

# **Resource analysis – a powerful tool for provision of sustainable financial management**

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# Outline

1. Introduction - a few simple facts, a few difficult questions
2. Analysis of a current state
3. Securing of a permanent payment ability, ie at an arbitrary moment „t“
4. Typical scenario of falling into problems
5. Alert systems
6. Utilization of tools of resource analysis for resource management using resource maps
7. Conclusions

# 1. Introduction - a few simple facts, a few difficult questions

## **FACTS:**

- Fact 1: most of enterprises - permanent financial problems:
  - high level of mutual indebtedness
  - domino-effect leads to insolvency of healthy enterprises
  - number of bankruptcies grows
- Fact 2: attributes of production of such enterprises:
  - competitive products
  - high-quality products
  - saleable products

# 1. Introduction...

## **FACTS (cont.)**

- Fact 3: size of such enterprises - does not play a role:
  - ➔ range from **small** ones (several tens of employees) up to **huge** ones (more than ten thousands employees)
- Fact 4: form of ownership of such enterprises - does not play a role:
  - ➔ both joint-stock companies and LLCs etc

# 1. Introduction...

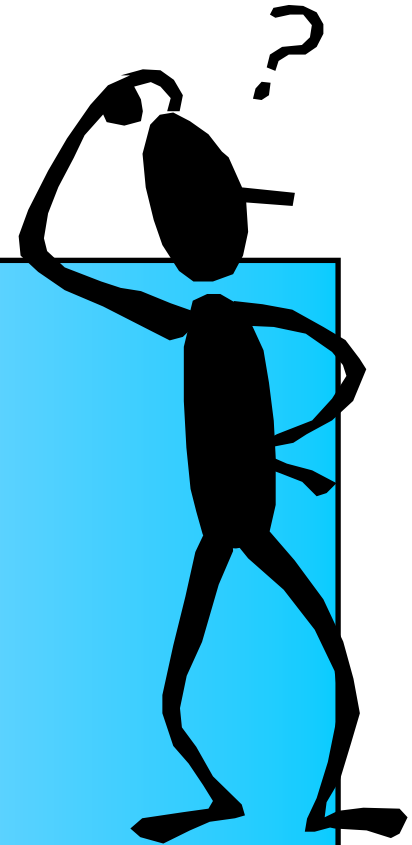
## **FACTS (cont.)**

- Fact 5: most of such enterprises passed a process of revitalization and were entirely cleared of their debts  
→ but: their economic dying away has continued ?!

# 1. Introduction...

## QUESTIONS:

- Question 1: **What** is a **cause** of such a state?
- Question 2: **Why** measures like
  - changes of management,
  - funds spent in recovery, and
  - application of financial analysis**do not help?**



## 2. Analysis of a current state

### **Basis for analysis:**

Fundamental precondition for regular functioning of any enterprise -  
a **continuous capability** of:

- A) producing **saleable final product**
- B) generating **profit** from its commercial realization, ie  
**increase of equity capital**
- C) ensuring a **permanent payment ability**

## 2. Analysis ...

### **Reality (based on analysis of Czech enterprises):**

- **most** of enterprises capable of producing **saleable** and **competitive** product
- **minority** of enterprises capable of generating **profit** from commercial realization of product:
  - part claims permanent loss-making
  - part claims a symbolic profit, reluctance to pay taxes ?
  - minority claims a profit (of 8% of realized outputs)
- **most** of enterprises **incapable** of ensuring a **permanent payment ability!**

## 2. Analysis ...

### **Consequences:**

**Insolvency** causes a paralysis of enterprises - leads to:

- A) **rise in costs, restrictions** in basic inputs **supply** (eg material, energy, personal costs)
- B) **rise in costs of external resources** (eg credits, loans, suppliers require **immediate payment**)
- C) **incapability of renewal and servicing of plants and technologies**
- D) gradual **loss of a market position, outputs, drop of added value**

### 3. Securing of a permanent payment ability, ie at an arbitrary moment „t“

Definition of **payment ability** in terms of **resource analysis**:

- **minimum amount of current liquid assets equals a total of liabilities to the payment term at an arbitrary moment**
- **just at the moment of payment of all liabilities to the payment term the enterprise became solvable**
- **overdue liabilities must be added!**

### 3. Securing of a permanent payment ability...

Basically - two ways of generating of **current liquid assets**:

A) from **resources** (own, external, others)

B) from **collections** obtained for **realized production**

### 3. Securing of a permanent payment ability...

#### A) Attributes of **current liquid assets** from **resources**:

- **volume of current liquid assets** from **resources** is given by the **volume of resources** and **volume of non-financial assets covered** by that **volume of resources**
- in case of **resource sufficiency** the **volume of resources** exceeds **volume of non-financial assets**, their **difference** gives the **volume of current liquid assets** generated from **resources**

### 3. Securing of a permanent payment ability...

#### B) Attributes of **current liquid assets** from **collections**:

It consists of 3 **independent** and **strictly purposely separated** components:

B1) - assigned to **immediate payments of liabilities to the payment term for basic inputs**  
**current liquid assets** from resources cannot be used for this purpose!!!

### 3. Securing of a permanent payment ability...

#### B) Attributes of **current liquid assets** from **collections**:

- B2) - generated from **structural changes** of **long-term depreciated non-financial assets** (depreciations - **just** in case of **profitable production**),
  - **total volume** of **resources** **does not change**,  
just **changes** in **structure** of assets,
  - **current liquid assets** generated from depreciations  
is generated from **current volume** of **resources** available,  
**not** from **increase** of **resources**

### 3. Securing of a permanent payment ability...

#### B) Attributes of **current liquid assets** from **collections**:

B3) - generated from **positive modulus** of **profit potential**  
(personal costs and depreciations deducted from  
positive added value)

- assigned to **covering** of **financial costs** (interests, taxes)

- can serve as a **counterbalance** of **external resources**  
(eg reserves)

- **increment** of **resources** - just from unexploited rest  
of **positive modulus** of **profit potential**

### 3. Securing of a permanent payment ability...

#### B) Attributes of **current liquid assets** from **collections**

##### - **consequences:**

- in **profitable** economy: a small portion (up to 8%) of such current liquid assets can be exploited for **covering activities** with **assets** or to **substitutions** of **expensive external sources**
- in **losing** economy: current liquid assets from collections **must be supplied by current liquid assets** from **resources immediately** to **prevent** originating of **constrained resources** (ie overdue resources) !!!

### 3. Securing of a permanent payment ability...

#### B) Attributes of **current liquid assets** from **collections**

**- consequences:**

- **misuse** of current liquid assets from collections - **cause of most frequent errors**
- if **current liquid assets** from **collections** used like the ones from **resources** - **immediate** originating of **constrained/disastrous** resources !
- it is a **sole cause** of **payment disability !!!**

### 3. Securing of a permanent payment ability...

#### B) Attributes of **current liquid assets** from **collections**

##### - **complete list of disastrous resources:**

- Overdue liabilities for basic inputs –  $ZÁV_{VST\ t<0}$ .
- External resources reduced by overdue liabilities for basic inputs –  $CZ_{R\ t<0}$
- Expensive external resources not overdue but their volume exceeding capacity of an enterprise to absorb such resources –  
-  $CZ_{R\ PAST}$ .

### 3. Securing of a permanent payment ability...

#### B) Attributes of **current liquid assets** from **collections**

##### - **complete list of disastrous resources** (cont.):

- Other liabilities after their term of payment or applicability -  $OSTP_{t<0}$
- Negative equity capital –  $VK_{<0}$

### 3. Securing of a permanent payment ability...

#### B) Attributes of **current liquid assets** from **collections**

##### - **conditions of payment ability:**

- enterprise **not exploiting disastrous** resources

$$FM_{ZDROJ} + FM_{INK} \geq ZÁV_{VST\ t=0} + CZ_{R\ t=0} + OSTP_{t=0}$$

where:  $FM_{ZDROJ}$  - liquid assets from resources  
 $FM_{INK}$  - liquid assets from collections  
 $ZÁV_{VST\ t=0}$  - liabilities to the payment term  
 $CZ_{R\ t=0}$  - external resources to the payment term  
 $OSTP_{t=0}$  - other liabilities to the payment term

### 3. Securing of a permanent payment ability...

#### B) Attributes of **current liquid assets** from **collections**

##### - **conditions of payment ability:**

- enterprise **exploiting disastrous** resources

$$\begin{aligned} FM_{\text{POHL VK}} + FM_{\text{ZDROJ}} + FM_{\text{INK}} &\geq \\ &\geq Z\acute{A}V_{\text{VST } t=0} + Z\acute{A}V_{\text{VST } t<0} - (VK_{<0}) + CZ_{\text{R } t=0} + CZ_{\text{R } t<0} + \\ &\quad + CZ_{\text{R PAST}} + OSTP_{t=0} + OSTP_{t<0} \end{aligned}$$

where:

$FM_{\text{POHL VK}}$	- liquid assets from claims on equity capital
$Z\acute{A}V_{\text{VST } t<0}$	- overdue liabilities
$CZ_{\text{R } t<0}$	- external overdue resources reduced
$CZ_{\text{R PAST}}$	- external resources causing a “trap”
$OSTP_{t<0}$	- other overdue liabilities
$VK_{<0}$	- equity capital (negative)

### 3. Securing of a permanent payment ability...

#### B) Attributes of **current liquid assets** from **collections**

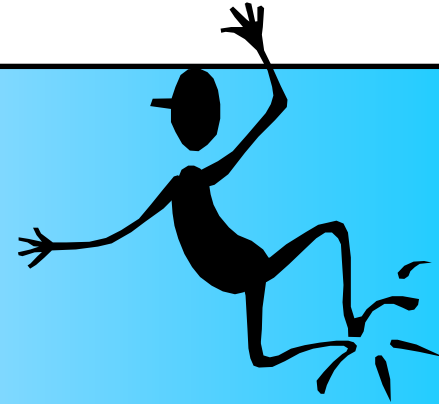
##### - **additional conditions of payment ability:**

- **current liquid assets** from **resources** must be **available, not bound**
- payment ability will be **kept under modified** growth output **volumes** and **market conditions** provided that **resource sufficiency** will be **ensured**

## 4. Typical scenario of falling into problems

### 1. Initial position

- profitable enterprise, saleable product
- able to pay and solvent
- large volumes of outputs and revenues and adequate added value cover personal costs and depretiations
- ie **positive modulus of profit potential sufficient for financial costs and creation of reserves**, room for generating a **profit**



## 4. Typical scenario...

### 2. Expansion

- **large activities** with (long-term) **assets** (purchase of machinery, technologies, facilities, lands and buildings, financial investments)
- mostly **medium-term external resources** exploited (credits, bonds issued) with **high interest rate**



## 4. Typical scenario...

### 3. Resource tightness

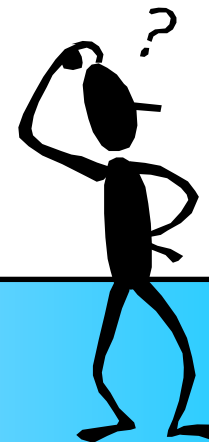
- **cost of expensive external resources runs out the whole positive modulus of profit - disables generation of positive return necessary for payment of principals**
- **additional costs for investments are not covered by resources - current liquid assets are used !!!**  
but: these assets should be exploited **solely for covering liabilities** for basic inputs to the payment term !!!
- ➔ **certain amount of constrained resources generated**
- ➔ **increase of costs for basic inputs due to overdue payments (sanctions)**

## 4. Typical scenario...

### 3. Resource tightness (cont.)

- **decrease of added value**
- significant **decrease** of a **volume** of a **modulus of profit potential** due to **increase** of **depreciations** (expansion in the sector of long-term property)
- a **volume** of a **modulus of profit potential** becomes **insufficient** for covering **costs** of **expensive external resources** (interests)
- **loss, drop** of **equity capital**

## 4. Typical scenario...



### 3. Resource tightness (cont.)

- **current liquid assets** from **collections** exploited for covering of **interest payment** etc repeatedly
- **further increase of volume of constrained resources**
- bookkeeping: increasing **loss formally eliminated** by **liquidation of reserves** and correction items
- such operations do **not** bring **increase of current liquid assets !**

## 4. Typical scenario...



### 4. Limited payment ability

- payments of principals covered by current liquid assets from collections repeatedly
- further increase of volume of constrained resources
- problems with fluency of supplies, sanction costs increase, loss deepens

## 4. Typical scenario...

### 5. Struggle for loss removal by discharging employees

- ➔ a part of **employees discharged** in order to **decrease personal costs** by a volume of loss - **removal of loss** assumed
- ➔ in most cases - **loss of the market position** (drop of outputs)
- ➔ significant **decrease of added value**
- these **effects exceed savings** reached in **personal costs**
- ➔ further **increase of loss**

## 4. Typical scenario...

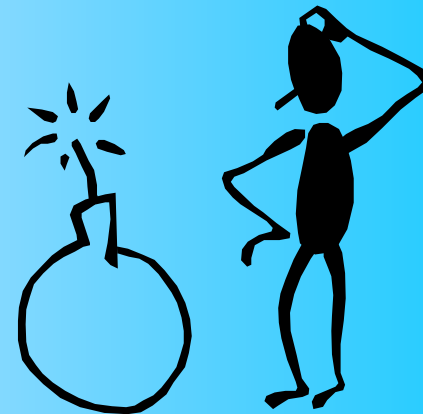
### **5. Struggle for loss removal by discharging employees (cont.)**

- the whole cycle repeats
- **current liquid assets** from **collections** become **insufficient even** for covering **payments** for **basic inputs**
- **further increase** of **volume** of **constrained resources**
- **banks** refuse to provide credits - **drop** in **expensive external resources**
- **equity capital** becomes **negative**, amount of **supplies** and **claims** drop

## 4. Typical scenario...

### 5. Struggle for loss removal by discharging employees (cont.)

- sporadic and irregular supplies of basic inputs **disable mass production**
- partial running of unprofitable **piece production** due to frequent closures
- **TOTAL PAYMENT DISABILITY !**



## 4. Typical scenario...



### 6. Struggle for revitalization combining settlement and clearing of debts

- a court approves a process of “settlement”
- providers of supplies will be given **30%** of their claims (ie suffer **70% loss**), credits and bonds issued will be cleared by the State through the **Consolidation Agency** (ie paid by **tax-payer**)
- process of **capitalization** follows
- a **negative equity capital** increases to **high positive values** (increased by **unsettled external resources**), the State becomes a **majority owner**, enterprise is cleared of debt
- process of **seeking** and **choice** of a “**strategic investor**” starts

## 4. Typical scenario...

### 7. New Owner - Signing on with the enterprise

- **top and prestigious companies** usually **not interested** in such competitions
- ➔ winner of the competition:
  - an **industrial enterprise** or **investment fund** with **no experience** of **running** an industrial **enterprise**, or
  - **unimportant domestic subject** (joint-stock company, LLC) suffering from **lack of adequate capital investment**



## 4. Typical scenario...

### 6. New Owner - Signing on with the enterprise (cont.)

- an enterprise is **cleared** of debts
- but :after some time - an **enterprise falls into problems** of subsistence again ?!



## 4. Typical scenario...

### 6. New Owner - Signing on with the enterprise (cont.)

- QUESTION: What was **wrong**, what is a **cause of problems**?

→ ANSWER:

**RESOURCE INSUFFICIENCY !!!**

for running any production or commercial activity



## 4. Typical scenario...

### 6. New Owner - Signing on with the enterprise (cont.)

Reasons:

- **providers** of basic inputs **require** the **payment** at the moment of  **$t=0$** , ie payment **on delivery** (**often** at the moment of  **$t<0$** , ie **payment in advance**)
- **credits** and other expensive external resources **unavailable**
  - ➔ resource adequacy **necessary**
  - ➔ **payments** for basic inputs **covered** by **subsequent collections** provided **profitability** of production
- moreover: **facilities** and **technology** usually in **miserable condition**

## 5. Alert systems

- **building** of particular **alert systems** - **useless**
- **any enterprise** possess generic **instruments** capable of **servicing** as **alert systems**:
  - A) if **total of current liquid assets** from **resources** and current liquid assets from **collections does not cover payments of liabilities** to the payment term for basic inputs at **arbitrary** moment → a **serious** and **immediate alert** on occurrence of **resource tightness** indicated
  - B) if **resource substitution** or **reduction of non-financial assets** not performed **immediately** → **constrained/disastrous** resources generated

## 5. Alert systems (cont.)

C) **any enterprise** should keep **files of terms** and **volumes of payments of principals for external resources**, must ensure **adequate resources** for **resource substitution** or perform **reduction of non-financial assets** equal to the **volume of payable principals** in advance

- if **keeping** these **rules any enterprise** should be capable of **allocation of adequate volume** of current liquid assets from **resources** necessary for **payments of liabilities** in advance
- exploitation of current liquid assets from **collections** for **payments of liabilities** **strictly prohibited !**

## 6. Utilization of tools of resource analysis for resource management using resource maps

- tasks stated above can be successfully solved **only** by using **outputs** of **resource analysis**

General requirements put on outputs:

- **outputs** must be specified in **verifiable**, **volumetric** and **measurable** entities - **ratios** etc must be **excluded**
- **outputs** must be **well-arranged** and capable of **rendering** both **state** and **changes** of **resources**
- **outputs** must be **applicable** to **exact rendering** of **state** of affairs
- **changes** during some period of time must **reflect** eventual **resource retrieval** and **resource corrections** with **accuracy**
- **outputs** must be **applicable** for **planning**, must **enable variable** or **alternative approaches**

## 6. Utilization of tools of resource analysis ...

**Basic principles of resource analysis** consist in **itemizing of current volume of resources** with respect to following **criteria**:

- **ownership** (resources **internal, external**, others)
- **temporal** aspect (temporally independent - internal, temporally dependent - external and others)
- **cost** aspect (external resources **expensive** and **inexpensive**)
- aspect of **harmfulness** (**relevant** resources, **disastrous** resources)

## 6. Utilization of tools of resource analysis ...

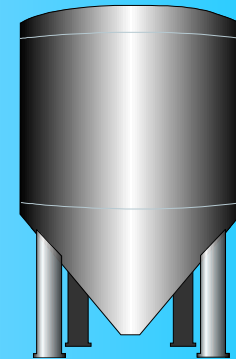
### Next steps:

- **itemizing of current volume of resources followed by assigning a given volume of resources as a limit for purchase of non-financial assets**
- **difference between a volume of resources and a volume of non-financial assets marks up a relative volume of current liquid assets**

## 6. Utilization of tools of resource analysis ...

### Resource mapping:

- a system of **resource mapping** both of **state** of resources and **changes** of **resources** developed
- the **system meets** all above mentioned **criteria**
- **resource maps quantify** exactly particular **groups** of **non-financial assets** (or selected **groups** of **non-financial assets**) assigning to them so called **resource bins** (resource storages)
- particular **resource bins** limit a **maximum volume** of particular **kinds** of **non-financial assets**



## 6. Utilization of tools of resource analysis ...

### **Resource bins - properties:**

- **difference** between a **volume** of a **resource bin** concerned and a **volume** of **non-financial assets** marks up a **volume** of **current liquid assets** of any **resource bin**
- any **resource bin** is **determined** by a **sum** of partial **volumes** of **resource cells**
- particular **kinds** of **resources** are **arranged** according to selected **criteria**
- in return **particular resources** are **split** into **resource cells**

## 6. Utilization of tools of resource analysis ...

### **Resource bins - properties (cont.):**

- **unambiguous correspondence** between **particular resource bins** and **particular kinds of resources** is set in this way through **resource cells**
- in the framework of such an arrangement even a **disastrous resources** may be **identified** and **quantified**

## 6. Utilization of tools of resource analysis ...

### **Resource maps - properties:**

- **resource maps** enable to **reflect** accurately **not only** particular **volumes** at selected moments "**t**" but also their **changes** during **selected interval** of time
- besides **clear arrangement**, **verifiability** and **measurability** of processed **entities** a possibility to **utilize** partial **resource transfers** from particular resource bins **to another** ones suffering from **resource tightness** or **resource insufficiency**
- **resource transfers** can be either **temporary** or **permanent**

# RESOURCE MAP - STATE

NONFINANCIAL AND FINANCIAL ASSETS		RESOURCE BINS	GENERIC CLASSIFICATION OF RESOURCES AND VOLUMETRIC ALLOCATION TO INDIVIDUAL RESOURCE CELLS									
			Z <sub>1</sub>	Z <sub>2</sub>	Z <sub>3</sub>	Z <sub>4</sub>	Z <sub>5</sub>	Z <sub>6</sub>	Z <sub>7</sub>	Z <sub>8</sub>	...	Z <sub>m</sub>
NM <sub>1</sub>	FM <sub>1</sub>	ZS <sub>1</sub>	ZB <sub>11</sub>	ZB <sub>21</sub>	ZB <sub>31</sub>	ZB <sub>41</sub>	ZB <sub>51</sub>	ZB <sub>61</sub>	ZB <sub>71</sub>	ZB <sub>81</sub>	...	ZB <sub>m1</sub>
NM <sub>2</sub>	FM <sub>2</sub>	ZS <sub>2</sub>	ZB <sub>12</sub>	ZB <sub>22</sub>	ZB <sub>32</sub>	ZB <sub>42</sub>	ZB <sub>52</sub>	ZB <sub>62</sub>	ZB <sub>72</sub>	ZB <sub>82</sub>	...	ZB <sub>m2</sub>
NM <sub>3</sub>	FM <sub>3</sub>	ZS <sub>3</sub>	ZB <sub>13</sub>	ZB <sub>23</sub>	ZB <sub>33</sub>	ZB <sub>43</sub>	ZB <sub>53</sub>	ZB <sub>63</sub>	ZB <sub>73</sub>	ZB <sub>83</sub>	...	ZB <sub>m3</sub>
NM <sub>4</sub>	FM <sub>4</sub>	ZS <sub>4</sub>	ZB <sub>14</sub>	ZB <sub>24</sub>	ZB <sub>34</sub>	ZB <sub>44</sub>	ZB <sub>54</sub>	ZB <sub>64</sub>	ZB <sub>74</sub>	ZB <sub>84</sub>	...	ZB <sub>m4</sub>
NM <sub>5</sub>	FM <sub>5</sub>	ZS <sub>5</sub>	ZB <sub>15</sub>	ZB <sub>25</sub>	ZB <sub>35</sub>	ZB <sub>45</sub>	ZB <sub>55</sub>	ZB <sub>65</sub>	ZB <sub>75</sub>	ZB <sub>85</sub>	...	ZB <sub>m5</sub>
.	.	.	.	.	.	.	.	.	.	.	...	.
NM <sub>n</sub>	FM <sub>n</sub>	ZS <sub>n</sub>	ZB <sub>1n</sub>	ZB <sub>2n</sub>	ZB <sub>3n</sub>	ZB <sub>4n</sub>	ZB <sub>5n</sub>	ZB <sub>6n</sub>	ZB <sub>7n</sub>	ZB <sub>8n</sub>	...	ZB <sub>mn</sub>
$\sum_{i=1}^n (NM_i + FM_i)$		$\sum_{i=1}^n ZS_i$	$\sum_{i=1}^n ZB_{1i} = Z_1$	$\sum_{i=1}^n ZB_{2i} = Z_2$	$\sum_{i=1}^n ZB_{3i} = Z_3$	$\sum_{i=1}^n ZB_{4i} = Z_4$	$\sum_{i=1}^n ZB_{5i} = Z_5$	$\sum_{i=1}^n ZB_{6i} = Z_6$	$\sum_{i=1}^n ZB_{7i} = Z_7$	$\sum_{i=1}^n ZB_{8i} = Z_8$	...	$\sum_{i=1}^n ZB_{mi} = Z_m$
TOTAL VOLUME OF NONFINANCIAL AND FINANCIAL ASSETS		RESOURCES TOTAL	TOTAL VOLUMES OF PARTICULAR RESOURCES ACCORDING TO GENERIC CLASSIFICATION									

$$\begin{aligned}
 &NM_1 + FM_1 = ZS_1 = ZB_{11} + ZB_{21} + ZB_{31} + \dots + ZB_{m1} \\
 &+ \quad + \quad + \quad + \quad + \quad + \quad + \\
 &NM_2 + FM_2 = ZS_2 = ZB_{12} + ZB_{22} + ZB_{32} + \dots + ZB_{m2} \\
 &+ \quad + \quad + \quad + \quad + \quad + \quad + \\
 &NM_3 + FM_3 = ZS_3 = ZB_{13} + ZB_{23} + ZB_{33} + \dots + ZB_{m3} \\
 &+ \quad + \quad + \quad + \quad + \quad + \quad + \\
 &\dots \\
 &+ \quad + \quad + \quad + \quad + \quad + \quad + \\
 &NM_n + FM_n = ZS_n = ZB_{1n} + ZB_{2n} + ZB_{3n} + \dots + ZB_{mn}
 \end{aligned}$$

CONDITION:  
 $NM_i + FM_i = \text{constant}$   
 $i = 1, n$

LEGEND: NM - nonfinancial asset  
 FM - financial asset  
 ZS - resource bin  
 Z - resources according generic classification  
 ZB - resource cell

$$\sum_{i=1}^n (NM_i + FM_i) = \sum_{i=1}^n ZS_i = \sum_{i=1}^n (Z_1 + Z_2 + Z_3 + \dots + Z_m)_i$$

# RESOURCE MAP - CHANGES

NONFINANCIAL AND FINANCIAL ASSETS		RESOURCE BINS	GENERIC CLASSIFICATION OF RESOURCES AND VOLUMETRIC ALLOCATION TO INDIVIDUAL RESOURCE CELLS									
			Z <sub>1</sub>	Z <sub>2</sub>	Z <sub>3</sub>	Z <sub>4</sub>	Z <sub>5</sub>	Z <sub>6</sub>	Z <sub>7</sub>	Z <sub>8</sub>	...	Z <sub>m</sub>
ΔNM <sub>1</sub>	ΔFM <sub>1</sub>	ΔZS <sub>1</sub>	ΔZB <sub>11</sub>	ΔZB <sub>21</sub>	ΔZB <sub>31</sub>	ΔZB <sub>41</sub>	ΔZB <sub>51</sub>	ΔZB <sub>61</sub>	ΔZB <sub>71</sub>	ΔZB <sub>81</sub>	...	ΔZB <sub>m1</sub>
ΔNM <sub>2</sub>	ΔFM <sub>2</sub>	ΔZS <sub>2</sub>	ΔZB <sub>12</sub>	ΔZB <sub>22</sub>	ΔZB <sub>32</sub>	ΔZB <sub>42</sub>	ΔZB <sub>52</sub>	ΔZB <sub>62</sub>	ΔZB <sub>72</sub>	ΔZB <sub>82</sub>	...	ΔZB <sub>m2</sub>
ΔNM <sub>3</sub>	ΔFM <sub>3</sub>	ΔZS <sub>3</sub>	ΔZB <sub>13</sub>	ΔZB <sub>23</sub>	ΔZB <sub>33</sub>	ΔZB <sub>43</sub>	ΔZB <sub>53</sub>	ΔZB <sub>63</sub>	ΔZB <sub>73</sub>	ΔZB <sub>83</sub>	...	ΔZB <sub>m3</sub>
ΔNM <sub>4</sub>	ΔFM <sub>4</sub>	ΔZS <sub>4</sub>	ΔZB <sub>14</sub>	ΔZB <sub>24</sub>	ΔZB <sub>34</sub>	ΔZB <sub>44</sub>	ΔZB <sub>54</sub>	ΔZB <sub>64</sub>	ΔZB <sub>74</sub>	ΔZB <sub>84</sub>	...	ΔZB <sub>m4</sub>
ΔNM <sub>5</sub>	ΔFM <sub>5</sub>	ΔZS <sub>5</sub>	ΔZB <sub>15</sub>	ΔZB <sub>25</sub>	ΔZB <sub>35</sub>	ΔZB <sub>45</sub>	ΔZB <sub>55</sub>	ΔZB <sub>65</sub>	ΔZB <sub>75</sub>	ΔZB <sub>85</sub>	...	ΔZB <sub>m5</sub>
.	.	.	.	.	.	.	.	.	.	.	...	.
ΔNM <sub>n</sub>	ΔFM <sub>n</sub>	ΔZS <sub>n</sub>	ΔZB <sub>1n</sub>	ΔZB <sub>2n</sub>	ΔZB <sub>3n</sub>	ΔZB <sub>4n</sub>	ΔZB <sub>5n</sub>	ΔZB <sub>6n</sub>	ΔZB <sub>7n</sub>	ΔZB <sub>8n</sub>	...	ΔZB <sub>mn</sub>
$\sum_{i=1}^n (\Delta NM_i + \Delta FM_i)$	$\sum_{i=1}^n \Delta ZS_i$	$\sum_{i=1}^n \Delta ZB_{i1} = \Delta Z_1$	$\sum_{i=1}^n \Delta ZB_{i2} = \Delta Z_2$	$\sum_{i=1}^n \Delta ZB_{i3} = \Delta Z_3$	$\sum_{i=1}^n \Delta ZB_{i4} = \Delta Z_4$	$\sum_{i=1}^n \Delta ZB_{i5} = \Delta Z_5$	$\sum_{i=1}^n \Delta ZB_{i6} = \Delta Z_6$	$\sum_{i=1}^n \Delta ZB_{i7} = \Delta Z_7$	$\sum_{i=1}^n \Delta ZB_{i8} = \Delta Z_8$	...	$\sum_{i=1}^n \Delta ZB_{im} = \Delta Z_m$	
TOTAL VOLUME OF NONFINANCIAL AND FINANCIAL ASSETS	RESOURCES TOTAL	TOTAL VOLUMES OF PARTICULAR RESOURCES ACCORDING TO GENERIC CLASSIFICATION										

$$\begin{aligned}
 \Delta NM_1 + \Delta FM_1 &= \Delta ZS_1 = \Delta ZB_{11} + \Delta ZB_{21} + \Delta ZB_{31} + \dots + \Delta ZB_{m1} \\
 + &+ + + + + + \\
 \Delta NM_2 + \Delta FM_2 &= \Delta ZS_2 = \Delta ZB_{12} + \Delta ZB_{22} + \Delta ZB_{32} + \dots + \Delta ZB_{m2} \\
 + &+ + + + + + \\
 \Delta NM_3 + \Delta FM_3 &= \Delta ZS_3 = \Delta ZB_{13} + \Delta ZB_{23} + \Delta ZB_{33} + \dots + \Delta ZB_{m3} \\
 + &+ + + + + + \\
 &\dots \\
 + &+ + + + + + \\
 \Delta NM_n + \Delta FM_n &= \Delta ZS_n = \Delta ZB_{1n} + \Delta ZB_{2n} + \Delta ZB_{3n} + \dots + \Delta ZB_{mn}
 \end{aligned}$$

CONDITION:  
 NM<sub>i</sub> + FM<sub>i</sub> = constant  
 i = 1, n

LEGEND:  
 NM - nonfinancial asset  
 FM - financial asset  
 ZS - resource bin  
 Z - resources according generic classification  
 ZB - resource cell  
 Δ - changes

$$\sum_{i=1}^n (\Delta NM_i + \Delta FM_i) = \sum_{i=1}^n (\Delta ZS_i) = \sum_{i=1}^n (\Delta Z_1 + \Delta Z_2 + \Delta Z_3 + \dots + \Delta Z_m)_i$$

## 7. Conclusions

- **all problems with limited payment ability, payment tightness and insolvency - always connected with resource tightness and resource insufficiency**
- **disastrous resources - fundamental cause of problems**
  - ➔ **these resources must be eradicated and substituted by healthy relevant resources**
  - ➔ **dominant cause of malfunctioning of so called “revitalized” enterprises regardless their passing various forms of clearance and capitalization**
  - ➔ **most of such enterprises tend towards a bankruptcy repeatedly**

## 7. Conclusions (cont.)

- even an **enterprise entirely cleared** of debt is **malfunctioning** if remains in a zone of **resource insufficiency** or in a zone of **resource tightness**
- **malpractices** like **delay/ reluctance** in payment **result automatically** in **generation** of **constrained** and/or **disastrous resources** → leads to **collapse** regardless the **size** and **market position** of an enterprise
- often amplified by **misexploitation** of **current liquid assets** (namely the ones from **collections**) → leads to **destruction** of an enterprise

## 7. Conclusions (cont.)

### **Examples:**

- **14 significant** Czech enterprises passed diagnostics using resource analysis in 1999
- **results** and **prognoses** were **published** in the “**EKONOM**” (Czech economic weekly)
- ➔ all these **prognoses** have been **fulfilled completely !!**
- moreover: **applicability** of **resource analysis** verified in case of more than **450 (domestic) enterprises** ➔ results and outputs **unambiguous**
- in our opinion: such **problems** are **characteristic not only** for the **Czech environment** but they are **common** for entrepreneurial **environment as such** - eg see problems of companies like ENRON and PARMALAT

## 7. Conclusions (cont.)

- undoubtedly all problematic cases were treated using tools of financial analysis
- ➔ obviously **no methods** based on **relative quantities** presented in the form of **indices, ratios** etc in **capable of localization of constrained** and/or **disastrous resources** and of **their volumetric quantification**
- ➔ only **outputs** based on **volumetric** and **unambiguously verifiable entities** and **their mutual causal relations** enable **taking** adequate **steps** and **measures**
- **outputs** based on **ratios** etc are **suitable** mostly for **statistical purpose, trend assessment** etc  
but: these outputs are **not applicable** for realization of **resource changes**

## 7. Conclusions (cont.)

### Concluding remarks:

- **in this sense a resource analysis supersedes a commonly used financial analysis**
- can easily be verified by **simultaneous diagnostics** of an arbitrary enterprise applying both **resource** and **financial analyses** using **identical input data sets** related to the **same time**
- ➔ **in majority of cases conclusions** resulting from both these approaches **differ dramatically**

