Hymans Employer Asset Tracking (H.E.A.T.)

a.k.a. Unitisation

- Julie West FFA

- 26 February 2016

Today's presentation

- Why should you adopt H.E.A.T.?
- An insight into allocating assets
  - What we do now (Analysis of experience)
  - What we should do (H.E.A.T.)
- Benefits to the Fund

Why unitise?

- Improved transparency
  - More accurate employer assets available at all times
  - Auditable and simple to understand
- Risk management
  - More defensible from employer challenge
  - Fewer cross subsidies
- Reduced cost
  - Lower cost, faster valuations
- Improved governance
  - Bespoke employer investment strategies

"How did you calculate my assets?"

"We want quicker and more cost effective valuations"

"Can I have a lower risk investment strategy?"

Meeting the need – quotes from clients

"We need to track employers' asset positions accurately and transparently"

"We want quicker and more cost effective valuations"

"We have 200+ different employers and they keep changing"

"We want to be able to offer different employers different investment strategies"

H.E.A.T. meets the changing demands on LGPS funds

Meeting the need – Employers

“Why is my pension deficit so volatile? Can I reduce it?”

“We are over 100% funded, why are we still invested in high risk assets?”

“Why are there no options to suit my risk appetite and circumstances ”

“I’m happy to pay higher contributions to plan for exit but will the extra money be safe?”

H.E.A.T. meets the changing demands of employers

Meeting the need – quality of service

"Asset tracking is currently the actuary's responsibility – we want to do a better job"

"Key step in providing fully automated LGPS valuations"

"We have the technical and systems expertise and experience"

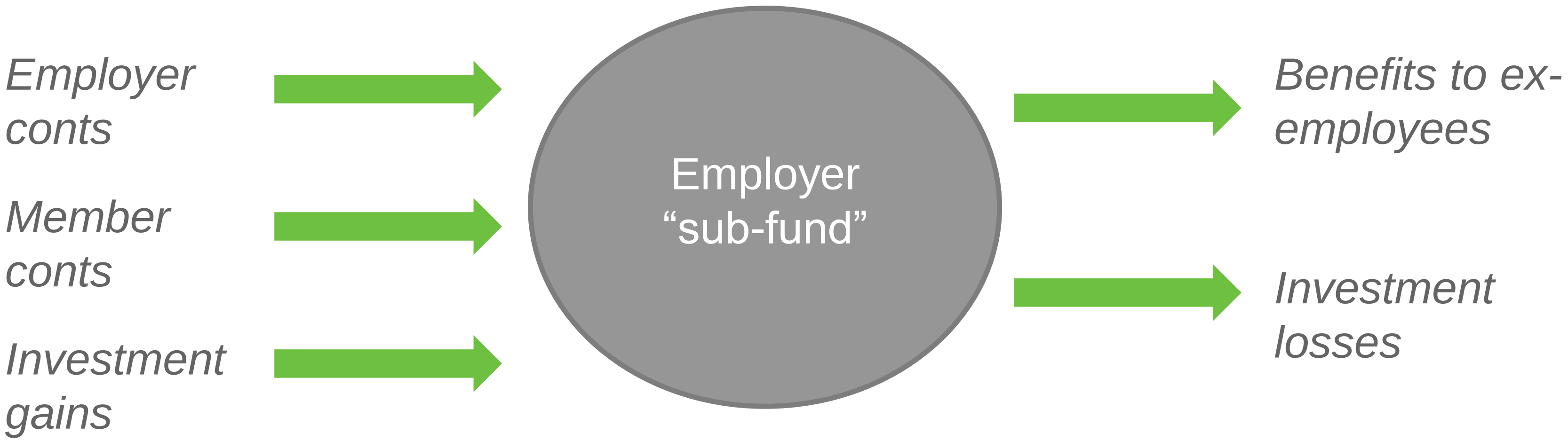
"We are uniquely positioned to deliver a cost-effective, proportionate solution for the LGPS"

H.E.A.T. helps us offer you a better service

What we do now

Analysis of experience

How are assets tracked now?



NOT LIKE THIS!

HYMANS ROBERTSON

How are assets tracked now?

Deficit at 2010 valuation	**(£100m)**
Investment profit	+£20m
Salary loss	(£5m)
Ill-health profit	+£10m
Mortality loss	(£20m)
Share of miscellaneous	(£10m)
Deficit at 2013 valuation	**(£105m)**
Liabilities at 2013 valuation	**£500m**
Deficit at 2013 valuation	**(£105m)**
Assets at 2013 valuation	**£395m**

How assets are currently calculated

Current method is archaic, time consuming and costly

Limitations of analysis of experience

- ⚠ Fund open to employer challenge
- ⚠ Not auditable or explainable to employers
- ⚠ Dependent on membership data
- ⚠ Not all data required is available
- ⚠ Uses fund averages – less appropriate now than previously
- ⚠ A new line in the sand every 3 years for assets
- ⚠ Need an actuary to calculate assets
- ⚠ Can’t be automated so not cost effective
- ⚠ Doesn’t support individual employer investment strategies

Now not robust enough for the Fund and its employers

Where did my assets go?

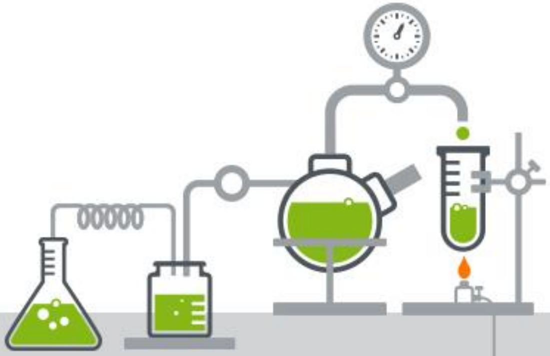
Market value of assets at 31 March 2016	
Rolled forward from 2013 for accounting at 2016	£99.0m
Formal valuation results at 2016	£97.2m

The problem

- Accounting report received in April 2016
- Assets disclosed estimated from the 2013 valuation
- Valuation results at 2016 produced in September 2016
- Different asset value!!

The solution

- Remove the need for estimates
- Track the assets monthly
- Use same numbers for accounting and funding purposes
- Easy to understand



Introducing HEAT:
The Science of Asset Tracking (or not really)

How does it work?

Each employer allocated a notional asset share (units)

A monthly asset statement is created for each employer

Net employer cash flows are calculated every month and units are bought or sold

Changes in market value of asset are reflected in changes in the unit price

Cash flow approach

- Assets at 31 March = £6,500K
- Investment return of 10%
- Contributions received of £400K
- Benefit outgo of £1,000K
- Cash flow approach gives

£6,500 x 1.1 + (400 – 1000) x 1.1^0.5 = £6,500

Simple and transparent

HYMANS ROBERTSON

Like a bank statement

HYMANS ROBERTSON

Greater Manchester Pension Fund
April 2014 to March 2015

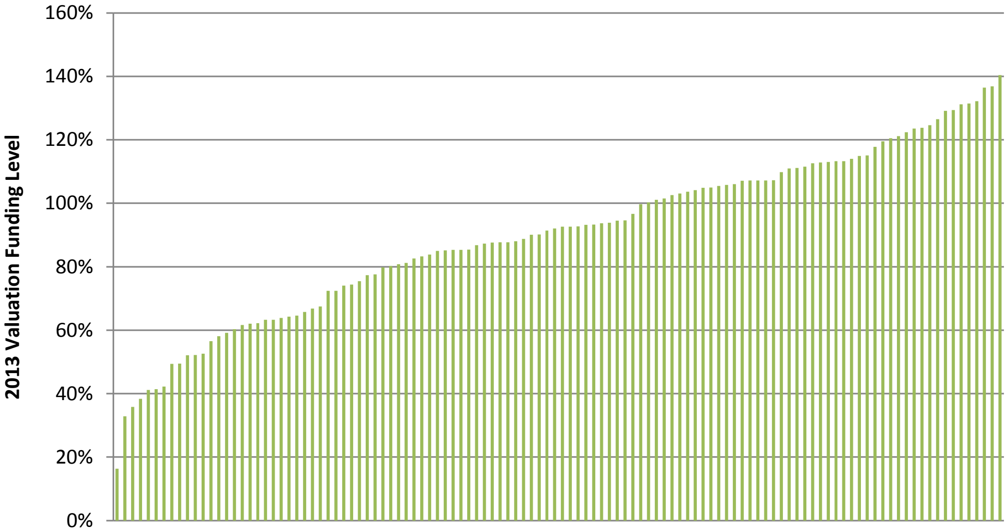
Greater Manchester Pension Fund	April 2014	May 2014	June 2014	July 2014	August 2014	September 2014	October 2014	November 2014	December 2014	January 2015	February 2015	March 2015
	£	£	£	£	£	£	£	£	£	£	£	£
Opening assets	12,957,460,150	12,990,858,284	13,186,910,565	13,109,100,946	13,118,654,210	13,215,106,082	13,044,266,874	13,173,888,458	13,517,518,063	13,414,624,059	13,787,512,040	13,985,683,861
Investment/(disinvestment) in the month	(15,038,640)	4,305,222	(18,924,080)	(2,209,287)	(1,189,266)	(4,720,494)	4,703,203	(18,406,111)	6,933,056	(8,023,656)	(844,095)	(26,951,438)
Income												
Employer contributions												
Normal	24,385,977	26,854,286	23,287,819	33,719,572	37,141,892	33,443,891	47,478,733	20,609,679	42,634,275	30,556,054	43,018,812	27,166,348
Augmentation	-	-	6,014	794	1,880	3,945	4,739	1,030	2,239	168,888	8,120	9,203
Strain on early retirement	1,829	641,581	365,849	125,852	450,368	922,734	687,535	84,999	1,054,306	296,966	1,534,981	257,131
Deficit repair	240	276,674	267,856	259,216	343,762	2,199,270	329,461	242,802	593,609	976,816	6,468,252	3,245,201
Employee contributions	8,804,820	10,012,199	8,419,737	11,419,690	12,540,139	11,406,110	17,625,172	6,800,709	15,338,856	9,742,960	14,879,701	9,371,254
Transfers in (internal)	383,392	187,631	151,924	1,647,817	7,024,009	1,034,122	778,479	405,706	892,665	1,108,298	3,106,990	3,406,539
Transfers in (external)	562,222	1,568,073	813,350	1,221,773	547,642	5,531,848	385,956	643,054	(3,868,302)	(2,019,723)	(205,451)	(4,747,678)
Total income	34,138,480	39,540,444	33,312,549	48,394,715	58,049,692	54,541,921	67,290,075	28,787,980	56,647,649	40,830,259	68,811,406	38,707,998
Expenditure												
Pensions paid	(34,756,694)	(35,060,261)	(38,758,011)	(41,186,436)	(39,212,860)	(45,118,758)	(43,098,237)	(40,283,141)	(44,813,683)	(45,583,722)	(45,004,946)	(48,827,271)
Retirement grants and lump sum payments	(12,357,304)	(6,305,084)	(7,017,510)	(7,948,197)	(5,237,340)	(11,656,292)	(9,966,920)	(5,620,464)	(5,842,222)	(6,819,399)	(7,513,080)	(7,308,162)
Death grants paid	(527,805)	(951,587)	(642,682)	(1,297,488)	(725,061)	(1,053,952)	(1,276,736)	(737,878)	(1,167,579)	(538,878)	(1,005,089)	(1,572,587)
Transfers out (external)	(2,313,980)	(2,893,900)	(2,667,802)	(2,757,978)	(1,594,598)	(2,334,742)	(3,719,198)	(2,543,611)	(1,438,786)	(544,042)	(1,510,933)	1,133,699
Transfers out (internal)	(383,392)	187,631	(151,924)	(1,647,817)	(6,713,320)	(1,034,122)	(778,479)	(405,706)	(892,665)	(1,108,298)	(3,106,990)	(3,406,539)
Total expenditure	(50,339,175)	(45,023,201)	(49,237,929)	(54,837,917)	(53,483,178)	(61,197,866)	(58,839,570)	(49,590,800)	(54,154,934)	(54,594,339)	(58,141,038)	(59,980,859)
Other cashflows	1,162,056	9,787,980	(2,998,700)	4,233,915	(5,755,779)	1,935,451	(3,747,301)	2,396,709	4,440,342	5,740,424	(11,514,464)	(5,678,577)
Net cashflow	(15,038,640)	4,305,222	(18,924,080)	(2,209,287)	(1,189,266)	(4,720,494)	4,703,203	(18,406,111)	6,933,056	(8,023,656)	(844,095)	(26,951,438)
Investment Return	0.37%	1.48%	(0.45)%	0.09%	0.74%	(1.26)%	0.96%	2.75%	(0.81)%	2.84%	1.44%	1.75%
Closing assets	12,990,858,284	13,186,910,565	13,109,100,946	13,118,654,210	13,215,106,082	13,044,266,874	13,173,888,458	13,517,518,063	13,414,624,059	13,787,512,040	13,985,683,861	14,202,795,732

The above figures are based on data supplied by the Administering Authority to the fund.
These figures rely on the accuracy of the data submitted, if any data is incorrect or updated then the above figures may change.

Employer investment strategies

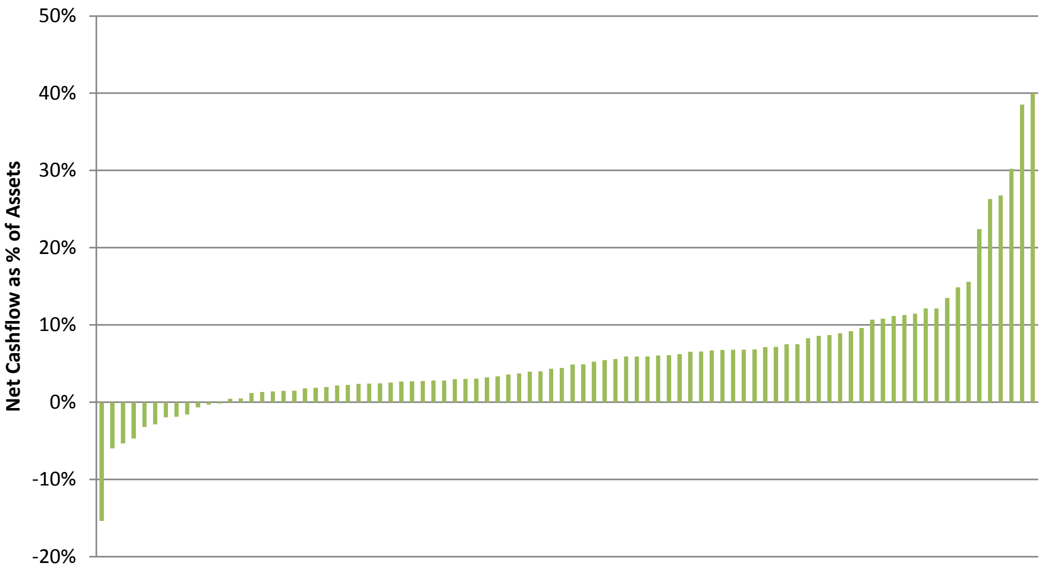
Better employer outcomes

Increasingly diverse group of employers



Widening range of funding levels…

…and net cashflow positions

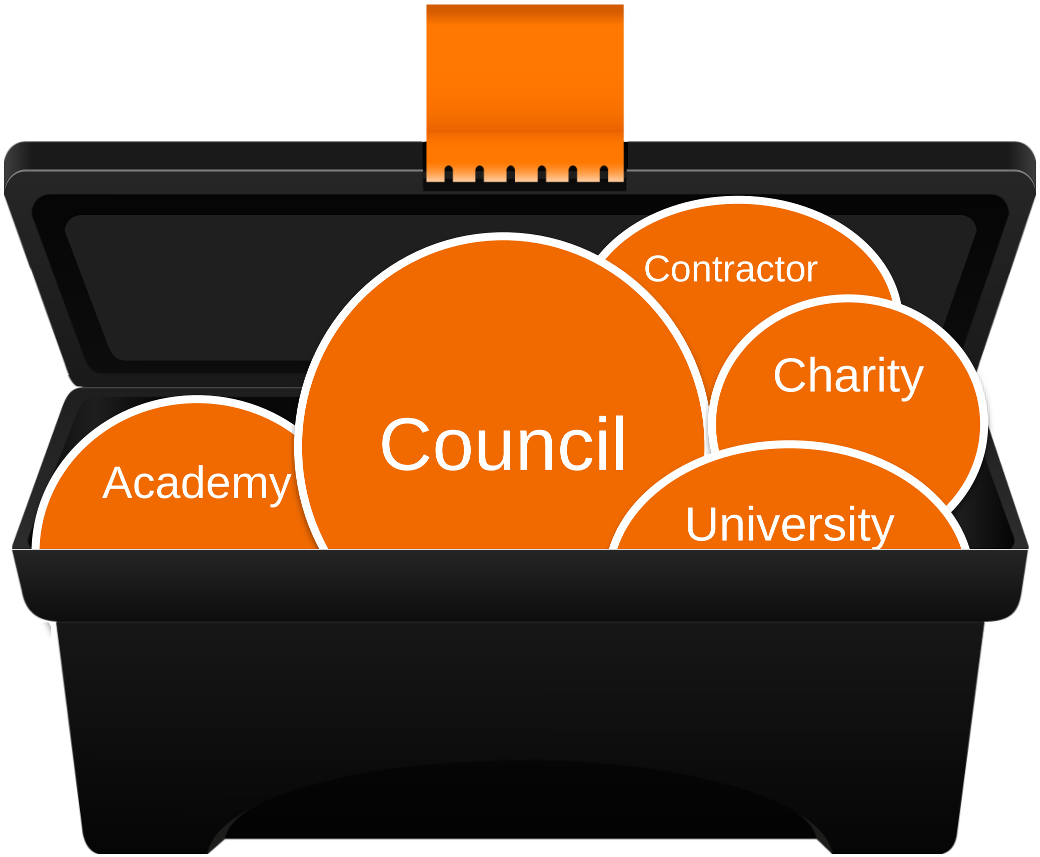


Tools to tackle diversity

Contribution strategy commonly used

Type of employer	Scheduled Bodies			Community Admission Bodies and Designating Employers		Transferee Admission Bodies
Sub-type	Local Authorities	Colleges, Housing Associations etc	Academies	Open to new entrants	Closed to new entrants	(all)
Basis used	Ongoing, assumes long-term Fund participation			Ongoing, but may move to “gilts basis”		Ongoing, assumes fixed contract term in the Fund
Stabilised rate?	Yes	Yes	Yes	No	No	No
Maximum deficit recovery period	20 years	20 years	20 years	20 years	Shorter of: Future working lifetime of employees, and 15 years	Shorter of: Future working lifetime of employees, and Outstanding contract term
Deficit recovery payments	Monetary Amount	Monetary Amount	Monetary Amount	% of payroll or Monetary Amount	Monetary amount	% of payroll or monetary amount
Treatment of surplus	Covered by stabilisation arrangement	Covered by stabilisation arrangement	Preferred approach: contributions kept at future service rate. However, reductions may be permitted by the Admin. Authority	Preferred approach: contributions kept at future service rate. However, reductions may be permitted by the Admin. Authority		Reduce contributions by spreading the surplus over the remaining contract term
Phasing of contribution changes	Covered by stabilisation arrangement	Covered by stabilisation arrangement	Covered by stabilisation arrangement	3 years	3 years	None

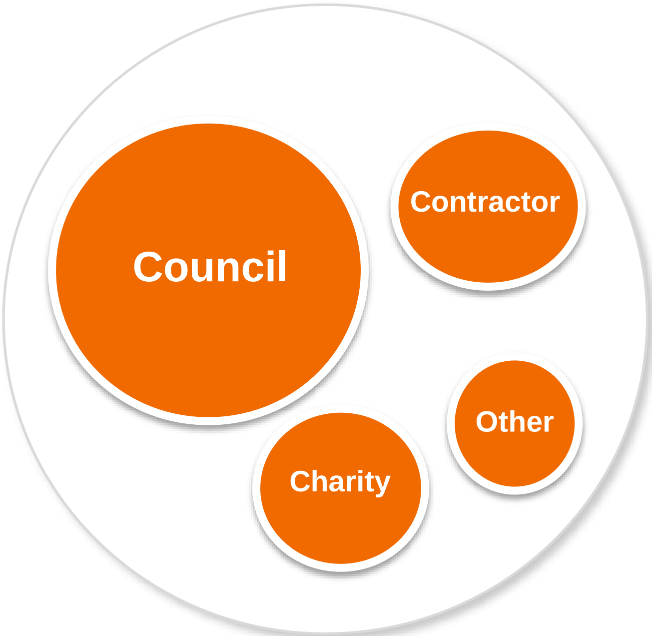
Investment strategy left in the tool box



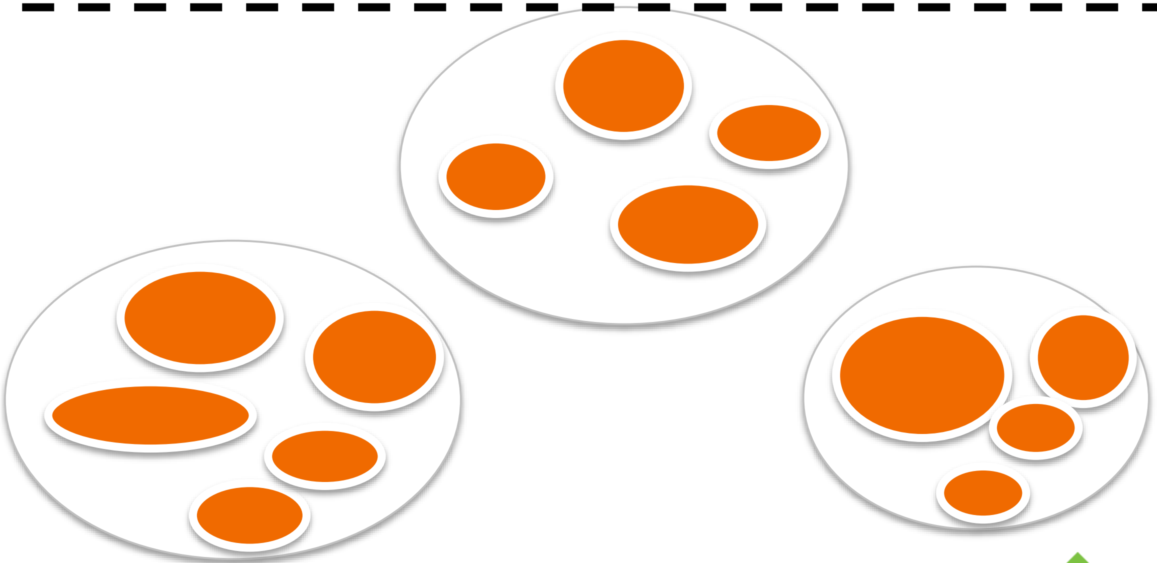
The LGPS status quo - multiple employers, one investment strategy (usually c70-80% in growth assets)

What can we do?

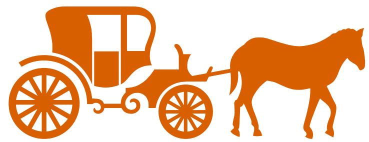
Move from one investment strategy for all…



…to multiple strategies to better suit groups of similar employers



Why the Fund should adopt H.E.A.T.



	Analysis	HEAT
Reduces cross subsidies across employers		
Increases efficiency and reduces valuation cost		
Auditable and transparent		
Simple and easy to understand for employers		
Ability to automate asset calculation		
Need for complex actuarial calculations		
Supports employer investment strategies		
Reduces risk of challenge/scrutiny		

Approach needs to be robust and flexible

Thank you

Any questions?