

The significance of large cash holdings among JSE- listed firms

Outline

Cash holdings of SA companies

Data & Method

South African case study: JSE-listed firms

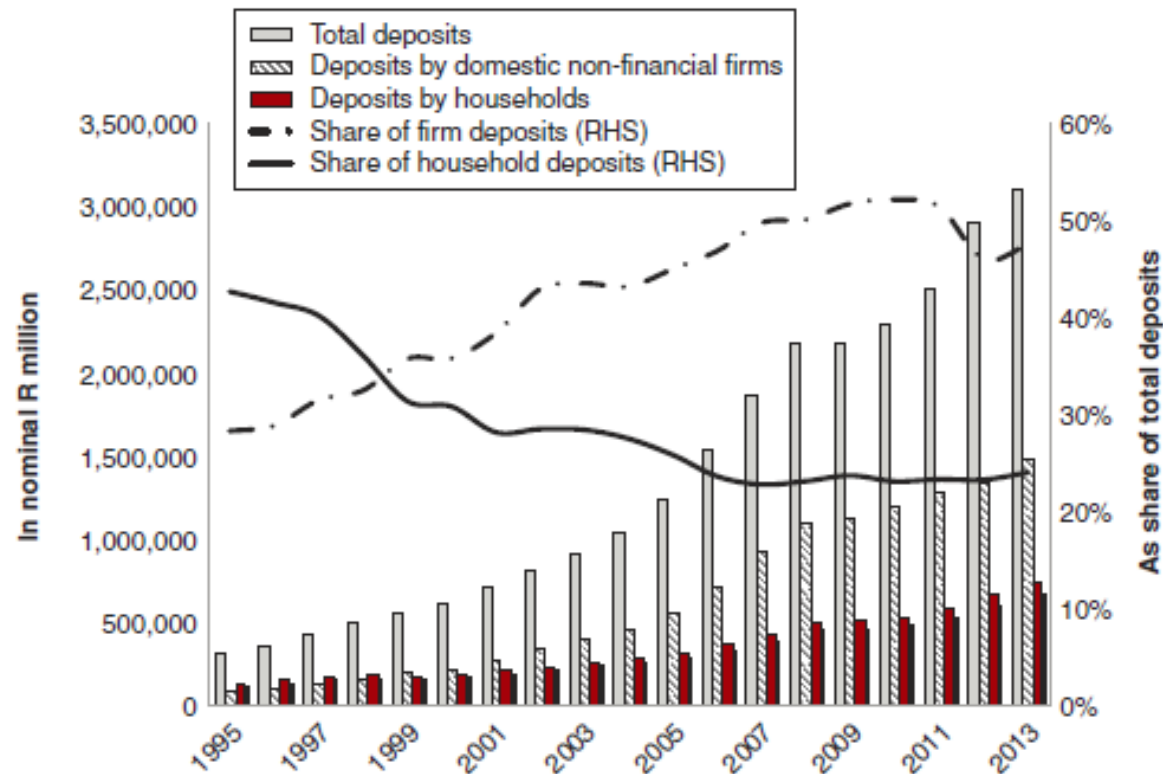
Key findings: M&As and 'real' asset speculation

Relevance for theory and policy

Rising cash holdings

Cash holdings among SA companies have risen

Firm's & household deposits % of total deposits of SA banks



Investment strike (Mbindwane, 2015, Times Live, 2016, COSATU, 2016)

Data: JSE-listed firms

Focus on firms with high cash ratios

$$\text{Cash ratio} = \frac{\text{Cash and cash equivalents}}{\text{Total current liabilities}} \geq 1$$

129 case studies of companies listed 1970-2012

Cash holding companies by sector

Sector	Portion of firms with cash ratio of 1.00%+	Number of firms	Total number of firms
Basic materials	30%	59	194
Consumer goods	5%	11	100
Consumer services	9%	15	175
Healthcare	14%	3	21
Industrials	9%	21	241
Oil & gas	40%	2	5
Technology	23%	17	73
Telecommunications	20%	1	10
Utilities	0%	0	2
Total	16%	129	825

Source: INET BFA,

Note: complete coverage for 1994-2012

Method: Case studies, MCA & Clustering

Comprehensive balance sheet analysis

- Financial statements (balance sheet & cash flow)
- Notes to financial statements
- Annual reports (esp. CEOs & CFOs letters)
- Any other additional (e.g. SENS announcements)

... basis for **multiple correspondence analysis (MCA)**

- Detecting 'underlying' factors

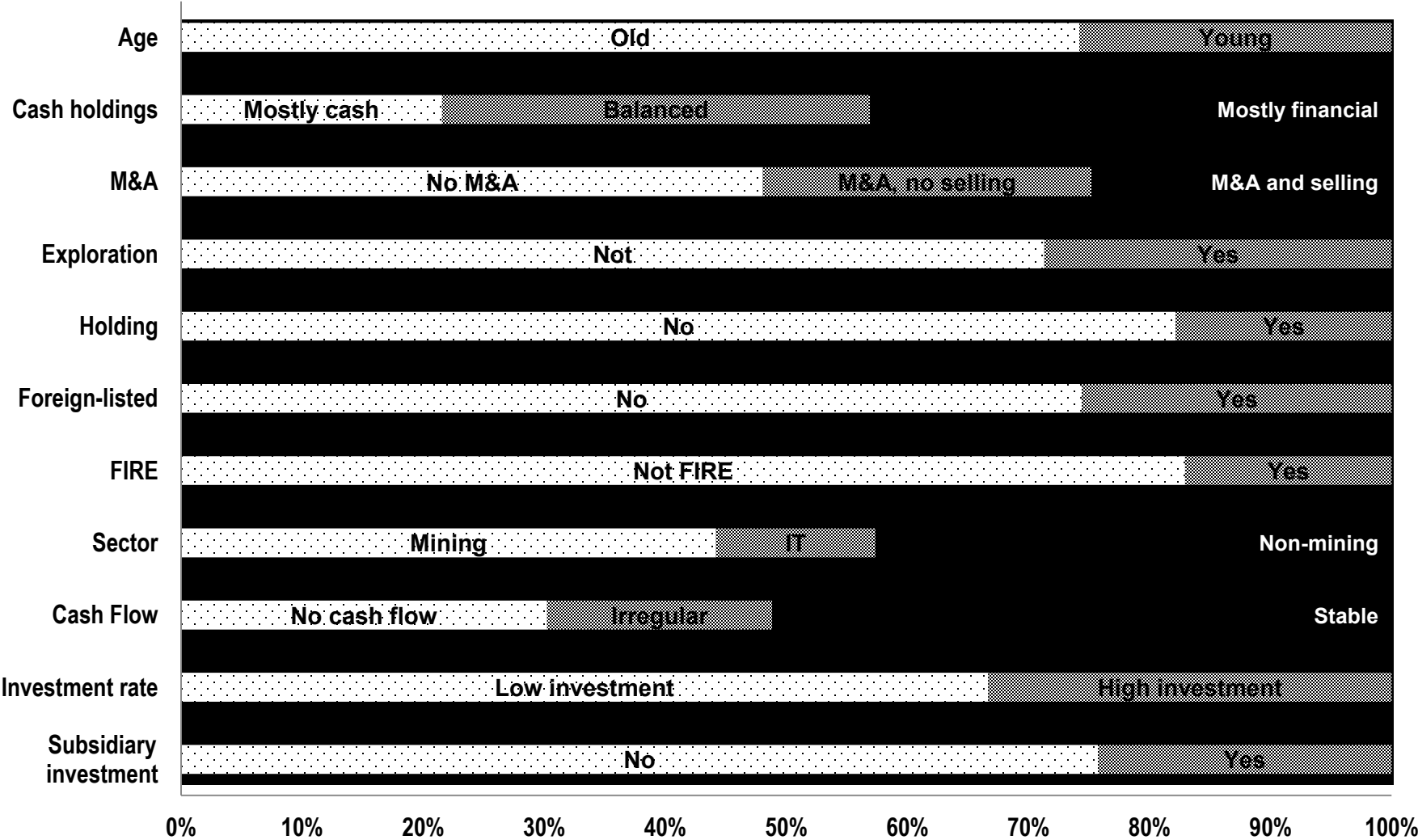
... and for **clustering**

- Identifying groups of homogeneous firms

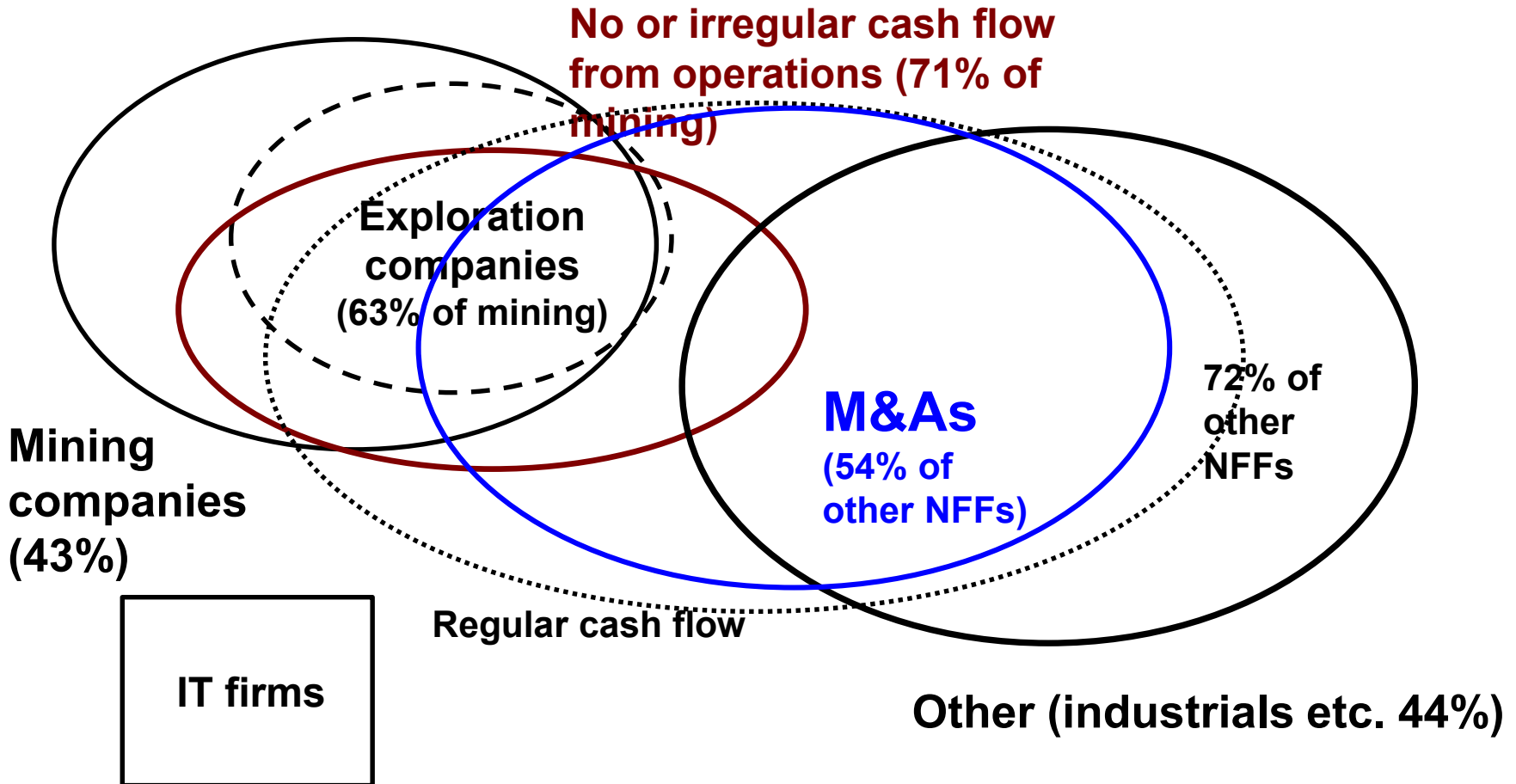
Firm characteristics

- Sector/industry of activity
 - Firm age
 - Regularity of cash flow
 - Diversified holding company
 - Foreign listed
 - Financial investment
 - Involvement in FIRE sector
 - Active M&A strategy (+ subsidiary investment)
 - Investment rates
- General characteristics
- South Africa-specific characteristics
- Variables based on financialisation literature
-
- ```
graph LR; A["Sector/industry of activity
Firm age
Regularity of cash flow"] --- B["General characteristics"]; C["Diversified holding company
Foreign listed
Financial investment
Involvement in FIRE sector
Active M&A strategy (+ subsidiary investment)"] --- D["South Africa-specific characteristics"]; E["Investment rates"] --- F["Variables based on financialisation literature"];
```

# Firm characteristics: 129 JSE-listed NFFs



## Three main drivers of cash holdings

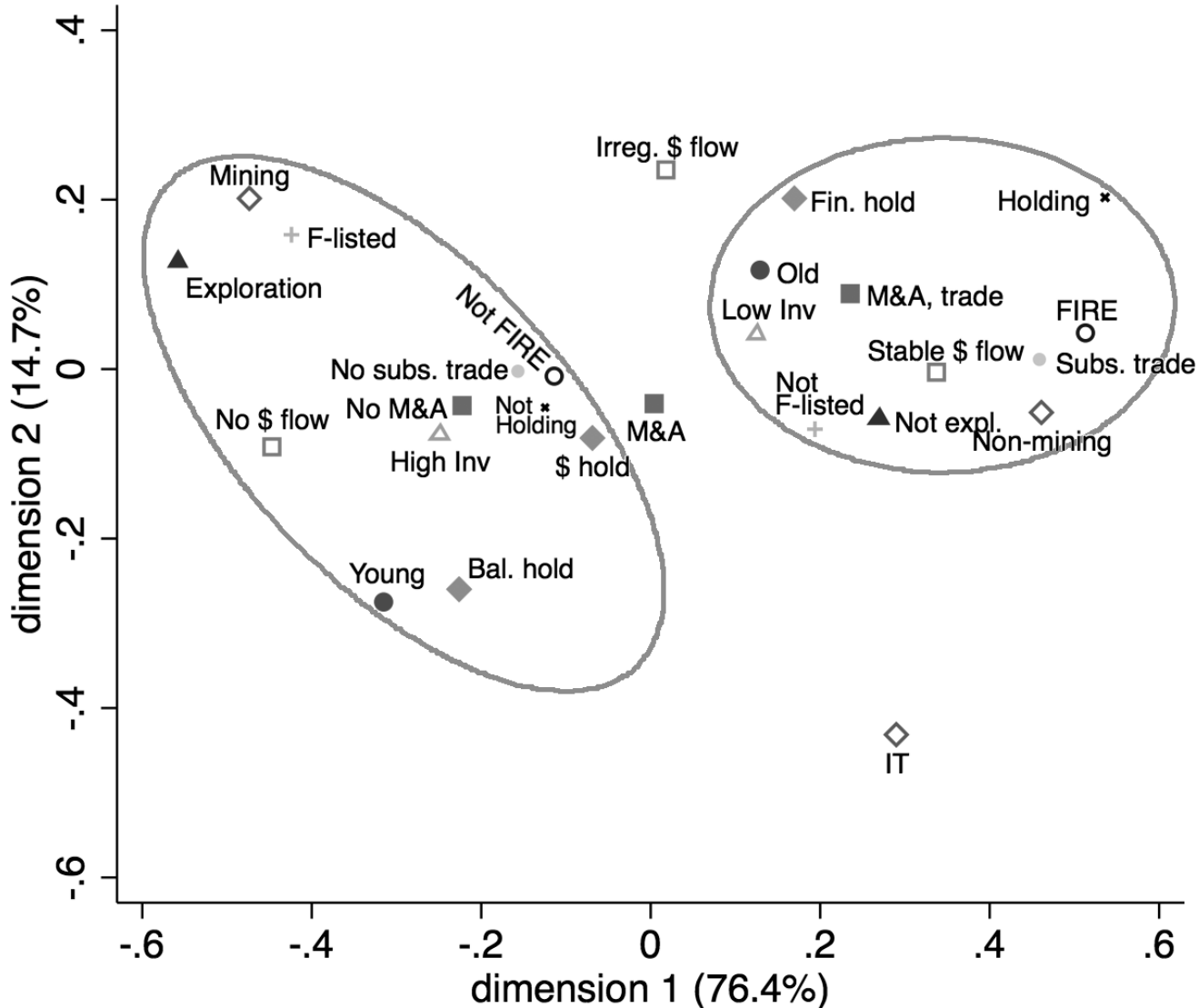


### Miranda Mineral Holding (2008)

"...an exploration company is by nature a consumer of cash, and not particularly fashionable during times when liquidity is tight."



# Results from MCA – ‘cloud’ of the variables



## Results from clustering – Representative firms of each cluster of JSE-listed firms with large cash holdings

| Cluster | Age   | Cash holdings    | M&A             | Explor. | Hold. | Foreign-listed | FIRE | Sector     | Cash Flow        | Inv. rate | Subs. inv. |
|---------|-------|------------------|-----------------|---------|-------|----------------|------|------------|------------------|-----------|------------|
| 1       | Young | Mostly cash      | No M&A          | Yes     | No    | Yes            | No   | Mining     | No cash flow     | High      | No         |
| 2       | Young | Balanced         | M&A and selling | No      | No    | No             | No   | IT         | No cash flow     | High      | No         |
| 3       | Old   | Mostly financial | M&A and selling | No      | Yes   | No             | Yes  | Non-mining | Stable cash flow | Low       | Yes        |

## Case study evidence: M&As & cash holdings

### **UCS Group (1998)**

"Our group has large cash reserves with no borrowings, allowing us to benefit from the current high interest rates as well as giving us the opportunity to consider cash-based acquisitions."

### **Paracon (2000)**

"The balance sheet is strong with cash reserves in excess of R84,6 million, which provides a solid platform for growth and expansion."

### **Mvelaphanda Resources (2004)**

"...your company's R219 million cash position provides significant flexibility for future growth through acquisition and project development."

### **Diamond Corp PLC (2008)**

"We remain on the look-out [for acquisitions] as current markets provide impetus for consolidation and favour those with capital, or access to capital, together with the particular skill set such as ours that can transform a project into a mine."

### **ARB Holding (2011)**

"With an ungeared balance sheet and significant cash resources, the group is well placed to capitalise on the acquisition opportunities which the current economic climate is expected to yield."

## M&As for growth or capital gains?

- 50% of ‘other’ NFFs engaged in M&A activity sell off subsidiaries and/or shares in associate companies.
- Blurred distinction between financial and real investment (UN definition: <10% is portfolio investment, 10%+ FDI)
- This is visible on balance sheets (shift of ‘real’ non-current assets into current assets – for sale)
- **“As you know, a substantial proportion of Lonrho's funds are invested in the capital intensive mining and hotel sectors, both of which are noted more for long term capital appreciation than substantial operating cash flow.” (Lonrho, 1996)**
- Evidence for speculation in ‘real’ assets

## Policy recommendations

How to stimulate discourage cash holdings & stimulate investment

- Taxation of firms' balance sheets/balance sheet growth especially for large firms and financial investment
- Support start-up companies
- Try to stop credit inflation by encouraging firms to hold government bonds

# Results from MCA – 2-dimensional estimation

|                    | Inertia | % of total | Accumulated % of total |
|--------------------|---------|------------|------------------------|
| <b>Dimension 1</b> | 0.081   | 76.42      | 76.42                  |
| <b>Dimension 2</b> | 0.016   | 14.73      | 91.15                  |
| <b>Total</b>       | 0.106   | 100.0      | 100.0                  |

| Variable              | Category             | Overall |         |                      | 1st dimension |              |              | 2nd dimension |              |              |
|-----------------------|----------------------|---------|---------|----------------------|---------------|--------------|--------------|---------------|--------------|--------------|
|                       |                      | Mass    | Quality | Inertia (% of total) | Coordinate    | Sq. corr.    | Contribution | Coordinate    | Sq. corr.    | Contribution |
| Age                   | Old                  | 0.064   | 0.944   | 0.020                | 0.460         | 0.531        | 0.014        | <b>0.924</b>  | <b>0.413</b> | <b>0.055</b> |
|                       | Young                | 0.027   | 0.944   | 0.047                | -1.101        | 0.531        | 0.032        | <b>-2.212</b> | <b>0.413</b> | <b>0.131</b> |
| Cash holdings         | Mostly cash          | 0.019   | 0.214   | 0.010                | -0.239        | 0.086        | 0.001        | -0.668        | 0.129        | 0.009        |
|                       | Balanced             | 0.028   | 0.881   | 0.035                | -0.785        | 0.375        | 0.017        | <b>-2.080</b> | <b>0.506</b> | <b>0.120</b> |
|                       | Mostly financial     | 0.044   | 0.975   | 0.029                | 0.599         | 0.410        | 0.016        | <b>1.602</b>  | <b>0.565</b> | <b>0.113</b> |
| M&A                   | No M&A               | 0.033   | 0.712   | 0.022                | -0.778        | 0.685        | 0.020        | -0.351        | 0.027        | 0.004        |
|                       | M&A, no selling      | 0.029   | 0.057   | 0.008                | 0.022         | 0.001        | 0.000        | -0.334        | 0.056        | 0.003        |
|                       | M&A and selling      | 0.030   | 0.781   | 0.023                | 0.832         | 0.686        | 0.021        | 0.708         | 0.096        | 0.015        |
| Exploration           | Not exploration      | 0.061   | 0.975   | 0.045                | <b>0.948</b>  | <b>0.928</b> | <b>0.055</b> | -0.483        | 0.047        | 0.014        |
|                       | Exploration          | 0.030   | 0.975   | 0.094                | <b>-1.957</b> | <b>0.928</b> | <b>0.114</b> | 0.998         | 0.047        | 0.030        |
| Holding               | Not holding          | 0.074   | 0.861   | 0.014                | -0.440        | 0.755        | 0.014        | -0.376        | 0.106        | 0.010        |
|                       | Holding              | 0.017   | 0.861   | 0.062                | <b>1.884</b>  | <b>0.755</b> | <b>0.061</b> | <b>1.607</b>  | <b>0.106</b> | <b>0.044</b> |
| Foreign-listed        | Not foreign-listed   | 0.062   | 0.962   | 0.026                | 0.686         | 0.846        | 0.029        | -0.580        | 0.116        | 0.021        |
|                       | Foreign-listed       | 0.029   | 0.962   | 0.057                | <b>-1.486</b> | <b>0.846</b> | <b>0.063</b> | <b>1.256</b>  | <b>0.116</b> | <b>0.045</b> |
| FIRE                  | Not FIRE             | 0.075   | 0.887   | 0.010                | -0.394        | 0.882        | 0.012        | -0.070        | 0.005        | 0.000        |
|                       | FIRE                 | 0.016   | 0.887   | 0.046                | <b>1.808</b>  | <b>0.882</b> | <b>0.053</b> | 0.322         | 0.005        | 0.002        |
| Sector                | Mining               | 0.042   | 0.994   | 0.105                | <b>-1.660</b> | <b>0.844</b> | <b>0.116</b> | <b>1.596</b>  | <b>0.150</b> | <b>0.107</b> |
|                       | IT                   | 0.015   | 0.879   | 0.045                | 1.020         | 0.273        | 0.016        | <b>-3.463</b> | <b>0.606</b> | <b>0.184</b> |
|                       | Non-mining           | 0.033   | 0.945   | 0.072                | <b>1.621</b>  | <b>0.933</b> | <b>0.088</b> | -0.423        | 0.012        | 0.006        |
| Cash Flow             | No cash flow         | 0.033   | 0.961   | 0.068                | <b>-1.562</b> | <b>0.920</b> | <b>0.082</b> | -0.750        | 0.041        | 0.019        |
|                       | Irregular cash flow  | 0.014   | 0.787   | 0.009                | 0.069         | 0.006        | 0.000        | <b>1.865</b>  | <b>0.781</b> | <b>0.050</b> |
|                       | Stable cash flow     | 0.043   | 0.971   | 0.048                | <b>1.192</b>  | <b>0.971</b> | <b>0.061</b> | -0.038        | 0.000        | 0.000        |
| Investment rate       | Low inv.             | 0.060   | 0.907   | 0.011                | 0.442         | 0.826        | 0.012        | 0.315         | 0.081        | 0.006        |
|                       | High inv.            | 0.031   | 0.907   | 0.021                | -0.871        | 0.826        | 0.023        | -0.620        | 0.081        | 0.012        |
| Subsidiary investment | No subsidiary inv.   | 0.068   | 0.855   | 0.018                | -0.546        | 0.855        | 0.020        | -0.026        | 0.000        | 0.000        |
|                       | Inv. in subsidiaries | 0.023   | 0.855   | 0.054                | <b>1.616</b>  | <b>0.855</b> | <b>0.060</b> | 0.076         | 0.000        | 0.000        |

## Results from clustering – Distribution of variables by clusters of JSE-listed firms with large cash holdings

| Variable             | Category         | Frequency (percentage in cluster)<br>percentage in category |                    |                    |                   |
|----------------------|------------------|-------------------------------------------------------------|--------------------|--------------------|-------------------|
|                      |                  | Cluster                                                     |                    |                    | Total             |
|                      |                  | 1                                                           | 2                  | 3                  |                   |
| <b>Age</b>           | Young            | 13 (32%)<br>46%                                             | 15 (88%)<br>54%    | 0 (0%)<br>0%       | 28 (29%)<br>100%  |
| <b>Cash holdings</b> | Mostly cash      | 10 (24%)<br>50%                                             | 4 (24%)<br>20%     | 6 (16%)<br>30%     | 20 (21%)<br>100%  |
|                      | Balanced         | 11 (27%)<br>38%                                             | 12 (71%)<br>41%    | 6 (16%)<br>21%     | 29 (31%)<br>100%  |
|                      | Mostly financial | 20 (49%)<br>43%                                             | 1 (6%)<br>2%       | 25 (68%)<br>54%    | 46 (48%)<br>100%  |
| <b>M&amp;A</b>       | No M&A           | 21 (51%)<br>62%                                             | 6 (35%)<br>18%     | 7 (19%)<br>21%     | 34 (36%)<br>100%  |
|                      | M&A, no selling  | 12 (29%)<br>40%                                             | 4 (24%)<br>13%     | 14 (38%)<br>47%    | 30 (32%)<br>100%  |
|                      | M&A and selling  | 8 (20%)<br>26%                                              | 7 (41%)<br>23%     | 16 (43%)<br>52%    | 31 (33%)<br>100%  |
| <b>Exploration</b>   | Yes              | 29 (71%)<br>94%                                             | 2 (12%)<br>6%      | 0 (0%)<br>0%       | 31 (33%)<br>100%  |
| <b>Holding</b>       | Yes              | 1 (2%)<br>6%                                                | 2 (12%)<br>11%     | 15 (41%)<br>83%    | 18 (19%)<br>100%  |
| <b>Total</b>         |                  | 41 (43%)<br>(100%)                                          | 17 (18%)<br>(100%) | 37 (39%)<br>(100%) | 95 (100%)<br>100% |

| Variable                     | Category            | Frequency (percentage in cluster)<br>percentage in category |                    |                    |                   |
|------------------------------|---------------------|-------------------------------------------------------------|--------------------|--------------------|-------------------|
|                              |                     | Cluster                                                     |                    |                    | Total             |
|                              |                     | 1                                                           | 2                  | 3                  |                   |
| <b>Foreign-listed</b>        | Yes                 | 26 (63%)<br>87%                                             | 0 (0%)<br>0%       | 4 (11%)<br>13%     | 30 (32%)<br>100%  |
| <b>FIRE</b>                  | Yes                 | 0 (0%)<br>0%                                                | 2 (12%)<br>12%     | 15 (41%)<br>88%    | 17 (18%)<br>100%  |
| <b>Sector</b>                | Mining              | 40 (98%)<br>91%                                             | 1 (6%)<br>2%       | 3 (8%)<br>7%       | 44 (46%)<br>100%  |
|                              | IT                  | 0 (0%)<br>0%                                                | 11 (65%)<br>69%    | 5 (14%)<br>31%     | 16 (17%)<br>100%  |
|                              | Non-mining          | 1 (2%)<br>3%                                                | 5 (29%)<br>14%     | 29 (78%)<br>83%    | 35 (37%)<br>100%  |
| <b>Cash Flow</b>             | No cash flow        | 25 (61%)<br>71%                                             | 8 (47%)<br>23%     | 2 (5%)<br>6%       | 35 (37%)<br>100%  |
|                              | Irregular cash flow | 10 (24%)<br>67%                                             | 2 (12%)<br>13%     | 3 (8%)<br>20%      | 15 (16%)<br>100%  |
|                              | Stable cash flow    | 6 (15%)<br>13%                                              | 7 (41%)<br>16%     | 32 (86%)<br>71%    | 45 (47%)<br>100%  |
| <b>Investment rate</b>       | High                | 17 (41%)<br>53%                                             | 10 (59%)<br>31%    | 5 (14%)<br>16%     | 32 (34%)<br>100%  |
| <b>Subsidiary investment</b> | Yes                 | 2 (5%)<br>8%                                                | 3 (18%)<br>13%     | 19 (51%)<br>79%    | 24 (25%)<br>100%  |
| <b>Total</b>                 |                     | 41 (43%)<br>(100%)                                          | 17 (18%)<br>(100%) | 37 (39%)<br>(100%) | 95 (100%)<br>100% |

## Clustering validation – silhouette graph for goodness-of-fit of the clusters

