



## Who's on Board?

### Tracking discretionary buying and selling by Insiders throughout the year

As an end of year wrap, we have collated data for the miners under our coverage to track when directors and management bought and sold their companies' shares voluntarily throughout 2015. Who is putting their money where their mouth is?

### KAZ, S32, AAL most active buyers; RRS, FXPO, RIO most active sellers

Kaz Minerals tops the leader board for the highest number of discretionary purchases, net of sales, with nine throughout 2015. The top three buyers were Kaz (9), South32 (8) and Anglo American (7). The top three sellers were Randgold (-2), Ferrexpo (-1) and Rio Tinto (-1). Of the big four miners, Anglo's directors made the most net purchases (7), followed by Glencore (5), BHP (1) and Rio was a net seller (-1). 2H15 was much busier than 1H15 with a total of 19 net purchases in 3Q15 (driven by 11 at Glencore), followed by a further 12 in 4Q15. There were no insider transactions at Acacia Mining, Antofagasta, Fresnillo, Lonmin and Nyrstar.

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#### Top picks

Acacia Mining plc (ACAA.L),GBP167.20	Buy
Rio Tinto (RIO.L),GBP1,863.00	Buy
Randgold (RRS.L),GBP4,068.00	Buy

Source: Deutsche Bank

#### Companies Featured

Anglo American (AAL.L),GBP280.50	Hold
Acacia Mining plc (ACAA.L),GBP167.20	Buy
Antofagasta PLC (ANTO.L),GBP425.20	Hold
Aquarius Platinum (AQP.L),GBP11.00	Buy
BHP Billiton Plc (BLT.L),GBP716.70	Hold
Boliden AB (BOL.ST),SEK137.40	Buy
Fresnillo (FRES.L),GBP671.50	Hold
Ferrexpo Plc (FXPO.L),GBP18.50	Buy
Glencore (GLEN.L),GBP83.05	Buy
KAZ Minerals (KAZ.L),GBP92.00	Buy
Lonmin Plc (LMI.L),GBP65.50	Sell
Norsk Hydro (NHY.OL),NOK31.43	Hold
Rio Tinto (RIO.L),GBP1,863.00	Buy
Randgold (RRS.L),GBP4,068.00	Buy
South32 (S32.L),GBP49.25	Buy
Vedanta Resources (VED.L),GBP263.00	Sell

Source: Deutsche Bank

Figure 1: Number of Insider transactions throughout 2015

	Total net number of purchases	Number of net transactions			
		1Q15	2Q15	3Q15	4Q15
Kaz Minerals	9		4		5
South32	8			4	5
Anglo American	7	2		2	3
Glencore	5	-1	-6	11	1
Boliden	4	2	1		1
Aquarius Platinum	2	1	1		
BHP Billiton	1			1	
Norsk Hydro	1		1		
Vedanta	1	3		-1	-1
Rio Tinto	-1	-2		2	-1
Ferrexpo	-1				-1
Randgold	-2		-2		
<b>Total</b>	<b>34</b>	<b>5</b>	<b>-1</b>	<b>19</b>	<b>12</b>
<i>Buys</i>		8	7	20	15
<i>Sells</i>		-3	-8	-1	-3

Source: Company data; Deutsche Bank



# The believers

## Who is more action than talk?

As an end of year wrap, we have collated data for the miners under our coverage to track when directors and management bought and sold their companies' shares voluntarily throughout 2015. We have not included transactions involving (i) vesting of shares or options, (ii) sales to cover tax obligations linked to share/option vesting, (iii) purchases under monthly share schemes, (iv) shares issued in lieu of director fees.

### Kaz Minerals most frequent buyer, Randgold most frequent seller

Kaz Minerals tops the leader board for the highest number of discretionary purchases, net of sales, with nine throughout 2015. The top three buyers were Kaz (9) , South32 (8) and Anglo American (7). The top three sellers were Randgold (-2), Ferrexpo (-1) and Rio Tinto (-1). Of the big four miners, Anglo's directors made the most net purchases (7), followed by Glencore (5), BHP (1) and Rio was a net seller (-1). There were no insider transactions at Acacia Mining, Antofagasta, Fresnillo, Lonmin and Nyrstar.

Figure 2: Net number of discretionary purchase transactions throughout 2015

	No of purchase transactions	No of sale transactions	Net number of purchase transactions
Kaz Minerals	9		9
South32	8		8
Anglo American	7		7
Glencore	12	7	5
Boliden	5	1	4
Aquarius Platinum	2		2
BHP Billiton	1		1
Norsk Hydro	1		1
Vedanta	3	2	1
Rio Tinto	3	4	-1
Ferrexpo		1	-1
Randgold		2	-2

Source: Deutsche Bank, Company data



### Buying picked up pace in 3Q15

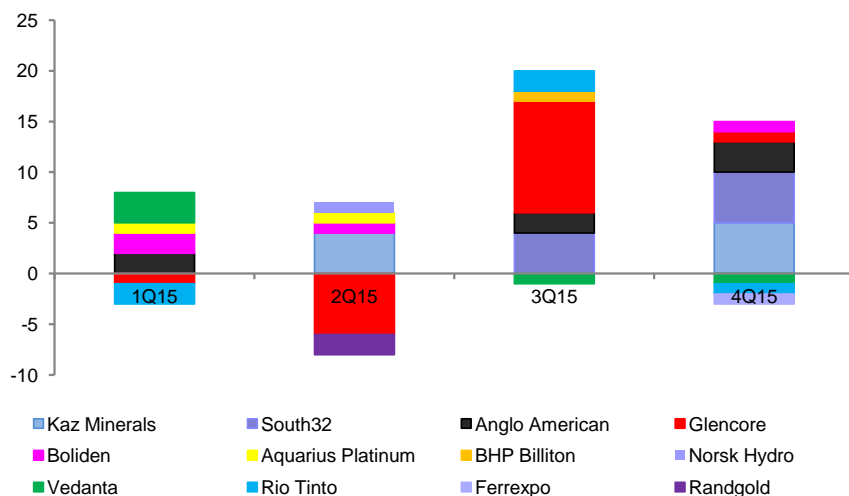
2H15 was much busier than 1H15 with a total of 19 net purchases in 3Q15 (driven by 11 at Glencore), followed by a further 12 in 4Q15.

Figure 3: A busy 2H15

	Number of net transactions			
	1Q15	2Q15	3Q15	4Q15
Kaz Minerals		4		5
South32			4	5
Anglo American	2		2	3
Glencore	-1	-6	11	1
Boliden	2	1		1
Aquarius Platinum	1	1		
BHP Billiton			1	
Norsk Hydro		1		
Vedanta	3		-1	-1
Rio Tinto	-2		2	-1
Ferrexpo				-1
Randgold		-2		
<b>Total</b>	<b>5</b>	<b>-1</b>	<b>19</b>	<b>12</b>
Buys	8	7	20	15
Sells	-3	-8	-1	-3

Source: Deutsche Bank, Company data

Figure 4: Buying picked up from 3Q15



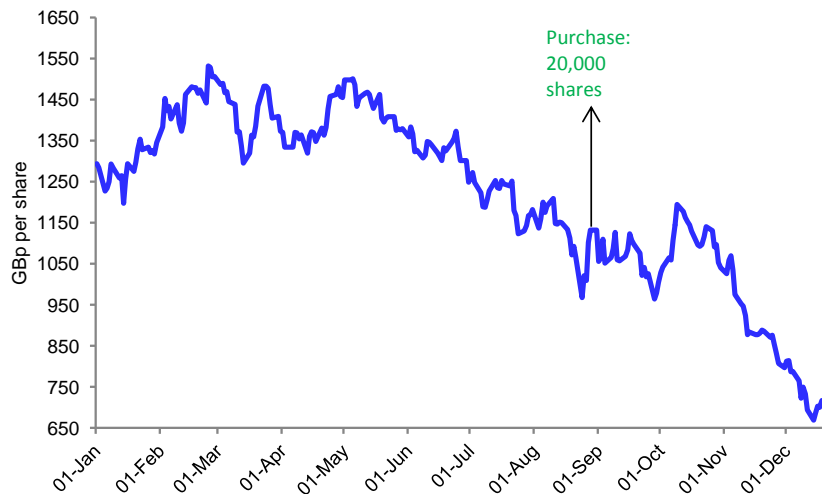
Source: Deutsche Bank, Company data



## Detailed transaction information by company

### BHP Billiton: Net buyer

Figure 5: A net US\$333k shares bought in 2015



Source: Deutsche Bank, DataStream

Figure 6: BHP Billiton: Director/PDMR dealings

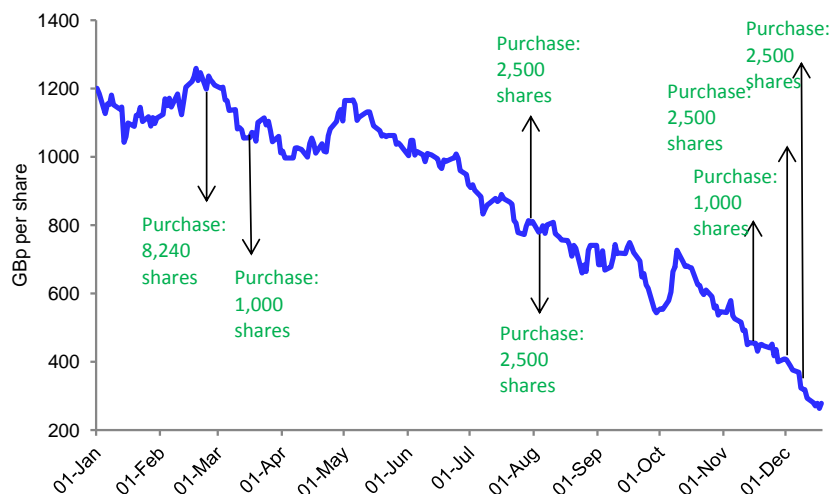
Date	Person	Position	No of shares bought	No of shares sold	Price (Proceeds)/cost	Comments	CCY	FX	USD
28/08/2015	M Brinded	Ind. NED	20,000		10.86	217,200	GBP	1.54	333,478

Source: Company data



Anglo American: Net buyer

Figure 7: A net US\$226k shares bought in 2015



Source: Deutsche Bank, DataStream

Figure 8: Anglo American: Director/PDMR dealings

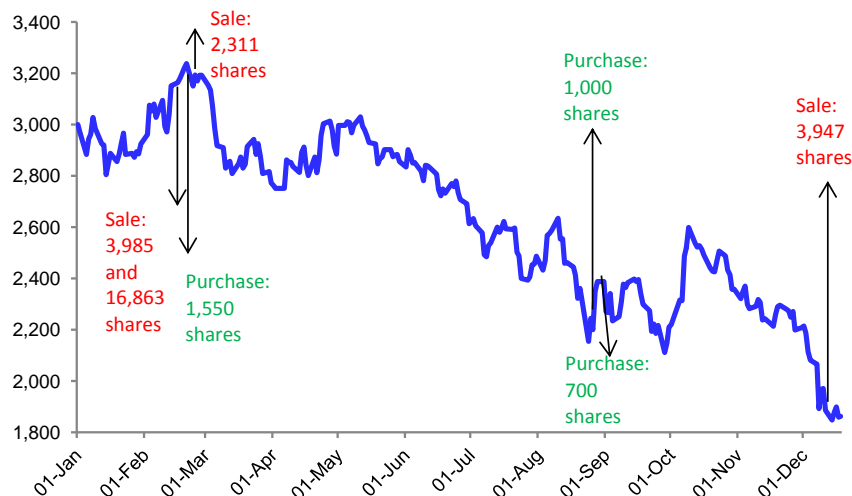
Date	Person	Position	No of shares bought	No of shares sold	Price	(Proceeds)/cost	Comments	CCY	FX	USD
20/11/2015	B Grote	Ind. NED	2,500		3.39	8,475	Bought as 5000 ADRs	USD		8,475
19/11/2015	B Grote	Ind. NED	2,500		3.44	8,600	Bought as 5000 ADRs	USD		8,600
11/11/2015	C Griffith	Wife of Mr Griffith, CEO of Amplats	1,000		116.32	116,320		ZAR	14.2	8,196
30/07/2015	B Grote	Ind. NED	2,500		6.25	15,625	Bought as 5000 ADRs	USD		15,625
29/07/2015	B Grote	Ind. NED	2,500		6.30	15,750	Bought as 5000 ADRs	USD		15,750
11/03/2015	C Griffith	Wife of Mr Griffith, CEO of Amplats	1,000		201	201,000		ZAR	12	16,371
16/02/2015	Sir J Parker	Chairman	8,240		12.14	100,034		GBP	1.5	153,842

Source: Company data



Rio Tinto: Net seller

Figure 9: A net US\$1.098m shares sold in 2015



Source: Deutsche Bank, DataStream

Figure 10: Rio Tinto: Director/PDMR dealings

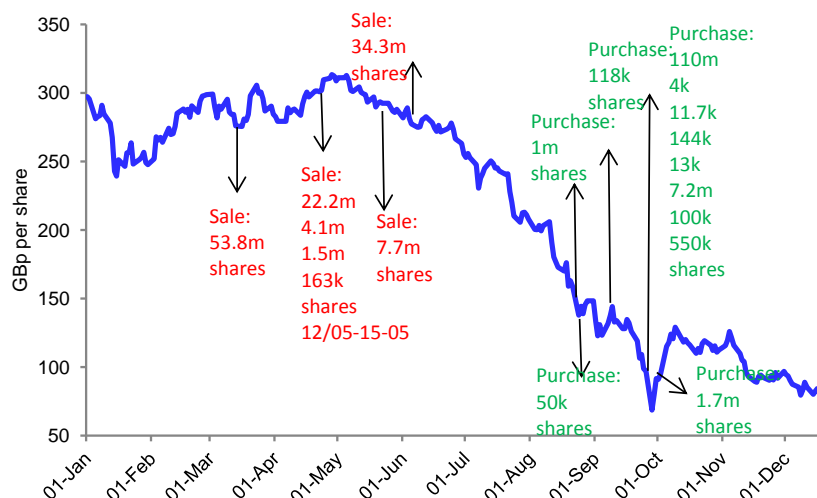
Date	Person	Position	No of shares bought	No of shares sold	Price	(Proceeds)/cost	Comments	CCY	FX	USD
15/12/2015	D Valentine	Group exec - Legal and Regulatory		(3,947)	18.88	(74,506)		GBP	1.50	(112,110)
28/08/2015	M L'Estrange	Ind. NED	700		50.93	35,651		AUD	1.40	25,498
27/08/2015	M Clark	Ind. NED	1,000		47.90	47,900		AUD	1.40	34,220
20/02/2015	A Davies	Chief exec - Diamonds and Minerals		(2,311)	63.98	(147,858)		AUD	1.28	(115,787)
18/02/2015	M Clark	Ind. NED	1,550		64.08	99,324		AUD	1.28	77,403
17/02/2015	H Bague	Group exec - Organisational Resources		(16,863)	31.30	(527,812)	Sold all shares vesting from incentive plan	GBP	1.53	(809,452)
17/02/2015	G Lilleyman	Group exec - Technology and Innovation		(3,985)	63.91	(254,678)		AUD	1.28	(198,712)

Source: Company data



Glencore: Net seller

Figure 11: A net US\$245m shares sold in 2015



Source: Deutsche Bank, DataStream

Figure 12: Glencore: Director/PDMR dealings

Date	Person	Position	No of shares bought	No of shares sold	Price	(Proceeds)/cost	Comments	CCY	FX	USD
01/10/2015	W Macaulay	Ind. NED	1,700,000		0.91	1,545,317		GBP	1.42	2,191,785
29/09/2015	J Mack	Ind. NED	550,000		0.81	444,290		GBP	1.43	633,749
30/09/2015	A Hayward	Chairman	100,000		0.91	90,890		GBP	1.42	129,426
16/09/2015	S Kalmin	CFO	7,200,128		1.25	9,000,160		GBP	1.39	12,513,282
16/09/2015	A Hayward	Chairman	13,165		1.25	16,456		GBP	1.39	22,880
16/09/2015	P Coates	Ind. NED	144,014		1.25	180,018		GBP	1.39	250,286
16/09/2015	P Grauer	Senior Ind. NED	11,792		1.25	14,740		GBP	1.39	20,494
16/09/2015	P Merrin	Ind. NED	3,997		1.25	4,996		GBP	1.39	6,946
16/09/2015	I Glasenberg	CEO	110,109,098		1.25	137,636,373		GBP	1.39	191,361,354
02/09/2015	P Grauer	Senior Ind. NED	118,000		1.35	158,710		GBP	1.43	226,551
20/08/2015	J Mack	Independent NED	50,000		1.63	81,450		GBP	1.36	110,990
19/08/2015	S Kalmin	CFO	1,000,000		1.73	1,729,000		GBP	1.37	2,360,725
01/06/2015	Connected person of W Macaulay	Ind. NED		(34,347,695)	2.78	(95,538,114)		GBP	1.31	(125,460,651)
27/05/2015	Connected person of W Macaulay	Ind. NED		(7,724,183)	2.87	(22,206,254)		GBP	1.30	(28,788,853)
15/05/2015	Connected person of W Macaulay	Ind. NED		(163,004)	3.01	(490,805)		GBP	1.24	(609,433)
14/05/2015	Connected person of W Macaulay	Ind. NED		(1,499,095)	3.01	(4,512,276)		GBP	1.24	(5,582,768)
13/05/2015	Connected person of W Macaulay	Ind. NED		(4,139,740)	3.02	(12,481,316)		GBP	1.23	(15,412,803)
12/05/2015	Connected person of W Macaulay	Ind. NED		(22,172,511)	3.02	(66,872,293)		GBP	1.25	(83,826,426)
06/03/2015	W Macaulay	Ind. NED		(53,756,571)	2.82	(151,453,763)		GBP	1.29	(195,879,695)

Source: Company data



Randgold: Net seller

Figure 13: A net US\$3m shares sold in 2015



Source: Deutsche Bank, DataStream

Figure 14: Randgold: Director/PDMR dealings

Date	Person	Position	No of shares bought	No of shares sold	Price	(Proceeds)/cost	Comments	CCY	FX	USD
15/05/2015	M Bristow	CEO		(40,000)	48.32	(1,932,800)		GBP	1.24	(2,399,958)
18/05/2015	G Shuttleworth	CFO		(10,000)	49.31	(493,100)		GBP	1.25	(615,759)

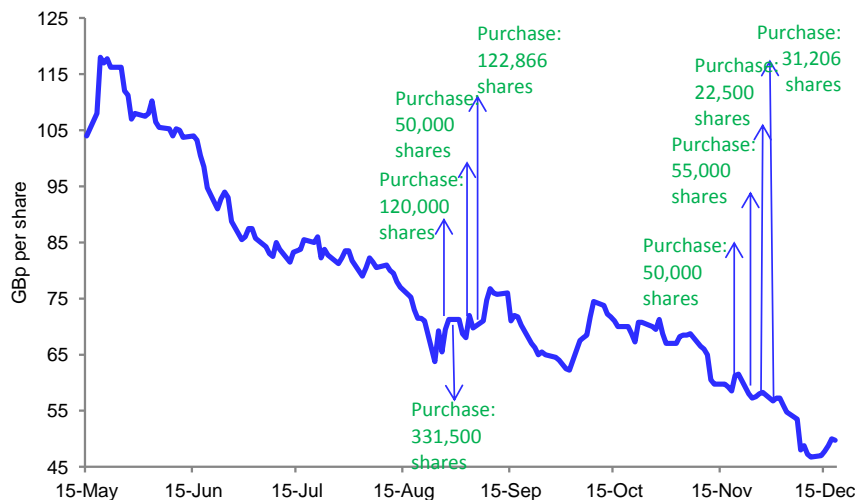
Source: Company data





South32: Net buyer

Figure 15: A net US\$1.06m shares bought in 2015



Source: Deutsche Bank, DataStream

Figure 16: South32: Director/PDMR dealings

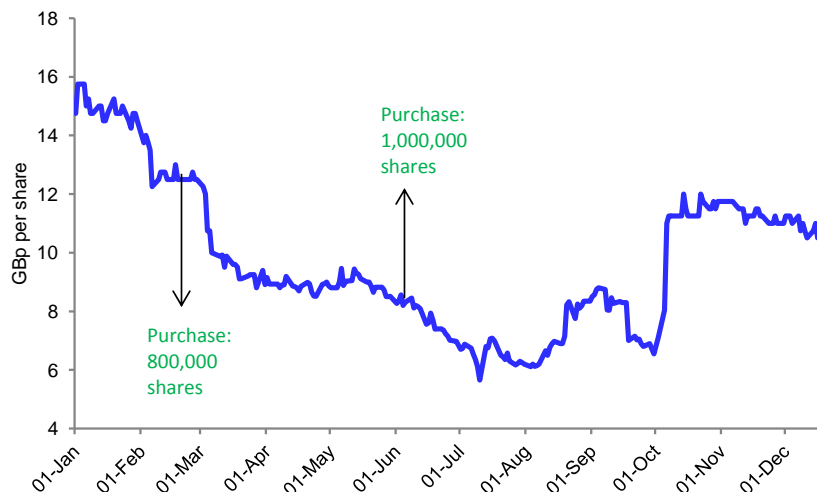
Date	Person	Position	No of shares bought	No of shares sold	Price	(Proceeds)/cost	Comments	CCY	FX	USD
25/11/2015	N Mtoba	Ind. NED	31,206		12.10	377,593		ZAR	14.16	26,664
20/11/2015	P Kukielski	Ind. NED	22,500		4.67	105,075	Bought as 4500 ADRs	USD		105,075
19/11/2015	K Rumble	Ind. NED	55,000		1.28	70,400		AUD	1.39	50,699
18/11/2015	P Kukielski	Ind. NED	50,000		4.34	217,000	Bought as 10000 ADRs	USD		217,000
02/09/2015	F Cooper	Ind. NED	122,866		1.46	179,995		AUD	1.43	126,095
01/09/2015	K Rumble	Ind. NED	50,000		0.70	34,750		GBP	1.53	53,258
27/08/2015	D Crawford	Chairman	331,500		1.49	495,037		AUD	1.40	353,654
26/08/2015	W Osborn	Ind. NED	120,000		1.49	179,100		AUD	1.41	127,260

Source: Company data



**Aquarius Platinum: Net buyer**

Figure 17: A net US\$291k shares bought in 2015



Source: Deutsche Bank, DataStream

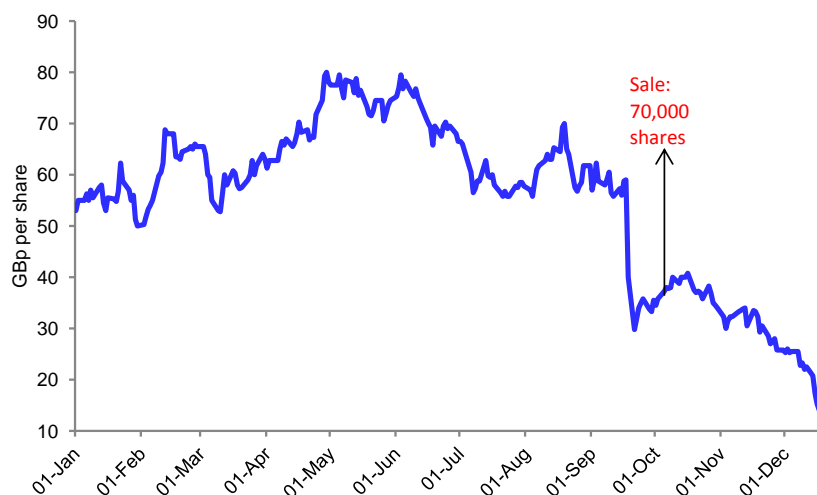
**Figure 18: Aquarius Platinum: Director/PDMR dealings**

Date	Person	Position	No of shares bought	No of shares sold	Price	(Proceeds)/cost	Comments	CCY	FX	USD
02/06/2015	Sir N Rudd	Ind. NED	1,000,000		0.09	85,800		GBP	1.53	131,492
19/02/2015	Sir N Rudd	Ind. NED	800,000		0.13	103,680		GBP	1.54	160,082

Source: Company data

**Ferrexpo: Net seller**

Figure 19: A net US\$39k shares sold in 2015



Source: Deutsche Bank, DataStream

**Figure 20: Ferrexpo: Director/PDMR dealings**

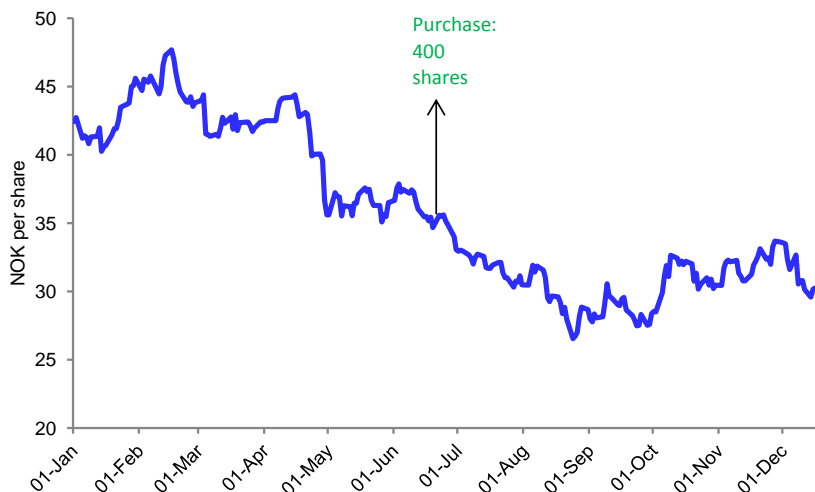
Date	Person	Position	No of shares bought	No of shares sold	Price	(Proceeds)/cost	Comments	CCY	FX	USD
05/10/2015	J Keys	Head of Marketing		(70,000)	0.37	(25,550)		GBP	1.52	(38,777)

Source: Company data



Norsk Hydro: Net buyer

Figure 21: A net US\$1.8k shares bought in 2015



Source: Deutsche Bank, DataStream

Figure 22: Norsk Hydro: Director/PDMR dealings

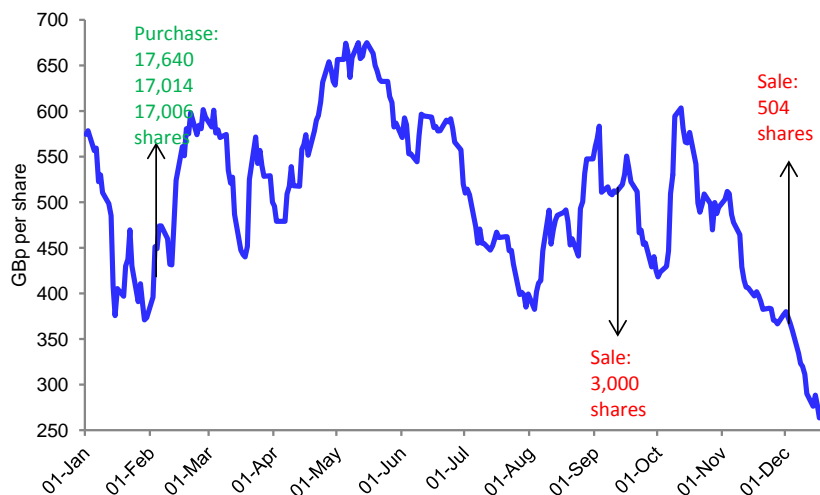
Date	Person	Position	No of shares bought	No of shares sold	Price (Proceeds)/cost	Comments	CCY	FX	USD	
18/06/2015	A-L Midseim	Executive VP of CSR and General Counsel	400		35.31	14,124	Bought by A Midseim's husband	NOK	7.76	1,820

Source: Company data



Vedanta: Net buyer

Figure 23: A net US\$332k shares bought in 2015



Source: Deutsche Bank, DataStream

Figure 24: Vedanta: Director/PDMR dealings

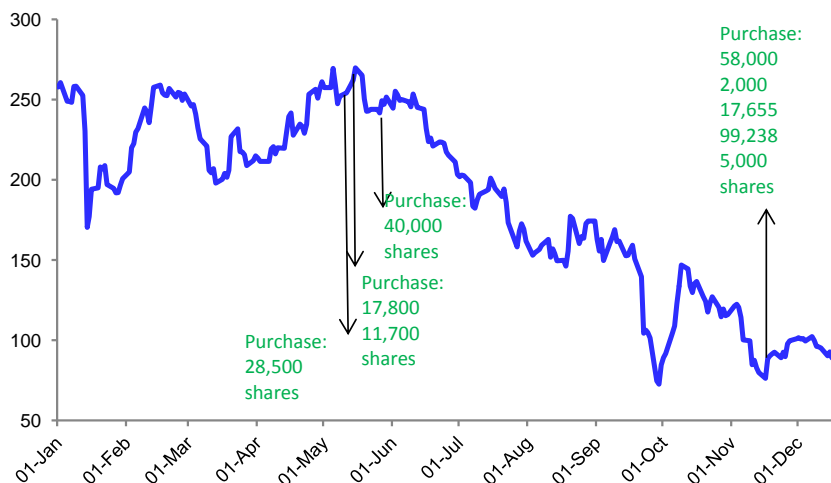
Date	Person	Position	No of shares bought	No of shares sold	Price	(Proceeds)/cost	Comments	CCY	FX	USD
26/11/2015	D Kumar	Company Secretary		(504)	3.69	(1,860)		GBP	1.51	(2,813)
03/09/2015	D Golani	Director, Management assurance and IT		(3,000)	5.84	(17,520)		GBP	1.52	(26,676)
04/02/2015	N Agarwal	Chairman Vedanta Ltd	17,640		4.50	79,327	Held by Annanya Agarwal	GBP	1.52	120,688
04/02/2015	N Agarwal	Chairman Vedanta Ltd	17,006		4.66	79,290	Held by Naivedya Agarwal	GBP	1.52	120,633
04/02/2015	N Agarwal	Chairman Vedanta Ltd	17,014		4.66	79,328	Held by Ruchira Agarwal	GBP	1.52	120,689

Source: Company data



Kaz Minerals: Net buyer

Figure 25: A net US\$615k shares bought in 2015



Source: Deutsche Bank, DataStream

Figure 26: Kaz Minerals: Director/PDMR dealings

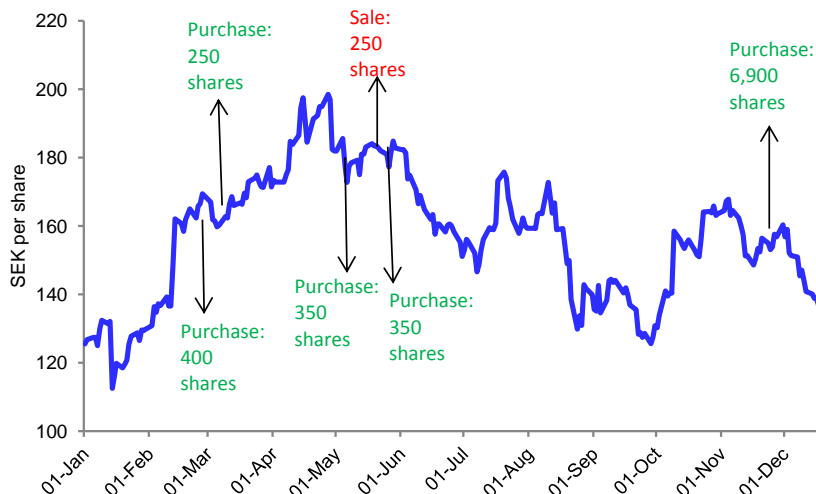
Date	Person	Position	No of shares bought	No of shares sold	Price	(Proceeds)/cost	Comments	CCY	FX	USD
18/11/2015	S Heale	Chairman	58,000		0.82	47,459		GBP	1.52	72,184
18/11/2015	S Heale	Chairman	2,000		0.82	1,637	Held by Catriona Heale	GBP	1.52	2,489
18/11/2015	S Heale	Chairman	17,655		0.84	14,912	Held by Agi Heale Chadda	GBP	1.52	22,682
18/11/2015	A Southam	CFO	99,238		0.80	79,588		GBP	1.52	121,053
18/11/2015	J Mackenzie	Ind. NED	5,000		0.83	4,155		GBP	1.52	6,320
22/05/2015	S Heale	Chairman	40,000		2.48	99,100		GBP	1.55	153,629
13/05/2015	S Heale	Chairman	17,800		2.57	45,744		GBP	1.57	71,937
13/05/2015	S Heale	Chairman	11,700		2.57	30,068	Held by Catriona Heale	GBP	1.57	47,284
12/05/2015	S Heale	Chairman	28,500		2.62	74,742		GBP	1.57	117,072

Source: Company data



Boliden: Net buyer

Figure 27: A net US\$149k shares bought in 2015



Source: Deutsche Bank, DataStream

Figure 28: Boliden: Director/PDMR dealings

Date	Person	Position	No of shares bought	No of shares sold	Price	(Proceeds)/cost	Comments	CCY	FX	USD
30/11/2015	T Erixon	Ind.NED	6,900		160.30	1,106,070		SEK	8.72	126,826
04/06/2015	K Konradsson	President Boliden Smelters	350		173.70	60,795		SEK	8.24	7,374
01/06/2015	H Ostberg	Head of Human Resources		(250)	182.30	(45,575)		SEK	8.59	(5,308)
12/05/2015	K Konradsson	President Boliden Smelters	350		175.00	61,250		SEK	8.30	7,383
26/03/2015	H Ostberg	Head of Human Resources	250		171.50	42,875		SEK	8.56	5,011
03/03/2015	M Staffas	CEO and Acting Director Boliden Mines	400		161.80	64,720		SEK	8.28	7,818

Source: Company data



# Appendix 1

## Important Disclosures

Additional information available upon request

\*Prices are current as of the end of the previous trading session unless otherwise indicated and are sourced from local exchanges via Reuters, Bloomberg and other vendors . Other information is sourced from Deutsche Bank, subject companies, and other sources. For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at <http://gm.db.com/ger/disclosure/DisclosureDirectory.eqsr>

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The views expressed in this report accurately reflect the personal views of the undersigned lead analyst about the subject issuers and the securities of those issuers. In addition, the undersigned lead analyst has not and will not receive any compensation for providing a specific recommendation or view in this report. Rob Clifford/Anna Mulholland

### Equity rating key

**Buy:** Based on a current 12- month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus pro-jected dividend yield ) , we recommend that investors buy the stock.

**Sell:** Based on a current 12-month view of total share-holder return, we recommend that investors sell the stock

**Hold:** We take a neutral view on the stock 12-months out and, based on this time horizon, do not recommend either a Buy or Sell.

Notes:

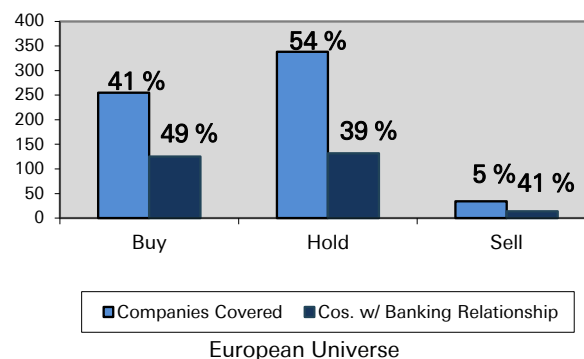
1. Newly issued research recommendations and target prices always supersede previously published research.
2. Ratings definitions prior to 27 January, 2007 were:

Buy: Expected total return (including dividends) of 10% or more over a 12-month period

Hold: Expected total return (including dividends) between -10% and 10% over a 12-month period

Sell: Expected total return (including dividends) of -10% or worse over a 12-month period

### Equity rating dispersion and banking relationships



## Regulatory Disclosures

### 1. Important Additional Conflict Disclosures

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