ACP peer firm identification

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Introduction

- What is a peer?
- Why is peer group identification important?
- The aim of the project is to evaluate the performance of Analyst Co-coverage Peer Identification (ACP) method.

Analyst Co-coverage Peers definition

- Analyst co-coverage fractions between firms i and j on date t:

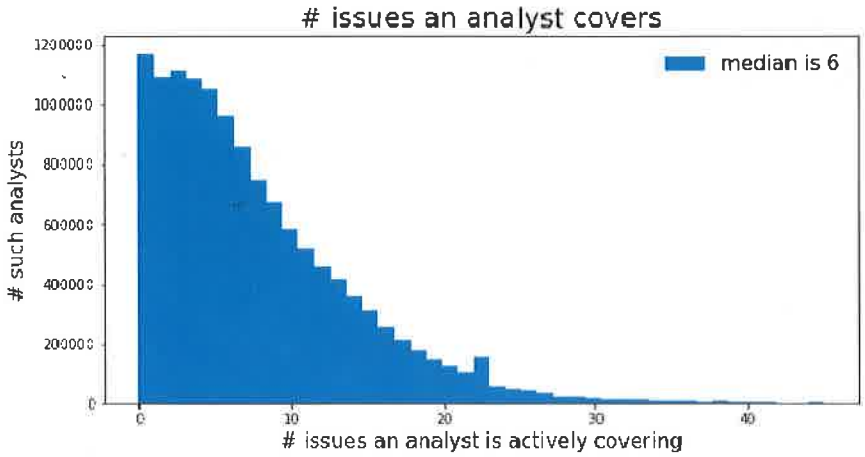
$$= \frac{\#\ of analysts\ who\ cover\ firm\ i\ and\ firm\ j}{\#\ of\ analysts\ who\ cover\ firm\ i}$$

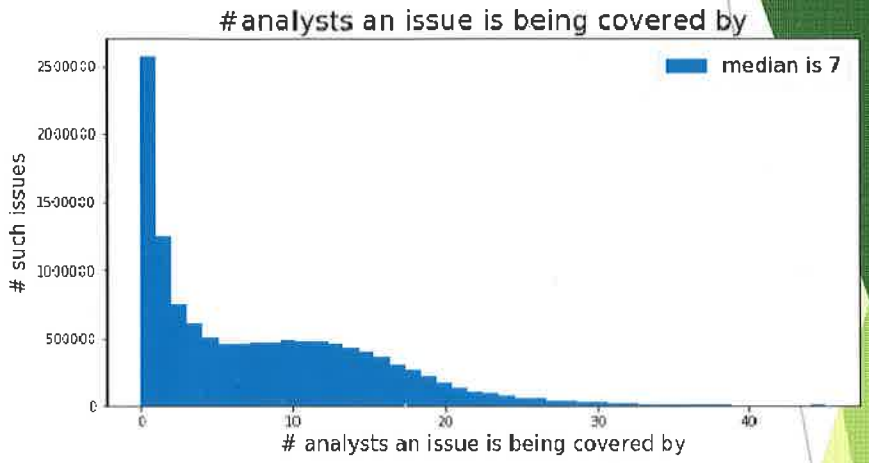
- A given base firm's ACP peers on date t: those firms with highest co-coverage fractions on date t-1

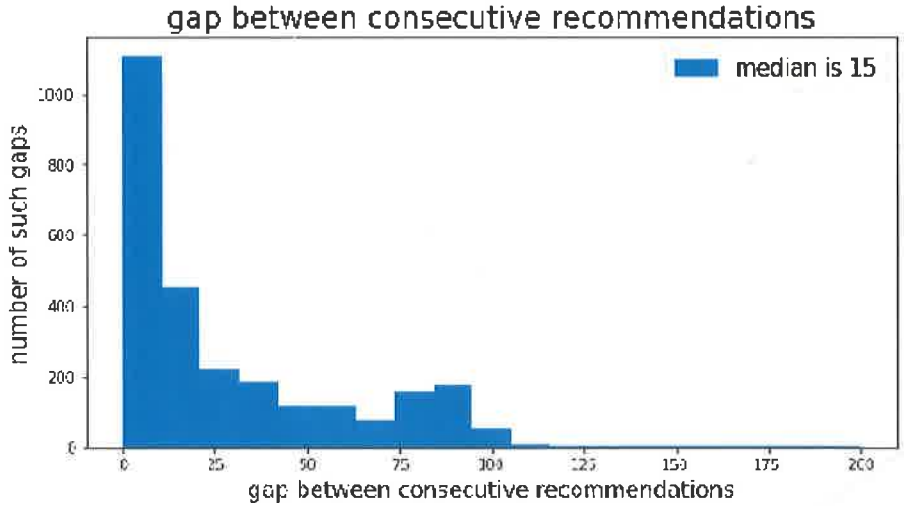
- Used FACTSET analyst recommendation data for EPS for US stocks for 2005-2015

Idea is that analysts tend to cover similar firms to reduce the cost of information overlap. So if two firms covered by the same analyst, then they r more likely to be peers

Data snapshot







Evaluation methodologies

- Number of peers
- Residual Return Correlation
- Fundamental Variable Correlation
- Separate issues into two groups by median of market cap

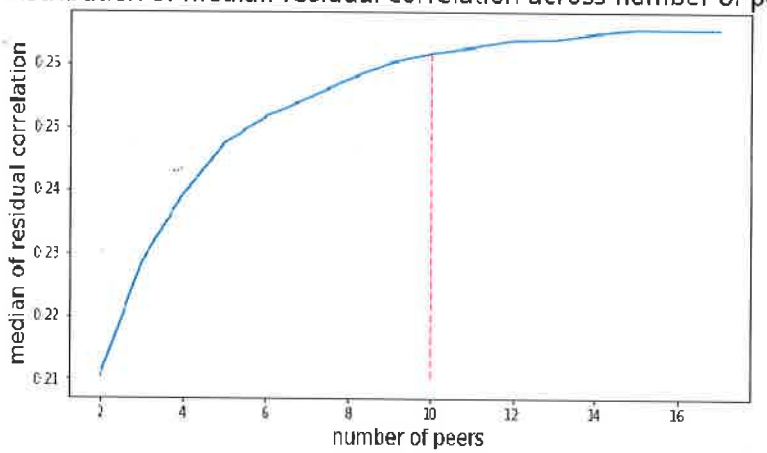
Construct weighted ACP peer portfolio and use GICS industry and residual return correlation identified peers as benchmark

In sample and out of sample data are separated

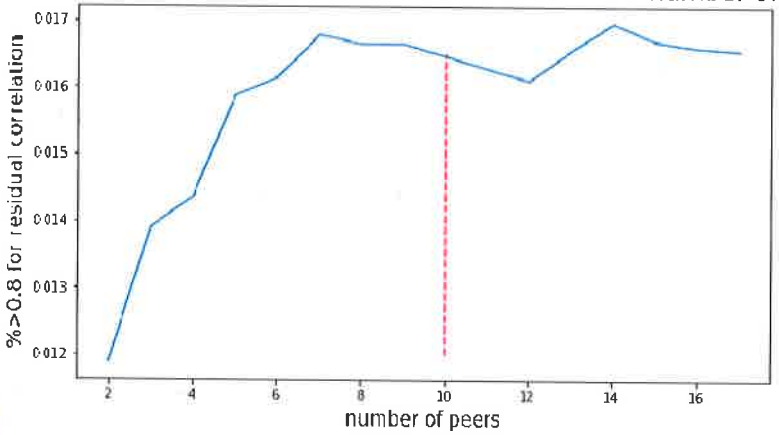
Reporting statistics: (median, %>0.6, %>0.8)

Number of peers

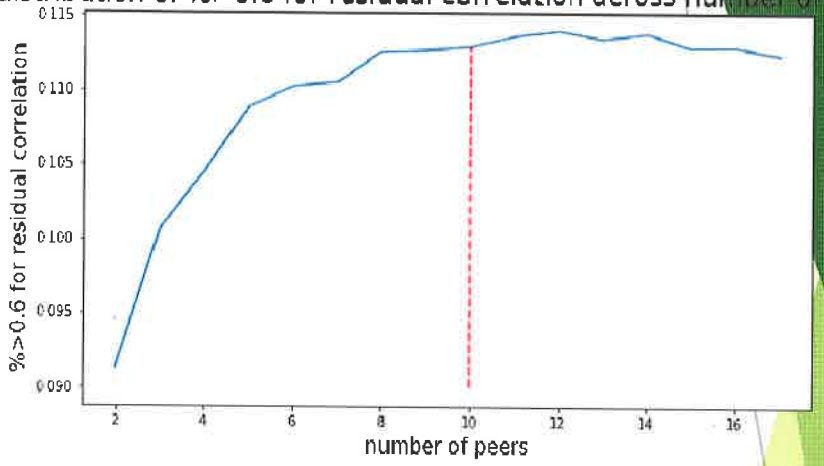
distribution of median residual correlation across number of peers



distribution of %>0.8 for residual correlation across number of peers



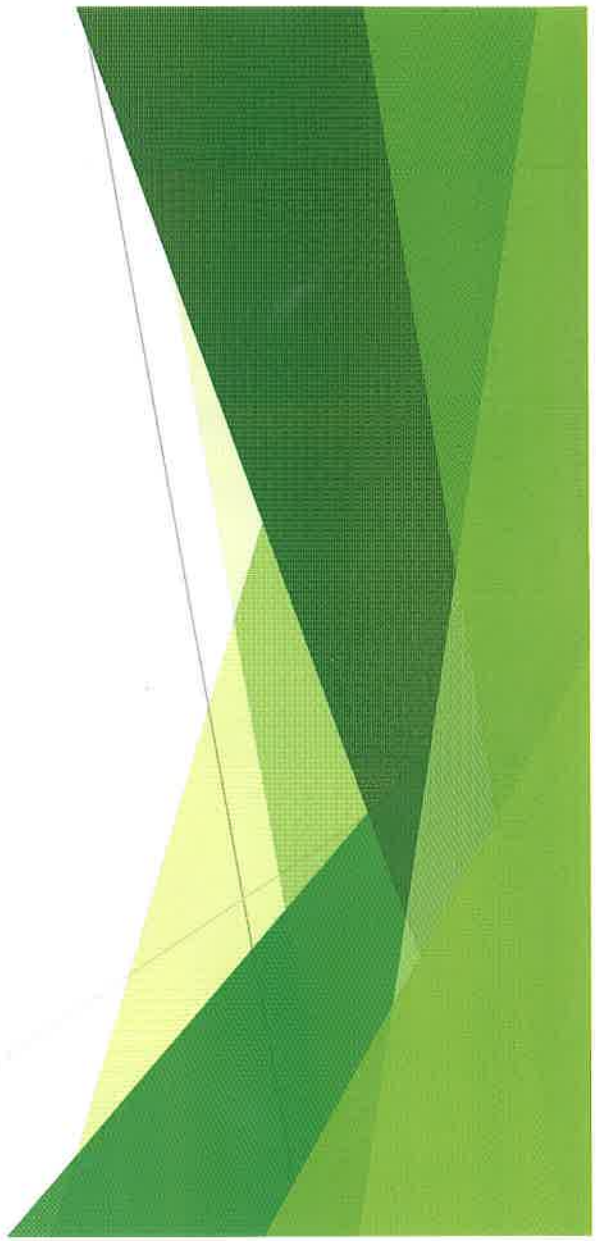
distribution of %>0.6 for residual correlation across number of peers



10 is near optimal in all three plots

ACP makes sense

- **63.4%** ACP peers share the same GICS industry code with the base firm.



I inspected qualitatively a few acp peers make sense. yes they do. reveal their residual correlation may have limitations due to signal noise

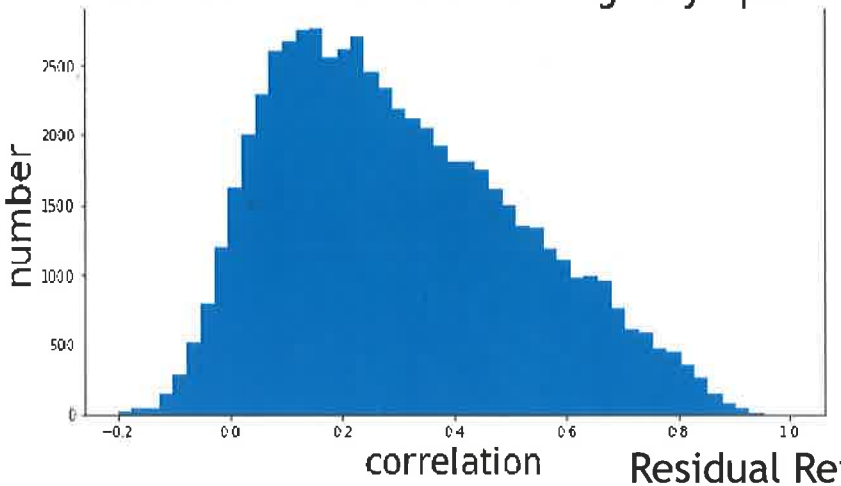
Examples of ACP performance results

Issue name: 'ANADARKO PETROLUM CORP', residual correlation 0.86	Issue name: 'ORACLE CORP', residual correlation 0.14
Peer1: COMSTOCK RESOUCRSE INC USA	Peer1: MICROSOFT CORP USA
Peer2: APACHE CORP USA	Peer2: BMC SOFTWARE INC USA
Peer3: NOBLE ENERGY INC USA	Peer3: CA INC USA
Peer4: PIONEER NATURAL RESOUCRES CO USA	Peer4: PEOPLESOFT INC USA
Peer5: BURLINGTON RESOURCES INC USA	Peer5: COGNOS INC USA
Peer6: EOG RESOURCES INC USA	Peer6: VERITAS SOFTWARE USA
Peer7: CHESAPEAKE ENERGY CORP USA	Peer7: BUSINESS OBJECTS SA-SP ADR USA
Peer8: XTO ENERGY INC USA	Peer8: HYPERION SOLUTIONS CORP USA
Peer9: NEWFIELD EXPLORATION USA	Peer9: SIEBEL SYSTEMS INC USA
Peer10: DEVON ENGERGY CORP USA	Peer10: BEA SYSTEMS INC USA

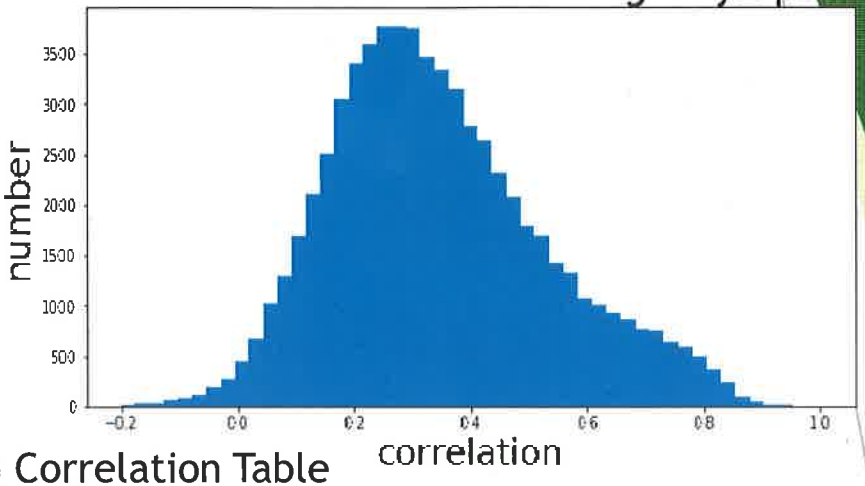
Note: Peers are listed in order of co-coverage fractions
Date is 20050103

Main Result- Residual Return Correlation

ACP Correlation all trading days plot



GICS correlation all trading days plot



Residual Return Correlation Table

	ACP	GICS industry	Correlation identified
Median	**0.2750**	**0.2746**	**0.2079**
%>0.6	12.3%	9.1%	12.3%
%>0.8	1.9%	1.6%	2.1%

Main Result- Fundamental Variable Correlation

	Price to book ratio			Enterprise value to sales ratio		
	ACP	GICS industry	Correlation identified	ACP	GICS industry	Correlation identified
Median	**0.4401**	**0.2660**	**0.3901**	0.6340	0.5402	0.5184
%>0.6	38.6%	25.0%	33.8%	53.1%	45.0%	43.1%
%>0.8	20.2%	11.2%	16.2%	30.9%	24.0%	21.6%

Main Result- Market Cap

- Separate firms by **daily median market cap**
- Residual return correlation much higher in the large market cap group than the small market cap group
- Correlation decreases significantly in the small market cap group when we look for peers only in the small market cap group

	ACP (1)	ACP with separation (2)	Small (1)	Small (2)	Large (1)	Large(2)
Median	0.2750	0.2603	**0.1776**	**0.1431**	**0.3898**	0.3954
%>0.6	12.3%	12.1%	5.8%	4.6%	19.1%	19.6%
%>0.8	1.9%	1.8%	0.6%	0.4%	3.1%	3.1%

Next steps:

- Identify communities for ACP peers and compare results with GICS Industry
- Using historical data, running strategies that depend on peer identifications to further evaluate the performance (e.g. Ben's model)
- Try other peer identification methods (SBP), and possibly combine them

Thank you!