

Investment communities: Behavioral attitudes and economic dynamics

Alessandro Spelta^{a,*}, Andrea Flori^b, Fabio Pammolli^{b,a}

^a Center for Analysis, Decisions, and Society (CADS) – Human Technopole, Milano, Italy

^b Politecnico di Milano, Department of Management, Economics and Industrial Engineering, Italy



ARTICLE INFO

JEL classification:

C15
G11
G4

Keywords:

Investment funds
Tensor decomposition
Community detection
Managers behavioral attitudes

ABSTRACT

Using a real-world data set encompassing the daily portfolio holdings and exposures of complex investment funds, we derive a set of quantitative attributes to capture essential behavioral features of fund managers. We find the existence and stability of three investment attitudes, namely the conservative, the reactive, and the pro-active profiles, defining communities that respond differently when facing external shocks. The conservative community has behavioral similarities that tend to decrease due to external shocks, the reactive community members greatly increase their activity level especially during turmoil phases, while delegated investors in the pro-active community are more resilient to turbulence and counterbalance the impact of the events by adjusting their portfolio exposures in advance. We show that exogenous shocks only temporarily perturb the behavioral traits of the communities which then go back to their original states once the distress is embedded.

1. Introduction

“The age of asset management is upon us”. These words were pronounced by Andrew Haldane, the chief economist of the Bank of England, to stress the increasing influence of the investment industry on financial markets and the potential risk this poses on financial stability (Haldane et al., 2014). The industry of assets under management is, indeed, growing rapidly; it has approximately doubled its size over the past decade, showing a trend that seems not to decline in the near future. PriceWaterhouseCoopers, for instance, has estimated that the industry of assets under management could touch around USD100 trillion by 2020, reaching USD400 trillion by 2050.¹

Delegated investors² are concerned with their relative performance compared to their peers. Searching for alpha, i.e. extra-returns with respect to a benchmark, has the potential to inject spillover effects into the financial system, possibly generating frictions in market liquidity similar to a bank run (Feroli et al., 2014). Such adverse dynamics are more likely to arise from asset managers behaving in a correlated fashion. In other words, while during market upswings managers are likely to look for yield in an attempt to outperform their benchmarks, in market downturns they quest for safety to boost relative return rankings, possibly causing a flight to quality effect (Davis and Madura, 2012).

A vast literature has addressed the issues of funds' dynamic

asset allocation and stock-picking decisions by examining how excess returns relative to benchmarks are obtained (Barras et al., 2010; Christopherson et al., 2009; Grinblatt et al., 1995; Grinold, 1989; Sharpe et al., 1999). Nevertheless, the behavioral features driving managers in their allocation choices are far from being well analyzed and investigated (Hsieh et al., 2011). The scope of this paper is, hence, to analyze the behavioral features that drive managers in their allocation choices. Besides sector, asset type, geographical and market portfolio compositions, we want to disentangle similarities in the behavior of professional investors in terms of e.g. trading intensity, derivative exposures and position concentration. In particular, we are interested in studying how extreme events reveal coordinated behaviors usually hidden by almost perfectly balanced portfolio dynamics to provide the potential for a better understanding of fund managers' activities.

We employ a micro-level data set of complex portfolio holdings for constructing a vector of behavioral features that describe the investment decisions of managers. We focus on the year 2015 due to the relevant macroeconomic and geopolitical events that heavily perturbed financial markets as, for instance, the Greek austerity packages, the elections in UK as well as the major monetary changes that occurred both in Europe and in the US. We investigate the patterns of co-occurrences of behavioral traits through time to determine similarities and differences across the behaviors of professional investors in the light of the economic and geopolitical events affecting market

* Corresponding author.

E-mail addresses: alessandro.spelta@htechnopole.it (A. Spelta), andrea.flori@polimi.it (A. Flori), fabio.pammolli@polimi.it (F. Pammolli).

¹ See <https://www.pwc.com/gx/en/industries/financial-services/asset-management/publications/asset-management-2020-a-brave-new-world.html>.

² The terms delegated investors, fund managers and asset managers are used as synonymous in the paper.

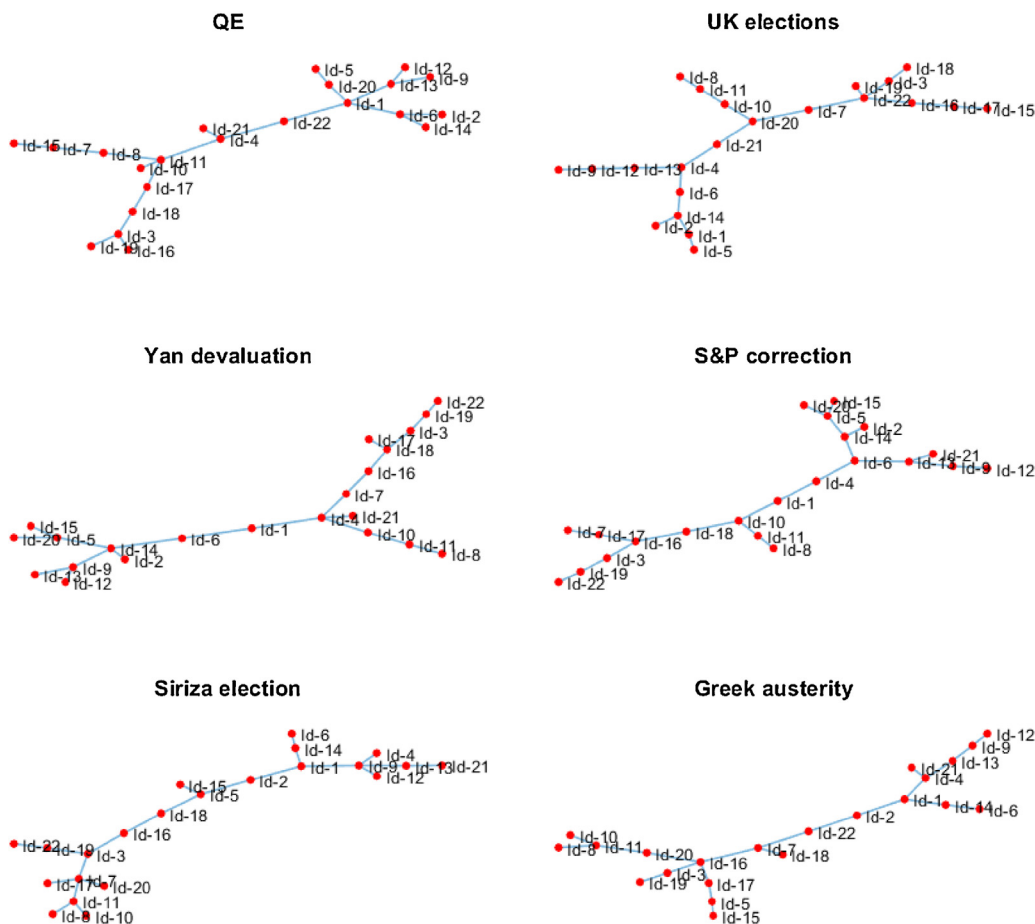


Fig. 1. Minimal Spanning Tree. For different and relevant economic events of the year 2015 we have reported the MST configuration of fund similarities. Notice that no fund play a dominant role in connecting the network and that a fund's position in the network does not remain stable over time.

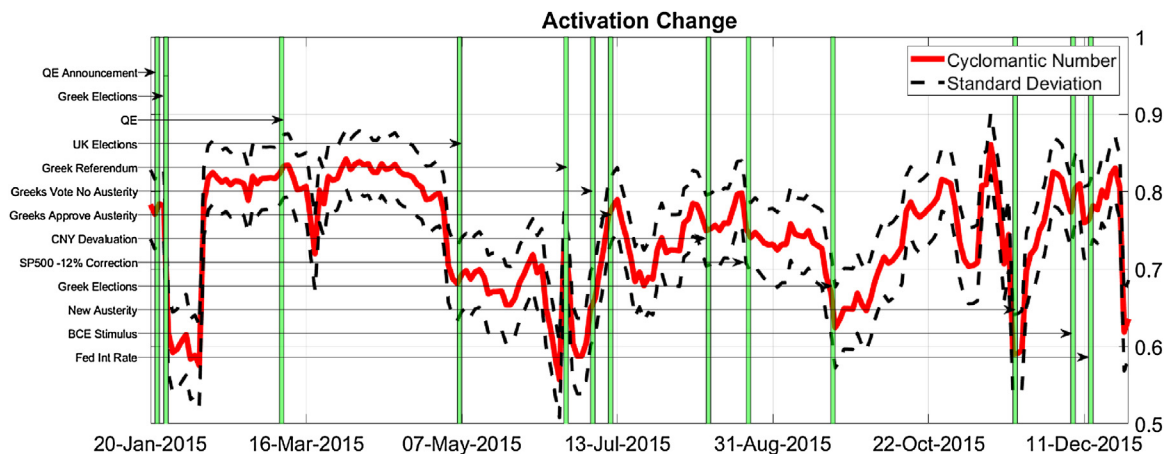


Fig. 2. Cyclomatic number. The red line shows the daily values of the cyclomatic number S , i.e. the number of distances d_{ij} that, although being smaller than L , does not need be considered in the hierarchical clustering process leading to the MST, along with the standard deviation in black. Green bars represent economic and geopolitical events that stormed the financial markets in 2015. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

dynamics. We focus on the behavioral responses of managers to market instability, investigating their attitudes towards risk and uncertainty by introducing an intrinsically temporal approach that allows to simultaneously identify communities and track their activity over time (Pecora and Spelta, 2017). Our primarily interest is in strong, or dominant, relationships that tie together managers' behavioral features. As these types of relationships are more difficult to be broken, they reveal the

“true” and persistent structures of managers' behavioral attitudes, emphasizing the relationships between e.g. the use of mental models and the representation of the financial markets by delegated investors (Johnston-Laird, 1983; Johnson-Laird, 2010).

In particular, besides the Minimal Spanning Tree (MST) analysis of the time constrained similarity networks built from managers' behavioral attributes, a coefficient of residuality is defined to capture the

Download English Version:

<https://daneshyari.com/en/article/7538225>

Download Persian Version:

<https://daneshyari.com/article/7538225>

[Daneshyari.com](https://daneshyari.com)