

# **Cash Economy – Investigative Techniques**

# **Introduction into Cash Economy:**

- **Part 1 - traditional cash businesses**
- **Part 2 - cash business used for other activities**
  - **Part 2 Focus on ML**
- **Part 3 - cash system used for other activities**
- **Part 4 - Risk indicators**
- **Part 5 - Detection**
- **Part 6 - Investigative Techniques**
- **Part 7 - Money Laundering**

## **Part 1:**

**What is traditional cash economy – cash business?**

**The majority of turnover is generated with cash payments!**

# **Cash business „risk“ areas:**

- **Open markets**
- **Newly founded companies**
- **Tourist sector – Hotels / Bars / Red Light Districts / Restaurants / Dancing Bars /**
- **Groceries, retail stores, supermarkets**
- **Agricultural product sellers (farmers/...)**
- **Construction sector .....**

## **Related problems:**

- **Any kind of products / services possible**
- **Usually services / products meant for final consumers**
- **Cash is not traceable**
- **No crosscheck possibility – leak of info**
- **No regular prices – quality, region, other price influences**
- **Apparently small businesses – front stores**



## **Part 2:**

**Cash business is used for other  
“criminal” activities?**

**Use of at least one or more business  
sectors for criminal activities related /  
linked to / with cash-money!**

# **Cash business „risk“ areas:**

- **Open markets**
- **Newly founded companies**
- **Tourist sector – Hotels / Bars / Red Light Districts / Restaurants / Dancing Bars /**
- **Groceries, retail stores, supermarkets**
- **Agricultural product sellers (farmers/...)**
- **Construction sector .....**

## **Cash business „risk“ areas:**

- **All traditional cash economy, cash business areas as described in Part 1!**
- **All related problems**



## **Related problems:**

- **No tax files – non declaration of taxes**
- **Non regulated markets**
- **International approaches**
- **No bookkeeping**
- **Use of front persons / strawmen**
- **Fast business – different locations**
- **No or not so high gains in general**
- **Organized structures**

## **Other criminal activities:**

- **Money laundering – trade based / merchant based (B2B payments)**
- **Covering / hiding illegal income**
- **Bribery and corruption**
- **Tax fraud out of other non cash related activities**
- **Terrorist financing**
- **Fraud in other areas**

## **Part 2:    Focus on money laundering:**

### **Laundering of illegal money**

#### **Use of (semi-) legal business**

- **Mix of legal and illegal gained money (Service businesses are best suited to this method - little or no variable costs and/or a large margin between revenue and variable costs)**

## **Part 2:      Focus on money laundering:**

### **Laundering of illegal money**

#### **Use of digital electronic money**

- electronic money provides as easy a method of transferring value without revealing identity, especially wire transfers involving anonymity-protecting numbered bank accounts – e.g. Liberty Reserve

#### **Online gaming/ - gambling**

- E.G Second Life and World of Warcraft, it is possible to convert money into virtual goods, services, or virtual cash that can later be converted back into money

# **Part 2:    Focus on money laundering:**

## **Laundring of illegal money**

### **Reverse money laundering**

- **Reverse money laundering is a process that disguises a legitimate source of funds that are to be used for illegal purposes – eg collecting of funds for terrorist financing purposes**



## **Part 3:**

**The cash-payment-system itself is used for other criminal activities!**

- Different payment platforms**
- Currency exchange**
- E-commerce system (B2B payments..)**
- Etc.....**

## **Cash system:**

- **Use of cash payments**
- **Different systems**
- **Mixture of using the different systems**
- **eG for Fraud / etc**

## **Risk Areas:**

- **Non-regulated, alternative payment platforms based on cash payments – Western Union, Hawala...**
- **E-commerce B2B system**
- **But also all the cash business areas described in Part 1**

## **Use of the cash system:**

- **In general Part 2 and 3 are linked, very similar and from the structure, its problems and its risk areas are very close to each other**

## **Practical Exercise:**

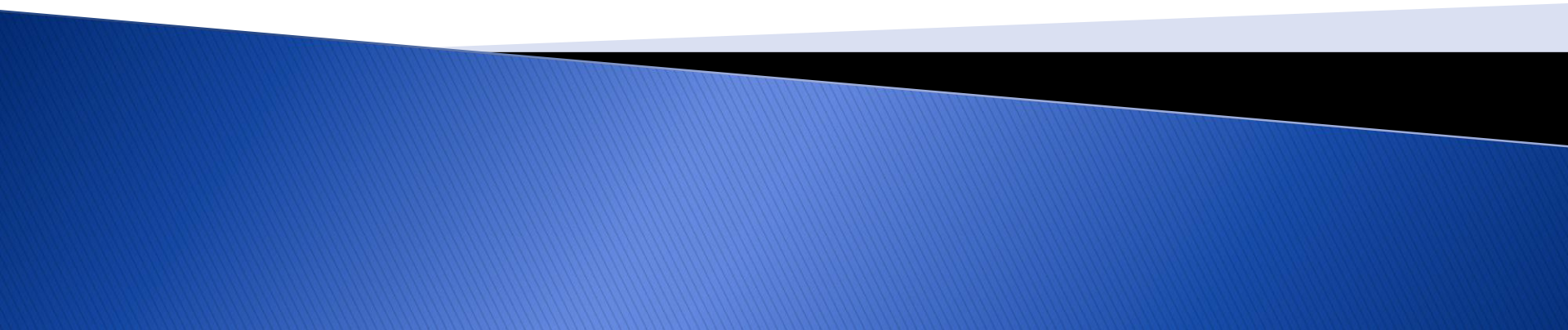
- **Please define the 3 most risky cash economy or related areas in your countries (as explained in Part 1,2,3)!**
- **Explain the related problems of detecting – investigating - finishing the cases!!**
- **What could be defined as risk indicators?**



## **Part 4 - Risk Indicators:**

- **Business areas themselves**
- **Comparison business to business**
- **Single products, goods, services, ....**
- **Way of doing business – the flow of business**
- **Non regulated markets/payments/systems**
- **Location of business**
- **Compliance behaviour**
- **.....**

# **Risk Indicator Topics**

- **Techniques to find risk indicators**
  - **Accounting and financial risk indicators**
  - **Risk indicators and challenges specifically in the cash economy**
  - **How to find Information – techniques, sources, databases**
  - **Profiling models – how to identify potential cases**
- 

## **Part 5 - Detection possibilities:**

**What do you think are the detection possibilities?**

**How do investigation units get notice of risk areas/problems/cases?**

**Group discussion!**

# **Detection possibilities:**

- **Informants**
- **Whistleblower**
- **Self case detection by evaluation of general infos – intelligence units**
- **Audit activities**
- **Random case selection in risk areas**
- **Investigative techniques**

## **Part 6 - Investigative Techniques eG:**

- **Audits – get knowledge about the business**
- **Surveillance, observation after getting notice of business**
- **Information exchange national/internat.**
- **Inter-agency co-operation police / customs / industry or business areas**
- **Digital techniques**



# **Digital Techniques:**

- **Margin comparison**
- **Gains comparison**
- **Business figures at all**
- **Cost structures compared – eg employees visa turnover**
- **Special different business database-crosschecks of databases**

## **Other / New Digital Techniques:**

- **Visualization of business figures**
- **Technical check tools / for failure detection out of high volume data bases – Monetary Unit Sampling**
- **Summarised Risk Audit (SRP) based on the principle of a  
„Time Series Analyses“**

# **Examples for Other / New Techniques :**

## **Definition MUS – Monetary Unit Sampling:**

### **MUS**

Monetary Unit Sampling, also known as probability proportional-to-size (PPS) or dollar unit sampling (DUS), is a statistical sampling method used to determine if the account balances or monetary amounts in a population contain any misstatements. Each individual dollar (i.e. monetary unit) in the population is considered a sampling unit, thus account balances or amounts in the population with a higher value have a proportionately higher chance of being selected.

# Examples for Other / New Techniques:

## Definition SRP Summarized Risk Audit

### SRP = Time Series Analysis

Any metric that is measured over regular time intervals forms a time series. Analysis of time series is commercially importance because of industrial need and relevance especially w.r.t forecasting (demand, sales, supply etc).

# **Examples for Other / New Techniques:**

## **SRP Summarized Risk Audit**

### **Case example**

- **Hotel with restaurant**
- **Outside area**
- **Christmas celebrations**
- **New year celebrations**
- **Additional participation on different markets**



# Examples for Other / New Techniques:

## SRP Summarized Risk Audit

### Invoice database out of hotel software


1	Invoices 1.01.2016 bis 31.12.2016)														
2	Invoice Nr	Sender	Receiver	Amount	Payed	Amount	VAT	Tax %	Reduction	Reduction %	Date of Invoice	Payment	Kind of booking	Invoice	Status
3	97893	Blanco GbR		80,00 €	- €	80,00 €	5,23 €	7	0	0	01.01.2016		ZE	RECH	O
4		007 4	Übernachtung	- €	1,00 €	- €	- €	7	Nein		28.12.2015	29.12.2015			
5		007 4	Einzelzimmer	40,00 €	1,00 €	40,00 €	2,62 €	7	Nein		30.12.2015	30.12.2015			
6		007 4	Einzelzimmer	40,00 €	1,00 €	40,00 €	2,62 €	7	Nein		30.12.2015	30.12.2015			
7	97894	Hieble		180,00 €	- €	180,00 €	11,78 €	7	0	0	01.01.2016		ZE	RECH	O
8		004 4	Übernachtung	90,00 €	2,00 €	45,00 €	5,89 €	7	Nein		14.12.2015	16.12.2015			
9		005 4	Übernachtung	90,00 €	2,00 €	45,00 €	5,89 €	7	Nein		14.12.2015	16.12.2015			
10	97895	Cargo Bos Transporten B.V.		1.650,00 €	- €	1.650,00 €	107,94 €	7	0	0	01.01.2016		ZE	RECH	O
11		Verans	Veranstaltung	- €	1,00 €	- €	- €	7	Nein		01.01.2016	02.01.2016			
12		Verans	Wohnung	1.500,00 €	1,00 €	1.500,00 €	98,13 €	7	Nein		01.01.2016	01.01.2016			
13		Verans	zusätzl. Zimm	150,00 €	1,00 €	150,00 €	9,81 €	7	Nein		01.01.2016	01.01.2016			
14	97896	Hilgen e.K.		1.350,00 €	- €	1.350,00 €	88,32 €	7	0	0	01.01.2016		ZE	RECH	O
15		Veran2	Veranstaltung	- €	1,00 €	- €	- €	7	Nein		01.01.2016	02.01.2016			
16		Veran2	Übernachtung	1.350,00 €	30,00 €	45,00 €	88,32 €	7	Nein		01.01.2016	01.01.2016			
17	97897	Janssen Reisen Wittmund Gr		1.170,00 €	- €	1.170,00 €	76,54 €	7	0	0	01.01.2016		ZE	RECH	O
18		Warte1	Warteliste 1	- €	1,00 €	- €	- €	7	Nein		01.01.2016	02.01.2016			
19		Warte1	Übernachtung	1.170,00 €	26,00 €	45,00 €	76,54 €	7	Nein		01.01.2016	01.01.2016			
20	97898	Kuznetsov		80,00 €	- €	80,00 €	6,18 €	8,37	0	0	01.01.2016		ZE	VISA	O
21		008 4	Übernachtung	70,00 €	1,00 €	70,00 €	4,58 €	7	Nein		01.01.2016	02.01.2016			
22		008 4	Frühstück	10,00 €	2,00 €	5,00 €	1,60 €	19	Nein		01.01.2016	02.01.2016			
23	97899	Soijka		95,00 €	- €	95,00 €	7,63 €	8,73	0	0	02.01.2016		ZE	EC-KAR	O
24		003 4	Übernachtung	80,00 €	1,00 €	80,00 €	5,23 €	7	Nein		01.01.2016	02.01.2016			
25		003 4	Frühstück	15,00 €	3,00 €	5,00 €	2,40 €	19	Nein		01.01.2016	02.01.2016			
26	97900	Kleeberger		150,00 €	- €	150,00 €	12,17 €	8,83	0	0	02.01.2016		ZE	VISA	O
27		010 5	Übernachtung	125,00 €	1,00 €	125,00 €	8,18 €	7	Nein		01.01.2016	02.01.2016			
28		010 5	Frühstück	25,00 €	5,00 €	5,00 €	3,99 €	19	Nein		01.01.2016	02.01.2016			
29	97901	Regenbogen-Reisen		4.530,00 €	- €	4.530,00 €	449,03 €	11	0	0	02.01.2016		ZE	RECH	O

# Examples for Other / New Techniques:

## SRP Summarized Risk Audit

### Invoice database out of hotel software

### Import in summarized risk audit tool



SRN  
STEUERRECHNUNG  
KLEIN- UND MITTELUNTERNEHMEN

Vergleichsdaten

Steuerpflichtige/r:

Hotel

Steuernummer:

06123/45678

Branche:

Restaurant / Hotel

Beginn Prüfungszeitraum:

01.01.2016

Ende Prüfungszeitraum:

31.12.2016

Abweichendes Wirtschaftsjahr:

Hotel Software 2016

Turnover 7%

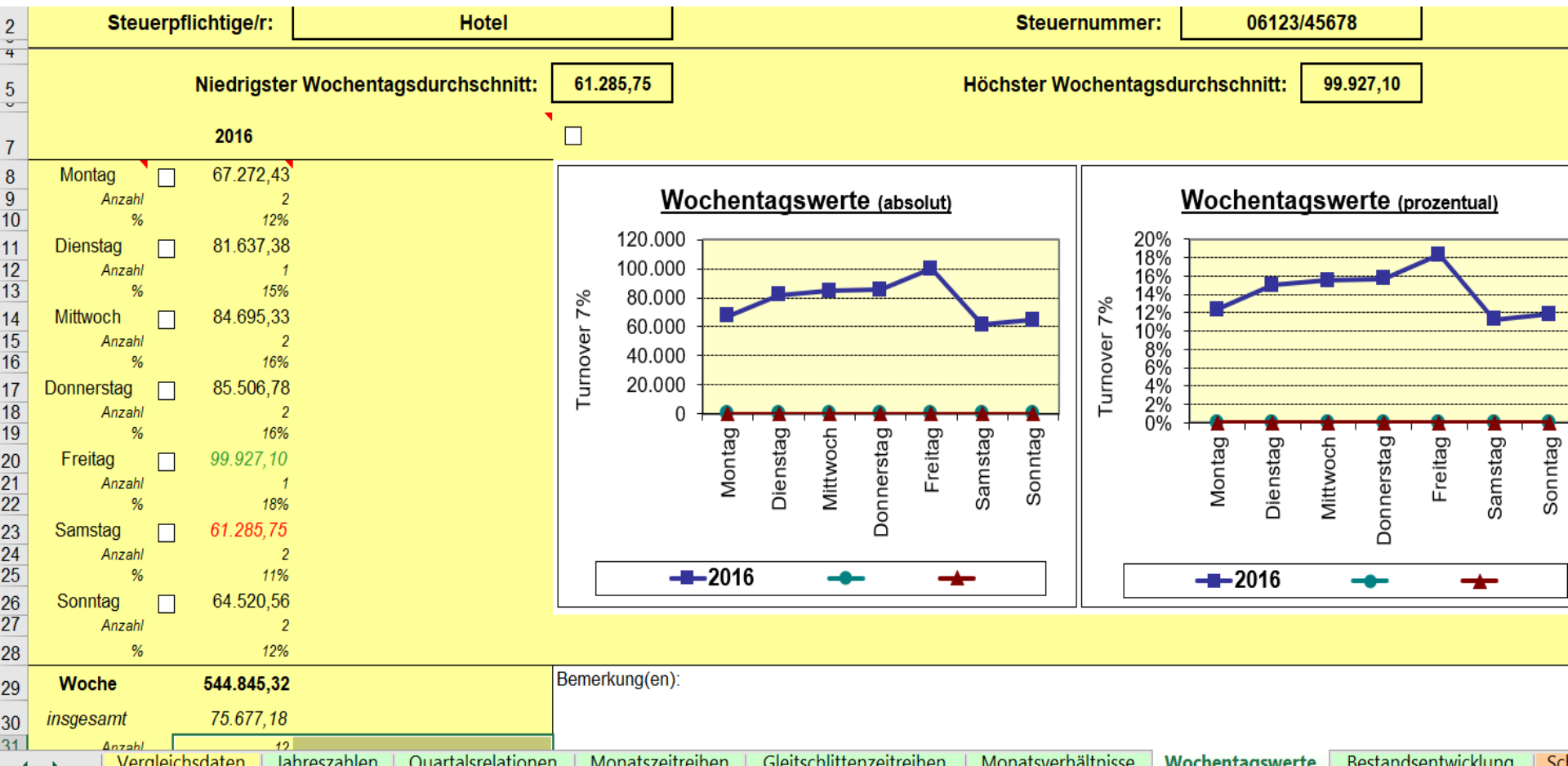
Datum	Betrag	Korrektur	Bemerkung	Hotel Software 2016	Datum	Betrag	Korrektur	Bemerkung	Turnover 7%
9810	9810			9810	12	12			12
01.01.2016	1.261,68			1.261,68	31.01.2016	43.657,01			43.657,01
01.01.2016	1.093,46			1.093,46	29.02.2016	55.947,66			55.947,66
02.01.2016	65,42			65,42	31.03.2016	78.224,30			78.224,30
02.01.2016	74,77			74,77	30.04.2016	69.452,34			69.452,34
02.01.2016	116,82			116,82	31.05.2016	81.637,38			81.637,38
02.01.2016	0,00			0,00	30.06.2016	92.789,25			92.789,25
02.01.2016	175,23			175,23	31.07.2016	85.384,11			85.384,11
02.01.2016	175,23			175,23	31.08.2016	101.644,39			101.644,39
02.01.2016	175,23			175,23	30.09.2016	99.927,10			99.927,10
02.01.2016	175,23			175,23	31.10.2016	78.597,20			78.597,20
02.01.2016	175,23			175,23	30.11.2016	67.746,26			67.746,26
02.01.2016	161,21			161,21	31.12.2016	53.119,16			53.119,16

# Examples for Other / New Techniques:

## SRP Summarized Risk Audit

### Invoice database out of hotel software

### Import in summarized risk audit tool



# **Examples for Other / New Techniques:**

## **SRP Summarized Risk Audit**

### **Indicators**

- **Reduced turnover on weekends**
- **Usually busiest time for hotels in tourist areas**

### **Restaurant evaluation:**

# Examples for Other / New techniques:

## SRP Summarized Risk Audit

### Restaurant Data

SRP

STÄNDIGES  
RECHNUNGSWESSEN  
PRÜFUNG

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

Steuerpflichtige/r:

Steuernummer:

Branche:

Hotel Restaurant

Restaurant

Beginn Prüfungszeitraum:

Ende Prüfungszeitraum:

Abweichendes Wirtschaftsjahr:

01.01.2014

31.12.2016

Goods (#5200 - #5760)

Turnover (#4300, #4400)

Datum

Betrag

Korrektur

Bemerkung

Goods (#5200 - #5760)

Datum

Betrag

Korrektur

Bemerkung

Turnover (#4300, #4400)

2074

2074

2074

2225

2225

2225

04.01.2014

56,99

56,99

01.01.2014

171,03

171,03

09.01.2014

46,08

46,08

02.01.2014

768,99

768,99

09.01.2014

74,84

74,84

02.01.2014

145,61

145,61

09.01.2014

403,86

403,86

03.01.2014

839,24

839,24

09.01.2014

41,55

41,55

03.01.2014

84,86

84,86

09.01.2014

184,42

184,42

04.01.2014

1.071,43

1.071,43

11.01.2014

11,58

11,58

04.01.2014

138,50

138,50

11.01.2014

728,93

728,93

05.01.2014

945,71

945,71

11.01.2014

127,26

127,26

05.01.2014

121,12

121,12

11.01.2014

8

8,00

06.01.2014

1.210,34

1.210,34

11.01.2014

58,63

58,63

06.01.2014

173,08

173,08

15.01.2014

63,84

63,84

07.01.2014

599,24

599,24

15.01.2014

489

489,00

07.01.2014

85,42

85,42

16.01.2014

12,9

12,90

08.01.2014

865,71

865,71

16.01.2014

12,98

12,98

08.01.2014

53,93

53,93

16.01.2014

7,72

7,72

09.01.2014

731,26

731,26

16.01.2014

37,43

37,43

09.01.2014

62,71

62,71

Kurzanleitung

Vergleichsdaten

Jahreszahlen

Quartalsrelationen

Monatszeitreihen

Gleichschlittenzitreihen

Monatsverhältnisse

Wochentagswe



## **Examples for Other / New techniques:**

### **SRP Summarized Risk Audit**

### **Evaluation based on time series analysis**

- **Time series analysis**
- **Average margin comparance**
- **Cutting the pics 16 %**
- **Calculation of available goods**

### **RESULT:**

- **No goods available for turnover ?????**

# Examples for Other / New techniques:

## SRP Summarized Risk Audit

### Evaluation based on time series analysis

Berechnung der laufenden Warenbestandsentwicklung									
Steuerpflichtige/r:		Hotel Restaurant			Steuernummer:				
Monat	Turnover (#4300, #4400)	Ent- nahme	notwendiger Einsatz	Goods (#5200 - #5760)	Bestands- veränderung	laufender Bestand	Δ in % d Rwb	Regelwarenbestand:	Maximalbestand:
2014	<input checked="" type="checkbox"/>	RGAS: 482,22%		Anfangsbestand:		1.014,70			
Jan 2014	30.350,93	2.441,67	7.654,59	8.266,07	611,48	1.626,18		-242,36	
Feb 2014	34.142,90	2.441,67	8.305,88	8.174,76	-131,12	1.495,05			
Mär 2014	37.480,14	2.441,67	8.879,07	7.240,27	-1.638,80	-143,75			
Apr 2014	31.225,96	2.441,67	7.804,88	8.821,81	1.016,93	873,18			
Mai 2014	33.031,86	2.441,67	8.115,06	8.358,24	243,18	1.116,36			
Jun 2014	30.845,90	2.441,67	7.739,61	5.677,87	-2.061,74	-945,38			
Jul 2014	35.457,75	2.441,67	8.531,72	9.979,41	1.447,69	502,31			
Aug 2014	29.865,52	2.441,67	7.571,22	6.017,03	-1.554,19	-1.051,88			
Sep 2014	29.775,08	2.441,67	7.555,69	7.779,07	223,38	-828,50			
Okt 2014	38.341,79	2.441,67	9.027,06	9.826,15	799,09	-29,41			
Nov 2014	31.806,31	2.441,67	7.904,56	8.409,55	504,99	475,58			
Dez 2014	35.537,86	2.441,67	8.545,48	8.703,63	158,15	633,73			
insgesamt	397.862,00	29.300,04	97.634,83	97.253,86	-380,97				
2015		RGAS: 447,90%							
Jan 2015	30.706,51	2.522,25	8.126,68	5.898,85	-2.227,83	-1.594,10			
Feb 2015	34.774,66	2.522,25	8.869,18	9.864,97	995,79	-598,31			
Mär 2015	32.503,34	2.522,25	8.454,63	8.267,30	-187,33	-785,64			
Apr 2015	29.210,59	2.522,25	7.853,65	8.396,93	543,28	-242,36			
Mai 2015	33.626,58	2.522,25	8.659,64	8.886,43	226,79	-15,56			
Jun 2015	25.413,36	2.522,25	7.160,59	6.539,20	-621,39	-636,96			
Jul 2015	27.874,46	2.522,25	7.609,78	6.581,29	-1.028,49	-1.665,45			
Aug 2015	27.372,88	2.522,25	7.518,24	8.601,91	1.083,67	-581,78			
Sep 2015	31.207,69	2.522,25	8.218,15	7.255,36	-962,79	-1.544,57			
Okt 2015	34.367,84	2.522,25	8.794,93	8.135,42	-659,51	-2.204,08			
Nov 2015	33.517,20	2.522,25	8.639,67	9.926,01	1.286,34	-917,74			
Dez 2015	34.765,71	2.522,25	8.867,55	11.334,22	2.466,67	1.548,93			

**Berechnete Warenbestandsentwicklung**

Anfangsbestand: Feb 2014

Bemerkung(en):

Warenbestandsveränderungen:

# Examples for Other / New Techniques:

## SRP Summarized Risk Audit

### Estimation of turnover based on time series analysis – more € 285.238,57

Interaktive Schätzungsvorlage									
Steuerpflichtige/r:		Hotel Restaurant		Steuernummer:					
		2014		2015		2016			
<b>Turnover (#4300, #4400):</b>		397.862,00		375.340,82		388.627,79			
Goods (#5200 - #5760):		97.253,86		99.687,89		90.139,25			
Bestandsveränderung:		-380,97		915,20		-320,43			
Entnahmen:		29.300,04		30.267,00		30.420,00			
zusätzliche Entnahmen (ermäßigter USt-Satz):									
zusätzliche Entnahmen (voller USt-Satz):									
weitere Einsatzminderungen:									
<b>Einsatz:</b>		68.334,79		68.505,69		60.039,68			
<b>RGAS:</b>		482%		448%		547%			
80 %-Quantil RGAS:		635%		635%		635%			
frei geschätzter RGAS:									
80 %-Quantil Einkauf / Einsatz:									
frei geschätzter Einsatz:									
ermittelter Umsatz:		502.260,71		503.516,82		441.291,65			
freie Umsatzhinzuschätzung:									
Umsatzschätzung:		502.260,71		503.516,82		441.291,65			
<b>Mehrerlös durch Schätzung:</b>		104.398,71		128.176,00		52.663,86			
(RGAS nach Schätzung):									
<b>Mehrerlös insgesamt:</b>						285.238,57			
feste Aufteilung Mehrerlös:									
Anteil ermäßigter Steuersatz:									
Anteil Mehrerlös (ermäßigter USt-Satz):									
freie Aufteilung Mehrerlös:									
Anteil Mehrerlös (ermäßigter USt-Satz):									
Anteil Mehrerlös (voller USt-Satz):									

Monatszeitreihen    Gleitschlitzenzeitreihen    Monatsverhältnisse    Wochentagswerte    Bestandsentwicklung    **Schätzung**    eigene Notizen    Daten G

# **Examples for Other / New Techniques :**

## **Visualization of data**

**Visualization is often excel based or other software / a tool to visualize different figures / data sources in relation to each other in various diagrams**

# Examples for Other / New Techniques : Visualization of data – Bookkeeping Data

Jahr	BELD	KTOF	KTOBESCHR	GKTOF	GKTOBESCHR	BUCHTEXT	BELNR	SO_L	STSA	STBETR	STSTI	BUF	USTIDNR	HABIT	SOL	SO_HA	VERME	MF	BELEGL	KTOA	HA_S
2	2014	#####	4130	Gesetzlich soziale Aufwendungen	1753	Vorausbeitragschuld.Sozialver.		-0,20	0,00	0,00		3533		0,20	0,00	0,20		-1		2_AUSG	0,
3	2014	#####	8300	Erlöse 7% Ust.	1000	Kasse		-242,06	7,00	-16,34	USt	11		242,06	0,00	242,06		-1		1_LEINN	242,
4	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-115,37	19,00	-22,03	USt	4		115,37	0,00	115,37		-1		1_LEINN	115,
5	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-207,38	19,00	-39,52	USt	7		207,38	0,00	207,38		-1		1_LEINN	207,
6	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-1153,45	19,00	-219,15	USt	12		1153,45	0,00	1153,45		-1		1_LEINN	1153,
7	2014	#####	4360	Versicherungen	1200	Sparkasse Breisach #6004212	Assona Handyversicherung	24,00	0,00	0,00		320		0,00	24,00	24,00		-1		2_AUSG	-24,
8	2014	#####	4520	Kfz - Versicherungen	1200	Sparkasse Breisach #6004212	Allianz KFZ Versicherung FR-MG 1976	301,17	0,00	0,00		316		0,00	301,17	301,17		-1		2_AUSG	-301,
9	2014	#####	4810	Mietleasing (bewegliche Wirtschaftsgüter)	4360	Mieten für Einrichtungen (bewegl. W	umb	227,31	0,00	0,00		1718		0,00	227,31	227,31		-1		2_AUSG	-227,
10	2014	#####	4360	Mieten für Einrichtungen (bewegl. W	1200	Sparkasse Breisach #6004212	Hoffmann Leasing 01/14	227,31	19,00	43,19	VSt	313		0,00	227,31	227,31		-1		2_AUSG	-227,
11	2014	#####	4360	Mieten für Einrichtungen (bewegl. W	4810	Mietleasing (bewegliche Wirtschaftsgüter)	umb	-227,31	0,00	0,00	VSt	1718		227,31	0,00	227,31		-1		2_AUSG	227,
12	2014	#####	8300	Erlöse 7% Ust.	1000	Kasse		-119,16	7,00	-8,34	USt	19		119,16	0,00	119,16		-1		1_LEINN	119,
13	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-25,29	19,00	-4,81	USt	13		25,29	0,00	25,29		-1		1_LEINN	25,
14	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-657,06	19,00	-124,84	USt	15		657,06	0,00	657,06		-1		1_LEINN	657,
15	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		#####	19,00	-318,90	USt	20		1678,40	0,00	1678,40		-1		1_LEINN	1678,
16	2014	#####	3736	Erhaltene Skonti 19% Vorsteuer	1611	Verb. aus Lu.L. o. Kontokorrent	Badischer Winzerkeller Skonto	-1,90	19,00	-0,36	VSt	2989		1,90	0,00	1,90		-1		2_AUSG	-1,
17	2014	#####	4911	Kosten des Geldverkehrs Telecash	1200	Sparkasse Breisach #6004212	B & S Gebühren	35,41	19,00	18,13	VSt	346		0,00	35,41	35,41		-1		2_AUSG	-35,
18	2014	#####	8300	Erlöse 7% Ust.	1000	Kasse		-182,99	7,00	-12,81	USt	26		182,99	0,00	182,99		-1		1_LEINN	182,
19	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		#####	19,00	-193,12	USt	21		1047,98	0,00	1047,98		-1		1_LEINN	1047,
20	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-1917,56	19,00	-364,34	USt	27		1917,56	0,00	1917,56		-1		1_LEINN	1917,
21	2014	#####	8300	Erlöse 7% Ust.	1000	Kasse		-162,99	7,00	-11,41	USt	34		162,99	0,00	162,99		-1		1_LEINN	162,
22	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-648,24	19,00	-123,16	USt	28		648,24	0,00	648,24		-1		1_LEINN	648,
23	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-113,78	19,00	-21,62	USt	32		113,78	0,00	113,78		-1		1_LEINN	113,
24	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		#####	19,00	-366,64	USt	35		1923,66	0,00	1923,66		-1		1_LEINN	1923,
25	2014	#####	4302	Interimskonto Vorsteuervergütung	1000	Kasse	Intermarche 5,5 % TVA	75,97	0,00	0,00	VSt	43		0,00	75,97	75,97		-1		2_AUSG	-75,
26	2014	#####	4302	Interimskonto Vorsteuervergütung	1000	Kasse	Intermarche 20,00 % TVA	44,43	0,00	0,00	VSt	50		0,00	44,43	44,43		-1		2_AUSG	-44,
27	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-395,04	19,00	-75,06	USt	36		395,04	0,00	395,04		-1		1_LEINN	395,
28	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-485,29	19,00	-92,21	USt	40		485,29	0,00	485,29		-1		1_LEINN	485,
29	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-240,67	19,00	-45,73	USt	45		240,67	0,00	240,67		-1		1_LEINN	240,
30	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-750,84	19,00	-142,66	USt	46		750,84	0,00	750,84		-1		1_LEINN	750,
31	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		#####	19,00	-536,22	USt	48		2822,18	0,00	2822,18		-1		1_LEINN	2822,
32	2014	#####	8300	Erlöse 7% Ust.	1000	Kasse		-510,75	7,00	-35,75	USt	60		510,75	0,00	510,75		-1		1_LEINN	510,
33	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-113,95	19,00	-21,65	USt	51		113,95	0,00	113,95		-1		1_LEINN	113,
34	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-308,24	19,00	-58,56	USt	55		308,24	0,00	308,24		-1		1_LEINN	308,
35	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		#####	19,00	-478,40	USt	61		2517,90	0,00	2517,90		-1		1_LEINN	2517,
36	2014	#####	3300	Wareneingang 7% Vst.	1200	Sparkasse Breisach #6004212	Neukauf	16,36	7,00	1,14	VSt	355		0,00	16,36	16,36		-1		2_AUSG	-16,
37	2014	#####	3300	Wareneingang 7% Vst.	1200	Sparkasse Breisach #6004212	Aldi	139,31	7,00	9,75	VSt	356		0,00	139,31	139,31		-1		2_AUSG	-139,
38	2014	#####	4210	Miete Digel	1200	Sparkasse Breisach #6004212	012014	#####	19,00	660,63	VSt	352		0,00	#####	3476,39		-1		2_AUSG	#####
39	2014	#####	4240	Gas, Strom, Wasser	1200	Sparkasse Breisach #6004212	Stadt Breisach Abwasser	165,00	0,00	0,00	VSt	353		0,00	165,00	165,00		-1		2_AUSG	-165,
40	2014	#####	4240	Gas, Strom, Wasser	1200	Sparkasse Breisach #6004212	Stadt Breisach Wasser	32,71	7,00	2,29	VSt	354		0,00	32,71	32,71		-1		2_AUSG	-32,
41	2014	#####	4320	Telefon	1200	Sparkasse Breisach #6004212	Telekom 012014	54,89	19,00	10,43	VSt	353		0,00	54,89	54,89		-1		2_AUSG	-54,
42	2014	#####	4370	Nebenkosten des Geldverkehrs	1200	Sparkasse Breisach #6004212	Darlehenspreis #6001227369	2,30	19,00	0,44	VSt	362		0,00	2,30	2,30		-1		2_AUSG	-2,
43	2014	#####	4370	Nebenkosten des Geldverkehrs	1200	Sparkasse Breisach #6004212	Darlehenspreis #6001227369	2,30	19,00	0,44	VSt	363		0,00	2,30	2,30		-1		2_AUSG	-2,
44	2014	#####	4370	Nebenkosten des Geldverkehrs	1200	Sparkasse Breisach #6004212	Darlehenspreis #6001227369	2,30	19,00	0,44	VSt	364		0,00	2,30	2,30		-1		2_AUSG	-2,
45	2014	#####	4370	Nebenkosten des Geldverkehrs	1200	Sparkasse Breisach #6004212	Darlehenspreis #6001227369	2,30	19,00	0,44	VSt	365		0,00	2,30	2,30		-1		2_AUSG	-2,
46	2014	#####	4370	Nebenkosten des Geldverkehrs	1200	Sparkasse Breisach #6004212	Darlehenspreis #6001227369	2,30	19,00	0,44	VSt	366		0,00	2,30	2,30		-1		2_AUSG	-2,
47	2014	#####	8300	Erlöse 7% Ust.	1000	Kasse		-100,56	7,00	-7,04	USt	70		100,56	0,00	100,56		-1		1_LEINN	100,
48	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-434,12	19,00	-82,48	USt	62		434,12	0,00	434,12		-1		1_LEINN	434,
49	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-81,01	19,00	-15,39	USt	67		81,01	0,00	81,01		-1		1_LEINN	81,
50	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-350,00	19,00	-180,50	USt	71		350,00	0,00	350,00		-1		1_LEINN	350,
51	2014	#####	3300	Wareneingang 7% Vst.	1200	Sparkasse Breisach #6004212	Union SB	1563,08	7,00	103,84	VSt	368		0,00	#####	1563,08		-1		2_AUSG	#####
52	2014	#####	3400	Wareneingang 19% Vorsteuer	1000	Kasse	Rewe	150,96	19,00	28,68	VSt	73		0,00	150,96	150,96		-1		2_AUSG	-150,
53	2014	#####	3400	Wareneingang 19% Vorsteuer	1200	Sparkasse Breisach #6004212	Union SB	-33,50	19,00	-6,37	VSt	367		33,50	0,00	33,50		-1		2_AUSG	33,
54	2014	#####	3400	Wareneingang 19% Vorsteuer	1200	Sparkasse Breisach #6004212	Union SB	105,91	19,00	20,12	VSt	370		0,00	105,91	105,91		-1		2_AUSG	-105,
55	2014	#####	4250	Reinigung	1200	Sparkasse Breisach #6004212	Union SB	36,86	19,00	7,00	VSt	363		0,00	36,86	36,86		-1		2_AUSG	-36,
56	2014	#####	4285	Dekoration	1200	Sparkasse Breisach #6004212	Union SB Servietten	79,91	19,00	15,18	VSt	371		0,00	79,91	79,91		-1		2_AUSG	-79,
57	2014	#####	4380	Beiträge	1200	Sparkasse Breisach #6004212	Dehoga 01-06/14	327,12	0,00	0,00	VSt	374		0,00	327,12	327,12		-1		2_AUSG	-327,
58	2014	#####	8300	Erlöse 7% Ust.	1000	Kasse		-184,21	7,00	-12,89	USt	80		184,21	0,00	184,21		-1		1_LEINN	184,
59	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-399,08	19,00	-75,82	USt	74		399,08	0,00	399,08		-1		1_LEINN	399,
60	2014	#####	8400	Erlöse 19% Ust.	1000	Kasse		-27,31	19,00	-5,19	USt	78		27,31	0,00	27,31		-1		1_LEINN	27,



# **Examples for Other / New Techniques :**

## **Visualization of data – problems?**

- **420.000 data sets?**
- **How to explore?**
- **Where to start?**
- **Searching?**
- **What kind of parameters?**
- **Where are the indicators?**

# **Examples for Other / New Techniques :**

## **Visualization of data – example**

- **Restaurant**
- **Outside area**
- **Christmas celebration**
- **New year celebrations**
- **Additional participation on different markets**
- **No remarkable changes in business (same size, ... employees, ... suppliers....)**

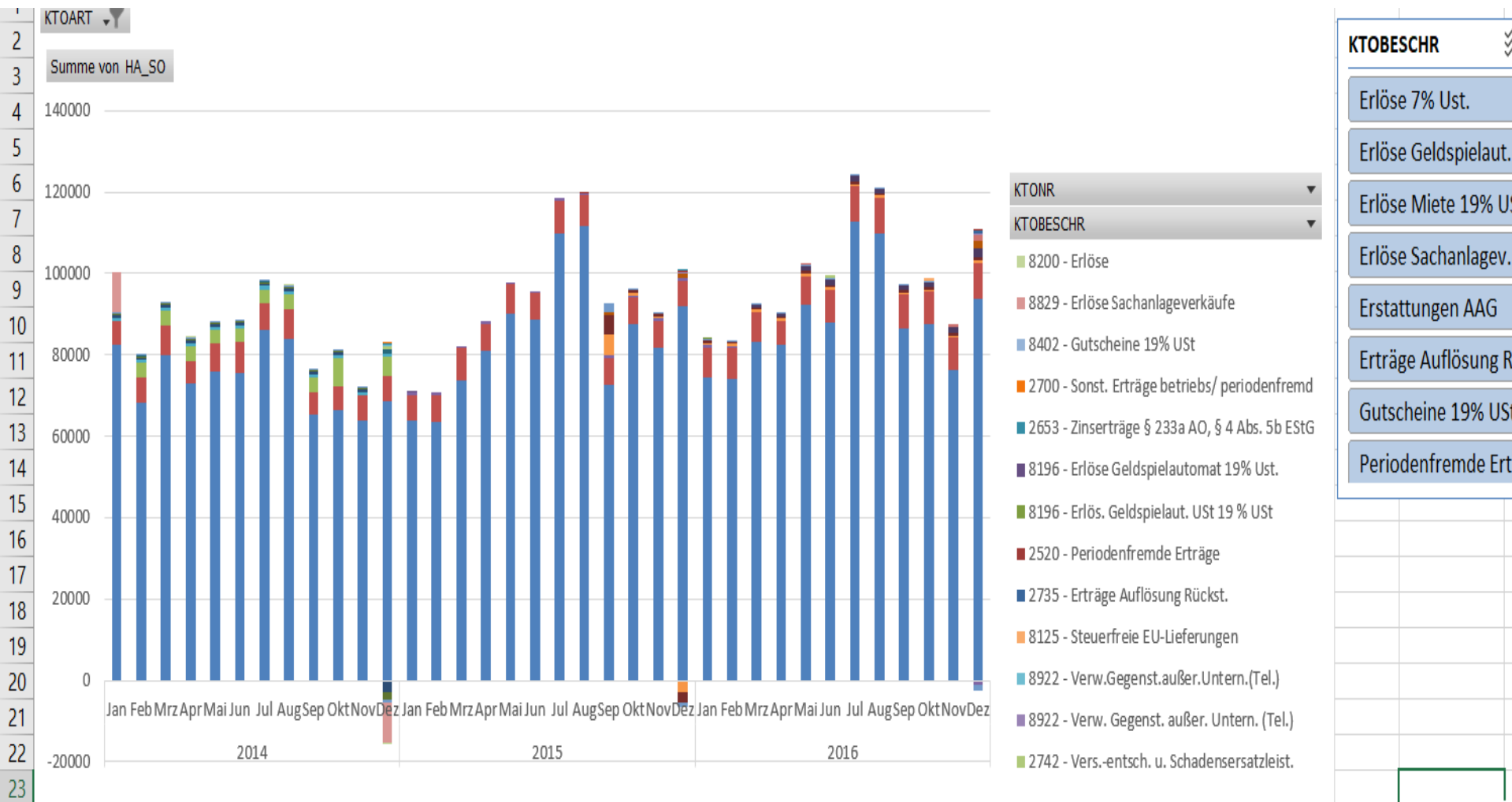
## Visualization of data

1	Account	1_turnover							
2									
3	Summary	Names							
4		8400 8400 Result	8300 8300 Result	8401 8401 Result	8595 8595 Result				
5	Names	TO 19% vAT	TO 7% VAT.	TO Rent 19%	Own Use 19%	Own Use 7%			
6	2016								
7	Jan	74558,13	74558,13	7321,29		468,91		468,91	
8	Feb	74000,02	74000,02	7601,6		577,31		577,31	
9	Mrz	83051,91	83051,91	7555,7					
10	Apr	82581,81	82581,81	5771,13					
11	Mai	92233,09	92233,09	7157,46					
12	Jun	87876,96	87876,96	8105,05					
13	Jul	112721,13	112721,13	8712,68					
14	Aug	109988,69	109988,69	8632,84					
15	Sep	86489,65	86489,65	8225,34					
16	Okt	87672,07	87672,07	7785,17					
17	Nov	76292,42	76292,42	7888,52					
18	Dez	93822,22	93822,22	8858,58		-1046,22		-1046,22	
19	2015	1015907	1015907	82785,49		7108,43		7108,43	
20	2014	889094,93	889094,93	77133,14	39341,43		9642,85	9642,85	
21	Result	2966290,03	2966290,03	253533,99	39341,43	7108,43	9642,85	16751,28	

# Examples for Other / New Techniques :

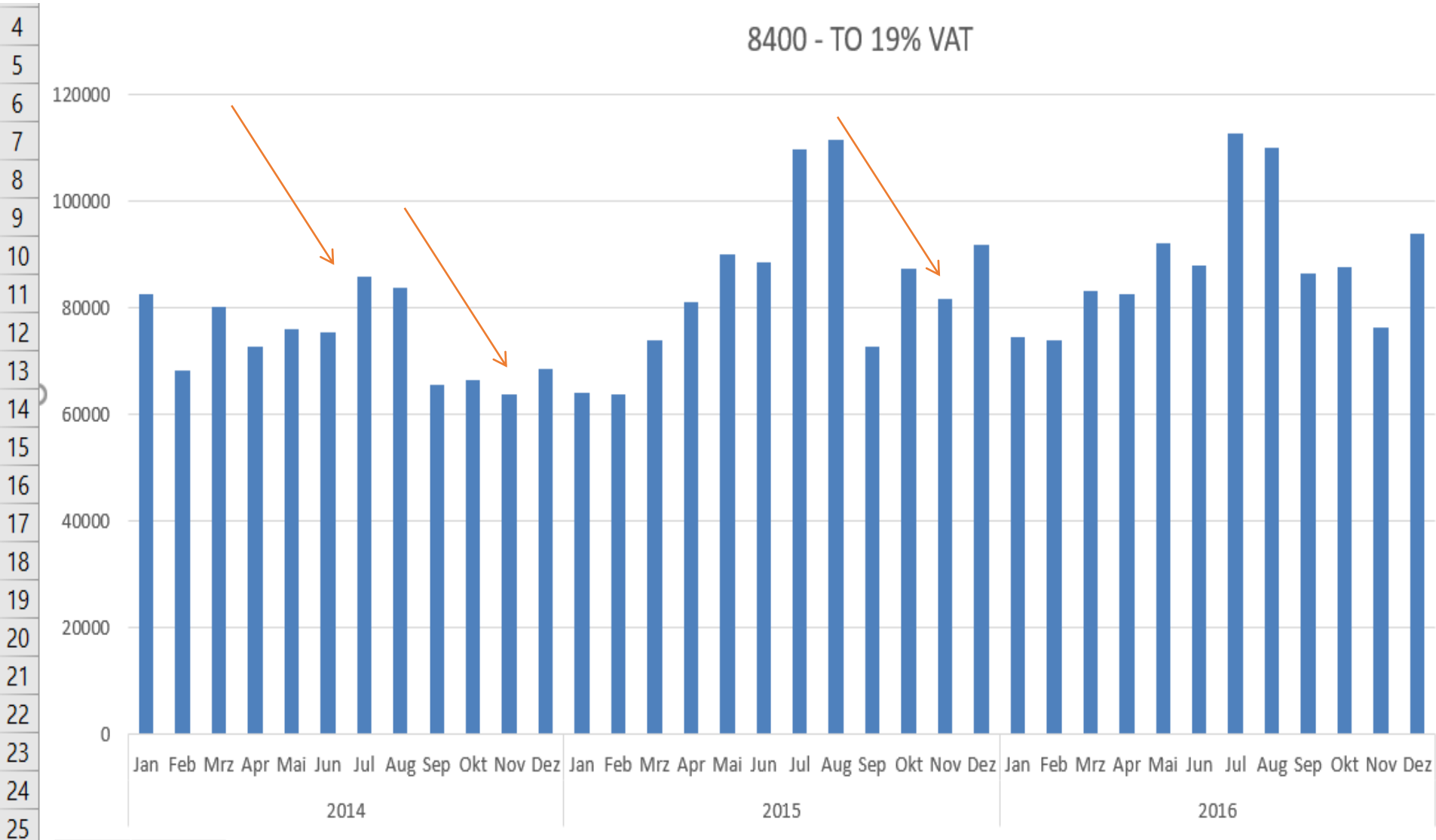
## Visualization of data

### Edited data – visualized



# Examples for Other / New Techniques :

## Visualization of data – account selection





# **Examples for Other / New Techniques :**

## **Visualization of data – example** **Indicators for problems**

- **Summertime**
  - reduced turnover compared with other years
- **Christmastime**
  - reduced turnover – usually the busiest time of a year for restaurants

# **Examples for Other / New Techniques :**

## **Visualization**

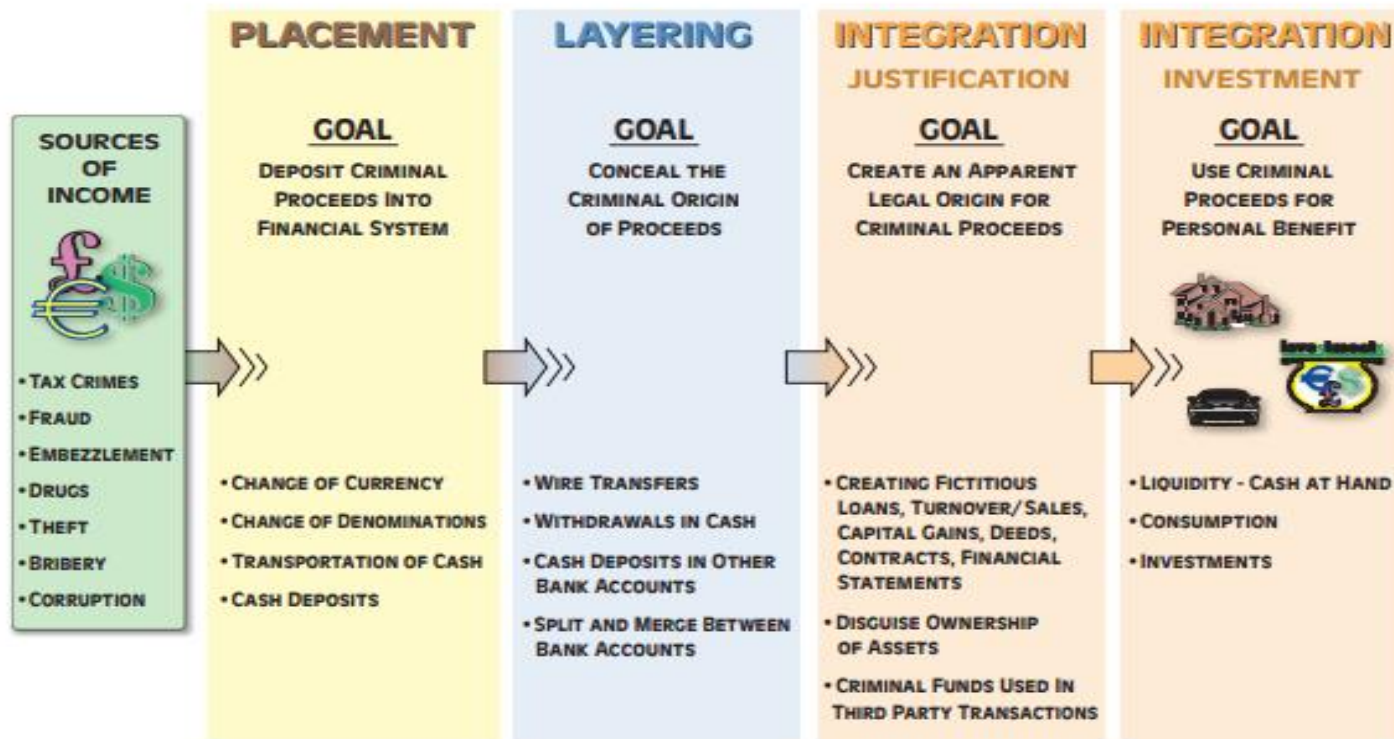
- **Any expenditures**
- **Turnover**
- **Any other account like input VAT – output VAT**
- **Almost everything could be visualized**
- **.....**

# **Methods of proof topics**

- **Direct method of proof**
  - **Specific item method**
  - **Different schemes**
- **Indirect method of proof**
  - **Net worth method**
  - **Projection method**
- **Preparing for trial**

# Part 7 - Money Laundering

## OVERVIEW OF MONEY LAUNDERING





# Focus on detection of money laundering

- All methods mentioned before
  - to detect while placement process  
*e.g. criminal or criminal organization owns a legitimate restaurant business. Money obtained from illegal activities is gradually deposited into a bank through the restaurant. The restaurant reports daily cash sales higher than what it actually takes in*



# Detection of money laundering

- All methodes mentioned before
  - to detect while layering process  
*e.g. to deal with tax issues – on example of the restaurant - further disguise the criminal source of the extra deposited funds, the restaurant invests the money in another legitimate business, such as real estate - further obscured from the authorities by using shell companies or holding companies that control several business enterprises that the laundered money*

# Detection of money laundering

- All methods mentioned before
  - to detect while integration process  
*e.g. – integration – the money is placed into legitimate business or personal investments (purchase high-end luxury goods, such as jewelry or automobiles. At this stage, the money has, ideally, been sufficiently laundered. The money is typically then either legitimately invested or exchanged for expensive assets such as property.*

# **Indicators of Money Laundering**

- **All indicators as for detection of fraud/tax evasion/.....**
  - **Everything unusual / suspicious**
  - **Everything with no economical reason**
  - **Under-valuing or over-valuing of property value**
  - **Rapid successive buying and selling**
  - **Use of third parties or companies that distance the transaction from the criminal source of funds**
  - **.....**

# **Indicators of money laundering –**

## **Real estate area**

### **Table of indicators of FINTRAC**

**FINTRAC = Financial Transactions and  
Reports Analysis Centre of Canada**

### **Table of indicators**



