In this paper this is done by a benchmark in which a sample was used. A complete benchmark including the entire PUHE branch can be time-consuming. Benchmarks like De Woonbench, in which De Woonplaats participates, do contain the working capital notion according to the Manager Concern & Stafdiensten of De Woonplaats, but De Woonplaats does not control for the working capital notion.

Boxes A, B and C in column 5 describe the applicable interventions for the organization (De Woonplaats) subdivided into the three main working capital components.

The most applicable recommendations based on the benchmark, among others, for De Woonplaats regarding these interventions are:

- Integrate the working capital notion as a measure in the balanced scorecard which is being developed / implemented at this moment and integrate it into the management levels of the organization.
- Apply credit rating for commercial real estate when the monthly amounts of rent are significant to possibly prevent defaults in rental income.
- Negotiate for discounts for prompt payment and contractual arrangements for delays in projects to assure cash inflows and improve results.

Related to this, improving the payment period would contribute to the image of the organization, delaying the payment period would harm the image of the organization.

For a complete list of recommendations see section 7.5 or the executive summary at the start of this paper.

The last box at the bottom of the figure is the feedback loop that connects the interventions with the starting point of the working capital notion, in this case the financial statements. This means that in essence this box at the bottom of the figure stands for the effects of the interventions on the accounts of which the working capital exists.

Figure 14 contributes to a systematic approach for managing the working capital within an organization, more specific De Woonplaats being a PUHE.

The figure is based on existing theoretical and empirical literature regarding working capital management.

The effectiveness of the complete figure in practice is not tested because De Woonplaats at this moment is implementing and preparing the organization for the balanced scorecard. Part of the financial perspective in this scorecard is the working capital component. Working according to the above figure will prove its effectiveness after the organization has fully implemented the working capital component in the organization.

In addition, the possible interventions that are appointed in this paper should not be considered exhaustive. Additional policies and practices may be available in literature not consulted in this research and from practice.

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9.2 Databases

Business Source Elite (EBSCO), Web of Science, Scopus, PiCarta, Jstor.

9.3 Search terms

Working capital; working capital management; working capital tools; optimal working capital; cash management; cash flow management; cash conversion cycle; financial planning; short term financing; short term financial planning; ratio analysis; liquidity ratios; financial ratios; trade credit; trade debt.

9.4 Websites

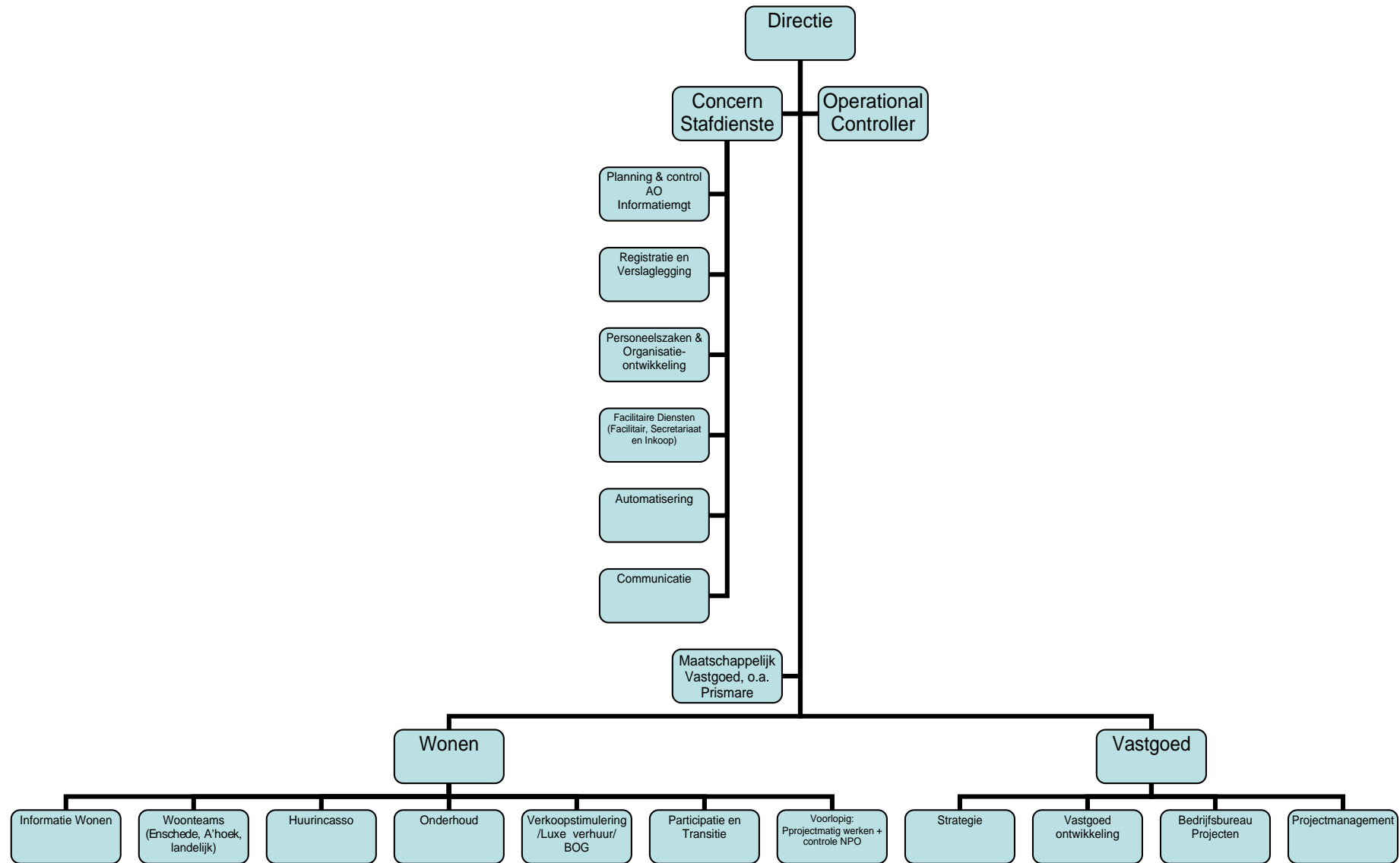
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9.5 Internal sources

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- De Woonplaats liquiditeitsbudget 2007.
- De Woonplaats treasury jaarplan 2009.
- De Woonplaats financieel beleidsplan.
- De Woonplaats bedrijfsplan.
- Intranet De Woonplaats.

Appendix 1: Organization chart De Woonplaats

Source: Personal research.



Appendix 2: Interest rates as per 15-06-2009

	GELDMARKT (3 MAANDS)				KAPITAALMARKT (10 JAARS)			
	Huidig	Vorige dag	Week geleden	Maand geleden	Huidig	Vorige dag	Week geleden	Maand geleden
Nederland	0,57	0	0	-19	3,99	-4	-4	+17
Australië	3,18	-23	-23	-23	5,50	-5	-5	+64
België	--	--	--	--	4,16	-6	-6	+14
Canada	0,40	+5	+5	-10	3,49	-2	-2	+39
Denemarken	1,80	0	0	-25	4,00	-4	-4	+21
Duitsland	1,24	+1	+1	+1	3,76	-4	-4	+23
Eurolanden	1,24	+1	+1	+1	--	--	--	--
Frankrijk	0,72	-3	-3	+12	3,92	-4	-4	+17
Italië	1,24	+1	+1	+82	4,64	-5	-5	+35
Japan	0,44	+11	+11	-4	1,95	0	0	+8
Nieuw Zeeland	2,63	-2	-2	-5	5,98	-3	-3	+58
Spanje	0,80	-3	-3	+11	4,35	-2	-2	+31
Verenigd Koninkrijk	1,13	0	0	-8	3,95	-2	-2	+42
Verenigde Staten	0,99	+6	+6	-8	3,76	-2	-2	+62
Zweden	0,91	-1	-1	+4	3,71	+5	+5	+32
Zwitserland	0,35	+5	+5	-26	2,36	-6	-6	+7

Source: Financieel Dagblad; <http://beurs.fd.nl/rente/overzicht>.

Appendix 3: Interest rates as per 15-06-2009

maandag	jun.15	2009	9:16			
17 jun 09	Bancaire Euro Depot		Kasgeld L.Overheid		Kasgeld Corporates	
1 wks	0.84	- 0.88	0.64	- 0.68	0.99	- 1.06
1 mnd	0.90	- 0.94	0.70	- 0.74	1.10	- 1.16
2 mnd	1.05	- 1.09	0.85	- 0.89	1.30	- 1.36
3 mnd	1.22	- 1.26	1.02	- 1.06	1.52	- 1.58
6 mnd	1.45	- 1.50	1.30	- 1.34	1.80	- 1.86
9 mnd	1.66	- 1.70	1.56	- 1.60	2.06	- 2.12
12 mnd	1.64	- 1.68	1.64	- 1.68	2.14	- 2.20
Rendementen Euro-MTN en Onderhandse Leningen						
17 jun 09	Lagere Overheid		WSW/WFZ garantie		Nutsbedrijven	
5 jrs fixe		- 3.79		- 3.81	N.A.	N.A.
7 jrs fixe		- 4.42		- 4.44	N.A.	N.A.
10 jrs fixe		- 5.16		- 5.18	N.A.	N.A.
12 jrs fixe		- 5.34		- 5.36	N.A.	N.A.
15 jrs fixe		- 5.64		- 5.66	N.A.	N.A.
10jr lin		- 4.31		- 4.33	N.A.	N.A.
15jr lin		- 4.94		- 4.96	N.A.	N.A.
25jr lin		- 5.50		- 5.52	N.A.	N.A.
30 lin ra 10		- 4.76		- 4.78	N.A.	N.A.
					Euribor per: 16 jun 09	
per 17 jun 09			O/N fixing Eonia		1 wks	0.91
Future Rate Agreement (FRA)			per 12 jun 09		2 wks	0.927
1 * 4	1.24	- 1.26	0.837		3 wks	0.946
2 * 5	1.20	- 1.22	per 17 jun 09		1 mnd	0.961
3 * 6	1.21	- 1.23	Eonia	Bid	2 mnd	1.088
4 * 7	1.28	- 1.30	1 m	0.783	3 mnd	1.268
5 * 8	1.34	- 1.36	2m	0.793	4 mnd	1.345
6 * 9	1.38	- 1.40	3m	0.810	5 mnd	1.417
7 * 10	1.41	- 1.43	4m	0.793	6 mnd	1.478
8 * 11	1.49	- 1.51	5m	0.802	7 mnd	1.513
9 * 12	1.58	- 1.60	6m	0.798	8 mnd	1.552
3 * 9	1.47	- 1.49	9m	0.848	9 mnd	1.58
6 * 12	1.62	- 1.64	1 jr	0.944	10 mnd	1.607
6 * 18	1.95	- 1.97	18m	1.204	11 mnd	1.632
12*24	2.12	- 2.14	2 jr	1.484	12 mnd	1.659
EURO						
FUTURES	12 jun 09	15 jun 09	verschil	Em.CO2	€/\$	1.3897
Long Bund	118.52	118.98	0.46	13.05	€/£	0.8504
Mid Bund	113.71	113.94	0.23	Olie p/b	€/¥	136.5230
Short Bund	107.26	107.33	0.06	\$ 69.94	\$/¥	98.2480
	12 jun 09	15 jun 09	verschil		12 jun 09	verschil
AEX	265.48	265.48	0.00	DOW	8799.26	29.25
DAX	5069.24	5026.84	(42.40)	NASDAQ	1858.80	6.37
CAC	2509.22	2492.49	(16.73)	NIKKEI	10039.67	96.15-

Source: Financieel Dagblad; <http://www.wallich.eu/info/infogram.htm>.

Appendix 4: List of PUHE's used for comparing purposes

Nr.	Name	Hometown	Assets 2007 (*1.000)	Website
1.	Almelose Woningstichting Beter Wonen	Almelo	€ 355.708	www.awsbeterwonen.nl
2.	Aramis Alleewonen	Roosendaal	€ 545.909	www.aramis-alleewonen.nl
3.	De Alliantie	Huizen	€ 2.468.309	www.de-alliantie.nl
4.	Dudok Wonen	Hilversum	€ 557.692	www.dudokwonen.nl
5.	Nijestee	Groningen	€ 403.335	www.nijestee.nl
6.	Stichting Acantus Groep	Veendam	€ 364.111	www.acantus.nl
7.	Stichting Eigen Haard	Amsterdam	€ 1.385.743	www.eigenhaard.nl
8.	Stichting Portaal	Veenendaal	€ 2.294.581	www.portaal.nl
9.	Stichting Woonbedrijf SWS.Hhvl	Eindhoven	€ 1.018.500	www.woonbedrijf.com
10.	Stichting Woonwaard Noord-Kennemerland	Alkmaar	€ 561.268	www.woonwaard.nl
11.	Talis	Nijmegen	€ 630.240	www.talis.nl
12.	Vivare	Arnhem	€ 773.075	www.vivare.nl
13.	Wonen Limburg	Roermond	€ 835.396	www.wonenlimburg.nl
14.	Wonen Zuid Holding	Roermond	€ 573.450	www.wonen-zuid.nl
15.	WonenBreburch	Tilburg	€ 959.715	www.wonenbreburch.nl
16.	Woningbouwvereniging Laurentius	Breda	€ 419.012	www.laurentiuswonen.nl
17.	Woningcorporatie Domijn	Enschede	€ 615.121	www.domijn.nl
18.	Woningstichting Haag Wonen	S-Gravenhage	€ 1.088.935	www.haagwonen.nl
19.	Woningstichting Ons Huis	Apeldoorn	€ 214.482	www.onshuisapeldoorn.nl
20.	Woningstichting Rochdale	Amsterdam	€ 1.618.232	www.rochdale.nl
21.	Woonbron	Rotterdam	€ 2.239.260	www.woonbron.nl
22.	Wooncompagnie	Hoorn	€ 911.445	www.wooncompagnie.nl
23.	Woonfriesland	Grou	€ 860.586	www.woonfriesland.nl
24.	Woonmaatschappij ZO Wonen	Sittard	€ 478.132	www.zowonen.com
25.	Woonpunt	Elsloo	€ 683.406	www.woonpunt.nl

Source: Personal research..

Appendix 5: Interview reports financial officers De Woonplaats & other PUHE's

- *Report interview working capital management De Woonplaats*

Date: 04-05-2009.

Name organization: De Woonplaats.

Name officer: M. Bulters.

Function officer: Officer Planning & Control / Treasury.

➤ First a short introduction of the notion working capital is given.

Mr. Bulters agreed to the question if citations may be used in the thesis.

1. Is the notion working capital a familiar notion within De Woonplaats and if so, what meaning does it have within the organization?

Mr. Bulters states that the notion working capital is not a familiar notion within De Woonplaats. The current ratio is part of the financial statements, but as far as known the organization does not control for this ratio. If the notion working capital would be familiar and there would be controlled for, this would be a task of the Planning & Control department.

2. Does De Woonplaats actively control on the management of the working capital and if so, in what way? (Is for example the current ratio used or the quick ratio?) If the current ratio is used, what would be the inventories for a public utility housing enterprise?

Mr. Bulters states that the current ratio is a part of the financial statements, but the organization does not actively control for this ratio. Mr. Bulters did question the fact if the quick ratio would not be a better ratio, because this ratio does not include the inventories in the calculation. The inventories from the balance sheet are only newly build real estate destined for sale. Existing real estate that is destined for sale does not belong to the inventories just like real estate that is destined for rental.

3. What would be a possible optimal position for the working capital of a public utility housing enterprise in general (or for De Woonplaats more specific), positive, negative or a specific amount?

Mr. Bulters comments that it is hard to take a finite position on a possible optimal working capital position. According to him there is no single optimal working capital position. From the treasury viewpoint he stated that in general long term funding is cheaper. In the current economical conditions however, the opposite is the case and short term funding is cheaper.

It does get harder to obtain long term funding and the add-ons by banks are increasing. Despite the fact that it is hard to take a finite position on a possible optimal working capital position Mr. Bulters stated that the inventories are an important aspect. At the moment there is the policy that houses are build without considering the sales or rentals of those houses.

A better policy according to him would be to start the construction only when a certain percentage of the project is sold or rented out. For example 70%. Such a policy would mean that inventories are managed more efficiently.

4. Does De Woonplaats experience troubles in the current economic conditions in obtaining (long term) financing for projects and investments?
What role does the WSW play in this by securing the financing?

Mr. Bulters pointed out that also De Woonplaats indeed experiences more troubles in obtaining funds. Despite this he also pointed out that De Woonplaats nevertheless is always able to obtain financing. The harder conditions are caused by the fact that the current bankers (BNG & NWB) also are having troubles in financing themselves. In particular financing on the long term is becoming harder and loans with durations longer than 50 years are becoming exceptions to the rule.

Mr. Bulters explained that the WSW still plays a significant role in the financing needs of De Woonplaats. With the security the WSW offers and indirectly the State this means that De Woonplaats can finance itself against more beneficial conditions. This is because the WSW has an AAA-status which means that it receives financing against lower interest rates. When De Woonplaats would try to obtain funds as an individual and so could not profit from the AAA-status of the WSW then this would lead to far less beneficial conditions for financing.

5. An important measure for determining a working capital position is the cash conversion cycle.

The cash conversion cycle exists out of three different components:

- Inventory-to-sale conversion period; which measures the time between the purchase of materials and producing a finished product.
Formula: $\text{Average inventories} / (\text{cost of goods sold} / 365)$
- Sales-to-cash conversion period; which measures the time needed for collecting sales made on credit.
Formula: $\text{Average receivables} / (\text{net sales} / 365)$
- Purchase-to-payment conversion period; which measures the time needed to pay creditors for purchases on credit.
Formula: $\text{Average payables} + \text{average short term debts} / (\text{cost of goods sold} / 365)$.

In formula, the cash conversion cycle can be defined as:

$\text{Inventory-to-sale conversion period} + \text{Sale-to-cash conversion period} - \text{Purchase to payment conversion period}$.

One of the components of the cash conversion cycle is the cost of goods sold. For a commercial organization this can relatively easy be defined as the purchase value of the sold items.

Question is how this has to be defined for a public utility housing enterprise. What is the cost of goods sold for a public utility housing enterprise in the cash conversion cycle calculations? For the sold real estate this is the book value of the items, but what would this be for the real estate that is rented out?

For example the personnel costs and maintenance costs are for a commercial organization no cost of goods sold, but is this also the case for a public utility housing enterprise? After all there are significant personnel costs resulting from the activities accompanied with the rental of real estate.

Mr. Bulters stated that he does not possess the required knowledge of corporate finance to be able to give proper statements towards this question. The other financial officers within De Woonplaats that are going to be interviewed have more knowledge about this subject. He did mention that the rents are collected one month ahead and that this regarding the sale-to-cash conversion rate somewhat contradicting is.

Also considering the fact that sales are usually collected within one day. The cash inflows are reasonably constant regarding the rental incomes. Only the cash inflows regarding the sales can show some fluctuations.

In addition Mr. Bulters pointed out that the cash outflows are also reasonably constant.

6. The same problems occur when defining the inventories for a public utility housing enterprise. What are the inventories in the calculation of the cash conversion cycle? Are these only the inventories that are specifically described in the balance sheet as inventories, or is (part of) real estate in the balance sheet defined as the tangible fixed assets to be regarded as inventories?

Also on this point Mr. Bulters could not make finite statements. He did point out that it might be a bit strange that De Woonplaats considers the inventories only to be newly build real estate destined for sale. Existing real estate that is in possession and destined for sale is not considered to be inventory but tangible fixed assets.

7. What is the current procedure regarding the accounts payable? Does the organization actively control for discounts for fast payment and the expiration of payments that are overdue? Are payments stretched or paid as soon as possible?

Mr. Bulters said that as far as he knows the organization does not actively control for payments that are overdue and payment discounts for fast payment. He pointed out that he is interested in this point, because he feels that there are improvements possible regarding this subject.

- **Report interview working capital management De Woonplaats**

Date: 04-05-2009.

Name organization: De Woonplaats.

Name officer: H. Dreeyers.

Function officer: Teamleider Planning & Control.

➤ First a short introduction of the notion working capital is given.

Mr. Dreeyers agreed to the question if citations may be used in the thesis.

1. Is the notion working capital a familiar notion within De Woonplaats and if so, what meaning does it have within the organization?

Mr. Dreeyers pointed out that the notion working capital is not a real familiar notion within De Woonplaats. This is due to the fact that the importance of it is never really acknowledged in the organization. In former times when the organization had a smaller size this did used to be a familiar notion.

2. Does De Woonplaats actively control on the management of the working capital and if so, in what way? (Is for example the current ratio used or the quick ratio?) If the current ratio is used, what would be the inventories for a public utility housing enterprise?

Mr. Dreeyers stated that the current ratio is a part of the financial statements, but the organization does not actively control for this ratio. The only ratio that is important at this moment is the solvability of the organization. This is due to the fact that the WSW regards this as an important measure.

3. What would be a possible optimal position for the working capital of a public utility housing enterprise in general (or for De Woonplaats more specific), positive, negative or a specific amount?

Mr. Dreeyers pointed out that it is hard to give one single optimal working capital position. He also mentioned that De Woonplaats is not an exception regarding the negative working capital position of the organization. Most public utility housing enterprises have a negative working capital position.

An optimal working capital position according to Mr. Dreeyers would be dependent upon the characteristics of the public utility housing enterprise. A conservative organization that has minor investments could have an other optimal working capital position than an inventive organization that has major investments every year.

An optimal position would be mainly dependent upon the incoming and outgoing cash flows of De Woonplaats. On moments that major investments are going to be executed the optimal working capital level can be much higher than on moments that no investments are going to be made.

Mr. Dreeyers also stated that for De Woonplaats in particular the cash inflows are rather stable and consistent and that the cash outflows are being influenced by investments. The conclusion is that there is no one single optimal working capital position, but this is dependent upon the forecasts of the cash inflows and outflows.

4. Does De Woonplaats experience troubles in the current economic conditions in obtaining (long term) financing for projects and investments?
What role does the WSW play in this by securing the financing?

Mr. Dreeyers commented that De Woonplaats does experience increased difficulties in obtaining financing, in particular long term financing, in the current economic conditions. The recent problematic situations that occurred at some other Dutch public utility housing enterprises also contribute to this. This has no direct effect on De Woonplaats, but on the long term it can have its effect on the point of view of the WSW. At this moment the WSW is a bit more stringent and for example budgets and realizations have to be clarified and deviations have to be explained. In earlier days this was less applicable.

5. An important measure for determining a working capital position is the cash conversion cycle.

The cash conversion cycle exists out of three different components:

- Inventory-to-sale conversion period; which measures the time between the purchase of materials and producing a finished product.
Formula: $\text{Average inventories} / (\text{cost of goods sold} / 365)$
- Sales-to-cash conversion period; which measures the time needed for collecting sales made on credit.
Formula: $\text{Average receivables} / (\text{net sales} / 365)$
- Purchase-to-payment conversion period; which measures the time needed to pay creditors for purchases on credit.
Formula: $\text{Average payables} + \text{average short term debts} / (\text{cost of goods sold} / 365)$.

In formula, the cash conversion cycle can be defined as:

$\text{Inventory-to-sale conversion period} + \text{Sale-to-cash conversion period} - \text{Purchase to payment conversion period}$.

One of the components of the cash conversion cycle is the cost of goods sold.

For a commercial organization this can relatively easy be defined as the purchase value of the sold items.

Question is how this has to be defined for a public utility housing enterprise. What is the cost of goods sold for a public utility housing enterprise in the cash conversion cycle calculations? For the sold real estate this is the book value of the items, but what would this be for the real estate that is rented out?

For example the personnel costs and maintenance costs are for a commercial organization no cost of goods sold, but is this also the case for a public utility housing enterprise? After all there are significant personnel costs resulting from the activities accompanied with the rental of real estate.

Mr. Dreeyers said he agreed to the calculations that where made up until now. Depreciation charges and changes in the value of the tangible fixed assets are not a part of the cost of goods sold. Tangible fixed assets are according to law not allowed to be categorized as inventories, but he also thinks that the time needed to convert the real estate into cash is too long to be categorized as inventories.

Houses and real estate in general are according to Mr. Dreeyers, especially in the current economic conditions, not convertible into cash within one year.

The outcome of the inventory to sale conversion period for De Woonplaats is 70 days. Mr. Dreeyers pointed out that this value is not realistic because De Woonplaats is definitely not able to build a complete house within seventy days. This is possibly due to the fact that in the calculation not only the costs for building new real estate are considered, but all the operational costs. This because the financial statements do not make a distinction between costs for rental and for development of real estate. For comparing purposes the complete cost of goods sold are used up till now, which causes this biased outcome.

6. The same problems occur when defining the inventories for a public utility housing enterprise. What are the inventories in the calculation of the cash conversion cycle? Are these only the inventories that are specifically described in the balance sheet as inventories, or is (part of) real estate in the balance sheet defined as the tangible fixed assets to be regarded as inventories?

Mr. Dreeyers stated that this year was the first year the auditors made a comment about the way that real estate destined for sale that already was a possession was categorized. According purely to the law this should be regarded as inventories. These are now categorized as tangible fixed assets. This comment is made this year, because this account is now of a significant size.

Regarding the depreciation charges Mr. Dreeyers comments that he can imagine that for example the depreciation charges for the current office of De Woonplaats is part of this. There is however not a distinction in these depreciation charges and he agrees to the choice to leave the depreciation charges out of the cost of goods sold in the calculations. Regarding the inventories Mr. Dreeyers does comment that he can imagine that some public utility housing enterprises still have internal maintenance departments and the accommodated inventories. These inventories will probably not be significant, but they can have an effect. De Woonplaats does not have an internal maintenance department anymore.

7. What is the current procedure regarding the accounts payable? Does the organization actively control for discounts for fast payment and the expiration of payments that are overdue? Are payments stretched or paid as soon as possible?

Mr. Dreeyers commented that as far as he could see the organization does not control for discounts on payments and payments that are overdue.

Because he was not sure about this, this point was further discussed with the Teamleider Registratie & Vastlegging, Mr. Bos.

Mr. Bos pointed out that the organization does control for payment discounts. When these are discounts are provided, De Woonplaats tries to pay within 30 days after receiving the invoice and the discount is deducted, regardless if this payment is made within the discount period or not.

De Woonplaats takes a stringent viewpoint in these cases. If the supplier does not accept this then no business is undertaken with the supplier.

Mr. Bos however also pointed out that payment discounts are only offered occasionally and that these most often concern invoices for office supplies etc.

Invoices from contractors virtually never contain payment discounts and there is no negotiation on this. Mr Dreeyers commented that this could be a point of improvement.

- **Report interview working capital management De Woonplaats**

Date: 18-05-2009.

Name organization: De Woonplaats.

Name officer: G. Bos.

Function officer: Manager Concern & Stafdiensten.

➤ First a short introduction of the notion working capital is given.

Mr. Bos agreed to the question if citations may be used in the thesis.

1. Is the notion working capital a familiar notion within De Woonplaats and if so, what meaning does it have within the organization?

Mr. Bos states that the notion working capital is a familiar notion for the financial officers within De Woonplaats from the financial backgrounds of those officers. He added to this that the working capital is a part of benchmarks that are performed in the branch in which De Woonplaats participates. However De Woonplaats does not control for the working capital notion within the organization.

2. Does De Woonplaats actively control on the management of the working capital and if so, in what way? (Is for example the current ratio used or the quick ratio?) If the current ratio is used, what would be the inventories for a public utility housing enterprise?

Mr. Bos comments that De Woonplaats mainly focuses on cash and cash inflows and outflows. This becomes clear from the fact that the organization draws up monthly and yearly cash flow forecasts which are compared to the realization afterwards. De Woonplaats has a short term credit facility of 35 million Euro available, because obtaining long term financing can take up to 4-8 weeks and the organization needs to have funds available in that period.

Mr. Bos made clear that for the upcoming years already financing contracts are in place and so, this will not become a problem. This financing mainly regards project to build new houses, because these project are capital-intensive.

Regarding the inventories for a public utility housing enterprise Mr. Bos thinks that they should be regarded as newly build houses destined for sale, but also already existing real estate that becomes destined for sale.

3. What would be a possible optimal position for the working capital of a public utility housing enterprise in general (or for De Woonplaats more specific), positive, negative or a specific amount?

Mr. Bos states that from history a working capital position that lies around zero is the most optimal working capital position. This is mainly from the costs / profitability viewpoint. This however does mean that there has to be a credit facility into place functioning as a buffer when unexpected costs / investments occur. De Woonplaats has the earlier mentioned short term credit facility of 35 million Euros functioning as a buffer in this context.

Mr. Bos also commented that the costs of obtaining funds used to be higher than the benefits of putting money in the capital market, but that this is the other way around at the moment.

4. Does De Woonplaats experience troubles in the current economic conditions in obtaining (long term) financing for projects and investments?
What role does the WSW play in this by securing the financing?

Considering the financial situation of De Woonplaats the organization has no troubles in financing itself states Mr. Bos. Because the security the WSW offers, De Woonplaats can make use of the AAA-status of the WSW in obtaining long term financing.

The current economic conditions however do cause higher add-ons by banks. This is because the banks also are in an exceptional situation considering the fact that they offer interest to customers at 4% rates and they, on their turn, only earn 2% returns.

5. An important measure for determining a working capital position is the cash conversion cycle.

The cash conversion cycle exists out of three different components:

- Inventory-to-sale conversion period; which measures the time between the purchase of materials and producing a finished product.

Formula: $\text{Average inventories} / (\text{cost of goods sold} / 365)$

- Sales-to-cash conversion period; which measures the time needed for collecting sales made on credit.

Formula: $\text{Average receivables} / (\text{net sales} / 365)$

- Purchase-to-payment conversion period; which measures the time needed to pay creditors for purchases on credit.

Formula: $\text{Average payables} + \text{average short term debts} / (\text{cost of goods sold} / 365)$.

In formula, the cash conversion cycle can be defined as:

$\text{Inventory-to-sale conversion period} + \text{Sale-to-cash conversion period} - \text{Purchase to payment conversion period}$.

One of the components of the cash conversion cycle is the cost of goods sold.

For a commercial organization this can relatively easy be defined as the purchase value of the sold items.

Question is how this has to be defined for a public utility housing enterprise. What is the cost of goods sold for a public utility housing enterprise in the cash conversion cycle calculations? For the sold real estate this is the book value of the items, but what would this be for the real estate that is rented out?

For example the personnel costs and maintenance costs are for a commercial organization no cost of goods sold, but is this also the case for a public utility housing enterprise? After all there are significant personnel costs resulting from the activities accompanied with the rental of real estate.

Mr. Bos points out that the inventory-to-cash conversion rate is not really applicable to public utility housing enterprises because we really should look at the technical process of it. Keeping inventories is not part of the core business of a public utility housing enterprise. The core business is renting out real estate.

In addition, Mr. Bos points out that the calculation of the net working capital is related to the total assets, but the valuation methods for the fixed assets may be very different. The difference between the actual values and the historical values can lead to significant differences in the value of the total assets. The same argument goes for the net cash burn/build to total assets calculation.

An other comment Mr. Bos has concerns the calculation method of the net cash burn/build amounts. If in the calculation of the cash burn amount the mutation in the tangible fixed assets is a component, then the mutation in the long term debts should be a component in the cash build calculation. After all, a public utility housing enterprise finances investments in the tangible fixed assets primarily with obtaining long term debts. The cost of goods sold for a public utility housing enterprise in fact is simply the operational costs.

Conclusion is that the cash conversion cycle probably is not very applicable to public utility housing enterprises as a measure of the working capital notion.

6. The same problems occur when defining the inventories for a public utility housing enterprise. What are the inventories in the calculation of the cash conversion cycle? Are these only the inventories that are specifically described in the balance sheet as inventories, or is (part of) real estate in the balance sheet defined as the tangible fixed assets to be regarded as inventories?

See the discussion described in the questions before.

7. What is the current procedure regarding the accounts payable? Does the organization actively control for discounts for fast payment and the expiration of payments that are overdue? Are payments stretched or paid as soon as possible?

The policy regarding the accounts payable is a payment term of 30 days. These 30 days are also used as far as possible. According to Mr. Bos the organization does not control for payment discounts. The organization pays as late as possible within the normal terms. Possible payment discounts are not common and if they do occur they only regard invoices for office supplies etc. Contractors etc. do not usually offer discounts for fast payments.

- **Report interview working capital management Welbions**

Date: 15-05-2009.

Name organization: Welbions.

Name officer: A. Seppenwoolde.

Function officer: Manager Finance.

➤ First a short introduction of the notion working capital is given.

Mr. Seppenwoolde agreed to the question if citations may be used in the thesis.

1. Is the notion working capital a familiar notion within Welbions and if so, what meaning does it have within the organization?

Mr. Seppenwoolde explained that the notion working capital is a familiar notion within the organization, but that it is of minor importance. For example the current ratio is not calculated and so, is not a point of control for the organization.

The short term financing needs do get monitored and to anticipate on these financing needs Welbions has a current account at the bank in place. Welbions does control for the synchronization of cash flows, but as already stated, this is of minor importance.

Welbions has an external financial advisor and strives for a small negative cash position. From practice it becomes clear that this position usually is more positive.

2. Does Welbions actively control on the management of the working capital and if so, in what way? (Is for example the current ratio used or the quick ratio?) If the current ratio is used, what would be the inventories for a public utility housing enterprise?

As mentioned at question one Welbions does not control for the current ratio or any comparable ratio on the short term. Mr. Seppenwoolde does point out that since the occurrence of the credit crunch there is more attention for controlling short term cash / funds. This means for example that positive cash positions on the current account are placed into the capital market.

As becomes clear from the financial statements year end 2007 of Welbions the organization does not have inventories. This means that real estate destined for sale is categorized as tangible fixed assets. Mr. Seppenwoolde stated that there is no specific reason to categorize this real estate as tangible fixed assets and not as, for example, inventories.

The only inventories that Welbions could have are maintenance materials, because Welbions still has an internal maintenance department. The value of these inventories in relation to the total assets is considered to be marginal.

3. What would be a possible optimal position for the working capital of a public utility housing enterprise in general (or for Welbions more specific), positive, negative or a specific amount?

Mr. Seppenwoolde points out that it is hard to define a general optimal working capital position. When we take a separate look at the most important components of the working capital Mr. Seppenwoolde states that the accounts receivable are fairly constant and stable. They regard rental incomes which are reasonably insensitive to changes in the economy.

Remark that should be made here according to Mr. Seppenwoolde is the duality regarding this account. On the one side there is the financial viewpoint in which the organization wants to collect the rental incomes as soon as possible. On the other side the organization does not want to lose the social viewpoint, which means that a strict collection policy could lead to foregone rental incomes.

Considering the usual relative low separate rental incomes the organization does not perform a risk assessment regarding private debtors, where this is done at a regular basis with commercial renters.

The working capital components that can show fluctuations are the accounts payable, for example due to the payment of instalments of investments.

Conclusion is that no specific optimal working capital position can be defined, but that Welbions strives for a small negative cash position.

4. Does Welbions experience troubles in the current economic conditions in obtaining (long term) financing for projects and investments?
What role does the WSW play in this by securing the financing?

Mr. Seppenwoolde points out that Welbions is not a participant of the WSW and so, does not make use of the securities the WSW provides. Welbions does make use of a so called WSW-simulation. This means that the organization, based on the budget, determines if the organization would be able to finance itself at the WSW.

Mr. Seppenwoolde explains that Welbions obtains financing at the community of Hengelo. This means that Welbions does not encounter problems in obtaining financing. The costs of funds charged by the community of Hengelo are approximately the same as the ones charged by the WSW. It may turn out that in some cases the community of Hengelo charges a higher cost for the funds because the community of Hengelo also uses a certain add-on on top of the interest rates they have to pay to the banks.

5. An important measure for determining a working capital position is the cash conversion cycle.

The cash conversion cycle exists out of three different components:

- Inventory-to-sale conversion period; which measures the time between the purchase of materials and producing a finished product.
Formula: $\text{Average inventories} / (\text{cost of goods sold} / 365)$
- Sales-to-cash conversion period; which measures the time needed for collecting sales made on credit.
Formula: $\text{Average receivables} / (\text{net sales} / 365)$
- Purchase-to-payment conversion period; which measures the time needed to pay creditors for purchases on credit.
Formula: $\text{Average payables} + \text{average short term debts} / (\text{cost of goods sold} / 365)$.

In formula, the cash conversion cycle can be defined as:

$\text{Inventory-to-sale conversion period} + \text{Sale-to-cash conversion period} - \text{Purchase to payment conversion period}$.

One of the components of the cash conversion cycle is the cost of goods sold. For a commercial organization this can relatively easy be defined as the purchase value of the sold items.

Question is how this has to be defined for a public utility housing enterprise. What is the cost of goods sold for a public utility housing enterprise in the cash conversion cycle calculations? For the sold real estate this is the book value of the items, but what would this be for the real estate that is rented out?

For example the personnel costs and maintenance costs are for a commercial organization no cost of goods sold, but is this also the case for a public utility housing enterprise? After all there are significant personnel costs resulting from the activities accompanied with the rental of real estate.

Mr. Seppenwoolde points out that in addition to the earlier description of the inventories for a public utility housing enterprise, he could imagine that real estate destined for sale can be regarded as inventories. He added to this that he questions the view whether this is also applicable to real estate that is used to rent out, but at that moment is empty and so not rented out (yet). Mr. Seppenwoolde compared this question to other businesses, for example organizations that rent out machinery. He questions how organizations that rent out machinery categorize their machines when they are not rented out.

(RJ212.106 states that tangible fixed assets are assets that are kept to produce or deliver products or services, for rental to other parties or for managerial purposes and which are expected to serve the activities of the organization on a durable basis)

Regarding the cost of goods sold Mr. Seppenwoolde explained how Welbions treats its quarterly reports. Welbions makes a difference between revenues and costs for rental of real estate and revenues and costs for the sale of real estate. The organization makes this separation because the costs for selling real estate are minimal and so, this separation ultimately results in a more clear insight. In fact, the revenues of selling real estate are the result of realizing a silent reserve that created itself during the time the real estate increased in value.

Regarding the calculations based on the financial statements that were used in the benchmark Mr. Seppenwoolde stated that he agreed to this. Although no separation is possible between the revenues and costs of the rental of real estate and selling real estate based on the financial statements, the accounts depreciation and value-changes tangible fixed assets are left out of the calculation. Mr. Seppenwoolde confirmed that these indeed are not costs that can be directly related to rental incomes or incomes from selling real estate.

6. The same problems occur when defining the inventories for a public utility housing enterprise. What are the inventories in the calculation of the cash conversion cycle? Are these only the inventories that are specifically described in the balance sheet as inventories, or is (part of) real estate in the balance sheet defined as the tangible fixed assets to be regarded as inventories?

This issue was already discussed in the previous questions.

7. What is the current procedure regarding the accounts payable? Does the organization actively control for discounts for fast payment and the expiration of payments that are overdue? Are payments stretched or paid as soon as possible?

Mr. Seppenwoolde pointed out that first a previous step should be regarded in the accounts payable policy, known as the tender procedure. Although this is not obligatory for a public utility housing enterprise, such a procedure contributes to the transparency and the sound business practice.

This policy is under development at this moment at Welbions, because the organization has just finished a merger between St. Joseph and HBO Ons Belang and both organizations had their own policies regarding these subjects.

Enforcing payment discounts is a primary responsibility of the purchasing department according to Mr. Seppenwoolde, but also regarding this subject the policies are still being developed due to the recent merger. Mr. Seppenwoolde does comment however that he thinks that there are improvements possible regarding this policy.

Also regarding this policy Mr. Seppenwoolde points out that there is a duality at stake and that also the local commitment is important. He questions the view that mitigating other aspects in favor of purchasing on the most favorable terms is the policy public utility housing enterprises should strive for.

At this moment Welbions controls for the net term conditions for payments. This means that if the net term is 30 days the organization also tries to comply with this term.

Last Mr. Seppenwoolde agreed that possible improvements could be made for public utility housing enterprises regarding the payment behaviour, also considering the financial structure of public utility housing enterprises and the availability of financing.

- **Report interview working capital management Anonymous**

Date: 20-05-2009.

Name organization: Anonymous.

Name officer: Anonymous.

Function officer: Anonymous.

➤ First a short introduction of the notion working capital is given.

The officer in question allowed using citations to be used in the thesis, but he preferred an anonymous reference.

1. Is the notion working capital a familiar notion within Anonymous and if so, what meaning does it have within the organization?

The notion working capital is a familiar notion within the organization, but the organization does not specifically control for this. The organization mainly focuses on cash flows and budgets and so, on short term cash. The rental incomes are a fairly stable and constant factor in this context because they are collected at the beginning of every month.

The availability of funds is of significant importance and so, the organization has a current account at the bank as a sort of security.

2. Does Anonymous actively control on the management of the working capital and if so, in what way? (Is for example the current ratio used or the quick ratio?) If the current ratio is used, what would be the inventories for a public utility housing enterprise?

The current ratio and the quick ratio are not used as measures for short term liquidity by the organization. The organization strives for a liquidity position that is around zero. The focus the organization has is thereby mainly directed at cash flows. This means that possible excessive cash surplus (which are very exceptional) are used to set out in the capital market or used to repay (part of) the roll-over loans the organization has. In addition the organization has a savings account on which it can keep positive cash excesses.

3. What would be a possible optimal position for the working capital of a public utility housing enterprise in general (or for Anonymous more specific), positive, negative or a specific amount?

As stated at question two, the organization strives for a liquidity position around zero. Regarding the question what a possible optimal working capital position would be for the organization, it became clear that this would be a zero position. There is however the remark that in that case there should be proper credit facilities in place that have to function as a buffer when incidental cash outflows occur.

There is always some sort of duality. On the one hand the working capital position needs to be as efficient as possible with minimal accommodated costs. On the other hand the working capital position needs to be spacious enough to execute possible investments. This is why the organization has the current account at the bank in place to function as a buffer.

4. Does Anonymous experience troubles in the current economic conditions in obtaining (long term) financing for projects and investments?
What role does the WSW play in this by securing the financing?

The organization in question also is a participant of the WSW. This means that the organization also makes use of the securities the WSW offers and so enables the organization to obtain funding against more favorable conditions compared to obtaining funding directly from the capital market without the WSW. This means that the organization also still is able to obtain funding, although this has become more difficult because of the current economical conditions. These economical conditions have led to significant increases in add-ons that are charged by banks. This is mainly due to the fact that these banks at this moment pay out higher interest rates on savings than the interest rates they receive when they are set out money in the market. Also there is no mutual competition between banks anymore. For public utility housing enterprises only the BNG still plays an important role, in relation to the other banks. This means that the BNG finds itself in a beneficial negotiation position and that public utility housing enterprises do not have room for negotiating anymore.

5. An important measure for determining a working capital position is the cash conversion cycle.

The cash conversion cycle exists out of three different components:

- Inventory-to-sale conversion period; which measures the time between the purchase of materials and producing a finished product.
Formula: $\text{Average inventories} / (\text{cost of goods sold} / 365)$
- Sales-to-cash conversion period; which measures the time needed for collecting sales made on credit.
Formula: $\text{Average receivables} / (\text{net sales} / 365)$
- Purchase-to-payment conversion period; which measures the time needed to pay creditors for purchases on credit.
Formula: $\text{Average payables} + \text{average short term debts} / (\text{cost of goods sold} / 365)$.

In formula, the cash conversion cycle can be defined as:

Inventory-to-sale conversion period + Sale-to-cash conversion period – Purchase to payment conversion period.

One of the components of the cash conversion cycle is the cost of goods sold. For a commercial organization this can relatively easy be defined as the purchase value of the sold items.

Question is how this has to be defined for a public utility housing enterprise. What is the cost of goods sold for a public utility housing enterprise in the cash conversion cycle calculations? For the sold real estate this is the book value of the items, but what would this be for the real estate that is rented out?

For example the personnel costs and maintenance costs are for a commercial organization no cost of goods sold, but is this also the case for a public utility housing enterprise? After all there are significant personnel costs resulting from the activities accompanied with the rental of real estate.

The inventory the organization has on its balance sheet in 2007 regards no real estate, but only soil positions. These positions in essence are held to realize real estate in the future. In some cases these positions are just sold without the development of real estate. This means that the income from selling real estate in the profit and loss account virtually has no relation with the inventories in the balance sheet.

It could be possible that, regarding the inventory-to-sale conversion rate, the tangible fixed assets of a public utility housing enterprise should be regarded as the inventories, because it are these tangible fixed assets that generate the rental incomes. This also means that the cost of goods sold should be regarded as all the costs in the profit and loss account excluding the value-changes in tangible fixed assets, related to the rental incomes and reimbursements.

6. The same problems occur when defining the inventories for a public utility housing enterprise. What are the inventories in the calculation of the cash conversion cycle? Are these only the inventories that are specifically described in the balance sheet as inventories, or is (part of) real estate in the balance sheet defined as the tangible fixed assets to be regarded as inventories?

See the discussion of this subject at question five.

7. What is the current procedure regarding the accounts payable? Does the organization actively control for discounts for fast payment and the expiration of payments that are overdue? Are payments stretched or paid as soon as possible?

The organization in question enforces a payment policy that is aimed at 30 days. The organization wants to be seen as a reliable partner towards its suppliers and paying on time is one of these principles. Payment discounts are always being deducted with the payment term of 30 days regardless of the discount period. The discounts that the organization receives are almost always applicable to small amounts. Contractors etc. usually do not offer discounts because there are instalments in the contracts. The organization actively controls for payments that are overdue.