

# FORENSIC ACCOUNTING

Institute of Financial Accountants  
Mid-Southern & Wessex Branch Event  
17<sup>th</sup> May 2012

# AGENDA

- ▶ Introduction: Definition of ‘forensic’
- ▶ Work of forensic accountants
- ▶ Forensic accounting – auditing
- ▶ The legal context
- ▶ Internal controls – Fraud
- ▶ Fraud investigation
- ▶ Non-fraud work
- ▶ Expert witness

# Forensic Accounting

## ▶ Definition of 'forensic':

The word comes from the Latin **'forensis'** = *'public' or 'of a forum'*.

It relates to public discussion or argument or arguments appropriate to a court of law.

Currently, it has come to mean: the gathering of facts to support an argument, providing facts or evidence in a court of law.

# Forensic Accounting

Forensic accountants gather facts and information and use what they have gathered as evidence to support a case, be it a commercial case for compensation or evidence to convict a fraudster.

Their work has to be painstaking and meticulous, **capable of being challenged and of withstanding that challenge**, carried out with skill and not a little imagination.

# Work of Forensic Accountants

The job of the forensic accountant has some broad similarities with that of the auditor:

- ❖ Analysing,
- ❖ Interpreting,
- ❖ Summarising, and
- ❖ Presenting complex financial data in a way which is comprehensible to the lay person, and properly supported by sufficient, appropriate evidence.

# Work of Forensic Accountants

The work of the forensic accountant is complex and varied and requires a range of skills and experience to meet the challenges they face in their day-to-day activities.

Forensic accounting can be divided into two areas of specialisation:

- Fraud investigatory work;
- Accounting and litigation support

# Work of Forensic Accountants

Fraud detection (the glamour-end of the forensic accounting business) involves:

- ❖ Investigating and analysing financial evidence
- ❖ Advising on defensive systems and the methods whereby organisations can detect frauds (ideally at an early stage)
- ❖ Developing computerised applications to assist in the analysis and presentation of financial evidence
- ❖ Communicating their findings in the form of reports, exhibits and collections of documents, or
- ❖ Assisting in legal proceedings, including testifying in court as an expert witness and preparing visual aids to support trial evidence.

# Work of Forensic Accountants

Forensic accounting isn't just about fraud. The techniques of forensic investigators can be brought to bear in a variety of situations:

- ❖ Business valuations
- ❖ Divorce proceedings and matrimonial disputes
- ❖ Asset tracing
- ❖ Personal injury and fatal accident claims
- ❖ Insurance claims for loss recovery
- ❖ Partnership and corporate disputes
- ❖ Challenging Confiscation Orders, or
- ❖ Civil and criminal actions concerning fraud and financial irregularities.

# Forensic Accounting – Auditing

## Auditing

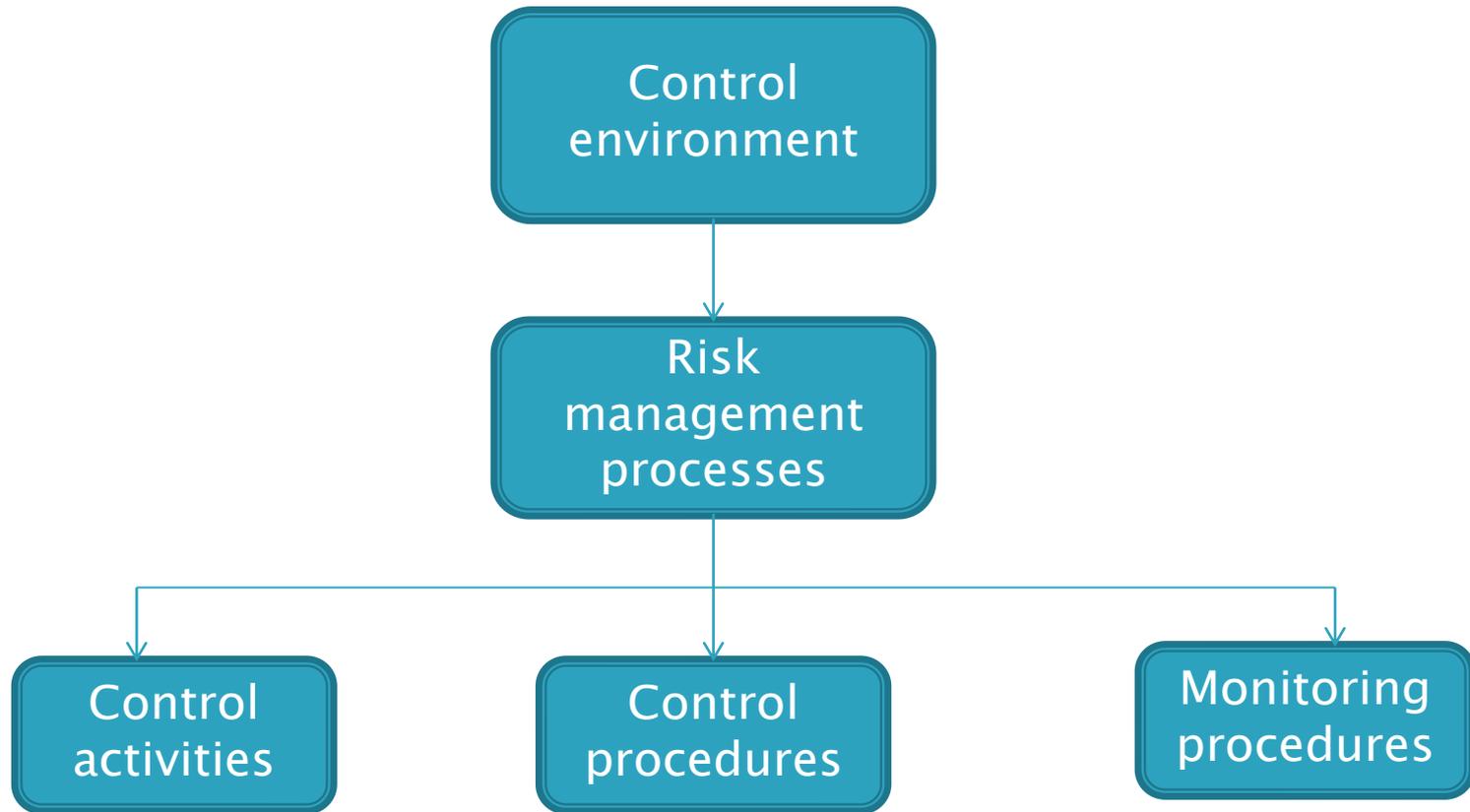
Gathering sufficient evidence so as to be able to form an opinion on the truth and fairness of the financial statements (not on ‘accuracy’ or ‘correctness’).

Consideration of fraud or deliberate misstatement of accounts is a secondary issue.

# The Legal Content

- ❖ The Fraud Act 2006
- ❖ Theft Act 1968
- ❖ Proceeds of Crime Act 2002 (POCA)
- ❖ Money Laundering Regulations 2007
- ❖ Whistle-blowing: The Public Interest Disclosure Act 1998
- ❖ Foreign and Corrupt Practices Act 1977 (FCPA)
- ❖ Regulation of Investigatory Powers Act 2000 (RIPA)
- ❖ Police and Criminal Evidence Act 1984 (PACE)

# Internal Controls – Fraud



# Control environment

- ❖ Organisational structure
- ❖ Management's philosophy and operating style
- ❖ Human resources policies
- ❖ Culture of ethical behaviour and communication
- ❖ Commitment to competence

# Control activities

Control activities are the policies and procedures established to address risks and to achieve the entity's objectives.

They include a range of detective and preventive control activities as diverse, for example, as:

- (1) authorisation and approval procedures;
- (2) segregation of duties (authorising, processing, recording, reviewing);
- (3) controls over access to resources and records;
- (4) verifications;
- (5) reconciliations;
- (6) reviews of operating performance;
- (7) reviews of operations, processes and activities;
- (8) supervision (assigning, reviewing and approving, guidance and training).

# Control procedures

Examples:

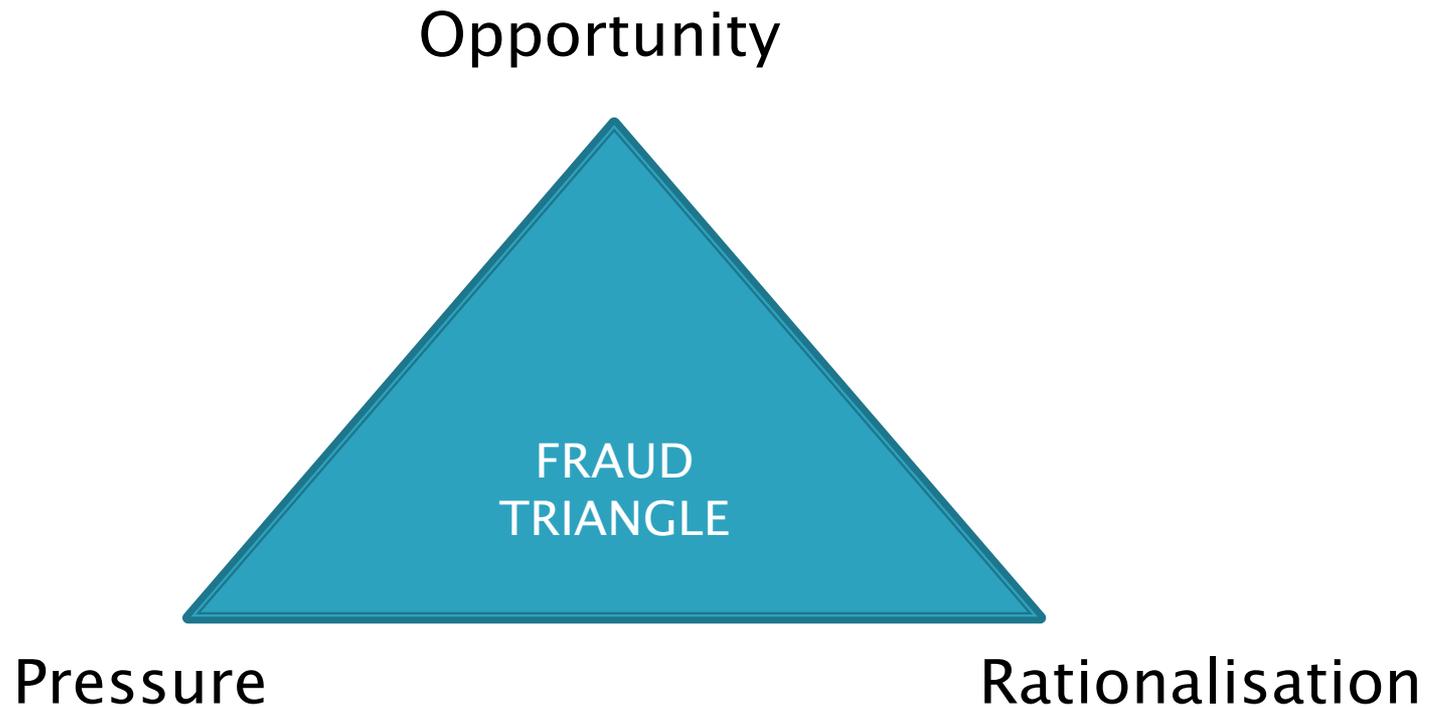
- Segregation of duties
- Organisational controls
- Authorisation and approval
- Physical controls
- Supervision
- Personnel
- Arithmetical procedures, and
- Management controls

# Monitoring procedures

- ▶ To assess the quality of the system's performance
- ▶ It is aimed at ensuring controls are operating as intended and modified for changes in conditions

# Fraud Investigation

# Fraud Investigation



# Fraud Investigation

Forensic accountants are called in to investigate a fraud or a possible fraud in two situations:

1. A fraud has been uncovered by an internal or external audit or management review.
2. Fraud is alleged by a whistle-blower or preliminary indications of something unusual have been uncovered by audit procedures.

# Fraud Investigation

Before the investigation commences the task is to establish:

- ▶ What has happened
- ▶ If fraud has been committed who committed it, who knew about it, who was not involved
- ▶ Over what period the fraud was committed
- ▶ How it was committed and what controls were circumvented
- ▶ How much money was involved
- ▶ What are the relevant issues

# Fraud Investigation

- ▶ Setting up the investigating team
- ▶ Planning the work to be performed

# Fraud Investigation

## Pre-investigation planning:

- ▶ A review of the personnel of the organisation, their responsibilities, roles and the extent of their authority.
- ▶ A review of the internal controls of the organisation including internal audit reports and management letters from the external auditors.
- ▶ Meetings with internal auditors as appropriate.
- ▶ Analytical review of financial and management accounts.

# Fraud Investigation

- ❖ Analysing documents
- ❖ Obtaining documentary evidence
- ❖ Chain of custody
- ❖ Data analysis
- ❖ Interview

# Analysing documents

It is recommended that all possible relevant documents be obtained.

Regarding collection of documents:

- ▶ Obtain original documents where feasible. Make working copies for review, and keep originals segregated.
- ▶ Do not touch originals any more than necessary.
- ▶ Maintain a good filing system for the documents. Losing a key document can damage the case.

# Obtaining documentary evidence

Always obtain evidence by consent.

Evidence held by third parties. Obtain an Order by a Court on application by the claimant.

Don't attempt to obtain documents by other means. It can lead to charges of theft, trespass and other sanctions.

# Chain of custody

A record must be made when the item is received or when it leaves the care, custody or control of the investigator.

Memorandum:

- ▶ What items were received
- ▶ When they were received
- ▶ From whom they were received
- ▶ Where they are maintained

# Data Analysis

# Data analysis. ACL

ACL\_Tutorial\_Metaphor.ACL - ACL 9

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Project Navigator

- ACL\_Tutorial\_Metaphor.ACL
  - Acceptable\_Codes
  - ACL\_Tutorial\_Metaphor
  - Company\_Dept
  - Credit\_Cards\_Metaphor
  - Employees**
  - Trans\_April
  - Unacceptable\_Codes

Welcome Employees

Filter:

Index: (None)

|    | First Name | Last Name | CardNum           | EmpNo  | HireDate   | Salary | Bonus 2002 |
|----|------------|-----------|-------------------|--------|------------|--------|------------|
| 1  | Leila      | Remlawi   | 8590122497663807  | 000008 | 12/28/1997 | 52750  | 1405       |
| 2  | Vladimir   | Alexov    | 8590122281964011  | 000060 | 10/05/1997 | 41250  | 4557       |
| 3  | Matthew    | Lee       | 8590120784984566  | 000100 | 03/31/1999 | 38250  | 651        |
| 4  | Alex       | Williams  | 8590124253621744  | 000104 | 08/12/2001 | 40175  | 7460       |
| 5  | Narinder   | Singh     | 8590125999743363  | 000146 | 09/09/1999 | 32250  | 6991       |
| 6  | Albert     | Schmidt   | 8590120716753180  | 000157 | 09/26/2002 | 36170  | 837        |
| 7  | Mohan      | Parhar    | 8590128947747852  | 000161 | 08/10/2000 | 69750  | 4455       |
| 8  | Nicole     | Levy      | 85901227200558982 | 000172 | 06/15/2002 | 46150  | 1839       |
| 9  | Jeanette   | Wallace   | 8590128676326319  | 000180 | 05/11/1995 | 46500  | 953        |
| 10 | Will       | Harris    | 8590124781270125  | 000201 | 11/30/2001 | 79250  | 9723       |
| 11 | Nils       | Chiario   | 8590121762084715  | 000210 | 07/23/1996 | 43800  | 7484       |
| 12 | James      | Lee       | 8590129593164703  | 000222 | 12/11/1998 | 88420  | 8922       |
| 13 | Heidi      | Wiebe     | 8590127307204051  | 000230 | 02/07/1995 | 75280  | 8555       |
| 14 | Pamela     | Coverly   | 8590121282195395  | 000253 | 10/06/1996 | 62250  | 2167       |
| 15 | Denise     | Nieweler  | 8590121300586153  | 000269 | 09/10/1997 | 44680  | 7340       |
| 16 | Hugh       | Vanda     | 8590127188365686  | 000277 | 07/02/2002 | 31340  | 1972       |
| 17 | Tim        | Lalli     | 8590120884250381  | 000284 | 07/21/1998 | 40450  | 9386       |
| 18 | Andre      | Jacques   | 8590125431232531  | 000292 | 02/26/1996 | 57740  | 6614       |
| 19 | Hilbert    | Frank     | 8590121620630401  | 000306 | 04/06/2000 | 38270  | 1528       |
| 20 | Patrick    | Doyle     | 8590126323841585  | 000311 | 08/25/1995 | 79840  | 3090       |
| 21 | Beth       | Sinclair  | 8590121039256285  | 000328 | 11/16/1999 | 52180  | 5832       |
| 22 | Igor       | Belchev   | 8590122491455345  | 000331 | 11/30/2002 | 58760  | 148        |
| 23 | Patricia   | Walters   | 8590127043771382  | 000340 | 10/25/1995 | 39180  | 9145       |
| 24 | Bernd      | Mueller   | 8590129923638380  | 100010 | 09/06/1995 | 47250  | 1421       |
| 25 | Iris       | Shamus    | 8590123507612981  | 100023 | 09/26/1999 | 47380  | 9388       |
| 26 | Paul       | Perry     | 8590126391902275  | 100029 | 03/19/1995 | 46250  | 6671       |
| 27 | Antonio    | Sanchez   | 8590122965563802  | 100046 | 05/26/1999 | 55340  | 7221       |
| 28 | Jacqueline | Miller    | 8590128618251512  | 100073 | 06/15/1995 | 67750  | 7084       |
| 29 | John       | Gilbert   | 8590125323000756  | 100093 | 09/08/1998 | 35900  | 4783       |
| 30 | Janet      | Gilley    | 8590128098022583  | 100125 | 07/02/1999 | 29950  | 6326       |
| 31 | Lars       | Andersson | 8590126009071523  | 100130 | 02/18/1995 | 45370  | 6000       |
| 32 | Olga       | Roman     | 8590128742834790  | 100188 | 04/30/1996 | 63840  | 2597       |
| 33 | Elisa      | Sinclair  | 8590123888722712  | 100245 | 12/28/1998 | 46500  | 5008       |
| 34 | Charles    | Nasar     | 8590127928113525  | 200010 | 05/01/1995 | 29250  | 1988       |
| 35 | Angela     | Richie    | 8590128759193385  | 200052 | 12/11/1995 | 48420  | 3823       |
| 36 | Blair      | Green     | 8590124265829051  | 200147 | 09/10/1997 | 44680  | 2088       |
| 37 | Jennifer   | Goldberg  | 8590123556942657  | 200176 | 08/25/1998 | 39840  | 4801       |
| 38 | Phyllis    | Goodwin   | 8590121394166062  | 200227 | 11/30/1998 | 58760  | 2913       |
| 39 | Barbara    | Nelson    | 8590129151565076  | 200248 | 03/19/1996 | 46250  | 1262       |
| 40 | Janelle    | Gudge     | 8590128152739875  | 200281 | 09/08/1997 | 35900  | 4739       |
| 41 | Rafael     | Linea     | 8590128906141710  | 200311 | 02/18/1995 | 45370  | 1918       |
| 42 | Per        | Thiessen  | 8590122982198784  | 200339 | 04/30/1996 | 43840  | 5441       |

Overview Log Default\_View

Employees 200 Records

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# Data analysis. Duplicates

As of: 05/13/2012 18:17:26

Command: DUPLICATES ON Last\_Name OTHER Bonus\_2002 CardNum EmpNo First\_Name HireDate Last\_Name Salary PRESORT TO SCREEN

Table: Employees

9 duplicates detected

## Duplicates:

| Last_Name                | Bonus_2002            | CardNum                          | EmpNo                  | First_Name              | HireDate                   | Salary                 |
|--------------------------|-----------------------|----------------------------------|------------------------|-------------------------|----------------------------|------------------------|
| <a href="#">Fisher</a>   | <a href="#">8,916</a> | <a href="#">8590128164445837</a> | <a href="#">300025</a> | <a href="#">Wei</a>     | <a href="#">07/25/1995</a> | <a href="#">31,020</a> |
| <a href="#">Fisher</a>   | <a href="#">624</a>   | <a href="#">8590126961897004</a> | <a href="#">800022</a> | <a href="#">Tina</a>    | <a href="#">11/28/1997</a> | <a href="#">49,950</a> |
| <a href="#">Lee</a>      | <a href="#">651</a>   | <a href="#">8590120784984566</a> | <a href="#">000100</a> | <a href="#">Matthew</a> | <a href="#">03/31/1999</a> | <a href="#">38,250</a> |
| <a href="#">Lee</a>      | <a href="#">8,922</a> | <a href="#">8590129593164703</a> | <a href="#">000222</a> | <a href="#">James</a>   | <a href="#">12/11/1998</a> | <a href="#">88,420</a> |
| <a href="#">Levy</a>     | <a href="#">1,839</a> | <a href="#">8590122720558982</a> | <a href="#">000172</a> | <a href="#">Nicole</a>  | <a href="#">06/15/2002</a> | <a href="#">46,150</a> |
| <a href="#">Levy</a>     | <a href="#">9,756</a> | <a href="#">8590128263176714</a> | <a href="#">500140</a> | <a href="#">Michal</a>  | <a href="#">09/27/1997</a> | <a href="#">46,390</a> |
| <a href="#">Michaels</a> | <a href="#">6,281</a> | <a href="#">8590126611059920</a> | <a href="#">300013</a> | <a href="#">LaVerne</a> | <a href="#">04/26/1995</a> | <a href="#">38,220</a> |
| <a href="#">Michaels</a> | <a href="#">9,151</a> | <a href="#">8590122716976418</a> | <a href="#">800093</a> | <a href="#">David</a>   | <a href="#">07/27/1996</a> | <a href="#">47,590</a> |
| <a href="#">Nelson</a>   | <a href="#">1,262</a> | <a href="#">8590129151565076</a> | <a href="#">200248</a> | <a href="#">Barbara</a> | <a href="#">03/19/1996</a> | <a href="#">46,250</a> |
| <a href="#">Nelson</a>   | <a href="#">4,039</a> | <a href="#">8590128977644129</a> | <a href="#">800233</a> | <a href="#">Greg</a>    | <a href="#">01/18/1997</a> | <a href="#">43,390</a> |
| <a href="#">Sinclair</a> | <a href="#">5,832</a> | <a href="#">8590121039256285</a> | <a href="#">000328</a> | <a href="#">Beth</a>    | <a href="#">11/16/1999</a> | <a href="#">52,180</a> |
| <a href="#">Sinclair</a> | <a href="#">5,008</a> | <a href="#">8590123888722712</a> | <a href="#">100245</a> | <a href="#">Elisa</a>   | <a href="#">12/28/1998</a> | <a href="#">46,500</a> |
| <a href="#">Smith</a>    | <a href="#">8,096</a> | <a href="#">8590127452939923</a> | <a href="#">800098</a> | <a href="#">Daniel</a>  | <a href="#">07/05/2001</a> | <a href="#">49,300</a> |
| <a href="#">Smith</a>    | <a href="#">5,244</a> | <a href="#">8590129875808876</a> | <a href="#">800207</a> | <a href="#">Philip</a>  | <a href="#">01/15/1999</a> | <a href="#">57,800</a> |
| <a href="#">Turner</a>   | <a href="#">863</a>   | <a href="#">8590125693710607</a> | <a href="#">500103</a> | <a href="#">Connie</a>  | <a href="#">02/22/1998</a> | <a href="#">49,280</a> |
| <a href="#">Turner</a>   | <a href="#">3,469</a> | <a href="#">8590124651080991</a> | <a href="#">800079</a> | <a href="#">Bruce</a>   | <a href="#">06/12/2002</a> | <a href="#">59,440</a> |
| <a href="#">Wang</a>     | <a href="#">3,350</a> | <a href="#">8590122464207976</a> | <a href="#">200399</a> | <a href="#">Daniel</a>  | <a href="#">10/08/2001</a> | <a href="#">95,070</a> |
| <a href="#">Wang</a>     | <a href="#">468</a>   | <a href="#">8590125699407125</a> | <a href="#">800053</a> | <a href="#">Sean</a>    | <a href="#">02/25/1998</a> | <a href="#">40,590</a> |

# Data analysis. Employees hired in 2002

|     | First Name        | Last Name | CardNum          | EmpNo  | HireDate   | Salary | Bonus 2002 |
|-----|-------------------|-----------|------------------|--------|------------|--------|------------|
| 6   | Albert            | Schmidt   | 8590120716753180 | 000157 | 09/26/2002 | 36170  | 837        |
| 8   | Nicole            | Levy      | 8590122720558982 | 000172 | 06/15/2002 | 46150  | 1839       |
| 16  | Hugh              | Vanda     | 8590127188365686 | 000277 | 07/02/2002 | 31340  | 1972       |
| 22  | Igor              | Belchev   | 8590122491455345 | 000331 | 11/30/2002 | 58760  | 148        |
| 47  | Rejane            | Boucher   | 8590129079724782 | 200345 | 09/09/2002 | 33740  | 813        |
| 48  | Brett             | Starr     | 8590121278290111 | 200346 | 09/26/2002 | 45780  | 6029       |
| 50  | Kim               | Montara   | 8590128375704378 | 200347 | 06/16/2002 | 20470  | 9195       |
| 58  | Hilda             | Demeter   | 8590121785018691 | 200365 | 02/07/2002 | 45690  | 9490       |
| 64  | Sarah             | Pollard   | 8590126069373535 | 300041 | 01/30/2002 | 30200  | 5765       |
| 90  | Brendan           | Hampton   | 8590121610225371 | 400044 | 09/20/2002 | 27400  | 7487       |
| 104 | Pedro             | Morales   | 8590126272564898 | 400200 | 12/10/2002 | 43600  | 42         |
| 131 | Sergei            | Zigic     | 8590124434068810 | 600018 | 09/13/2002 | 58750  | 655        |
| 132 | Ruth              | Patterson | 8590126821848844 | 600023 | 03/11/2002 | 46350  | 6038       |
| 149 | Fatima            | Nahan     | 8590121160951469 | 800011 | 12/19/2002 | 41400  | 943        |
| 173 | Bruce             | Turner    | 8590124651080991 | 800079 | 06/12/2002 | 59440  | 3469       |
| 175 | Masatoshi         | Yoshimura | 8590128759809183 | 800081 | 09/05/2002 | 56660  | 1129       |
| 176 | Marilyn           | Scoutten  | 8590122780127996 | 800090 | 03/06/2002 | 41400  | 3738       |
|     | << End of File >> |           |                  |        |            |        |            |

# Data analysis

- ❖ Vertical Ratio Analysis
- ❖ Horizontal Ratio Analysis
- ❖ Ratio Analysis
- ❖ Correlation Analysis

# Data analysis

## PROFIT AND LOSS ACCOUNT

### *Vertical Analysis*

### *Horizontal Analysis*

|                         | <i>Year One</i>      |      | <i>Year Two</i>        |      | <i>Change</i>          | <i>%Change</i> |
|-------------------------|----------------------|------|------------------------|------|------------------------|----------------|
| Net sales               | 250,000              | 100% | 450,000                | 100% | 200,000                | 80%            |
| Cost of goods sold      | <u>125,000</u>       | 50%  | <u>300,000</u>         | 67%  | <u>175,000</u>         | 140%           |
| Gross profit            | 125,000              | 50%  | 150,000                | 33%  | 25,000                 | 20%            |
| Operating Expenses      |                      |      |                        |      |                        |                |
| Selling Expenses        | 50,000               | 20%  | 75,000                 | 17%  | 25,000                 | 50%            |
| Administrative Expenses | <u>60,000</u>        | 24%  | <u>100,000</u>         | 22%  | <u>40,000</u>          | 67%            |
| Net profit / (Loss)     | <u><u>15,000</u></u> | 6%   | <u><u>(25,000)</u></u> | -6%  | <u><u>(40,000)</u></u> | -267%          |

## ADDITIONAL INFORMATION

|                 |         |         |
|-----------------|---------|---------|
| Average Debtors | 155,000 | 210,000 |
| Average Stock   | 65,000  | 130,000 |
| Average Assets  | 330,000 | 425,000 |

# Data analysis

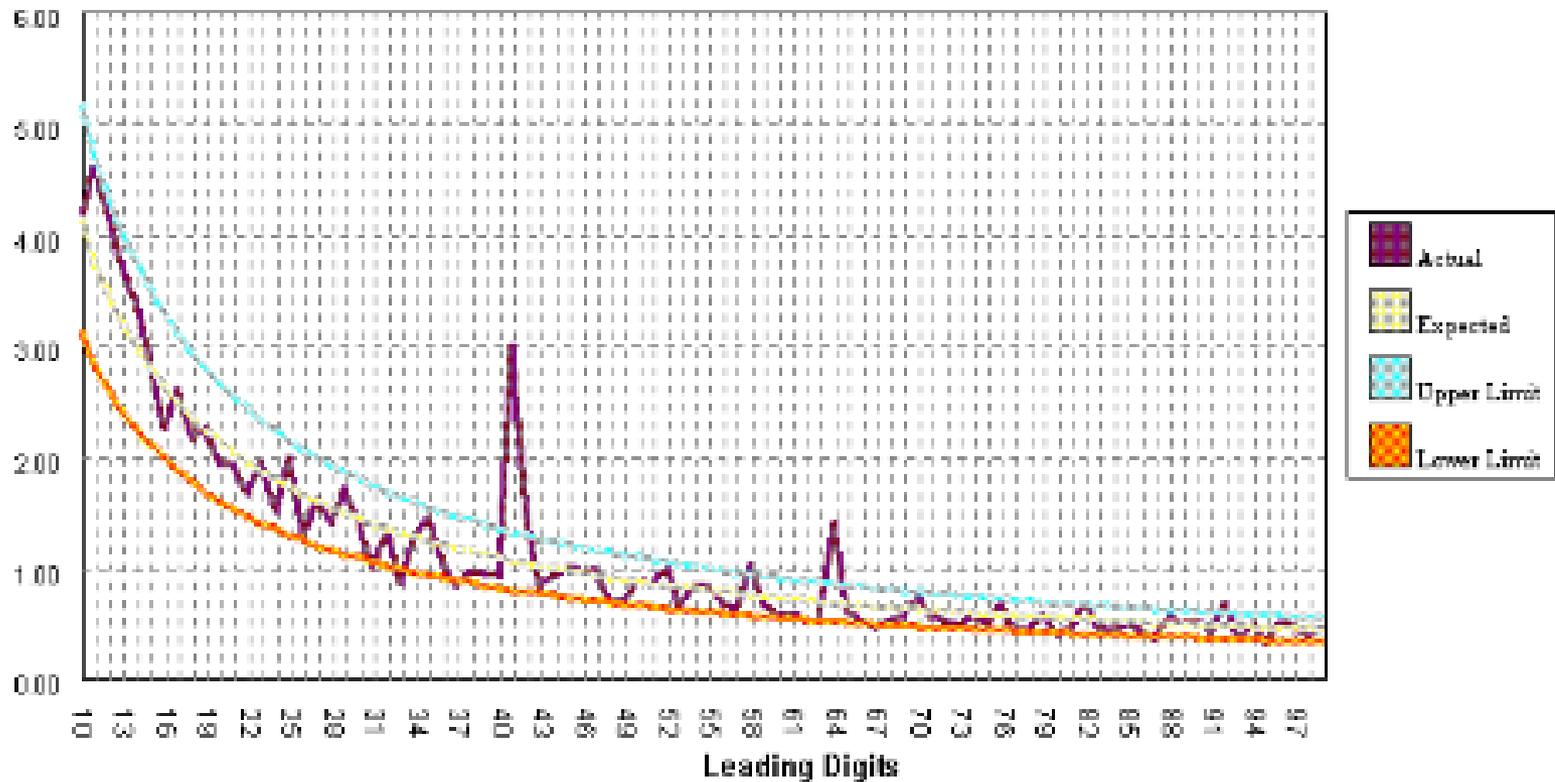
## BALANCE SHEET

|   | <i>Vertical Analysis</i> |      | <i>Horizontal Analysis</i> |               |                        |      |
|---|--------------------------|------|----------------------------|---------------|------------------------|------|
|   | <i>Year One</i>          |      | <i>Year Two</i>            |               |                        |      |
|   |                          |      |                            | <i>Change</i> | <i>%Change</i>         |      |
| <b>Assets</b>                           |                          |      |                            |               |                        |      |
| Fixed assets (net)                      | 60,000                   | 34%  | 60,000                     | 40%           | 0%                     |      |
| <b>Current Assets</b>                   |                          |      |                            |               |                        |      |
| Cash                                    | 45,000                   | 26%  | 15,000                     | 10%           | (30,000)               | -67% |
| Debtors                                 | 150,000                  | 85%  | 200,000                    | 133%          | 50,000                 | 33%  |
| Stock                                   | 75,000                   | 43%  | 150,000                    | 100%          | 75,000                 | 100% |
|   | <u>270,000</u>           | 154% | <u>365,000</u>             | 243%          | <u>95,000</u>          |      |
| Creditors – amounts due within one year | <u>95,000</u>            | 54%  | <u>215,000</u>             | 143%          | <u>120,000</u>         | 126% |
| Net Current Assets                      | <u>175,000</u>           | 100% | <u>150,000</u>             | 100%          | <u>(25,000)</u>        |      |
| Total Assets less Current Liabilities   | 235,000                  | 134% | 210,000                    | 140%          | (25,000)               | 11%  |
| Creditors – amounts due after one year  |                          |      |                            |               |                        |      |
| Long Term Debt                          | <u>60,000</u>            | 34%  | <u>60,000</u>              | 40%           |                        | 0%   |
| Net Assets                              | <u><u>175,000</u></u>    | 100% | <u><u>150,000</u></u>      | 100%          | <u><u>(25,000)</u></u> |      |
| <b>Capital and Reserve</b>              |                          |      |                            |               |                        |      |
| Ordinary Shares                         | 100,000                  | 66%  | 100,000                    | 67%           |                        | 0%   |
| Retained Earnings                       | 75,000                   | 34%  | 50,000                     | 33%           | (25,000)               | -33% |
| Total Shareholders Funds                | <u><u>175,000</u></u>    | 100% | <u><u>150,000</u></u>      | 100%          | <u><u>(25,000)</u></u> |      |

# Data analysis

## Application of Benford's Law to an Invoice History File

Actual, Expected, Upper Limit, Lower Limit



# Data analysis

## Ratio Analysis

# Data analysis

ABC Ltd  
Trading and Profit and Loss Accounts for the years ended 31 December

|                                 | 1999       |            |                   | 2000         |           |                   |
|---------------------------------|------------|------------|-------------------|--------------|-----------|-------------------|
|                                 | £'000      | £'000      | £'000             | £'000        | £'000     | £'000             |
| Sales                           |            |            | 1,077             |              |           | 1,598             |
| <b>Cost of Goods Sold:</b>      |            |            |                   |              |           |                   |
| Opening stock                   | 63         |            |                   | 65           |           |                   |
| Purchases                       | <u>713</u> |            |                   | <u>1,159</u> |           |                   |
|                                 |            | 776        |                   |              | 1,224     |                   |
| Closing stock                   |            | <u>-65</u> |                   |              | <u>74</u> |                   |
| Cost of sales                   |            |            | <u>711</u>        |              |           | <u>1,150</u>      |
| <b>Gross Profit</b>             |            |            | <u>366</u>        |              |           | <u>448</u>        |
| Expenses                        |            |            | <u>291</u>        |              |           | <u>314</u>        |
| <b>Net Profit (before tax)</b>  |            |            | <u>75</u>         |              |           | <u>134</u>        |
| Tax                             |            |            | <u>26</u>         |              |           | <u>46</u>         |
| <b>Net Profit (after tax)</b>   |            |            | <u>49</u>         |              |           | <u>88</u>         |
| Dividend proposed               |            |            | <u>20</u>         |              |           | <u>25</u>         |
| Undistributed Profit            |            |            | <u>29</u>         |              |           | <u>63</u>         |
| Undistributed Profit b/f        |            |            | <u>75</u>         |              |           | <u>104</u>        |
| <b>Undistributed Profit c/f</b> |            |            | <u><u>104</u></u> |              |           | <u><u>167</u></u> |

# Data analysis

## Balance Sheet as at 31 December

|  | 1999  |       | 2000  |       |
|--|-------|-------|-------|-------|
|  | £'000 | £'000 | £'000 | £'000 |
| <b><u>Fixed Assets</u></b> (WDV)       |       |       | 183   | 280   |
| <b><u>Current Assets</u></b>           |       |       |       |       |
| Stock                                  | 65    |       | 74    |       |
| Trade Debtors                          | 158   |       | 176   |       |
| Bank                                   | 54    |       | 50    |       |
|  |       | 277   |       | 300   |
| <b><u>Less Current Liabilities</u></b> |       |       |       |       |
| Trade Creditors                        | 60    |       | 92    |       |
| Tax                                    | 26    |       | 46    |       |
| Dividends                              | 20    |       | 25    |       |
|  |       | 106   |       | 163   |
|  |       |       | 171   | 137   |
|  |       |       | 354   | 417   |
| <b><u>Financed by</u></b>              |       |       |       |       |
| Ordinary Share Capital                 |       | 250   |       | 250   |
| Reserves:                              |       | 104   |       | 167   |
| Undistributed Profit                   |       |       | 354   | 417   |

# Data analysis

| <b>RATIO</b>                       | <b>1999</b> | <b>2000</b> |
|------------------------------------|-------------|-------------|
| <b>PROFITABILITY</b>               |             |             |
| Return on capital employed         | 21.2%       | 32.1%       |
| Gross profit % of sales            | 34.0%       | 28.0%       |
| Net profit % of sales              | 7.0%        | 8.4%        |
| Total expenses % of sales          | 27.0%       | 19.6%       |
| <b>LIQUIDITY</b>                   |             |             |
| Rate of stock turnover             | 11.1 times  | 16.5 times  |
| Debtor collection period<br>(days) | 53.5 days   | 40.2 days   |
| Creditor payment period<br>(days)  | 30.7 days   | 29.0 days   |
| Current ratio                      | 2.6 : 1     | 1.8 : 1     |
| Acid test ratio                    | 2.0 : 1     | 1.4 : 1     |

# Data analysis

## Example:

*Jackson Hardware Supply is a medium-sized plumbing and electrical wholesale distributor. An anonymous note had been received which suggested the cashier had been stealing cash from the company. He had been seen driving a new BMW and had taken expensive holidays. The director of the company wanted to investigate the allegation. Although the cashier was a long and trusted employee, the director asked a forensic accountant to ascertain if the cashier has been stealing.*

# Data analysis

## Example (cont'd):

*The forensic accounting decided to analyse the Profit and Loss Account and to compare the salary charge in the current year with that of the previous year.*

*The balance of £220,000 in the salary expense account was significantly larger than the £180,000 for the previous year.*

*There were no changes in the work force and all employees received pay rises of 10%.*

# Data analysis

## Example (cont'd):

*Next step: to follow the overstatement in the salaries account back from the P & L to the source documents (the payroll payments). There were twelve entries in the wages book for John Doe, an employee who left last year. The payments had been made to someone else.*

*The forensic accountant interviewed the cashier who confessed.*

# Correlation analysis

| <i>Independent Variable</i> | <i>Dependent Variable</i> |
|-----------------------------|---------------------------|
| Number of days travelling   | Hotel cost                |
| Quantity of paper produced  | Starch consumed           |
| Number of houses built      | Paint used                |

# Verifying multiples of a number

With this function, a forensic accountant can determine whether regularly dispersed cheques, such as reimbursement for mileage, are consistent within the regular rate.

For instance, if the mileage checks do not measure up to the 40p per mile rate, an automatic red flag should go up.

# Interview

# Interview

*“the whole technique of skilled interviewing is to build an atmosphere of trust in which the initial desire to remain silent is replaced by an urge to confide in the questioner”*

(The Appeal Court)

# Interview

An **interview** is a question and answer session designed to elicit information.

It is structured, not free-form and designed for a purpose.

It might consist of only one question or a series of questions.

# Interview

Preparation:

Review case file and consider what type of information can be supplied by each of the potential witnesses.

# Question typology

- ❖ Introductory questions
- ❖ Informational questions: open, closed and leading
- ❖ Closing questions
- ❖ Assessment questions
- ❖ Admission-seeking questions

# Non-fraud work

# Non-fraud work

- ▶ Valuation of business
- ▶ Matrimonial work – divorce and separation
- ▶ Asset Tracing
- ▶ Claims: consequential loss claims and damages for loss
- ▶ Personal injury and medical negligence claims

# Valuation of Business

## Reasons:

- ❖ For business sale
- ❖ Goodwill valuations for partnerships and sole traders
- ❖ Group reorganisations and restructurings
- ❖ For tax purposes: inheritance tax, capital gains tax, employee share schemes
- ❖ In legal proceedings: for quantum of damage, lost of opportunity, divorce proceedings

# Value – Fair value

A company is owned by three people A, B and C who have equal shares. The company is valued at £12 million so if the whole business is sold each should receive a one-third share, i.e. £4 million.

C wants to sell. There are three scenarios:

1. Sale to a third party
2. Sale equally to A and B
3. Sale to either A or B

# Value – Fair value

## 1. Sale to a third party:

C's minority holding will have to be discounted because it is a minority holding. Assume a discount of 60%, making C's shareholding worth £1.6m ( $£4m - (60\% \times £4m)$ ).

If C sells to an outsider it is unlikely that C will receive any more than this as a minority shareholding in a private company is not particularly attractive asset for an investor.

# Value – Fair value

## 2. Sale equally to A and B

If C sells equally to A and B they will each have a 50% shareholding and no-one will have overall control. C's share is probably still only worth £1.6m as it does not give either of the acquires a significant advantage.

# Value – Fair value

## 3. Sale to either A or B

If C sold to either A or B they would acquire a controlling interest: 67%.

The value of a controlling interest is much greater than that of a minority so would attract a lower discount, say 20%.

C's share could be worth more: £6.4m (£12m x 67% less 20%), because of the benefit it would bring to the acquiring shareholder A or B.

# Value – Fair value

C's shareholding is worth anywhere between £1.6m and £6.4m because it attributes some of the value acquired by the new majority shareholder (either A or B) to the seller, C.

The actual value depends on:

- The overall value of the company being agreed, and
- The discount factor to be applied

Which will be a matter for negotiation between the parties. It is here that the skill of the forensic accountant comes in.

# Market value

Used by HMRC as the basis of valuing shares for tax purposes.

Definition of 'market value':

*“The price which the property might reasonably be expected to fetch if sold in the open market at that time, but that price shall not be assumed to be reduced on the grounds that the whole property is to be placed on the market at one and the same time”.*

(s. 272 TCGA 1992, s. 160 IHTA 1984 and s. 118 FA 2003 for stamp duty).

# Bases of valuation

Approaches:

- ❖ Asset-based valuations
- ❖ Earnings-based valuations
- ❖ Discounted cash flow (DCF), and
- ❖ Dividend yield.

# Tracing Illicit Transactions

# The Financial/Behavioural Profile

It will identify most illicit funds which are deposited to accounts or expended in significant amounts.

Sources for the target's assets, liabilities, income and expenses:

- ▶ The target
- ▶ Associates
- ▶ Documents from financial sources (accountant, banker)
- ▶ Bank account records
- ▶ Mortgage and loan files
- ▶ Credit card records
- ▶ Tax returns
- ▶ Public records
- ▶ Business filings
- ▶ Real estate filings
- ▶ Court records

# The Financial/Behavioural Profile

## Steps:

1. Identify all significant assets held by the suspect.
2. Identify all significant liabilities.
3. Identify all income sources during the relevant time period.
4. Identify all significant expenses incurred during the relevant period.
5. Analyse the information collected

# The Financial/Behavioural Profile

| The Financial Profile     |                      |   |
|---------------------------|----------------------|---|
| TYPICAL ASSETS            |                      | For each significant asset determine:                           |
| Residence                 | Jewellery            | -When was it acquired and from whom?                            |
| Real Estate               | Clothing             | - How much did it cost?   |
| Bank accounts             | Collectibles         | - How was it paid for (currency, cheque, cashier's cheque)?     |
| Stocks and bonds          | Pensions             | - What source of funds was used to acquire it?                  |
| Automobiles               | Home Furnishings     | - What documentation exists for the purchase and where is it?   |
| Insurance                 | Boats                |   |
| Cash on hand              |                      |   |
| TYPICAL LIABILITIES       |                      | For each significant liability, determine:                      |
| Mortgage(s)               |                      | -What was the original amount of the liability?                 |
| Other loans               |                      | -What is the present balance due?                               |
| Lines of credit           |                      | -When was the liability incurred?                               |
| Credit cards              |                      | -What was the purpose for the loan or debt?                     |
| Instalment purchases      |                      | -How were the proceeds used and where were they deposited?      |
| Accounts payable          |                      | -What security (collateral), if any, was given for the debt?    |
| Taxes and other bills     |                      | -What documentation exists for the transaction and where is it? |
| Alimony and child support |                      | -Was the debt written off as a bad loan for tax purposes?       |
|                           |                      | -Who was the creditor or lender?                                |
| TYPICAL SOURCES OF FUNDS  |                      | For each source of funds, determine:                            |
| Salary                    | Insurance proceeds   | -What was the total amount during a given period?               |
| Gifts                     | Commissions and fees | -What was the source?   |
| Rental income             | Awards               | -How was it paid for (currency, cheque, other means)?           |
| Dividends                 |                      | -When were the funds received?                                  |
| Interest                  |                      | -Where was it deposited?  |

# The Financial/Behavioural Profile

|                             |                     |  |
|-----------------------------|---------------------|--|
| Sale of assets              | Inheritances        | -How was it spent?                                 |
|                             | Disability payments | -What documentation exists and where is it?        |
| <b>TYPICAL EXPENDITURES</b> |                     | <b>For each major expenditure item, determine:</b> |
| Rent and mortgage           | Clothing            | -What was the total amount spent?                  |
| Health costs                | Utilities           | -How was it paid for?                              |
| Interest on loans           | Food                | -Where were the funds obtained to pay the expense? |
| Credit cards                | Insurance           | -What documentation exists and where is it?        |
| Car payments                |                     | -When was the payment made?                        |
| Travel                      |                     |  |

# Tracing Illicit Transactions

## COMPARATIVE NET WORTH - ASSET METHOD FORMULA

|   |                                   |
|---|-----------------------------------|
|   | <i>Assets</i>                     |
| - | <i>Liabilities</i>                |
| = | <i>Net Worth</i>                  |
| - | <i>prior year's net worth</i>     |
| = | <i>Net Worth increase</i>         |
| + | <i>living expenses</i>            |
| = | <i>Income (or Expenditures)</i>   |
| - | <i>funds from known sources</i>   |
| = | <i>Funds from Unknown Sources</i> |

# Net Worth Analysis

## EXAMPLE

Year One:

| Assets at Cost |                 | Liabilities      |               |
|----------------|-----------------|------------------|---------------|
| Residence      | £100,000        | Mortgage balance | £ 90,000      |
| Stocks & bonds | 30,000          | Automobile loan  |               |
| Automobile     | <u>20,000</u>   | balance          | <u>10,000</u> |
| TOTAL          | £150,000        | TOTAL            | £100,000      |
| Assets         | £150,000        |                  |               |
| Liabilities    | <u>-100,000</u> |                  |               |
| Net Worth      | £50,000         |                  |               |

Compute the target's net worth for year two, using the same method:

## EXAMPLE

Year Two:

| Assets at Cost |                 | Liabilities      |          |
|----------------|-----------------|------------------|----------|
| Residence      | £100,000        | Mortgage balance | £ 50,000 |
| Stocks & bonds | 30,000          | Automobile loan  |          |
| Automobile     | 20,000          | balance          | <u>0</u> |
| C.D.           | <u>50,000</u>   | TOTAL            | £ 50,000 |
| TOTAL          | £200,000        |                  |          |
| Assets         | £200,000        |                  |          |
| Liabilities    | <u>- 50,000</u> |                  |          |
| Net Worth      | £150,000        |                  |          |

# Net Worth Analysis

## EXAMPLE

Year Two:

| Income      |               | Expenses                      |               |
|-------------|---------------|-------------------------------|---------------|
| Salary      | £30,000       | Mortgage Interest<br>Payments | £20,000       |
| Commissions | <u>20,000</u> | Living Expenses               | <u>10,000</u> |
| TOTAL       | £50,000       | TOTAL                         | £ 30,000      |

The difference between the target's income and expenses equals the increase (or decrease) in net worth from year one to year two which can be attributed to known sources. Here it is £20,000. Subtract the increase in net worth from known sources from the total increase in net worth to determine the amount from unknown sources.

## EXAMPLE

|                                      |                       |
|--------------------------------------|-----------------------|
| Total Increase in Net Worth          | £ 100,000             |
| Increase attributed to Known Sources | <u>&lt;20,000&gt;</u> |
| <i>Dollars From Unknown Sources</i>  | £ 80,000              |

# Expenditure Method

## EXPENDITURES (COMPARATIVE NET WORTH) FORMULA

|   |  |
|---|--|
|   | <i>Expenditures (Application of Funds)</i> |
| - | Known Source of Funds                      |
| = | <i>Funds from Unknown Sources</i>          |

# Expenditure Method

## EXAMPLE

| Subject                                      | Year One        | Year Two       |
|--|-----------------|----------------|
| <i>Application of Funds:</i>                 |                 |                |
| Increase in bank balance                     | £ 2,000         | £10,000        |
| Down payment on residence                    | —               | 10,000         |
| Purchase of automobile                       | 10,000          | —              |
| Mortgage payments                            | 8,000           | 20,000         |
| Credit card payments                         | 5,000           | 10,000         |
| Other expenses                               | 15,000          | 30,000         |
| <b>TOTAL</b>                                 | <b>£ 40,000</b> | <b>£80,000</b> |
| <i>Less: Known Sources of Funds</i>          |                 |                |
| Cash on hand                                 | 1,000           |                |
| Salary                                       | 30,000          | 38,000         |
| Interest earned on savings                   |                 |                |
| Account                                      | 1,000           | 2,000          |
| Loan proceeds                                | 8,000           |                |
| <b>TOTAL</b>                                 | <b>£40,000</b>  | <b>£40,000</b> |
| <i>Funds from Unknown or Illegal Sources</i> | 0               | £40,000        |

# Bank Deposit Method

## EXAMPLE

| Subject                                      | Year One        | Year Two       |
|--|-----------------|----------------|
| <i>Application of Funds:</i>                 |                 |                |
| Increase in bank balance                     | £ 2,000         | £10,000        |
| Down payment on residence                    | —               | 10,000         |
| Purchase of automobile                       | 10,000          | —              |
| Mortgage payments                            | 8,000           | 20,000         |
| Credit card payments                         | 5,000           | 10,000         |
| Other expenses                               | 15,000          | 30,000         |
| <b>TOTAL</b>                                 | <b>£ 40,000</b> | <b>£80,000</b> |
| <i>Less: Known Sources of Funds</i>          |                 |                |
| Cash on hand                                 | 1,000           |                |
| Salary                                       | 30,000          | 38,000         |
| Interest earned on savings                   |                 |                |
| Account                                      | 1,000           | 2,000          |
| Loan proceeds                                | 8,000           |                |
| <b>TOTAL</b>                                 | <b>£40,000</b>  | <b>£40,000</b> |
| <i>Funds from Unknown or Illegal Sources</i> | 0               | £40,000        |

# Locating Hidden Assets

A target might attempt to preserve their assets by transferring them to other parties or to accounts that might escape detection:

- Transfer to family members or parties under their control
- Children's or Family Trust
- Home mortgage pay-down
- Insurance policies
- Prepaid credit cards
- Cashier's cheques and traveller's cheques
- Locating assets through subpoenas
- Locating assets off-shore

# Expert Witness

# Expert Witness

## Duties:

- ❖ Establish the facts
- ❖ Interpret the facts
- ❖ Comment on the opposing expert's facts and opinions
- ❖ Define the professional standards in the area of your opponent's expertise

# Expert Witness

- ❖ Preparing a Report
- ❖ Preparing to Testify

# Expert Report

- ❖ Preparation
- ❖ Accuracy of reports
- ❖ Clarity
- ❖ Impartiality and Relevance
- ❖ Timeliness
- ❖ Avoid stating opinions regarding the guilt of innocence of any party
- ❖ Organise information chronologically

# Expert Report

Outlining:

I. First-level head

A. Second-level head

1. Third-level head

a. Fourth-level head

(1) Fifth-level head

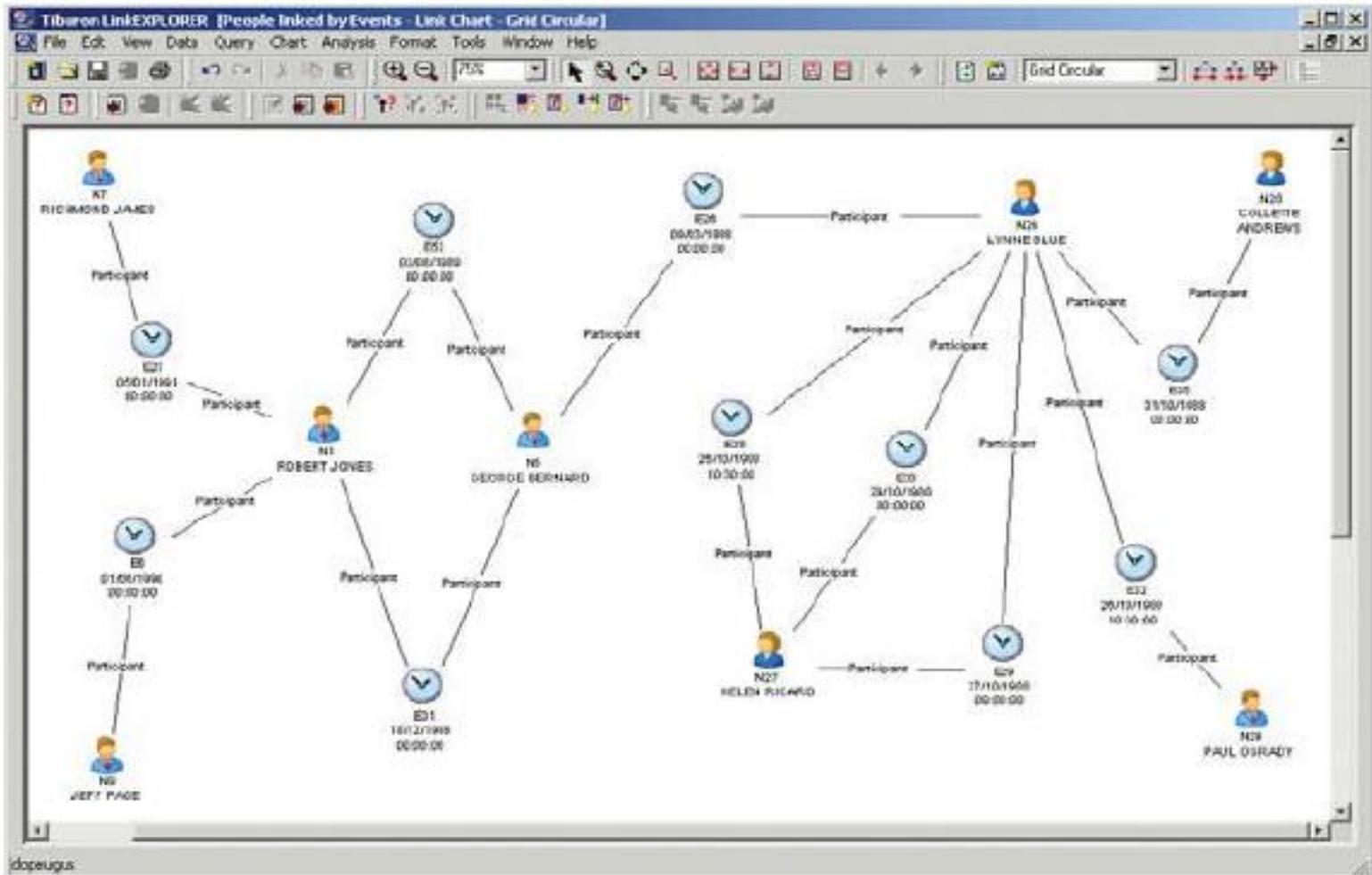
# Report Structure

- ▶ Must give details of the expert's qualification and the material, literature, experiments, and tests on which he has relied.
- ▶ Must make clear which of the facts stated in the report are within the expert's own knowledge.
- ▶ Must contain the information considered in formulating opinions.
- ▶ Must summarise the range of opinion on the matter, giving reasons for the expert's own opinion.
- ▶ Must say who carried out any examination, measurement, test or experiment which the expert has used for his report.
- ▶ Must contain any exhibits to be used as a summary of or support for the opinions.
- ▶ Must contain a statement that the expert understands his duty to the court.
- ▶ Must contain a summary of the conclusions reached.
- ▶ Must be verified by a statement of truth.

# Expert Report

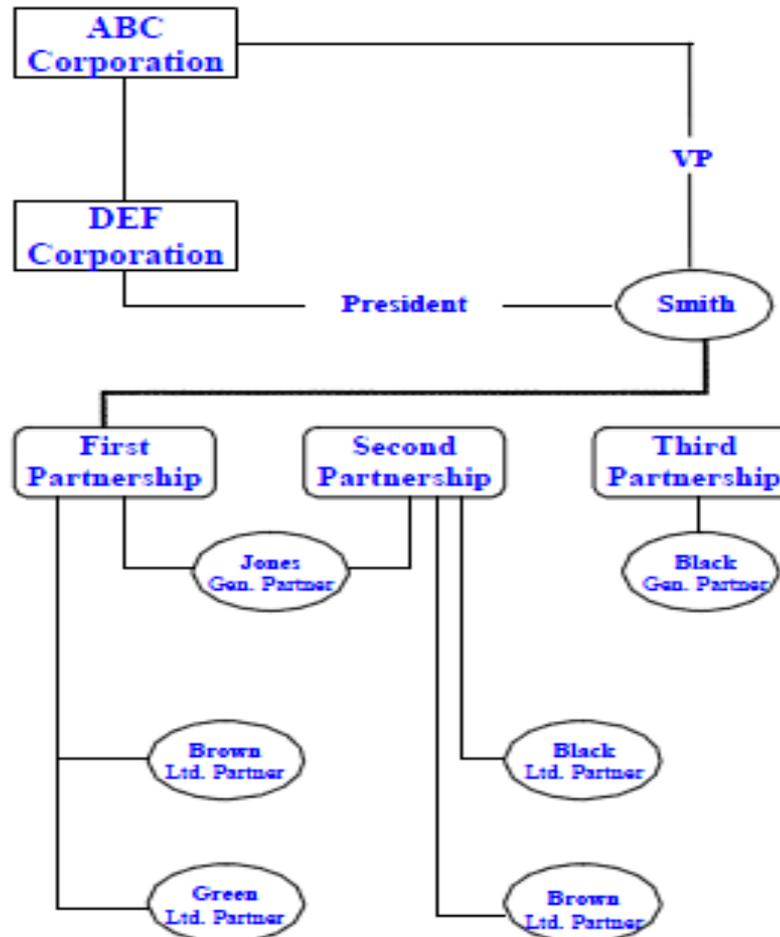
## Visual Aids

# Case Linking

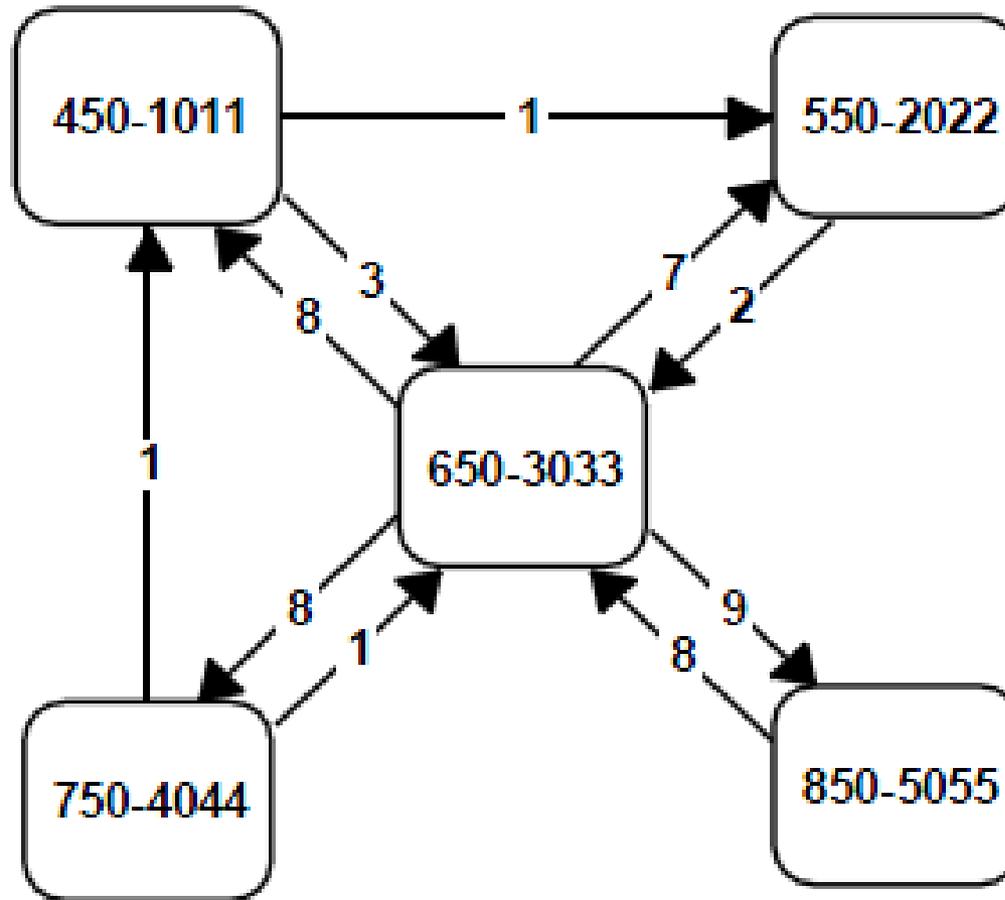


# Link Network Diagram

LINK NETWORK DIAGRAM



# Matrices

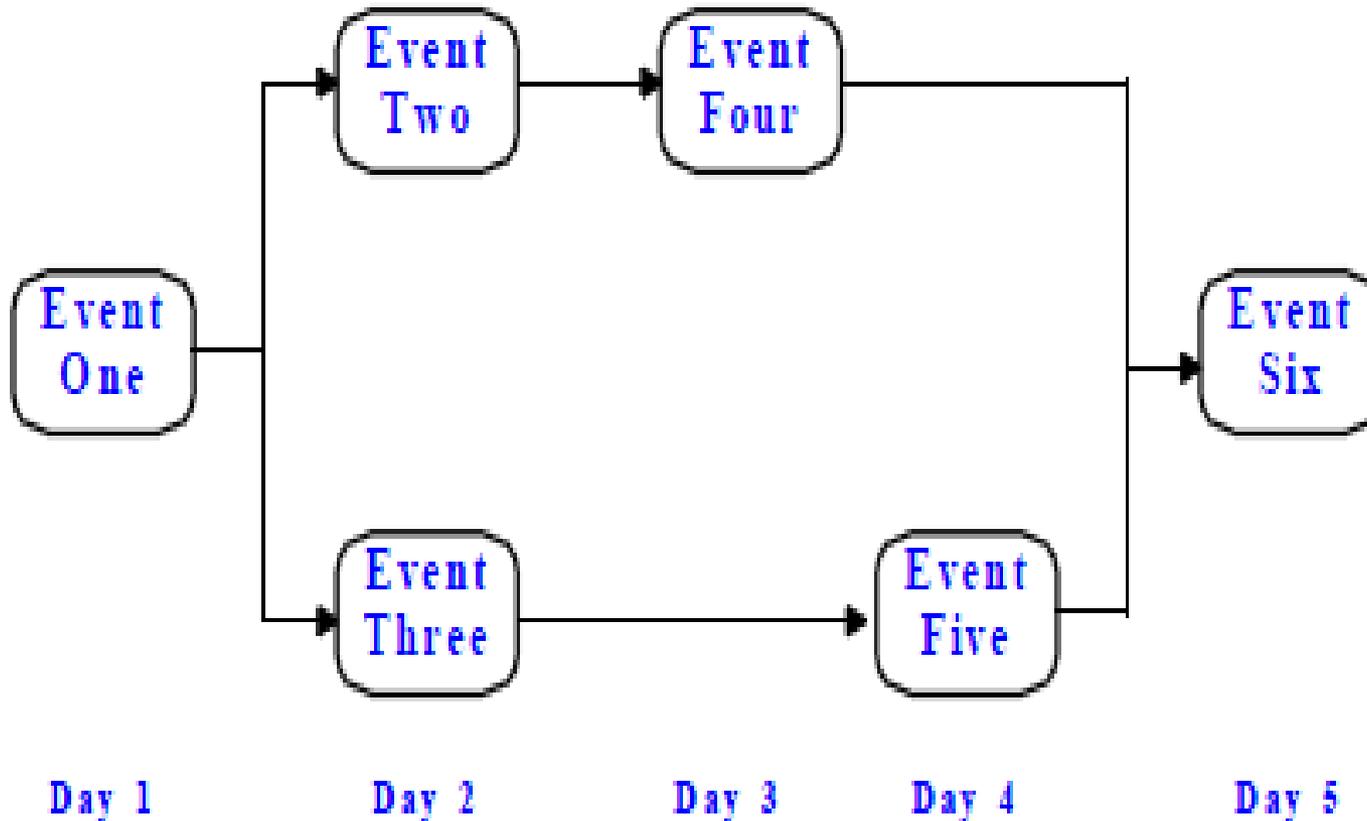


# Matrices

This information also can be represented in chart form.

|                            | 450-1011 | 550-2022 | 650-3033 | 750-4044 | 850-5055 | Total<br>Outgoing<br>Calls |
|----------------------------|----------|----------|----------|----------|----------|----------------------------|
| 450-1011                   | X        | 1        | 3        |          |          | 4                          |
| 550-2022                   |          | X        | 2        |          |          | 2                          |
| 650-3033                   | 8        | 7        | X        | 8        | 9        | 32                         |
| 750-4044                   | 1        |          | 1        | X        |          | 2                          |
| 850-5055                   |          |          | 8        |          | X        | 8                          |
| Total<br>Incoming<br>Calls | 9        | 8        | 14       | 8        | 9        |                            |

# Time Flow Diagrams



# Summary of Witness Statement

## Summary of Evidence

Linda Reed Collins

| <u>Page</u> | <u>Topic</u>                             | <u>Testimony</u>   |
|-------------|--|--------------------|
|             |  |                    |
| 5           | Collins hired 6/1/XX                     | Personnel file     |
| 5           | Collins promoted to Purchaser<br>11/8/XX | Personnel file     |
| 8           | Collins and Jones friends                | Smith interview    |
| 15          | Cheques to Orion                         | Robinson interview |
| 30          | Indebtedness of Collins                  | Public records     |

# Preparing to Testify

❖ Direct Examination

❖ Cross-Examination

## Becoming an Expert Witness

If you act as an expert witness or are planning to do so, [accountingcpd.net](http://accountingcpd.net)'s new course [Becoming an Expert Witness](#) is for you. The course looks at what it takes to be an expert witness and helps you prepare to testify and defend your report and opinion.

This online CPD course helps you:

- Understand what is expected from an expert witness
- Prepare to give evidence in court
- Know how you can qualify as an expert witness
- Understand witness liability

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## Becoming an Expert Witness *by Juan Carlos Venegas*

An expert witness is someone with specialised training and/or experience who is allowed to testify in court to help the judge or jury understand complicated or technical subjects. Expert witnesses should be capable of turning the tables on an opposing lawyer by showing expertise, their command of the facts, and their ability to communicate and defend their opinions.

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This course defines what an expert witness is, what their duties are and helps you to be able to testify and defend your report and opinion.

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### Becoming an Expert Witness enables you to:

- Understand what is expected from an expert witness
- Prepare to give evidence in court
- Know how they can qualify as an expert witness
- Understand witness liability

### Reviews:

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### Learning outcomes

#### Becoming an Expert Witness

- Expert witnesses distinguished from lay witnesses
- What lawyers look for in an expert witness
- Qualifying as an expert witness
- Court-appointed expert witnesses

#### Preparing to testify as an expert witness

- Independence
- Evidence
- Expert reports
- Working papers

#### Testifying as an expert witness

- Preparing to testify
- Testifying at trial

#### Liability of expert witness

**THANK YOU!**