Pacific-Basin Finance Journal 35 (2015) 198–224

Contents lists available at ScienceDirect

Pacific-Basin Finance Journal

journal homepage: www.elsevier.com/locate/pacfin

# Stock return commonality within business groups: Fundamentals or sentiment?☆

Min-Su Kim [a], Woojin Kim [b,*], Dong Wook Lee [a]

[a] Korea University Business School, Republic of Korea
[b] Seoul National University Business School, Republic of Korea

ARTICLE INFO

*Article history:*
Received 27 May 2014
Accepted 8 January 2015
Available online 15 January 2015

*JEL classification:*
G10
G11
G12

*Keywords:*
Return commonality
Business group
Corporate governance
Category/habitat trading
Korea

ABSTRACT

We examine stock return comovement within business groups in Korea. Based on all publicly traded stocks from 1980 to 2009, we document that stocks of companies belonging to the same business group co-move with each other more than do stocks in the same industry. The within-group correlation in excess of the within-industry correlation has become more pronounced over time, especially following the 1997–98 Asian crisis. The increase in correlation appears to be driven more by non-fundamental factors such as correlated trading, rather than fundamental factors such as related-party transactions. Our study adds to the literature by showing that non-fundamental stock return correlation – i.e., categorization or habitat-driven stock comovement – exists even at the business-group level.



## 1. Introduction

It is well established in the literature that stocks comove in many dimensions. For example, returns on stocks in the same industry exhibit a strong commonality as those stocks share economic fundamentals or they are exposed to common industry-level shocks (e.g., Ahn et al., 2009; Hou, 2007). There are also groups of stocks, other than those within the same industry, that exhibit strong return commonalities, such as small stocks or value stocks (e.g., Fama and French, 1993). For those stocks, it is not so obvious that their

☆ We are grateful to Randall Morck and Reena Aggarwal for comments. Dong Wook Lee recognizes financial support from the Asian Institute of Corporate Governance at Korea University and also acknowledges that the paper has been financial supported by a Korea University grant ("KUBS Faculty Research Grant"). Woojin Kim appreciates support from the Institute of Management Research at Seoul National University. Financial support from the Institute of Finance and Banking of Seoul National University is also gratefully acknowledged.

* Corresponding author at: 1 Gwanak-ro, Gwanak-gu, Seoul, 151-916, Republic of Korea. Tel./fax: +822 880 5831.
*E-mail addresses:* equili@korea.ac.kr (M.-S. Kim), woojinkim@snu.ac.kr (W. Kim), donglee@korea.ac.kr (D.W. Lee)

http://dx.doi.org/10.1016/j.pacfin.2015.01.001
0927-538X/

fundamental values would necessarily comove. In fact, two broad competing theories explain such commonality in stock returns. Traditional perspective holds that comovement in stock return is generated by comovement in fundamental values. A more recent perspective suggests that non-fundamental factors, such as investor sentiment and market frictions, may drive return comovement. For example, Barberis et al. (2005) argue that investors are prone to 'category' or 'habitat' trading, where they lump certain individual stocks together and trade them as a group or simply trade only those stocks.[1] Such behavior could generate return comovement at each category or habitat level through correlated trading.

In this paper, we examine stock return commonality among member firms within the same business group. In particular, we focus on the extent to which return commonality among the same-group stocks is driven by non-fundamental factors. A large body of literature in international corporate finance documents that firms outside U.S. or U.K. typically have dominant shareholders and belong to a business group which account for a large fraction of a given economy.[2] A business group consists of multiple (public) firms that are typically linked through inter-corporate equity ownership. Thus, a business group is distinct from conglomerates in U.S. where only one firm is publicly traded and most subsidiaries are 100% owned by the parent or the holding company. A business group is also a broader concept than the so-called "chaebol", which commonly refers to a *family-controlled* business group. Researchers have also found that member firms in a business group often transfer resources across each other, sometimes to help out or 'prop up' other member firms and sometimes to expropriate or 'tunnel' from them. Given the dynamics of inter-corporate equity ownership and resource transfers, it is natural to expect public firms within a business group to exhibit at least some level of stock return commonality for fundamental reasons.

However, a business group also constitutes a handy category along which stocks can be lumped together. In other words, investors can easily classify stocks within a business group as a 'category' or 'habitat', since most member firms bear the group's name as a part of their corporate identity which is easily recognizable. For example, when Samsung Life Insurance, the largest insurance company in Korea, went public in 2010, many retail investors jumped in to subscribe without scrutinizing the validity of the offer price, just because the company is a member of the reputable Samsung Group.[3] For these reasons, it is possible that same-group stocks comove by more than their fundamentals would justify.

As such, it is rather surprising that the literature is still largely silent on whether and how stock returns among member firms within a business group might comove. We thus aim at contributing to the literature by directly examining whether and how public member firms within a business group exhibit stock return commonality. Our next contribution is to evaluate which view better explains the observed commonality of stock returns within business groups; the traditional, fundamental-based perspective or the more recent, non-fundamental-based perspective. Since business groups clearly share common fundamental factors, we do expect a significant return commonality among the same-group stocks, even in the absence of non-fundamental factors. Thus, simply documenting a commonality in stock returns within business groups would be insufficient to claim that non-fundamental-based comovement exists. Instead, we explicitly test whether or not the observed correlation is attributable to non-fundamental reasons.

Our analyses are based on a sample of publicly traded firms in Korea, which has plenty of active business groups. In fact, it is actually more difficult to find a truly free-standing firm in Korea, since vast majority of firms belong to some business group. Even widely held privatized firms – formerly owned by the government – typically belong to a business group. Thus, a business group can easily be identified as a 'category' or a 'habitat' from investor's perspective.[4] The boundaries of large business groups are tightly defined for regulatory purposes so that member firms are clearly identified. For example, the Korea Fair Trade Commission (KFTC) designates large business groups every year with a list of firms that are formal members of each

[1] Barberis et al. (2005) make a subtle technical distinction between 'category' and 'habitat', but both trading patterns imply the existence of a group of stocks that are exposed to the same *un*informed demand shocks.

[2] La Porta et al. (1999), and Morck et al. (2005) among many others.

[3] Refer to a report by Ha and Jung (in Korean) at DongA.com, May 5, 2010, (http://news.donga.com/3/all/20100505/28095625/1). The size of the subscription was KRW 20 trillion, roughly USD 20 billion, which is the largest in Korean stock market history to date. Unfortunately, market price never recovered the original offer price ever since February 18, 2011.

[4] In fact, Korean mutual fund industry recently introduced 'Samsung' fund or 'Hyundai Motors' fund that only invests in stocks within the same business group. The first group fund, which only invests in Samsung stocks, was launched in November 2004.