

Private Equity with Public Debt

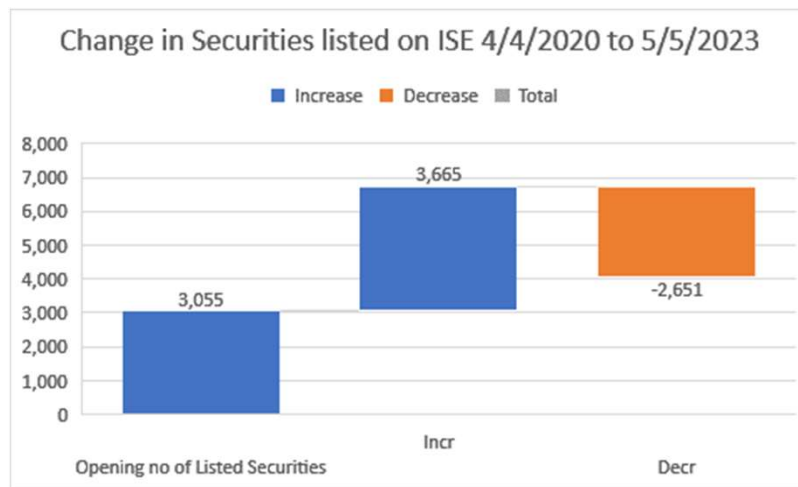
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Motivating facts

- UK Mid-Market Private Equity (PE)-owned and -controlled companies issue a large and growing number of debt securities on The International Stock Exchange (ISE) in the Channel Islands.
- They do this to avoid withholding tax for LPs
- These debt securities never trade and are usually held by the PE funds themselves.
- It provides a unique window into the finer details of the structures and terms used in mid-market PE and the magnitude of their effects on alignment and returns

Motivating fact



- Private Equity (PE)-owned and -controlled companies issue a large and growing number of debt securities on the The International Stock Exchange (ISE) in the Channel Islands.
 - **Of the below issued by UK companies, 38% are debt securities issued by SPVs linked to U.K. PE-controlled companies.**
 - **Median issue size \$80m.**
 - **These debt securities never trade and are usually held by the PE funds themselves.**

Research questions

- What can we learn about the economic tradeoffs at play from analyzing this corporate financial arrangement?
- In particular:
 - does leverage both yield tax benefits and keep management in check (Jensen & Meckling 1976)? Or is there a tradeoff?
- PE fund returns are protected on the downside by the cash flow from loan stock PIK interest
 - Can this practice shed light on the source of the returns reported in the literature?
- What effect does this have on the agency and alignment arguments seen in the literature?
- How is regulatory arbitrage used, and who benefits?
- Why ISE, why not Lux/ BVI / etc?
 - Does this happen elsewhere? If not, why not?
- What other implications follow?

(Why) is that interesting?

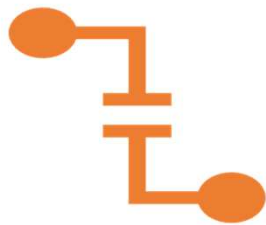
Vigorous public debate about the value the PE industry brings to society

- Tax avoidance a private benefit, but not necessarily a social benefit
- Managing agency problems a social benefit, potentially at least
- Are there unique advantages to PE vs Public Companies, or not?
- PE outperforms public companies – does this contribute?
- Higher Equity has been reported in the literature and linked to agency issues. Is this right or is there more to it?

Regulatory arbitrage?

- International competition for resources between both Fund managers and capital markets
- Clearly a direct cost of issuance
- Who makes the rules on whose behalf?
- Whether socially desirable a question beyond our analysis, but documentation necessary to inform a debate

What do we do to answer the question?



Manually link two data sets

- ISE Securities List –UK Companies (59% of market)
- UK Companies House Controlling Party Data



Examine interest charged on the loans from the PE Funds to their investee companies.

Compare them to other listed loans from non-PE backed companies.

Examine the wider opportunities created by the structures



Analyze effect on rates of return / gearing; management incentives and other opportunities that are created by the structures seen.

A Word on Definitions

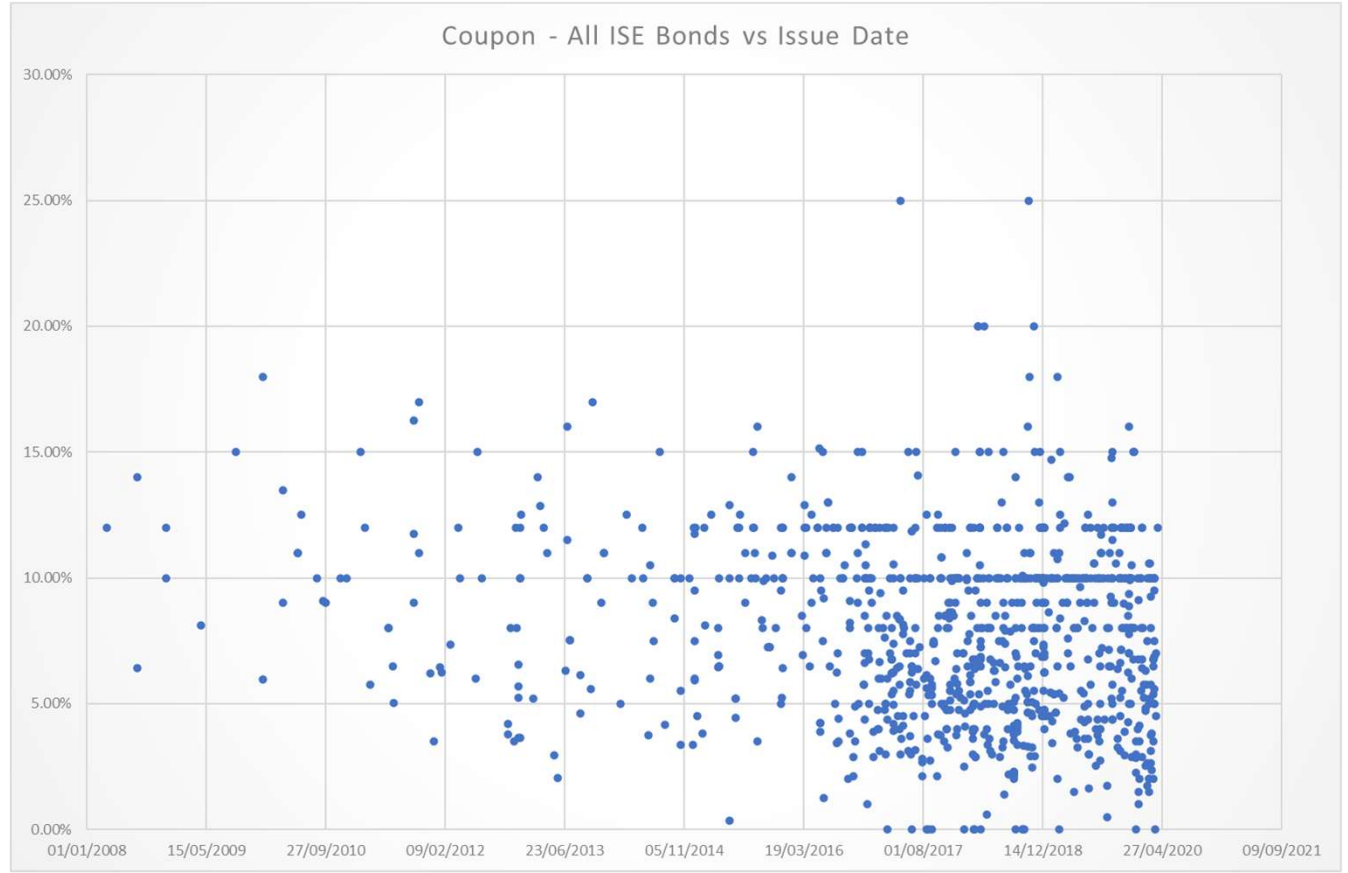
- Alternative Asset Managers
 - Private Equity
 - BVCA Members
 - Others
 - Infrastructure
 - Real estate,
 - Private Debt
 - etc

	No of Securities	Capital Outstanding April 2020
Not Alt Asset	670	162,413
Alt Asset	1,137	107,185
BVCA	702	62,344
PE	662	55,523
PE Infrastructure	40	6,822
Others	435	44,840
Canadian Model	17	3,891
Irish Quoted PE	3	1,860
PE	86	4,522
PE Infrastructure	210	29,841
pe real Estate	5	128
Private Debt	104	3,517
Secondary PE Infrstructure Fund	1	281
UK Corporate	5	647
US VC	2	56
VC	2	98
Grand Total	1,807	269,597

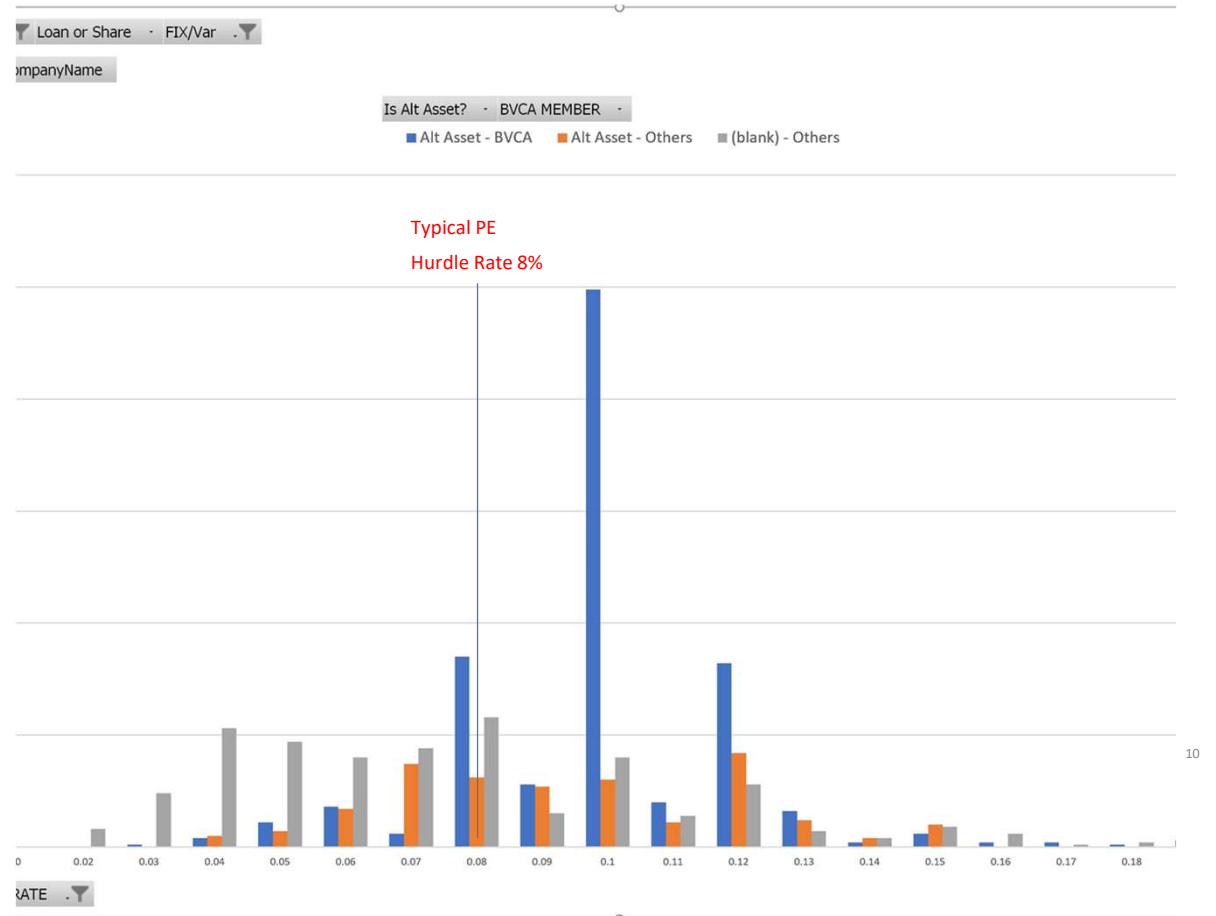
Ownership & Definitions

- Definitions Used
 - Alternative Asset includes:
 - PE (744)
 - BVCA Members (662)
 - PE Infrastructure (250)
 - BVCA Members (40)
 - PE Real Estate (5)
 - Private Debt (104)
 - VC (4)
 - Others (30)

The ISE Bond
Data Cloud –
Date of Issue (X)
vs
Interest Rate
charged (Y)



ISE Interest Rate Frequency Distribution PE vs non-PE



ISE Interest Rate Frequency Distribution PE vs non-PE

- Companies backed by PE investors predominantly issue debt with interest costs of 8-12%.
 - The modal rate is 10%
 - Most are PIK Loans accruing but not paying interest
- This debt is held by the PE fund.
- This preferred return is higher than the hurdle rate in most PE funds (8.0%)
- Therefore, most UK PE investments are structured to achieve the fund hurdle rate, at the expense of other shareholders (management).
- Obviously gives downside protection.
- Unavailable to public companies.



Who are the Sponsors behind these Companies?



What do we find (cont'd)

DOWNSIDE PROTECTION COMES
AT THE EXPENSE OF HIGHER
TAXATION FOR THE GP
(INCOME VS DEFERRED CAPITAL
GAINS)

INCREASES PRESSURE ON
MANAGEMENT TO EXIT EARLY →
GREATER DISCIPLINING EFFECT

MANAGERS INCUR A **TAX COST** TO
IMPROVE GOVERNANCE
(MANAGE MANAGERIAL AGENCY
CONFLICTS) AND PROTECT
RETURNS ON THE DOWNSIDE.
TRADE-OFF RATHER THAN WIN-
WIN!

Taxation of Carried Interest

01

Carried interest is 20% of total return to LPs once the hurdle is earned

- Includes all interest, fees, dividends and capital gains

02

Interest is taxed as Income,
Capital taxed as capital

03

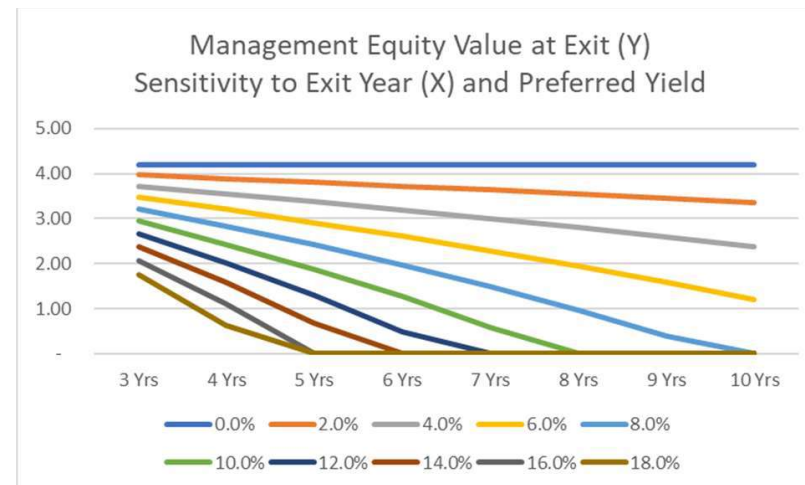
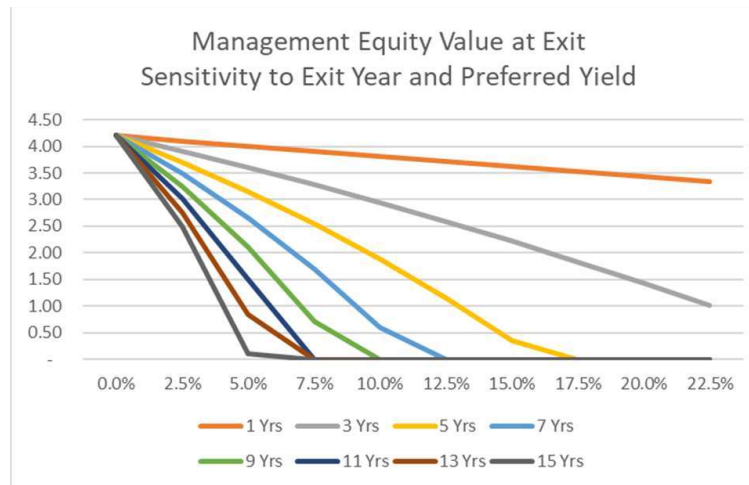
Loan stock increases the proportion of interest earned

04

This increases the tax paid by UK individuals earning Carry

- Also allows Non-UK partners to hold interest offshore outside the UK tax regime

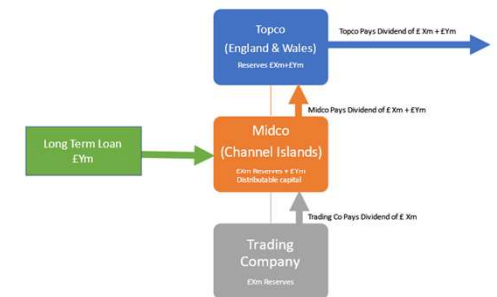
Pressure on management to exit, Quickly



- PIK Loans accrue and compound interest. At the rates seen in the data this rapidly absorbs increased Equity Value. Management's equity value falls to zero rapidly at high rates of interest.
- This amplifies the effects of the third-party leverage in UK mid-market LBOs.
- This contrasts with the findings of

Other Benefits – Dividend Recapitalization

- Loan stock is repayable out of cashflow, not distributable reserves. This eases repayment from refinancings.
- Furthermore, proceeds from long term capital (inc long term debt) raised are distributable in Channel Islands (unlike UK)
- Therefore, managers can borrow in Channel Islands Midco, creating distributable reserves in Midco, dividend proceeds to Topco, creating reserves in Topco, and pay dividend to the fund limited only by the borrowing capacity of the group, not the distributable reserves
- This accelerates distribution of future profits and increases returns.
- This is a unique benefit to private over public companies' owners
 - Public co.s need consolidated distributable reserves to pay a dividend.
 - See also: Financing payouts, (Farre-Mensa, Michaely & Schmalz, JFQA R&R, 2023) -- U.S. public companies raise most of the distributions to shareholders in debt markets



Effect of Recaps on Time Weighted Returns

- PE funds can refinance equity loans using genuine third party loans in successful investments.
- Had they invested pure equity or any other form of share capital they would require distributable reserves to redeem their equity risk.
- Loanstock therefore has an additional advantage to UK PE firms not available in the jurisdictions using liquidation preference to leverage equity returns.
- This enables recaps that increase time weighted returns as measured by IRR.

<u>Exit Year 5 at 2 X Entry EV</u>			
<u>Equity Gearing</u>		<u>Pre-Recap</u>	<u>Post-Recap</u>
EV	£m	80.0	80.0
Less:			
bank Loans	£m	20.0	45.3
PE Loan	£m	19.0	-
Accrued Interest @ 10% on PE Loan	£m	11.6	-
	£m	50.6	45.3
Equity Value	£m	<u>29.4</u>	<u>34.7</u>
PE	£m	23.5	27.8
Management	£m	5.9	6.9
Equity Value	£m	<u>29.4</u>	<u>34.7</u>

<u>Recap/exit Assumptions</u>			
<u>Recap Year</u>	Yr		3
Loanstock PIK Rate	%		10%
Exit Year	Yr		5

Year	Yr	0	1	2	3	4	5
No Recap	£m	20.0	-	-	-	-	54.1
IRR	%	22.0%					
Profit	£m	34.1					

Year	Yr	0	1	2	3	4	5
RECAP	£m	20.0	-	-	25.3	-	27.8
IRR	%	28.2%					
Profit	£m	33.1					

Summary

- UK Mid-market PE firms use loan stock to gear equity
- The use of ISE reduces the cost of withholding tax to LPs at a minimum cost vis-à-vis other potential listed solutions.
- This gives downside protection and a preferred return to the fund
 - The preferred return exceeds the hurdle rate
 - Management is under time pressure to achieve an exit
- This happens despite interest being taxed as at a higher rate than capital gains, which increases the tax paid by carried interest recipients.
- Channel Islands also allows distribution of capital more easily than other jurisdictions. This increases the amount that can be paid out in a dividend recapitalization vis-à-vis other jurisdictions.
- The Fund therefore earns returns that are lower risk and received earlier than would be the case in other structures and jurisdictions.
- There are multiple agency conflicts in the system and it is not clear that the fund structures and reward mechanisms are socially optimal.
 - In particular, using IRR as a hurdle rate creates conflicts between LPs and GPs over refinancing.
 - PIK Loanstock creates conflicts between managers and the fund where there are exogenous shocks, such as the pandemic, GFC, Ukrainian War, Dot Com crash etc.

Appendices

- Population Characteristics
- Issuers
- Issues
- ISIN & Liquidity
- UK Subset
- Types of Issuers
- Capital Flows
- Issue Dates
- Maturity Wall
 - PE vs Non PE
- Capital Repayments & Drawdowns
- Interest Rate Frequency Distribution

ISE Population Characteristics

	No of Securities	Capital Outstanding April 2020 \$m
Loan	2,730	515,908
Shares	284	970
Units	37	-
Warrants	3	-
Grand Total	3,054	516,878

- 3,054 securities with a face value of \$517bn were listed on ISE in April 2020
- 89% of securities are corporate debt or bonds
- 98% are denominated in GBP/EUR/USD by both number and value

ISE Population Characteristics - Issuers

	No of Securities	Capital Outstanding April 2020
Loan	2,730	515,908
Bond	41	7,822
Closed Ended Investment Vehicle	12	-
Corporate Debt	116	54,943
Special Purpose Vehicle	2,561	453,143
Shares	284	970
Bond	1	4
Closed Ended Investment Vehicle	100	0
Equity	9	275
Investment Company	1	-
Open Ended Investment Vehicle	127	0
Special Purpose Vehicle	46	690
Units	37	-
Closed Ended Investment Vehicle	6	-
Open Ended Investment Vehicle	31	-
Warrants	3	-
Closed Ended Investment Vehicle	2	-
Corporate Debt	1	-
Grand Total	3,054	516,878

- Most securities issued are loans by Special Purpose Vehicles.
- SPVs which are Intermediate Companies Issuing Securities (Topcos and Midcos etc)
- Value data is at cost, not market value



Issuers versus Issues

No of Securities Issued	No of Issuers		No of Securities	
Over 5	49	2.7%	530	17.3%
3 to 5	165	9.3%	607	19.9%
2	356	20.0%	712	23.5%
1	1205	67.9%	1,205	39.5%
Total	1,775	100.0%	3,054	100.0%

- Some issuers issue multiple securities
- The issuer is the legal entity, not the parent or group.
- Therefore the number of issuers (1,775) is materially lower than number of issues (3,054), and;
- The number of enterprises issuing, defined broadly, is lower than the number of issuers.
- Furthermore, the UHC or controlling mind, again differs from the issuer or issuing enterprise, especially in institutionally controlled companies, such as PE investments.
- Therefore, in order to identify ultimate control, you need to closely examine the ownership structure of the issuer, and its wider group.

Illiquidity & ISIN Numbers

	No of Securities	Capital Outstanding April 2020 \$m
No ISIN Number	2,433	441,891
AE	2	-
BE	1	357
BM	1	0
CA	1	300
GB	82	6,251
GG	143	362
IE	13	7,003
IM	3	0
IT	2	262
JE	63	-
KY	50	53
LU	2	-
NO	2	186
US	49	9,530
VG	1	0
XS	206	50,682
Grand Total	3,054	516,878

- We do not have volume or trading data by security.
- ISIN numbers are unique identifiers to allow clearing between exchanges. In Europe (but not America) there are requirements to have an ISIN number where securities are cleared on EU (or mainland UK) exchanges.
- The first two digits are country identifiers. XS is a category available to companies that do not identify with a particular country.
- 80% by number and 85% by value of securities issued do not have ISINs. They therefore cannot be traded in a clearing system.
- The data therefore points to low levels of liquidity in the market. We examine this more closely later.

The UK Subset of ISE Data

Row Labels	No of Securities	Capital Outstanding April 2020
Australia	1	421
Bahamas	6	1,104
Belgium	3	856
Bermuda	13	6,473
British Virgin Islands	20	2,146
Canada	7	8,268
Cayman Islands	135	32,412
Czech Republic	2	714
Denmark	4	2,404
England & Wales	1,773	268,205
France	13	5,216
Germany	20	10,442
Guernsey	196	5,514
Hong Kong	2	195
Ireland	199	36,072
Isle Of Man	11	187
Italy	2	262
Jersey	260	32,491
Luxembourg	229	42,558
Marshall Islands	1	277
Netherlands	64	22,332
Northern Ireland	1	2
Norway	2	900
Peru	1	180
Scotland	34	1,393
Singapore	1	595
South Africa	2	768
Sweden	2	779
United Arab Emirates	2	-
United States Of America	48	33,712
Grand Total	3,054	516,878

- ISE Data is publicly available from their website
- It identifies the domicile of the issuers of securities and the broad terms of securities issued
- Isolating the English & Welsh and the Scottish issuers is very simple to do.
- Identifying the UHC of controlling shareholder can be achieved by manually checking each company's accounts at UK Companies House.
- It is therefore possible to identify those in which PE firms (and others) are invested in the UK.

The analysis that follows concentrates on the UK domiciled companies and the securities issued by them

- The UK domiciled Companies can be analysed using audited accounts lodged at Companies House
- This enables the controlling shareholder, ultimate owner or controlling investor to be identified.
- Some, but not all, are PE funds and other investment vehicles.

	No of Securities	Capital Outstanding April 2020
England & Wales	1,773	268,205
Loan	1,753	268,197
Shares	18	8
Warrants	2	-
Scotland	34	1,393
Loan	34	1,393
Grand Total	1,807	269,597



There are a wide array of different types of controlling shareholder. We simplify by separately identifying Alternative Assets Investors

	No of Securities	Capital Outstanding April 2020
Asset Mgr	3	919
Australia	5	176
Bank	28	21,665
Bermuda	11	4,528
Brazil	3	5
BVI	2	347
BVI Individual	1	120
Canada	9	2,100
Canadian Model	17	3,891
Canadian Quoted	2	319
Cayman	2	2,476
Cayman Islands	14	2,203
Charities	3	437
Charity	4	638
Chinese Govt	1	83
CLS SPV	2	362
Credit card securitisation	2	591
Crossrail Debt	2	1,112
emco	1	222
Fintech	1	3
Guernsey	13	865
Guernsey Infrastructure	1	112
Hedge Fund??	2	83
Hong Kong	5	2,238
India	5	1,215
India Bank	2	25
Individuals	86	2,951
Infrastructure	11	879
Insurance	8	8,465
Investor Consortium	1	1,181
Ireland	4	2,114
Irish Fund Manager	1	1
Irish Quoted PE	3	1,860
Isle of Man	1	1,134
Israel	1	0
Israel	1	500
Japan	1	1,581
Jersey	18	5,090
JV	1	380
JPT	2	20
Lloyds Syndicate	7	1,448
Loan securitisation SPV	3	426
Luxembourg	13	3,188
Malaysia	2	195
Marshall Islands/Holdco	1	37
Mortgages	1	18
NK	62	6,915
Netherlands	2	149
Netherlands Quoted	3	1,217
NOI Disclosure	4	862
Oil Exploration	6	679
PE	268	60,244
PE Infrastructure	250	36,663
pe real estate	5	128
Pension Fund	4	335
Private Debt	104	3,517
Property Developer	27	630
Property Investment	19	3,680
Public Infrastructure	8	1,206
Qatar	1	1
Sale & Leaseback	13	427
Satellite Business	1	60
Saudi	2	46
Secondary PE Infrastructure Fund	1	281
securitisation Vehicle	34	4,743
securitisation Vehicle/ Indian PE?	1	31
securitisation vehicles	19	1,792
Ship Leasing	1	49
Singapore	2	522
South Africa	10	1,624
Sovereign Wealth	6	1,250
Switzerland	2	492
Trust	6	301
Turkey	2	142
UK Building Society	1	139
UK Corporate	5	847
UK Listed	38	17,356
UK Private	27	4,895
UK RCT?	4	0
US VC	2	56
USA	129	51,229
VC	2	58
Grand Total	1,807	269,597

	No of Securities	Capital Outstanding April 2020
Alt Asset	1,137	107,185
Canadian Model	17	3,891
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Secondary PE Infrastructure Fund	1	281
UK Corporate	5	647
US VC	2	56
VC	2	98
Not Alt Assets	670	162,413
Grand Total	1,807	269,597

- The mean issue size of UK issuers is \$149m
- Alt Assets managers are invested in
 - 63% (by number) and
 - 40% (by capital outstanding)
 - The mean issue size is \$94.3m
- PE Managers are invested in
 - 41% (by number) and
 - 22%(by capital outstanding).
 - The mean issue size is \$80m

Liquidity: UK Securities by ISIN

- The securities issued by PE owned Companies are significantly less likely to be traded than other securities issued by UK domiciled companies. (99% have no ISIN)
- These are illiquid assets, issued by UK companies that are listed on an off-shore exchange.
- The holders of the securities are the PE funds themselves and, in certain cases, managers or vendors who rolled over investments alongside the PE fund.

	No of Securities	Capital Outstanding April 2020
Alt Asset	1,137	107,185
Canadian Model	17	3,891
No ISIN	17	3,891
Irish Quoted PE	3	1,860
No ISIN	3	1,860
PE	748	60,044
ISIN	9	1,214
No ISIN	739	58,831
PE Infrastructure	250	36,663
ISIN	1	228
No ISIN	249	36,435
pe real Estate	5	128
No ISIN	5	128
Private Debt	104	3,517
ISIN	3	283
No ISIN	101	3,235
Secondary PE Infrastructure Fund	1	281
No ISIN	1	281
UK Corporate	5	647
No ISIN	5	647
US VC	2	56
No ISIN	2	56
VC	2	98
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Not Alt Asset	670	162,413
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Ownership & Definitions

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 - Alternative Asset includes:
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 - PE Real Estate (5)
 - Private Debt (104)
 - VC (4)
 - Others (30)

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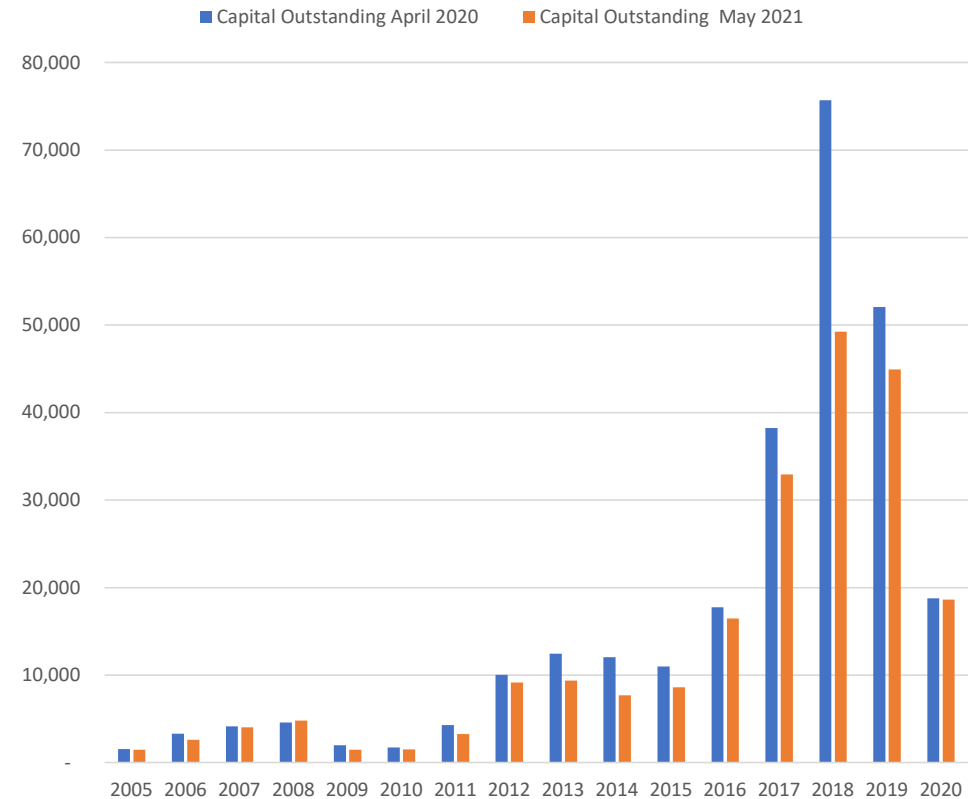
Capital Flows April 2020-May 2021

- We compared the April 2020 asset list to a list approximately a year later (May 2021) from the same ISE source.
- The period covers the UK Lockdown
- We can examine
 - Repayments
 - New Drawdowns / PIK
 - Rescheduling of loans
 - Delistings

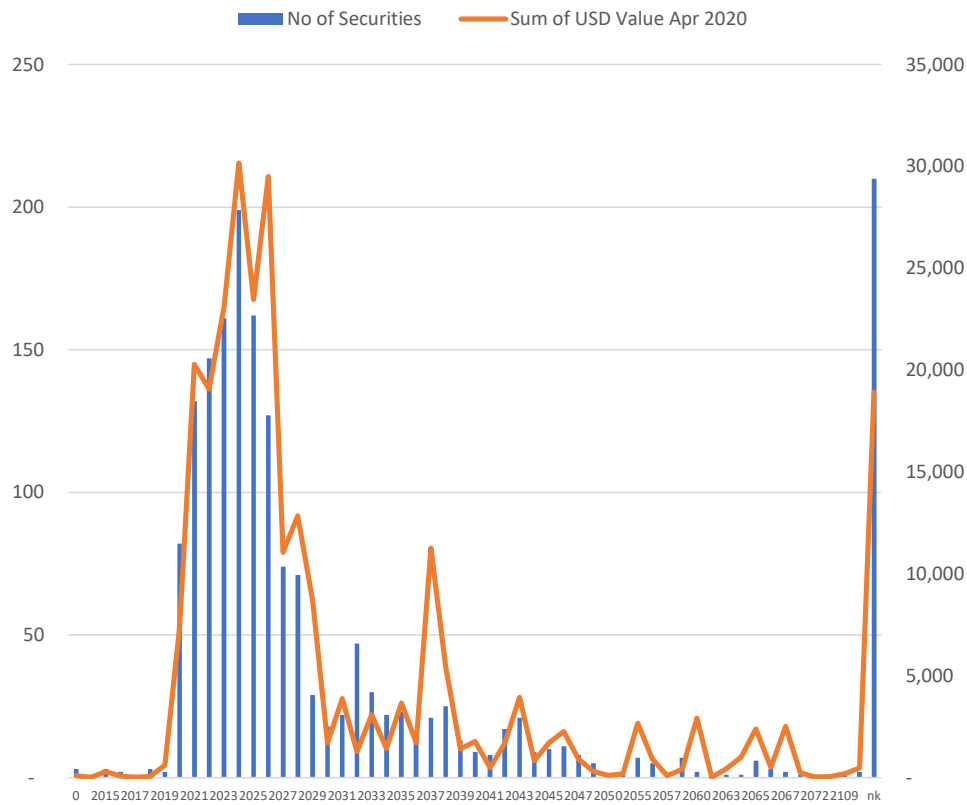
	No of Securities	Capital Outstanding			Capital Outstanding
		April 2020	Incr	Decr	
Not Alt Asset	670	162,413	3,272 -	32,317	133,368
Alt Asset	1,137	107,185	3,045 -	27,389	82,841
BVCA	702	62,344	1,673 -	18,189	45,828
PE	662	55,523	1,595 -	16,092	41,026
PE Infrastructure	40	6,822	78 -	2,098	4,802
Others	435	44,840	1,373 -	9,200	37,013
Canadian Model	17	3,891	- -	955	2,936
Irish Quoted PE	3	1,860	-	-	1,860
PE	86	4,522	20 -	2,211	2,331
PE Infrastructure	210	29,841	1,253 -	2,714	28,381
pe real Estate	5	128	- -	17	111
Private Debt	104	3,517	99 -	2,675	942
Secondary PE Infrastructure Fund	1	281	-	-	281
UK Corporate	5	647	- -	628	19
US VC	2	56	-	-	56
VC	2	98	-	-	98
Grand Total	1,807	269,597	6,318 -	59,706	216,209

Year UK Issuer's Securities Were listed (note 2020 is Q1 2020)

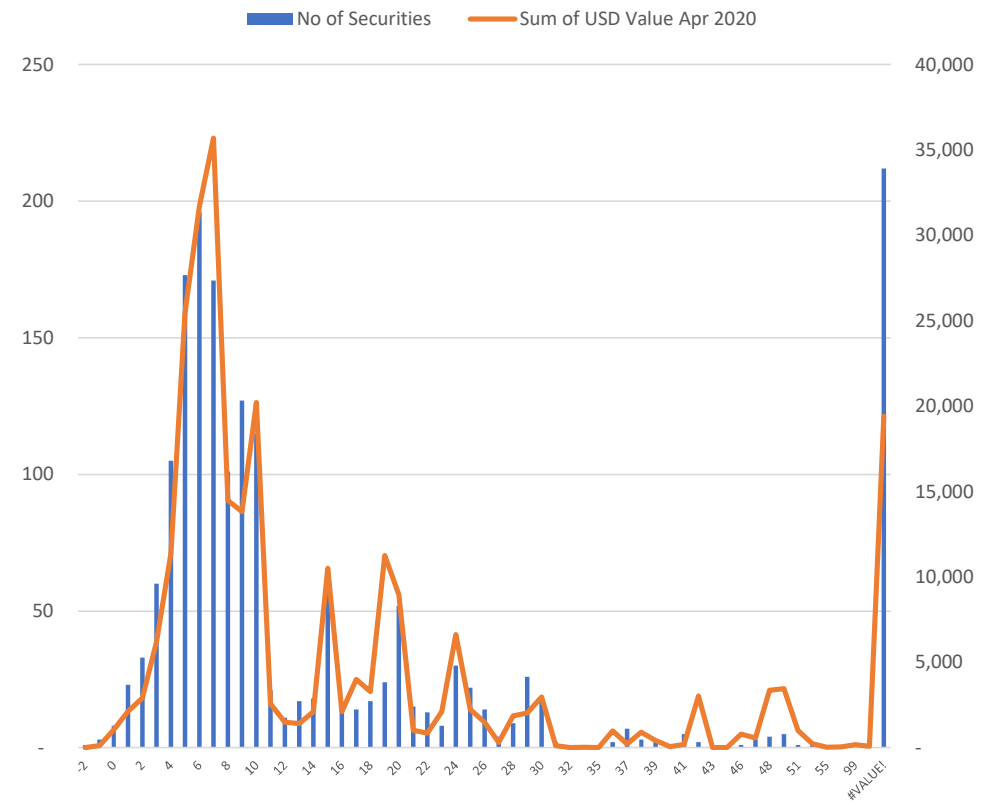
Year Listed	No of Securities	Capital Outstanding			Capital Outstanding
		April 2020	Incr	Decr	May 2021
2005	4	1,530	-	37	1,493
2006	17	3,305	1	716	2,591
2007	13	4,156	28	155	4,030
2008	13	4,600	408	200	4,807
2009	7	1,982	-	509	1,473
2010	15	1,732	25	262	1,495
2011	28	4,308	-	1,027	3,281
2012	58	10,023	22	900	9,145
2013	75	12,458	44	3,117	9,385
2014	84	12,050	13	4,379	7,684
2015	99	10,970	111	2,456	8,625
2016	157	17,740	1,447	2,724	16,462
2017	320	38,225	1,261	6,549	32,937
2018	413	75,693	671	27,136	49,228
2019	397	52,065	1,865	8,986	44,943
2020	107	18,759	423	553	18,629
Grand Total	1,807	269,597	6,318	-59,706	216,209



Maturity Wall & Term

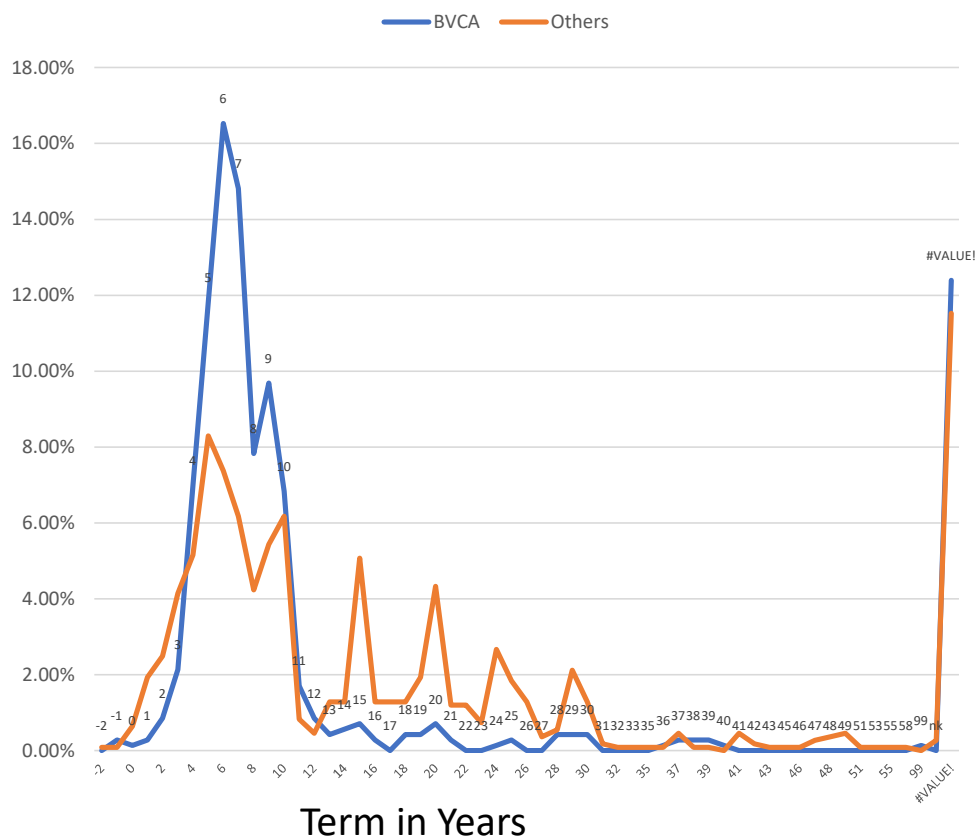


Year of Repayment
Gilligan/Scmaltz SBS 2023



Term in Years

PE vs Not PE: Term of UK Issued Loans



- We can narrowly define PE as loans issued by companies invested by members of the BVCA
- The significant difference in term is clear
 - PE Firms issue loans with terms typically of 5-7 years
 - Non PE Firms have more heterogeneous terms
 - Excluding unknown data,

Term	BVCA %of Loans	Others %of Loans
5- 7 yrs	49%	25%
4- 8 yrs	66%	35%
3- 9 yrs	80%	46%

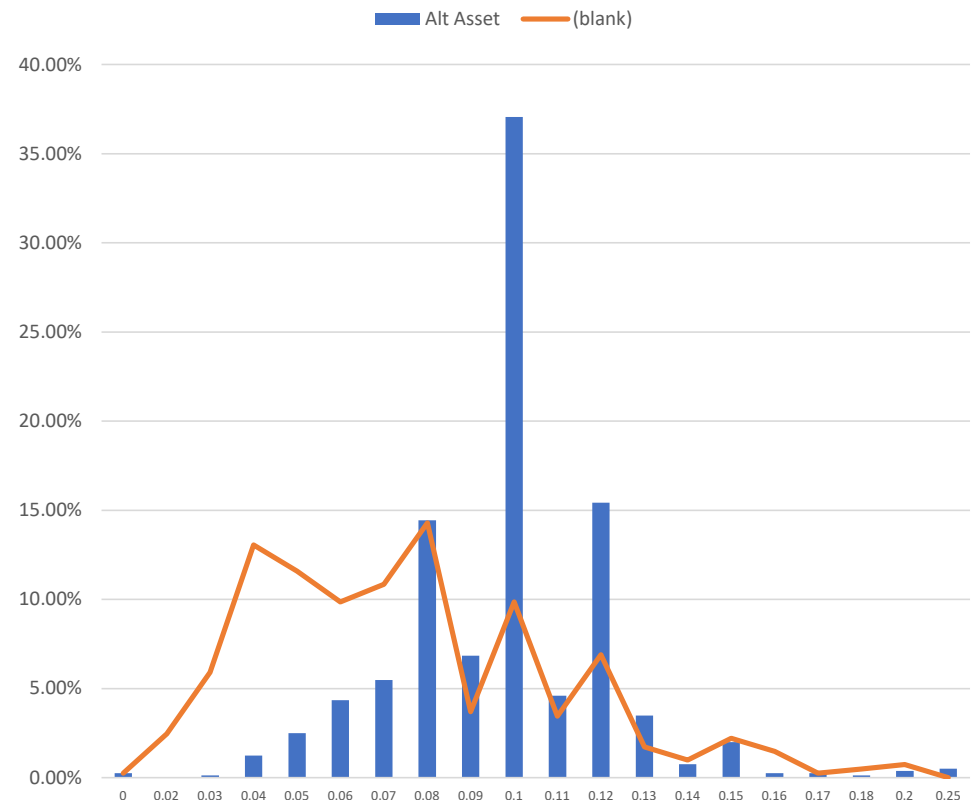
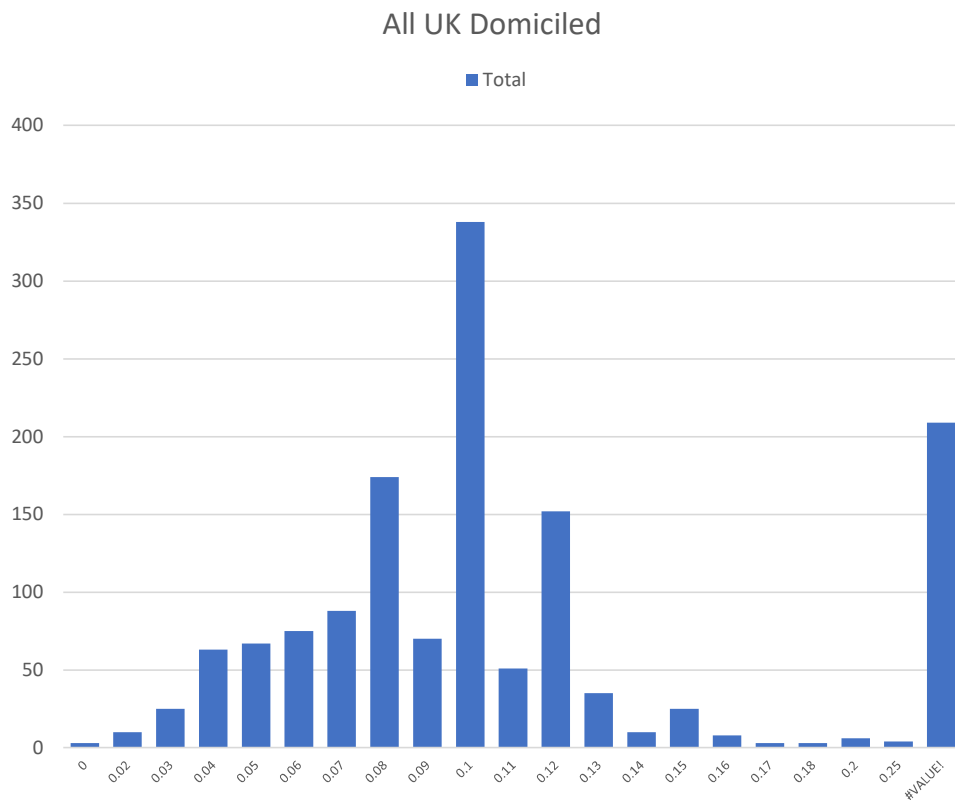
Repayments, Rescheduling and Drawdowns

- Data on 1,521 loans issued by UK issuers was available (84% of UK sample). Of these;
 - 70% had the same repayment date in April 2020 as in May 2021.
 - 23% had been delisted or repaid
 - Repaid?
 - Gone Bust?
 - 72 (5%) had been rescheduled
 - 3 (2%) are on demand loans
- \$59.7bn (22%) had been repaid/delisted
- \$6.3bn of new capital had been advanced
- The May 2021 balance was 80% of the April 2020 opening balance

Change in Term Yrs	No of Securities	Sum of USD Value Apr 2020	Sum of Decrease \$m	Sum of Increase \$m	Sum of USD Value May 2021
Loan	1,787	269,589 -	59,706	6,318	216,201
-34	1	800	-	-	800
0	1,067	176,217 -	5,779	4,831	175,269
1	22	2,680 -	40	22	2,662
2	13	125 -	0	4	129
3	13	2,568 -	38	-	2,529
4	8	3,251 -	39	3	3,215
5	6	707 -	4	21	724
6	3	2,042	-	-	2,042
7	1	12	-	-	12
10	4	1,289	-	30	1,319
24	1	91	-	-	91
nk	286	34,648 -	8,753	1,409	27,303
repaid	359	45,071 -	45,053	-	18
On Demand	3	90	-	-	90
Shares	18	8	-	-	8
na	16	8	-	-	8
Delisted	2	-	-	-	-
Warrants	2	-	-	-	-
Delisted	2	-	-	-	-
Grand Total	1,807	269,597 -	59,706	6,318	216,209

Interest Rates Frequency Distribution

– Rounded to 1sf



There is a significant difference between loans issued by Alt Asset investors and others