

Liquid Assets Strategies in Silesian Non-Profit Organizations¹

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Abstract

The kind of realized mission, inflows the sensitivity on risk. Among other factors, that risk results from decision about liquid assets investment level and liquid assets financing. The higher exposition on risk, the higher level of liquid assets should be. If the exposition on that risk is smaller, the more aggressive could be the net liquid assets strategy. The organization choosing between various solutions in liquid assets needs to decide what level of risk is acceptable for her owners (or donors) and/or capital suppliers. The paper shows how in authors opinion decisions about liquid assets management strategy inflow the risk of the organizations and its economical results during realization of main mission. Comparing the theoretical model with empirical data for over 450 Silesian nonprofit organization results, suggest that nonprofit organization managing teams choose higher risky aggressive liquid assets solutions than for-profit firms.

Key words

intrinsic liquidity value, nonprofit financial management, financial liquidity

JEL Classification: G31, L31, M21

1. Introduction

Organizations can work as taxed commercial businesses or as non-taxed nonprofit organizations (Lane 2001, p. 1-17). As is widely believed, the advantage of commercially driven businesses is more effective management than in government controlled organizations (Nowicki 2004, p. 29). In that paper we study the nonprofit organization liquid assets management. There is a group of organizations doing almost the same job as non-taxed government controlled organization, non-taxed nonprofit organization and taxed commercially managed business (Berger, 2008, p. 46-47). That group of organizations face specific incumbent needs, which are the result of higher unemployment and other similar factors (Zietlow 2010, p. 238-248).

The main financial aim of the nonprofit organization (NPO) is not the maximization of firm value but the best realization of the mission of that organization (Zietlow 2007, p. 6-7). But for assessment of financial decision NPO, should be used analogous rules like for for-profit firms (Brigham 2006). One of that rules is fact, that the higher risk is linked with the higher cost of capital rate which should be used to evaluate the future results of decisions made by nonprofit organizations. That is also positively linked with the level of efficiency and effectiveness in realization of the NPO mission. Cost of financing net liquid assets depends on the risk included to the organization strategy of financing and/or investment in liquid assets.

Managing team in non-profit organizations have a lot of important reasons for which their enterprises should possess some money resources reserves even if current interest rate is positive (Kim 1998). The reasons may be classified into three main groups: the necessity of

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current expenses financing (transactional reason), fear of future cash flows uncertainty (precautional reason), future interest rate level uncertainty (speculative reason).

Liquid assets, especially cash, understood as money resources in organization safe are not a source of any or small interests. Maintaining liquidity reserve in the non-profit organization is a result of belief that the value of lost income on account of interest will be recompensed by the benefits for incumbents of non-profit organization (Kim 1998, Lee 1990). The hypothetical benefits are from higher profitability that organization mission will be completed, thanks adequate liquidity level. Then organizations maintaining such reserves assume that in equilibrium conditions, marginal liquidity value is equal to the interest rate of the Treasury Bonds investments (or interest rate being a cost of short-term credit we took out to obtain liquidity. Without doubt, the statement that investment in liquid assets does not bring any benefits helps in realization of NPO mission may be rejected. From such a perspective, liquid assets would be treated as a "necessary evil" linked only to the costs resulting from interests lost. Another incorrect conclusion would be an assumption that present net value always equals zero. It would be a result of the statement that due to the fact that marginal liquidity value is always equal to interests lost, cash reserves size has no significance at all (Henderson 1989, p. 95; Kim 1998, Lee 1990, p. 540).

For organization being in possession of liquid reserves, the marginal utility of liquidity changes. Along with the growth in amount of cash possessed, the marginal cash value decreases. So it may be noticed that for the market Treasury Bond rate or short-term credit rate, it pays to keep some money reserve only to the specific level. There is a point corresponding with the optimal (critical) liquidity level, up to which the amount of liquid assesses in the non-profit organization may be increased at a profit (Michalski 2008b, Washam 1989, p.28; Henderson 1989, Lee 1990). The term: liquidity degree (or level) is connected with the known from economic literature conception of "liquidity container". The more liquid assesses (which may be easily convertible into known amount of money resources and sensible only to a slight value change risk), the higher is enterprise liquidity level.

After crossing this critical liquid assets level, the Treasury Bonds sale or taking out a short-term debt is unprofitable for the non-profit organization. The marginal benefit from higher cash reserve is lower than the cost of interests lost (Washam 1989; Henderson 1989).

The non-profit organization transactional and precautional liquid assets holdings on sufficient level enable prompt fulfillment of internal (salary payments etc.) and external creditors (suppliers payment etc.). The non-profit organization financial liquidity (operational and precautional) usually concerns operational activity and is not linked to investment activity. If it comes to enfeeblement or loss of operational and precautional liquidity in the non-profit organization, it menaces with (Scherr 1989, Washam 1989, Beck 1993): lowering decision making elasticity, deteriorating non-profit organization ability to set the organization mission, higher foreign capital raising cost, demobilization of donors, worsening non-profit organization position. In order to avoid such dangers, constant monitoring of non-profit organization financial liquidity is necessary, and then taking actions guaranteeing its economic-financial equilibrium.

2. Liquid assets strategies and cost of financing

Influence of liquid assets strategy on the rate of cost of capital financing non-profit organization and that influence on the economic results of NPO depend on relation between kind of business risk taken by NPO, financial risk results from the financial leverage and individual risk characterizing the NPO. Capital providers take into consideration the nonprofit organization liquidity investment strategy while defining their claims as regards the rates of return. Restrictive strategy is perceived as more risky and therefore depending on investors

risk aversion level, they tend to ascribe to the financed nonprofit organization applying restrictive strategy an additional expected risk premium. Ascribing the additional risk premium for applied liquidity investment strategy is reflected in the value of β risk coefficient. For each strategy, the β risk coefficient will be corrected by the corrective coefficient SZ corresponding to that specific strategy in relation to the current assets to cash revenues (CA/CR) situation.

Example: The risk free rate is 4%, and rate of return on market portfolio is 18%. If XYZ nonprofit organization is a representative of W sector for which the non-leveraged risk coefficient $\beta_u = 0.77$. On the basis of Hamada relation (Hamada 1972), we can estimate the equity cost rate that is financing that organization in case of each of the three strategies in the SZ1 variant.

$$\beta_l = \beta_u \times \left(1 + (1 - T) \times \frac{D}{E}\right) = 0.77 \times \left(1 + 0.81 \times \frac{0.4}{0.6}\right) = 1.19$$

Where: T – effective tax rate, here the assumption is taken that the NPO uses the tax-exempt debt and as a result there have about the same effective cost of debt as for profit organizations (Brigham 2006, 30-5,7,20)³, D – organization financing capital coming from creditors (a sum of short term debt and long term debt $D=D_s+D_l$), E – organization financing capital coming from founders / owners of the organization, β – risk coefficient, β_u – risk coefficient for an assets of the non-profit organization that not use debt, β_l – risk coefficient for an organization that applying the system of financing by creditors capital (here we have both asset and financial risk).

For restrictive strategy, where CA/CR is 0.3; the SZ risk premium is 0.2:

$$\beta_{l_r}^* = \beta_u \times \left(1 + (1 - T) \times \frac{D}{E}\right) \times (1 + SZ) = 0.77 \times \left(1 + 0.81 \times \frac{0.4}{0.6}\right) \times 1.2 = 1.19 \times 1.2 = 1.43$$

Where: SZ – risk premium correction dependent on the liquidity investment strategy.

For moderate strategy, where CA/CR is 0.45 the SZ risk premium is 0.1:

$$\beta_{l_m}^* = \beta_u \times \left(1 + (1 - T) \times \frac{D}{E}\right) \times (1 + SZ) = 0.77 \times \left(1 + 0.81 \times \frac{0.4}{0.6}\right) \times 1.1 = 1.19 \times 1.1 = 1.31$$

For flexible strategy, where CA/CR is 0.6 the SZ risk premium is 0.01:

$$\beta_{l_f}^* = \beta_u \times \left(1 + (1 - T) \times \frac{D}{E}\right) \times (1 + SZ) = 0.77 \times \left(1 + 0.81 \times \frac{0.4}{0.6}\right) \times 1.01 = 1.19 \times 1.01 = 1.2$$

Using that information we can calculate cost of equity rates for each liquidity investment strategy. For restrictive strategy:

$$k_{e_r} = \beta_l \times (k_m - k_{RF}) + k_{RF} = 1.43 \times 14\% + 4\% = 24\%;$$

For moderate strategy:

$$k_{e_m} = \beta_l \times (k_m - k_{RF}) + k_{RF} = 1.31 \times 14\% + 4\% = 22.3\%;$$

And for flexible strategy:

$$k_{e_f} = \beta_l \times (k_m - k_{RF}) + k_{RF} = 1.2 \times 14\% + 4\% = 20.8\%.$$

³ According to (Brigham 2006) even non-profit corporations that are exempt from taxation, and they have the right to issue tax-exempt debt but individual contributions to these non-profit organizations can be deducted from taxable income by the donor, so: “non-profit businesses have access to tax-advantaged contributed capital”.

where: k – rate of return expected by capital donors and at the same time (from nonprofit organization perspective) – cost of financing capital rate, k_e – for cost rate of the equity, k_{dl} – for long term debt rate, k_{ds} – for short term debt rate, k_m – for average rate of return on typical investment on the market, k_{RF} – for risk free rate of return whose approximation is an average profitability of treasury bills in the country where the investment is made.

In similar way, we can calculate the risk premiums for XYZ alternative rates. We know that long term debt rates differ for $9\% \times (1+SZ)$ in relation of equity to long term debt. From that we can get long term debt cost rates for each alternative strategy. For restrictive strategy:

$$k_{dl_r} = k_{e_r} - 9\% \times 1.2 = 24\% - 10.8\% = 13.2\%;$$

For moderate strategy:

$$k_{dl_m} = k_{e_m} - 9\% \times 1.1 = 22.3\% - 9.9\% = 12.4\%;$$

And for flexible strategy:

$$k_{dl_f} = k_{e_f} - 9\% \times 1.01 = 20.8\% - 9.1\% = 11.7\%.$$

Next we can calculate the risk premiums for XYZ alternative cost of short term rates. We know that short term debt rates differ for $12\% \times (1+SZ)$ in relation of cost of equity rates to short term debt rates. From that we can get short term debt cost rates for each alternative strategy. For restrictive strategy:

$$k_{ds_r} = k_{e_r} - 12\% \times 1.2 = 24\% - 14.4\% = 9.6\%;$$

For moderate strategy:

$$k_{ds_m} = k_{e_m} - 12\% \times 1.1 = 22.3\% - 13.2\% = 9.1\%;$$

And for flexible strategy:

$$k_{ds_f} = k_{e_f} - 12\% \times 1.01 = 20.8\% - 12.1\% = 8.7\%.$$

As a result, cost of capital rate will amount to:

$$CC = \frac{E}{E + D_l + D_s} \times k_e + \frac{D_l}{E + D_l + D_s} \times k_{dl} \times (1 - T) + \frac{D_s}{E + D_l + D_s} \times k_{ds} \times (1 - T)$$

However, for each strategy – this cost rate will be on another level (calculations in the table 1. below).

Table 1. Cost of capital and changes in economic results depending on the choice of liquidity investment strategy.

Liquidity investment strategy	Restrictive	Moderate	Flexible
Cash Revenues (CR)	2000	2080	2142,4
Fixed assets (FA)	1400	1445	1480
Current assets (CA)	600	936	1285
Total assets (TA) = Total liabilities (TL)	2000	2381	2765
Accounts payable (AP)	300	468	643
Capital invested (E+D _l +D _s)	1700	1913	2122
Equity (E)	680	765	849
Long-term debt (D _l)	340	383	424
Short-term debt (D _s)	680	765	849
EBIT share in CR	0.5	0.45	0.40
Earnings before interests and taxes (EBIT) ⁴	1000	936	857
Free Cash Flows in 1 to n periods (FCF _{1..n})	1000	936	857
Initial Free Cash Flows in year 0 (FCF ₀)	-1700	-1913	-2122
SZ risk premium correction	0.2	0.1	0.01
Leveraged and corrected risk coefficient β_i	1.428	1.309	1.2019

⁴ Because of exempt of taxation, EBIT is equal to net operating profit after taxes (NOPAT).

Cost of equity rate (k_e)	23.99%	22.33%	20.83%
Long-term debt rate (k_{dl})	13.19%	12.43%	11.74%
Short-term debt rate (k_{ds})	9.59%	9.13%	8.71%
Cost of capital (CC)	14.84%	13.90%	13.05%
Economic result of liquidity strategy	5037.77	4821.18	4443.17

Source: hypothetical data

As it is shown in the table, rates of the cost of capital financing the non-profit organization are different for different approaches to liquidity investment. The lowest rate: CC = 13.1%; is observed in flexible strategy because that strategy is linked with the smallest level of risk but the highest economic effect is linked with restrictive strategy of investment in liquidity.

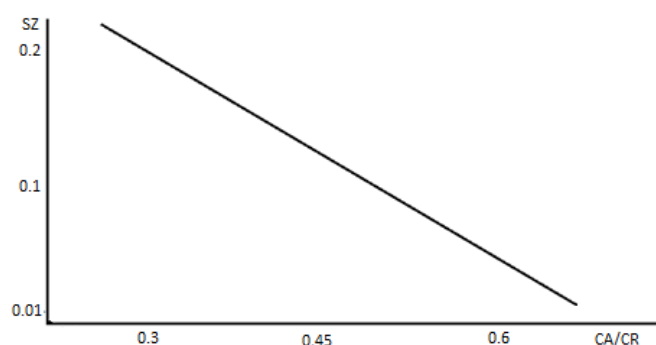


Figure 1. The shape of line of correction SZ as a function of CA/CR in the SZ1 variant.
Source: hypothetical data

Cost of capital for restrictive strategy of investment in liquidity:

$$CC_r = \frac{680}{1700} \times 24\% + \frac{340}{1700} \times 13.2\% \times (1 - 0.19) + \frac{680}{1700} \times 9.6\% \times (1 - 0.19) = 14.8\%$$

Expected growth of economic result of liquidity strategy:

$$\Delta ER_r = FCF_o + \frac{FCF_{1...n}}{CC} = -1700 + \frac{1000}{0.148} = 5057.$$

Cost of capital for moderate strategy of investment in liquidity:

$$CC_m = \frac{765}{1913} \times 22.3\% + \frac{383}{1913} \times 12.4\% \times (1 - 0.19) + \frac{765}{1913} \times 9.1\% \times (1 - 0.19) = 13.9\%;$$

Expected growth of economic result for that strategy:

$$\Delta ER_m = -1913 + \frac{936}{0.139} = 4821;$$

Cost of capital for flexible strategy of investment in liquidity:

$$CC_f = \frac{849}{2122} \times 20.8\% + \frac{424}{2122} \times 11.7\% \times (1 - 0.19) + \frac{849}{2122} \times 8.7\% \times (1 - 0.19) = 13.1\%;$$

Expected growth of economic result for flexible strategy:

$$\Delta ER_f = -2122 + \frac{857}{0.131} = 4420.$$

The expected after crisis changes will correct both the market liquidity value and the cost of capital rate. Both factors influence the target (and optimal) liquidity level for nonprofit organization. That will result with more restrictive liquidity levels because of change in equilibrium point for intrinsic and market liquidity values (Michalski 2010, Golawska-Witkowska 2006, p. 144, Jaworski 2010, p. 366-368). The cost of capital will be higher after crisis than before (Fernandez 2011, p. 4-7, Fernandez 2010, p. 4-7, Fernandez 2008, p. 5-8). That will result with changes in efficiency of liquidity policy for nonprofit organizations (as shown in table 2).

Table 2. Cost of capital and changes in economic results depending on the choice of liquidity investment strategy .

Liquidity investment strategy	Restrictive	Moderate	Flexible
Cash Revenues (CR)	2000	2080	2142.4
Fixed assets (FA)	1400	1445	1480
Current assets (CA)	600	936	1285
Total assets (TA) = Total liabilities (TL)	2000	2381	2765
Accounts payable (AP)	300	468	643
Capital invested (E+D _l +D _s)	1700	1913	2122
Equity (E)	680	765	849
Long-term debt (D _l)	340	383	424
Short-term debt (D _s)	680	765	849
EBIT share in CR	0.5	0.45	0.40
Earnings before interests and taxes (EBIT)	1000	936	857
Free Cash Flows in 1 to n periods (FCF _{1..n})	1000	936	857
Initial Free Cash Flows in year 0 (FCF ₀)	-1700	-1913	-2122
SZ risk premium correction	0.2	0.1	0.01
Leveraged and corrected risk coefficient β_l	1.428	1.309	1.2019
Cost of equity rate (k _e)	27.85%	25.94%	24.23%
Long-term debt rate (k _{dl})	17.05%	16.04%	15.14%
Short-term debt rate (k _{ds})	13.45%	12.74%	12.11%
Cost of capital (CC)	18.26%	17.10%	16.07%
Economic result of liquidity strategy	3777	3559.18	3211.06

Source: hypothetical data

As it is shown in table 2, the after crisis changes influence the efficiency of the liquidity investment of nonprofit organization. Of course that change depend on NPO risk sensitivity. Depending on their risk sensitivity, an additional risk premium for an NPO that implemented this type of strategy should be used. As presented on fig. 2., we have stronger risk sensitivity than in previous situation.

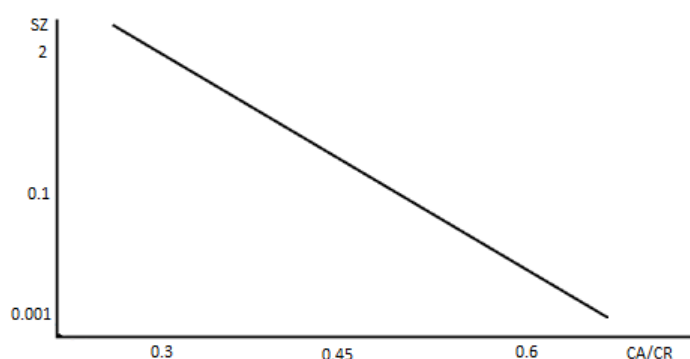


Figure 2. The shape of line of correction SZ as a function of CA/CR in the SZ2 variant.

Source: hypothetical data.

In the table 3. There are calculations for that variant. For each strategy the cost of capital rate CC will be on another level.

Table 3. Cost of capital and changes in economic results depending on the choice of liquidity investment strategy (before the crisis influence).

Liquidity investment strategy	Restrictive	Moderate	Flexible
Cash Revenues (CR)	2000	2080	2142,4
Fixed assets (FA)	1400	1445	1480
Current assets (CA)	600	936	1285
Total assets (TA) = Total liabilities (TL)	2000	2381	2765
Accounts payable (AP)	300	468	643
Capital invested (E+D _l +D _s)	1700	1913	2122
Equity (E)	680	765	849
Long-term debt (D _l)	340	383	424
Short-term debt (D _s)	680	765	849
EBIT share in CR	0.5	0.45	0.40
Earnings before interests and taxes (EBIT)	1000	936	857
Free Cash Flows in 1 to n periods (FCF _{1..n})	1000	936	857
Initial Free Cash Flows in year 0 (FCF ₀)	-1700	-1913	-2122
SZ risk premium correction	2	0.1	0.001
Leveraged and corrected risk coefficient β_l	3.5574	1.30438	1.186986
Cost of equity rate (k _e)	53.80%	22.26%	20.62%
Long-term debt rate (k _{dl})	26.80%	12.36%	11.61%
Short-term debt rate (k _{ds})	17.80%	9.06%	8.61%
Cost of capital (CC)	31.63%	13.84%	12.92%
Economic result of liquidity strategy	1461	4849	4513

Source: hypothetical data

In similar way we can calculate for situation with higher after crisis cost of capital rates levels. The result is presented in table 4.

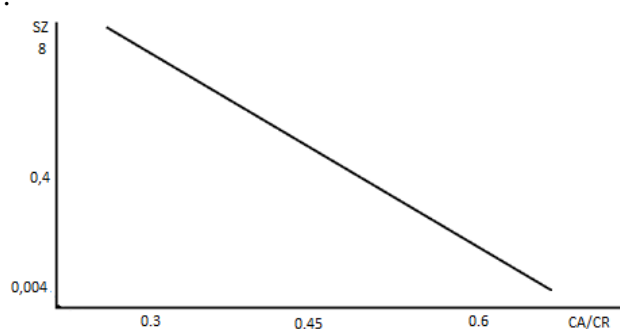


Figure 3. The shape of line of correction SZ as a function of CA/CR in the SZ3 variant.
 Source: hypothetical data.

Table 4. Cost of capital and changes in economic results depending on the choice of liquidity investment strategy .

Liquidity investment strategy	Restrictive	Moderate	Flexible
Cash Revenues (CR)	2000	2080	2142,4
Fixed assets (FA)	1400	1445	1480
Current assets (CA)	600	936	1285
Total assets (TA) = Total liabilities (TL)	2000	2381	2765

Accounts payable (AP)	300	468	643
Capital invested (E+D _l +D _s)	1700	1913	2122
Equity (E)	680	765	849
Long-term debt (D _l)	340	383	424
Short-term debt (D _s)	680	765	849
EBIT share in CR	0.5	0.45	0.40
Earnings before interests and taxes (EBIT)	1000	936	857
Free Cash Flows in 1 to n periods (FCF _{1..n})	1000	936	857
Initial Free Cash Flows in year 0 (FCF ₀)	-1700	-1913	-2122
SZ risk premium correction	2	0.1	0.001
Leveraged and corrected risk coefficient β_l	3.5574	1.30438	1.186986
Cost of equity rate (k _e)	61.92%	25.87%	23.99%
Long-term debt rate (k _{dl})	34.92%	15.97%	14.98%
Short-term debt rate (k _{ds})	25.92%	12.67%	11.98%
Cost of capital (CC)	38.82%	17.04%	15.91%
Economic result of liquidity strategy	877	3580	3266

Source: hypothetical data.

3. Empirical data for Poland

Data collected about Polish NPO show their liquidity strategies for 2009 and 2010 years. If we compare it with for profit Polish organizations results, we can see that the average length of operating cycle and net operating cycle (cash cycle) is shorter than for average for profit organizations. Observation of NPO data can inform us about interesting customs of NPO managing teams. Generally, basing on the data collected from Opolskie area in Poland, for 2009 and 2010 years, we can see that average operating cycle for such group of organizations vary differ, in 2009 was short (about 5,89 days for 2009 data, with standard deviation = SD = 22,69 days) and in 2010 was shorter (about 3,59 days for 2010 data, with SD = 9,35 days).

Table 5. Operating cycle indicators for Opolskie nonprofit organizations in 2009 and 2010.

	Operating cycle	Cash cycle	ROA	ROE
M 2009	5,89	-1,47	-169,96%	7,15%
SD 2009	22,69	33,55	1272,09%	533,11%
M 2010	3,59	-7,1	2,21%	1258,21%
SD 2010	9,35	50,34	120,35%	11463,45%

Source: own calculation for 80 selected nonprofits in OPOLSKIE (Bopp 2011)

Where: SD = standard deviation, M = arithmetic mean

Selected data shows that there is no hard link between operating cycle and ROA and ROE results. Operating cycle policy must be first of all a slave of the best realization of the mission nonprofit organization. The economic results are important, but the second or even third in the queue of the aims.

Table 6. Liquid assets indicators for Polish nonprofit organizations in 2009 and 2010.

-	CR	assets	CA	Current Ratio	Quick Ratio	Cash Ratio	INV
number of observations	2283	2292	2294	1473	1471	1467	2291
Mean	483699	834 187	201034	1092	526	474	6284
SD	1636492	13073895	1315942	23069	5201	4998	46105
median	76979	24732	19062	5.6	5.42	4.54	-

winsorized mean	693825	352948	172751	63	62	56.3	-
truncated (trimmed) mean	141493	58492	34793	12	12	10.21	-

-	AR	Cash equivalents	E	D ₁	D _s	ROA	ROE
number of observations	2290	2292	2294	2293	2293	2266	2247
Mean	32043	172066	688121	11026	47152	- 0.57	- 0.04
SD	605949	1291873	12967335	112797	312128	23	23
median	-	13902	17037	-	607	0	0.30
winsorized mean	11318	116842	207907	-	35605	1	1
truncated (trimmed) mean	2282	25330	37026	-	6822	0	0.31

Source: calculation for 1000+ selected nonprofits in Poland (Bopp 2011)

Where: SD = standard deviation, M = arithmetic mean, AR = accounts receivable, E = fund capital, D₁ = long-term debt, D_s = short-term debt, INV = inventories.

According to data received from 1000+ Polish NPOs, the average NPO investment in liquid assets is more aggressive than in for profit organizations. Average Polish NPO accounts receivable period for 2009-2010 data is about 23 days (5.8 days using winsorized mean and 5.8 days using truncated mean). Average Polish for profit accounts receivable period for 2009-2010 data is about 46 days (Dudycz 2011). Average Polish NPO inventory period for 2009-2010 data is about 4.7 days. Average Polish for profit inventory period for 2009-2010 data is about 39 days.

That observation suggest us that here, in Polish NPO case we have figure 6 situation. Is it small risk exposition or rather smaller aversion of managing teams? Unfortunately rather the second.

4. Silesian empirical data

Distribution analysis commands to understand the financial management process in Silesian NPO. Probability distribution function and statistical dispersion of financial data could provides valuable information about current financial condition in not-for-profit businesses.

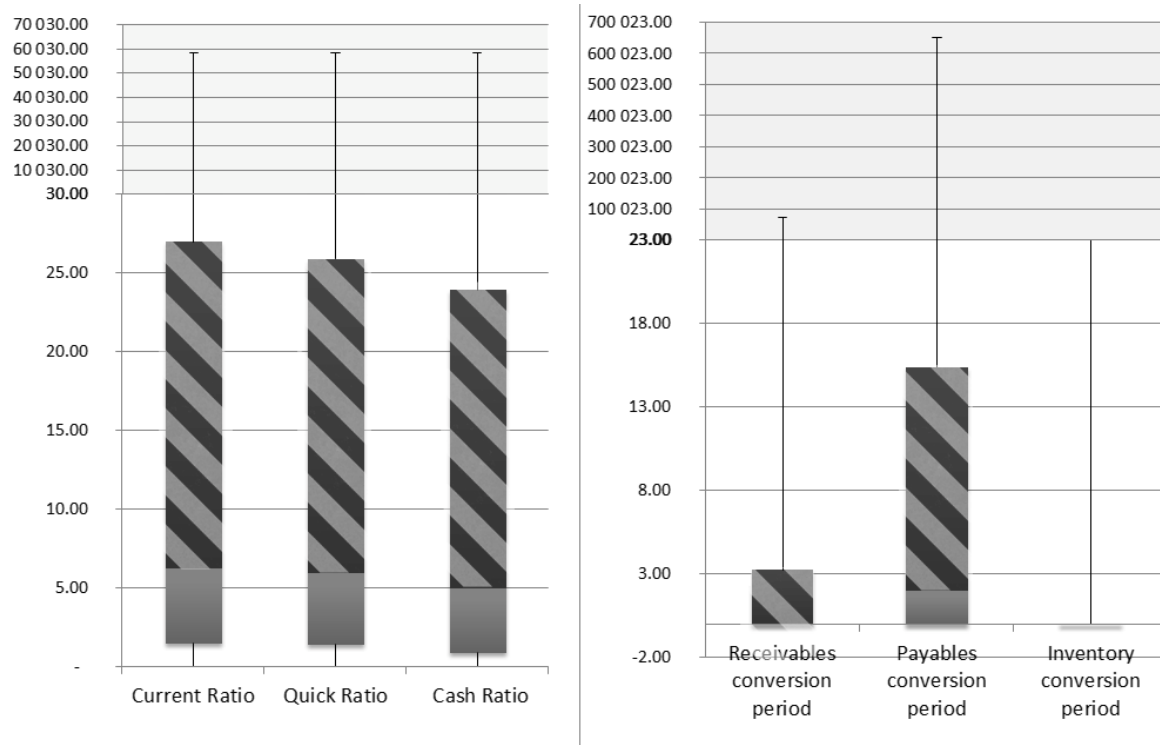


Figure 4. Boxplots - liquid ratios nad conversion periods (2009).
 Source: own calculation for over 450 selected nonprofits in Silesia (Bopp 2011)

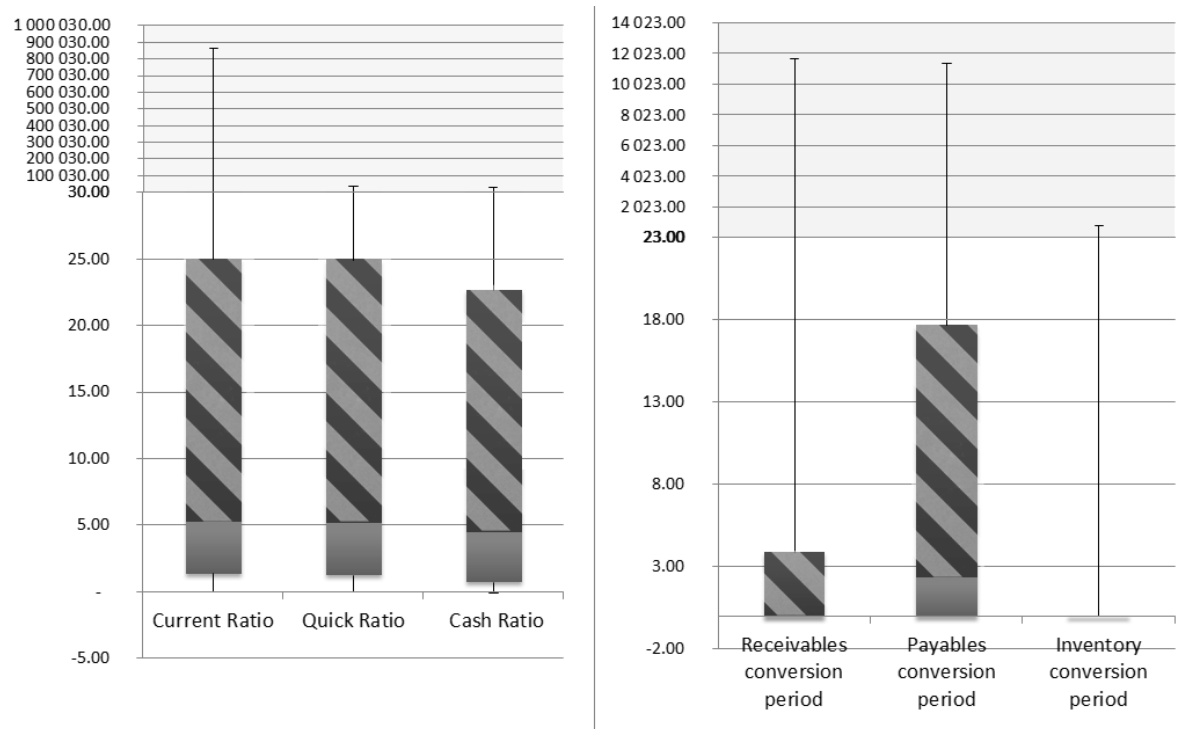


Figure 5. Boxplots - liquid ratios nad conversion periods (2010).
 Source: own calculation for over 450 selected nonprofits in Silesia (Bopp 2011)

An important aspect is the shape of a distribution, which show the frequency of values from different ranges of the variable. The analysis of all financial ratios produced some interesting results. Skewness (a measure of the asymmetry of the probability distribution) is clearly different from 0, which means that distribution is asymmetrical. Boxplots (figure 3 and 4) testify that all analyzed data are not normally distributed. In particular a boxplot is a

convenient way of graphically depicting groups of numerical data through their summaries: minimum, lower quartile (Q1), median, upper quartile (Q3), maximum. The location of the box within the whiskers provides insight on the asymmetry of the sample's distribution. The samples are extremely positively skewed. A thinner box relative to the whiskers indicates a thinner peak.

Table 7. Liquid assets indicators for Silesian nonprofit organizations in 2009 and 2010.

2009	Receivables conversion period	Payables conversion period	Inventory conversion period	Current Ratio	Quick Ratio	Cash Ratio
Size of population	707	709	708	449	448	448
Average	124.95	1171.96	7.64	370.14	369.40	296.87
Standard deviation	2755.26	24858.80	82.81	3405.82	3408.52	3220.69
Median	0.00	2.00	0.00	6.26	5.99	4.98
Truncated mean	2.58	8.86	-	12.41	12.06	10.95
Winsorized mean	8.56	31.86	0.00	71.08	71.14	62.60
Skewness	26.29	25.49	17.37	13.81	13.80	15.65
Maximum	73000.00	651462.75	1724.32	58415.22	58415.22	58396.28
Minimum	0.00	0.00	0.00	0.00	0.00	0.00

2010	Receivables conversion period	Payables conversion period	Inventory conversion period	Current Ratio	Quick Ratio	Cash Ratio
Size of population	711	712	711	459	458	457
Average	58.47	89.53	6.02	1980.06	167.24	156.68
Standard deviation	604.86	692.38	46.55	40314.73	1627.38	1575.16
Median	0.00	2.33	0.00	5.24	5.19	4.48
Truncated mean	2.99	9.92	-	11.65	11.45	9.87
Winsorized mean	11.31	39.66	0.00	62.60	62.77	55.70
Skewness	14.72	12.39	11.05	21.42	18.88	18.96
Maximum	11643.87	11360.33	769.10	863747.33	33331.90	32281.67
Minimum	0.00	0.00	0.00	0.00	0.00	-0.07

Source: own calculation for over 450 selected nonprofits in Silesia (Bopp 2011)

The right side tail of the probability density function is much longer than the left side. The mean (and standard deviation) can be heavily influenced by extreme values in the tails of a variable. In this case a truncated mean and a Winsorized mean are more useful estimators. Comparing to the mean, they are less sensitive to outliers than the mean (Heilpern 1999) but it still gives a reasonable estimate of central tendency. Truncated mean rejects some parts of the data from the top or from the bottom end, (typically an equal amount at each end) and then calculate the arithmetic mean of the remaining data (Rothenberg 1966). On the other hand, a Winsorized mean involves the calculation of the mean after replacing given parts of a probability distribution or sample at the high and low end with the most extreme remaining values (Wilcox 2003).

5. Conclusions

As was shown in our findings, depending on kind of realized mission, sensitivity on risk, NPOs should chose liquid assets investment level and resulting from that liquid assets

financing. The kind of organization influence the best strategy choice. If an exposition on risk is greater, the higher level of inventories, accounts receivable and operating cash should be (Michalski 2008a). If the exposition on that risk is smaller, the more aggressive will be the net liquid assets strategy and smaller level of inventories. The organization choosing between various solutions in liquid assets needs to decide what level of risk is acceptable for her owners and capital suppliers. That choice results with financing consequences, especially in cost level. It is a basis for considerations about relations between risk and expected benefits from the liquid assets decision and its results on financing costs for both nonprofit or for profit organizations. Decisions about liquid assets management strategy and choice between kind of taxed or non-taxed form inflow the risk of the organizations and its economical results during realization of main mission. Comparing the theoretical model with empirical data for over 450 Silesian nonprofit organization results, suggest that nonprofit organization managing teams choose higher risky aggressive liquid assets solutions than for-profit firms. That observation suggest us that here, in Silesian NPO case we have figure 1 situation with smallest risk exposition solution in managing team mind. But in fact probably there is not a smaller risk exposition but rather smaller aversion of managing teams of Silesian NPOs.

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