Investing in the Rich of this World:
Family Investment Holdings and their Performance

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ABSTRACT

This paper investigates the characteristics and performance of family investment holdings across the world. Their unique combination of family wealth and expertise and investments in stock markets make them a special asset class for retail investors. We find that families are strongly involved in terms of stake and management both in their holdings and the holding's investments. We further document a significant outperformance of family investment holdings globally and in Europe and a more contained performance on Asian markets. Holding characteristics and the economic environment appear to have some limited influence on performance.

Keywords: family; holding company; active management; performance; CAPM

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INTRODUCTION

Popular wisdom indicates that rich people get ever richer and that the wealth of middle class households at best stagnates. One of the reasons which may be put forward is that the richest part of the population is continually on the outlook for good investments and thus is able to accumulate capital gains and wealth across time. But what if retail investors could invest, at least partly, just like them? This article looks into this question by analysing family investment holdings. Through time, mostly European and Asian families or dynasties have started to build up listed holding companies to invest their wealth or at least a large part thereof on capital markets. Retail investors can therefore rather easily participate in these holdings and potentially reap the benefits of investing like the rich families of the world.

Investing in generic holding companies displays several benefits and costs for investors that will also hold for family investment holdings. The latter, however, also display more specific advantages and risks due to their particular ownership structure. The foremost benefit of a holding company is the diversification potential it offers to investors. By investing in one single asset investors may indirectly hold a portfolio of companies and asset classes, which will reduce the idiosyncratic risk component and transaction costs. Following literature on diversified companies, these should be able to take on more debt (Lewellen, 1971; Mansi and Reeb, 2002) and lever their returns to profit amongst others from tax benefits due to their lower risk. This should be even more present in holding companies as stocks in the listed stakes can be used as collateral. The presence of a family does not appear to hinder the use of debt (Anderson and Reeb, 2003a) and may actually make it more appealing due to a reduction in the cost of debt (Anderson, *et al.*, 2003). Linked to capital structure, the holding company structure may further allow it to create an internal capital market or facilitate access to external markets (Gertner, *et al.*, 1994; Stein, 1997; Chang and Hong, 2000).

It could be argued that a holding company is similar to a closed-end mutual fund as both invest directly into the equity of companies. From a diversification perspective this is certainly true even though a holding may allow investors to tap into a broader pool of assets. Family holdings may invest in listed and unlisted companies, real estate and be diversified across industries and geographically, whereas mutual funds are mostly specific to one asset class, region or theme. Moreover, in both cases managers will try to identify undervalued companies to generate excess returns. This should have an impact on returns and valuations of both closed-end funds and holding companies. Finally, closed-end funds, parent companies and holdings may trade at a discount as compared to their net asset value or the value of their shareholdings

(Pontiff, 1996; Cornell and Liu, 2001; Mitchell, *et al.*, 2002). This may lead to a superior performance in the case the discount gap closes. However, there are also some diverging characteristics between these two assets. In the case of holding companies ownership should be accompanied by a more active participation and increased monitoring in the companies it holds (Banerjee, *et al.*, 1997). This should be even more the case in family investment holdings with the family's private wealth being at stake. As for classic family corporations this may reduce agency costs between corporate managers and shareholders (Anderson and Reeb, 2003b; Villalonga and Amit, 2006) and further increase corporate and thus the holding's value. Another difference between mutual funds and family holdings consists in the holding period. Fund managers may switch their positions rather frequently (Wermers, 2000; Chordia, *et al.*, 2011). However, in the case of family holdings a long term perspective should be adopted and the management of the company, with the active help and know-how of the family holding, gets to implement a long term strategy which should be beneficial to both the company and the holding (Sirmon and Hitt, 2003; Le Breton-Miller and Miller, 2006).

Holding companies may, however, also trigger costs to investors. First, the creation of an internal capital market may be detrimental if it leads to suboptimal resource allocations and financing constraints get shifted from an entity to the holding (Scharfstein and Stein, 2000). Second, holding companies may actually trade at a premium if the market knows it invests in undervalued companies. This would lead to a lower performance in the case the premium is reduced across time or the belief on undervaluation does not materialise. Third, as opposed to mutual funds the cost structure of a holding is more complex. For mutual funds investors can a priori analyse fee structures from fact sheets. For holding companies the costs are twofold and more onerous. As for any equity investment an investor will have to pay transaction costs but it will indirectly also have to pay for the entire operational structure of the holding. Likewise to a company, there will be management and board compensation, investments in fixed assets and many other expenses. Fourth, family holding companies may suffer from liquidity issues. A family owning a large proportion of the holding's shares will lead to a low free float hindering investors to easily liquidate their positions. Finally, investors may incur relatively large costs due to agency problems between minority and family shareholders. The latter may use their position of strength to extract private benefits of control which may harm non-family investors (Dyck and Zingales, 2004; Doidge, *et al.*, 2009).

In this paper we want to analyse the performance of family investment holdings. Their distinctive features and relative easiness to invest in make them an interesting investment vehicle to study and for which the performance is a priori unclear. We first collect data on the

characteristics of these holding companies. This, on the one hand, allows us to describe the interaction between the family and its holding and on the other hand the way the holding invests and manages its positions. We then create equally weighted portfolios of family investment holdings to evaluate their performance along different dimensions. Results indicate that family investment holdings display interesting features and on average have a low risk, a strong performance and yield excess returns to investors.

The paper contributes to the literature in several ways. First, it deepens our understanding on family capitalism. While literature on family firms and the effect of families on the different policies and performance of their companies is vast, family investment holdings have to the best of our knowledge not been studied so far. These, however, may offer us new insights on how families work and the implications they have on companies they may not have founded and in which they do not have their entire wealth tied. It further allows us to get insights in the ways wealthy investors take investment decisions and how important diversification is to them. Second, it contributes in deepening our knowledge in portfolio management. Literature on the performance of funds of any kind (mutual funds, SRI funds, REITs, hedge fund, etc.) is very vast. It has, however, neglected holding companies that bear both similarities to classic corporations and closed-end funds. This asset class allows us to gain additional insights on a variety of characteristics that may influence performance.

The following section describes the research design by presenting the sample and methodology used. This is followed by a section exhibiting the empirical results on both the characteristics of the holding companies and their risk-performance features. The last section finally draws conclusions.

RESEARCH DESIGN

In this section, we first introduce the sample and its construction. We then explain the methodology used to evaluate the performance of family investment holdings.

Sample

No readily available list of listed family holding companies exists. We, therefore, use a two-step approach to construct a representative sample. First, a list containing all listed companies worldwide under the SIC code 67 (Holding and other investment offices) was established. We only study listed holding companies to ensure that retail investors can effectively invest in them. This yields 4,411 different listed companies. Second, every company was screened manually

on its respective website, annual report and ThomsonReuters Eikon along two dimensions. First is it a true investment holding or merely a company holding which is no different than a normal company? A prime example of the latter would be the Swiss pharmaceutical company Roche Holding. It appears under Secondary SIC code 67 as it officially is considered a holding but it only holds its different subsidiaries across the world and therefore does not qualify as an investment holding. Second, is a family involved as shareholder in the investment holding? To qualify as a family holding we use a threshold of 20% voting rights as has become common in the literature on classic family firms. This screening process reduces the sample to a total of 76 family investment holdings.

Family investment holdings can take many different forms but generally follow two major streams. Some are constructed as a mono-investment holding meaning that its sole purpose is to hold a position in a single company. Solvac is an example of a holding in this category. It is listed on NYSE Euronext Brussels and 77.5% owned by the Solvay family who has founded the eponymous Belgian chemicals group Solvay in 1863. Solvac's sole purpose is to hold a stake of around 30% in Solvay in the name of the 2,300 members of the founding family. However, as both Solvac and Solvay are listed on NYSE Euronext Brussels non-family investors can similarly participate as shareholders.

Other family investment holdings, are multi-investment holdings. In this case, a family, may still own part of the company it founded or just manage its accumulated wealth through investments into entirely independent companies by owning positions in multiple ventures through its holding company. This kind of investment holding is more widespread and has received some media attention in recent years (Kirchfeld and Ebhardt, 2015). A well-known example is Exor, the Netherlands-based and Milan-listed holding company of the Agnelli family. The family, best-known for founding the Fiat automotive group in 1899, has used its wealth to diversify into different ventures. Today, it owns around 53% of Exor, which itself holds positions in Partner Re and Banca Leonardo (financial companies), FCA and Ferrari (automotive companies), CNH (mechanical equipment), The Economist (media), Welltec (energy industry), but also in Juventus Turin (football club).

Methodology

The performance of the family investment holdings is analysed by constructing a time-series of USD-translated returns of equally weighted portfolios. These contain family investment holdings over a 20-year period beginning in October 1996. These portfolios are decomposed

across two distinct dimensions and following the characteristics of the different holding companies. First, we study geographical differences by starting to study family holdings globally. Then, the sample is broken down into regions including Europe and Asia-Pacific. Finally, family holdings are examined on the markets in which they are the most prominent. This includes Belgium, Sweden, France and Hong Kong. We also want to better understand whether mono- or multi-investment holdings differ. For this, we create two equally weighted portfolios containing either mono or multi-investment family holdings and as before run all specification on a global, regional and national level. In a last step, we want to gauge the effect of boom and bust periods on the performance and risk of family holdings. We consequently split the sample in periods of economic downturns (March 2000 to October 2002 and October 2007 to March 2009 and expansions (October 1996 to February 2000, November 2002 to September 2007 and April 2009 to September 2016).

In order to evaluate the risk and return characteristics of family investment holdings we resort to the use of the CAPM, Carhart four factor model and models with additional factors. We first estimate the CAPM model by regressing the excess returns of each respective equally weighted portfolio on excess returns of the market index. For the Carhart four-factor model the classic SMB, HML and WML factors are added to the market excess returns. Following the model proposed by Frazzini and Pedersen (2014) we add a Betting Against Beta (BAB) factor to the Carhart model. Finally, we run a model proposed by Asness, *et al.* (2014) which adds a Quality Minus Junk (QMJ) factor to the model of Frazzini and Pedersen (2014).

The regression equation for the market model is represented as

$$(R_{i,t} - R_{f,t}) = \alpha + \beta(R_{m,t} - R_{f,t}) + \varepsilon_t \quad [1]$$

The model proposed by Carhart (1997) takes the form

$$(R_{i,t} - R_{f,t}) = \alpha + \beta_1(R_{m,t} - R_{f,t}) + \beta_2 SMB_t + \beta_3 HML_t + \beta_4 WML_t + \varepsilon_t \quad [2]$$

Finally the models proposed by Frazzini and Pedersen (2014) and Asness, et al. (2014) can be written as

$$(R_{i,t} - R_{f,t}) = \alpha + \beta_1(R_{m,t} - R_{f,t}) + \beta_2 SMB_t + \beta_3 HML_t + \beta_4 WML_t + \beta_5 BAB_t + \varepsilon_t \quad [3]$$

$$(R_{i,t} - R_{f,t}) = \alpha + \beta_1(R_{m,t} - R_{f,t}) + \beta_2 SMB_t + \beta_3 HML_t + \beta_4 WML_t + \beta_5 BAB_t + \beta_6 QMJ_t + \varepsilon_t \quad [4]$$

where $R_{i,t}$ represents the returns of the equally-weighted portfolio *i* for month *t*; $R_{f,t}$ the respective risk-free rate for month *t* and $R_{m,t}$ the respective market returns for month *t*. SMB represents the size factor (small minus big market capitalisation), HML the value factor (high minus low book to market ratio), WML the momentum factor (winner minus losers), BAB the Betting against Beta factor (low beta minus high beta) and QMJ the Quality minus Junk (high quality minus low quality stocks) factor. Finally, α indicates Jensen's alpha (Jensen, 1968), β_1 the factor loading on the market portfolio, β_2 to β_6 the factor loadings on the Fama and French (1993), Carhart (1997), Frazzini and Pedersen (2014) and Asness, et al. (2014) factors and ε_t the residual term.

In all cases a positive alpha implies that family investment holdings yield higher than expected risk-adjusted returns and that it constitutes a good investment for investors. All standard errors are calculated following a Newey–West adjustment with lags of order five to account for autocorrelation and heterogeneity.[1]

The global portfolios all include a global market index and the 3-month US T-bill rate as risk-free proxy. For the regional specifications we benchmark against regional market indices and the 3-month US T-bill rates as risk-free proxy. This data and the SMB, HML and WML factors are obtained from Kenneth French website while the BAB and QMJ factors are from the AQR website. Finally, for local specifications we use local market indices including the BEL20 for Belgium, the OMXS30 for Sweden, the SBF120 for France and the Hang Seng for Hong Kong. These are paired with their respective local 3-month T-bill rates.

EMPIRICAL RESULTS

In this section we first present some descriptive statistics on the different European family holdings and the created portfolios before turning to the different factor model results and concluding by some brief additional tests.

[1] For the specification analysing the effect of crises we use lags of 3 and 4 due to the smaller sample size. Generally, not adjusting standard errors or using a lower lag value at best slightly improves significance. The reported results can thus be considered conservative.

Family Holding Characteristics

This section aims at providing information on the characteristics of the individual family investment holdings. In order to do so, accounting data was collected from Worldscope and the position and family data from respective annual reports over the period 2010 to 2015. The holdings being the most represented in Europe (close to 70% of the sample), only this region is analysed in this section.

Insert Table 1 about here

Table 1 exhibits that the size and value of family holdings, as measured by market capitalisation and total assets, varies strongly and ranges from rather small structures to large multinational operations. This divergence is equally true for the dividend and profitability measures. While some holdings decide not to pay dividends others pay out large amounts and display strong dividend yields. As for a classic company the divergence may emanate from the investment strategy of the holding. If its goal is to hold one or very few positions over longer periods and it does not intend to diversify more it has an incentive to pay out to its family shareholders who oftentimes have their money tied up in the holding and for whom pay outs may constitute the only manner to obtain funds (Isakov and Weisskopf, 2015). On the other hand, a holding which wants to reinvest the dividends it receives from its positions to grow in size may want to keep dividends in the structure. Profitability as measured by return on assets and return on equity is equally variable and stands on average at around 5.9% and 8.1% respectively.

The lower part of Table 1 displays some interesting insights into the characteristics of the family holdings in terms of ownership and positions. It is noticeable that the respective families have a considerable amount of power in their holdings. On average, the family holds around 61% of voting rights in the holding company which gives it a majority and therefore the possibility to run the holding in accordance with its needs and desires.[2] This voting power is further enhanced through active management of family members inside the holdings. In close to 95% of the cases one or more family members sit on the board of directors and in around 54% a family member has a position in senior management, mostly as Chief Executive Officer.

[2] We acknowledge that the minimum stake of 17.20% is under the threshold to be considered a family holding. It has still be used as it emanates from a single holding for which the stake of the family owner dropped below 20% over a one year period.

These numbers are very pronounced compared to prior evidence on family companies in which stakes are often lower and active management less present. Maury (2006), for example, show that for Western Europe family ownership amounts on average to around 30% and active management (as CEO, Chairman or Vice-Chairman) occurs in 21% of companies. In another study on Western European companies, Barontini and Caprio (2006) confirm that on average family stakes stand at 38% but they find that 85% of family companies have a family member on the board or as CEO. Overall, it appears that families strongly tie their holdings to their needs and do not want to relinquish too much control to external investors.

Looking at the positions of the family investment holdings we find some strong heterogeneity on the investment approaches. On average, family investment holdings invest in around 10 ventures. This number, however, strongly depends on the holding. While few have a significant number of positions of up to 27 stakes, others are entirely constructed to solely hold one position (mono-holdings). It is also interesting to notice that family holdings prefer to invest in a restraint number of stakes to obtain a certain level of diversification but do not invest in a multitude of very small stakes such as some Sovereign Wealth Funds or mutual funds tend to do. The diverging approaches have implications for retail investors wanting to tap into a diversified portfolio of companies and should be kept in mind. More interestingly, investing in a family holding allows external investors to profit from an exposure in both listed and unlisted positions. Investments in listed securities accounts for 55% of positions in the sample, while the remaining 45% occur in unlisted securities. Generally, the listed positions are made via small to medium stakes in classic industrial companies. The unlisted positions are more varied in nature, but can mostly be classified into two broad categories: private equity and real estate. The equity investments are either going directly into private equity funds or into smaller companies that are in their developing phase. In this case, the holding either takes an outright 100% stake or works in conjunction with one or two external partners. For the real estate component holdings for the vast majority invest directly in properties and only very rarely through investments in external real estate companies through an equity stake.

Analysing the positions in more detail it further becomes apparent that families through their holdings once again want to maintain a certain control. In order to do so the average voting rights held by the holding in their positions amount to 41%. While this is not an absolute majority it should be enough to strongly influence voting outcomes at AGM and may even constitute a de facto majority due to generally low AGM attendances. This is once again complemented by an active management approach. In approximately 98% of the positons a member of the holding takes up an active participation. This may be a family member, but is

mostly done by a manager or representative of the holding, who is external to the family. We also find that the active management is exclusively done via representation on the board of director in which the family strategy, advisory roles and knowledge transfer should be at its most efficient. This also explains the restricted number of positions of family investment holdings. In order to be able to properly monitor the positions family holdings cannot be present in too many ventures at the same time.

Finally, we find that, similarly to closed-end funds (Lee, *et al.*, 1990; Lee, *et al.*, 1991), the holdings display on average a discount in relation to their net asset value (NAV). On average, it amounts to a discount of approximately 23%. It further very rarely turns into a premium (only 8% of the observations) and does not appear to move in a clear or predictable pattern across the six year period. This characteristic may be of interest to investors looking to participate in undervalued holdings in the hope of the discount gap closing or at the least reducing.

Portfolio Descriptive Statistics

Figure 1 shows the evolution of the Global, European and Asia-Pacific portfolios and their respective benchmark markets which have all been rescaled to a level of 100 in October 1996.

Insert Figure 1 about here

The evolution of the Global and European portfolios are the most pronounced with a sevenfold increase over the last twenty years. At the same time, it is noticeable that both have seen severe drops of 60 to 70% during the global financial crisis. It, a priori, does not appear that family holdings have been more resistant in times of crises, but rather have seen their performance suffer at least as much as equity markets in general. The Global portfolio being predominantly constituted of European holding companies it tends to follow the European portfolio, but shows a slightly worse evolution due to the presence of relatively poorly performing Asian family holding companies. The latter perform similarly to the three market benchmarks and overall yield a fourfold increase over the 20-year period. It further appears that Asian holdings performed especially poor over the first half of the sample period. This may be explained by the Asian Crisis in the mid to end 1990s which hit this region more than others and to the relatively low governance standards present in many South-East Asian markets at the time.

Table 2 further presents different descriptive statistics in relation to performance, risk and distributional features of the family holding portfolios and their respective benchmark markets. Family investment holdings appear to outperform their benchmarks irrespective of their geographical position or holding structure. All display annualised returns of around 11% to 12% over the period 1996 to 2016, while benchmarks returned around 3% to 7%. Mean and median figures hint at a lack of strong outliers in the data but for the Asian portfolio. The high average is driven by some high returns, especially a 45% annualised return in October 1998. Over this month all Asian family holdings performed strongly, while the market equally rallied with an annualised return of 19% over this month due to interest rate cuts by the Federal Reserve to spur economies after the Asian crisis. This is also true to a lesser extent for the local portfolios. Sharpe and Treynor ratios follow the above outperformance findings with family investment holdings displaying higher Sharpe and Treynor ratios than the benchmarks. Only Asian holdings perform poorer than other family holdings and are more in line with Asia-Pacific markets. This is further confirmed by the Hong Kong portfolio which exhibits a similar behaviour to the Asia-pacific market in general.

Insert Table 2 about here

At the same time family investment holdings appear equally or slightly more risky than their benchmarks with annual volatilities of around 20% over the period. Also mono-holdings are not much riskier than multi holding companies indicating a limited diversification effect on family holding risk. Once again, Asia and Hong Kong behave slightly differently with higher risk both for the family holdings (29%, respectively 33%) and their benchmark indices (22% respectively 25%). This is surprising given that family shareholder tend to shun risk (Gomez-Mejia, *et al.*, 2010) to minimise their exposure and secure their wealth. Skewness is slightly negative and similar for all holdings and markets except for Asia displaying a positive figure on this variable. Finally, all series exhibit a leptokurtic behaviour with excess kurtosis around two for most.

Risk and Return of Family Holdings

Table 3 provides results for the CAPM and Carhart four factor model for the global, European and Asian portfolios of family holdings. In all cases the choice between the two

specifications do not alter results in a significant manner. All portfolios display beta coefficients which are slightly higher than unity showing a somewhat riskier composition than the market. This is in line with findings reported in the descriptive statistics. Alpha coefficients are more dependent on geographical location with Global and European portfolios showing a significant outperformance of 0.33% to 0.44% on a monthly basis (4% to 5.3% annually). This indicates a strong performance of family holdings in contrast to their benchmark markets. For the Asian portfolio, on the other hand, alpha coefficients are positive but not significant showing an equal performance as compared to the benchmark. This may be due to higher expropriation or entrenchment fears by market participants as has been shown by prior literature on Asian family business groups (Claessens, *et al.*, 2002).

Insert Table 3 about here

Recent studies have shown that the classic factor models may not be enough in explaining company returns and systematic risks. As such significant risk-adjusted returns may simply be a reflection of missed factors. Frazzini and Pedersen (2014), for example, show that companies with low betas tend to outperform companies with high betas. In other terms a positive loading of the BAB factor hints at the family portfolio to be composed of low beta stocks as opposed to risky high beta stocks. Another paper by Asness, et al. (2014) proposes a QMJ factor which reflects the family portfolio to be composed of quality stocks which are defined as being profitable, growing, save and displaying high pay-outs. We believe these two factors to be particularly interesting in the present context as both appear to fit with the preferences displayed by families. It has been shown that families are risk-averse (XX), display high pay-outs (XX) and rather conservative in their management approach (XX). This is further evidenced by a recent paper by Frazzini, *et al.* (2013) on the investment success of Warren Buffet which can partly be explained by these two factor loadings.

Insert Table 4 about here

Table 4 presents results for these two models. Overall, findings are very much in line with those in Table 3. Alpha and market, SMB, HML and WML factor loadings are qualitatively similar to those in the base model. Results on the two additional factors are rarely significant

showing that they are not relevant systematic factors in the current context. Only the BAB factor in the global context is significantly positive showing that family holdings are rather save stocks. Finally, the QMJ factor for the Asia Pacific region is negative and significant showing that these family holdings are the opposite of quality stocks. Overall, the BAB and QMJ stocks do not appear to be factors that drive the highly significant and positive risk-adjusted return of family holdings.

Family holdings can take different structures. Specifically, it can decide to take stakes in only one venture or in multiple companies. The former may be due to tax reasons, some sort of pyramidal ownership or simply to create a structure that assembles multiple family members under one roof. Multiple stakes can be taken to diversify a family's wealth and create some sort of large, professionally managed listed family office.

Insert Table 5 about here

Table 5 examines these two types of family holdings. Findings remain similar to the ones reported in Table 3. Beta is similar for both mono- and multiple holding companies and are as before slightly above unity. It thus do not appear that a specific diversification effect exists if the family holding holds a more diversified portfolio of companies. Both appear to be dependent on similar systematic risks. Considering alpha mono-holdings, however, tend to be less performant. For the Global portfolio and the CAPM specification of the European portfolio no outperformance is noticeable. For multiple holding companies' alpha remains highly positive and significant and in line with results found in Table 3.

It may be possible that family investment holdings follow diverging evolutions depending on the economic environment. It is often argued that families are long term investors who do not yield to short term market pressures (Lumpkin and Brigham, 2011). If this were true we would expect to find a more resilient performance in times of crises and coefficients to be more uniform as these holdings should not change their composition based on short term considerations.

Insert Table 6 about here

In Table 6 we therefore analyse the performance of family investment holdings during periods of economic expansions and crises. The crises periods include the crash following the dot com bubble and 9/11 (October 2000 to March 2003) and the global financial crisis (October 2007 to March 2009). Expansion periods encompass the remaining time periods.

Beta coefficients remain rather stable through both periods but nonetheless show a slight reduction in coefficients during periods of economic downturns. Alpha coefficients display a more mixed picture dependent on the region considered. Globally, expansion periods appear to yield a limited outperformance while this is not the case for downturns. For European family holdings the outperformance exists throughout both periods. However, it is especially pronounced during the two market downturns showing a very strong resilience during these times as compared to the overall market. Finally, on the Asian market results are reversed. While family holdings do not outperform their benchmark during expansion periods they significantly underperform during recessions. This may again be due to the specificities of Asian markets in which intra-group flows are more common (Claessens, *et al.*, 2006) and may lead to inefficient resource allocations in internal markets even within family holdings.

In Table 7 we examine the performance of family investment holdings on the four markets on which these are the most represented. It includes Belgium, France and Sweden in Europe and Hong Kong for Asia-Pacific.

Insert Table 7 about here

Results remain very much in line with those found on a regional basis. For the three European markets alpha is highly positive and significant exhibiting a risk-adjusted excess return of around 6-7% per year. The beta coefficient is below unity at around 0.9 showing a slightly lower systematic risk exposure than the overall market and hinting at a more conservative approach by family holdings on these three markets. The Hong Kong portfolio behaves differently and is also in line with results from the Asia-Pacific region. It does not perform better than its benchmark index, the Hang Seng, as evidenced by the negative albeit insignificant alpha coefficient. It also displays systematic risk which at 1.13 is slightly higher than for the overall market.

Additional tests

Results may be driven by different specificities. Thus all calculations were redone using two different specifications. First, foreign exchange rates may influence results if price translations into USD generate strong returns on itself. We therefore use local currencies and rerun the different specifications. Results remain qualitatively similar and thus do not appear to be driven by the USD exchange rate. Second, it may be argued that using equally-weighted portfolios may put too much weight on small companies that may be more difficult to invest in or which may exhibit more erratic behaviours. All calculations were thus redone using value-weighted portfolios of family holdings. Findings again remain similar to those presented in the above section.

CONCLUDING REMARKS

Winston Churchill stated that "there is no doubt that it is around the family and the home that all the greatest virtues, the most dominating virtues of human, are created, strengthened and maintained." Families can have a strong impact on the corporations they hold and invest in. In this article, we show that family investment holdings display a number of specific characteristics that make them an interesting alternative to mutual fund or classic equity investments. First, families appear very involved not only in the holding itself but also in the positions in which the holding is invested by owning large stakes and being active in senior management. This certainly allows for better monitoring and probably more importantly for a transfer of knowledge between families and corporations. However, it could be argued that the very influential position of families may lead to both entrenchment and expropriation which may be harmful to external investors. Second, the long term view and positions of family holdings allows to ease off the pressure short term institutional investors tend to put on corporations. This may be beneficial for all shareholders and lead to a more efficient and profitable outcome in the mid- to long-term for both the holdings and the companies these are invested in. Third, family holdings mainly trade at a discount as compared to their NAV which may allow for a profitable investment if the discount closes. Finally, we show that family investment holdings have strongly outperformed their benchmark markets over the last twenty years and this nearly irrespective of the time period, the economic environment and investment strategy considered.

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Table 1
Family holding characteristics

	Observations	Mean	Median	Min	Max	Standard deviation
Market Capitalization	310	3'899'615	1'726'435	1'969	31'929'464	5'364'021
Total assets	311	16'445'619	5'928'082	177	177'169'451	27'160'720
Dividend yield	316	3.19%	2.38%	0.00%	59.11%	5.40%
Dividend pay-out	241	25.59%	20.00%	0.00%	94.12%	22.51%
Return on equity	299	8.10%	7.79%	-84.49%	104.42%	15.14%
Return on assets	303	5.87%	3.69%	-38.32%	69.11%	9.45%
Family stake	265	60.97%	58.60%	17.20%	100.00%	21.83%
Family board	275	95.27%	100.00%	0.00%	100.00%	21.26%
Family management	251	53.78%	100.00%	0.00%	100.00%	49.96%
# of positions	266	9.47	8.00	1.00	27.00	7.19
Voting rights in position	2'216	41.09%	30.31%	0.00%	100.00%	32.79%
Listed position	2'102	55.23%	100.00%	0.00%	100.00%	
Active position	1'159	97.33%	100.00%	0.00%	100.00%	
NAV discount	174	-22.97%	-24.13%	-61.50%	26.12%	15.52%

This table presents characteristics of European family investment holdings over the period 2010 to 2015. The top six lines look into different accounting variables. Market capitalisation and total assets are all USD translated at the respective dates and in thousands. The bottom eight lines exhibits the ownership, and positions of the holdings.

Figure 1
Portfolio and benchmark evolution

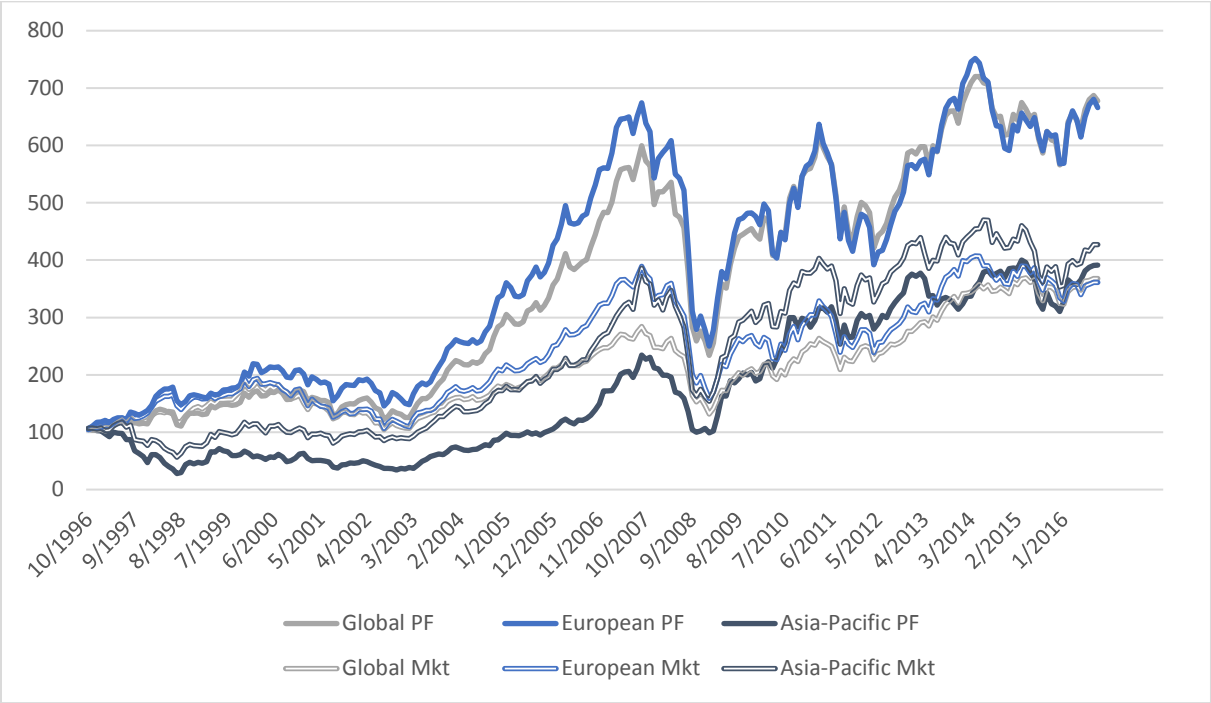

Table 2
Descriptive statistics

	Global Portfolio	European Portfolio	Asia-Pacific Portfolio	Belgian Portfolio	French Portfolio	Swedish Portfolio	Hong Kong Portfolio	Global mono PF	Global multi PF	European mono PF	European multi PF	Global market	European market	Asian market	Belgian market	French market	Swedish market	Hong Kong market
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Mean	11.65%	11.80%	10.87%	8.94%	10.04%	11.27%	4.10%	11.08%	11.74%	12.12%	11.75%	5.61%	6.07%	7.67%	2.76%	3.82%	5.40%	4.06%
Median	12.23%	10.76%	3.62%	14.77%	15.28%	9.91%	2.94%	13.80%	12.99%	16.92%	10.43%	10.44%	9.00%	12.84%	4.63%	7.05%	7.95%	10.30%
Minimum	-25.24%	-26.56%	-23.36%	-31.41%	-30.54%	-22.56%	-32.45%	-29.66%	-24.51%	-31.26%	-25.68%	-19.54%	-22.17%	-25.84%	-29.28%	-22.85%	-25.88%	-30.16%
Maximum	21.13%	19.94%	45.37%	19.89%	19.51%	22.91%	58.12%	22.00%	20.99%	29.03%	19.86%	11.44%	13.86%	18.42%	16.87%	15.35%	20.06%	28.34%
Volatility	20.08%	21.15%	28.98%	20.38%	23.38%	23.83%	33.04%	21.59%	20.25%	22.96%	21.32%	15.66%	18.27%	21.84%	20.57%	21.10%	24.25%	25.17%
Skewness	-0.52	-0.64	0.90	-0.79	-0.66	-0.16	0.98	-0.42	-0.47	-0.35	-0.60	-0.73	-0.59	-0.49	-0.85	-0.47	-0.24	-0.05
Kurtosis	2.34	2.05	4.96	3.80	2.02	1.05	6.49	2.97	2.11	3.26	1.85	1.55	1.45	2.02	2.72	0.71	1.14	2.16
Correlation	0.90	0.95	0.82	0.91	0.83	0.88	0.86	0.81	0.90	0.86	0.94							
Sharpe ratio	0.57	0.55	0.37	0.44	0.43	0.47	0.12	0.50	0.57	0.52	0.54	0.35	0.32	0.34	0.13	0.18	0.22	0.16
Treynor ratio	0.10	0.11	0.10	0.10	0.11	0.13	0.04	0.10	0.10	0.11	0.11	0.05	0.05	0.06	0.03	0.04	0.05	0.04

This table presents summary statistics on the different family holding portfolios and their respective benchmark markets. It includes the annualised mean, median, minimum, maximum returns. The volatility calculated as the standard deviation of the monthly returns skewness and kurtosis, the correlation to the respective market proxy and the Sharpe and Treynor ratio using 3-month T-bill rates as risk-free rate. All price data was taken between October 1996 and September 2016 and was translated into USD.

Table 3
Family investment holding performance

	Global PF (1)	Global PF (2)	European PF (3)	European PF (4)	Asian PF (5)	Asian PF (6)
Alpha	0.436**	0.333**	0.447***	0.383***	0.220	0.126
	(2.381)	(2.191)	(3.502)	(3.388)	(0.781)	(0.532)
MKT global	1.156***	1.166***				
	(23.000)	(35.682)				
SMB global		0.466***				
		(7.305)				
HML global		0.382***				
		(4.364)				
WML global		-0.075				
		(-1.525)				
MKT Europe			1.096***	1.108***		
			(39.092)	(49.294)		
SMB Europe				0.458***		
				(12.548)		
HML Europe				0.134**		
				(2.144)		
WML Europe				-0.037		
				(-1.214)		
MKT Asia					1.091***	1.000***
					(12.661)	(31.944)
SMB Asia						0.078
						(1.095)
HML Asia						0.686***
						(10.445)
WML Asia						-0.297***
						(-5.260)
Observations	239	239	239	239	239	239
R-squared	0.814	0.865	0.897	0.930	0.676	0.808

This table presents results based on the CAPM (odd numbered columns) and the Carhart four-factor model (even numbered columns) for equally weighted family holding portfolios around the world, in Europe and in the Asia-Pacific region. The returns of the portfolios are in USD, with a global or regional stock index and a 3-month T-Bill rate used as risk-free rate. The α estimates are on a monthly basis and in percentage terms. T-statistics are calculated with Newey–West standard errors and lags of order five. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Table 4
Family investment holding performance

	Global PF (1)	Global PF (2)	European PF (3)	European PF (4)	Asian PF (5)	Asian PF (6)
Alpha	0.264*	0.331**	0.406***	0.379***	0.175	0.244
	(1.680)	(1.987)	(3.357)	(2.980)	(0.656)	(0.932)
MKT global	1.177***	1.128***				
	(39.037)	(18.807)				
SMB global	0.442***	0.377***				
	(6.098)	(3.840)				
HML global	0.299***	0.291***				
	(3.140)	(2.954)				
WML global	-0.106*	-0.096*				
	(-1.799)	(-1.672)				
BAB global	0.129*	0.154**				
	(1.759)	(2.065)				
QMJ global		-0.133				
		(-0.977)				
MKT Europe			1.108***	1.129***		
			(50.838)	(36.377)		
SMB Europe			0.487***	0.515***		
			(10.009)	(8.749)		
HML Europe			0.152**	0.170**		
			(2.420)	(2.548)		
WML Europe			-0.024	-0.031		
			(-0.821)	(-1.043)		
BAB Europe			-0.045	-0.068		
			(-1.112)	(-1.531)		
QMJ Europe				0.075		
				(0.909)		
MKT Asia					1.001***	0.961***
					(31.399)	(26.418)
SMB Asia					0.088	0.029
					(1.147)	(0.364)
HML Asia					0.691***	0.668***
					(10.403)	(9.390)
WML Asia					-0.292***	-0.287***
					(-5.107)	(-4.900)
BAB Asia					-0.060	-0.000
					(-0.594)	(-0.004)
QMJ Asia						-0.201*
						(-1.884)
Observations	239	239	239	239	239	239
R-squared	0.867	0.868	0.930	0.931	0.808	0.810

This table presents results based on the Frazzini and Pedersen (2014) (odd numbered columns) and Asness et al. (2014) models (even numbered columns) for equally weighted family holding portfolios around the world, in Europe and in the Asia-Pacific region. The returns of the portfolios are in USD, with a global or regional stock index and a 3-month T-Bill rate used as risk-free rate. The α estimates are on a monthly basis and in percentage terms. T-statistics are calculated with Newey–West standard errors and lags of order five. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Table 5
Mono- versus multi-holding companies

	mono PF	mono PF	multi PF	multi PF	mono PF	mono PF	multi PF	multi PF
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Alpha	0.406	0.099	0.440**	0.372**	0.477**	0.210	0.442***	0.417***
	(1.647)	(0.419)	(2.339)	(2.372)	(2.223)	(0.989)	(3.308)	(3.392)
MKT global	1.114***	1.182***	1.164***	1.164***				
	(13.412)	(23.266)	(24.708)	(34.029)				
SMB global		0.552***		0.452***				
		(3.143)		(7.965)				
HML global		0.555***		0.353***				
		(4.328)		(4.093)				
WML global		0.107		-0.106**				
		(1.187)		(-2.336)				
MKT Europe					1.082***	1.113***	1.100***	1.107***
					(18.408)	(18.476)	(42.706)	(54.405)
SMB Europe						0.476***		0.454***
						(5.375)		(11.823)
HML Europe						0.320**		0.099*
						(2.025)		(1.874)
WML Europe						0.091		-0.061**
						(1.306)		(-2.004)
Observations	239	239	239	239	239	239	239	239
R-squared	0.653	0.722	0.811	0.859	0.741	0.782	0.889	0.921

This table presents results based on the CAPM (odd numbered columns) and the Carhart four-factor model (even numbered columns) for equally weighted family holding portfolios around the world and in Europe. It breaks down family holdings into mono holdings and multiple holding companies. The returns of the portfolios are in USD, with a global or regional stock index and a 3-month T-Bill rate used as risk-free rate. The α estimates are on a monthly basis and in percentage terms. T-statistics are calculated with Newey–West standard errors and lags of order five. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

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Table 6
Boom versus bust periods

	Boom periods						Bust periods					
	Global PF	Global PF	European PF	European PF	Asian PF	Asian PF	Global PF	Global PF	European PF	European PF	Asian PF	Asian PF
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Alpha	0.250	0.310*	0.357**	0.220*	0.117	0.408	0.639	0.238	0.723*	0.712***	-0.361	-1.379**
	(1.318)	(1.833)	(2.447)	(1.785)	(0.367)	(1.525)	(1.602)	(0.623)	(1.984)	(2.776)	(-0.482)	(-2.295)
MKT global	1.226***	1.200***					1.079***	1.099***				
	(22.952)	(27.667)					(10.097)	(12.983)				
SMB global		0.379***						0.673***				
		(5.192)						(5.159)				
HML global		0.289**						0.430***				
		(2.587)						(3.502)				
WML global		-0.107*						-0.105				
		(-1.811)						(-1.656)				
MKT Europe			1.110***	1.150***					1.097***	1.062***		
			(39.888)	(32.850)					(14.009)	(22.777)		
SMB Europe				0.450***						0.603***		
				(9.160)						(10.872)		
HML Europe				0.046						0.194***		
				(0.484)						(4.243)		
WML Europe				-0.021						-0.132***		
				(-0.613)						(-2.783)		
MKT Asia					1.191***	1.015***					0.842***	0.990***
					(11.878)	(25.923)					(9.635)	(11.115)
SMB Asia						0.112						-0.205
						(1.405)						(-1.156)
HML Asia						0.584***						0.855***
						(6.833)						(6.508)
WML Asia						-0.360***						-0.079
						(-5.945)						(-0.667)
Observations	189	189	189	189	189	189	50	50	50	50	50	50
R-squared	0.805	0.844	0.886	0.916	0.699	0.832	0.806	0.893	0.901	0.955	0.597	0.724

This table presents results based on the CAPM (odd numbered columns) and the Carhart four-factor model (even numbered columns) for equally weighted family holding portfolios around the world, in Europe and in the Asia-Pacific region. The six left specifications analyse boom periods and the last 6 columns bust periods (defined as the periods March 2000 to October 2002 and October 2007 to March 2009). The returns of the portfolios are in USD, with a global or regional stock index and a 3-month T-Bill rate used as risk-free rate. The α estimates are on a monthly basis and in percentage terms. T-statistics are calculated with Newey–West standard errors and lags of order five. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Table 7
Family investment holding local performance

	Belgian Portfolio	French Portfolio	Swedish Portfolio	Hong Kong Portfolio
	(1)	(2)	(3)	(4)
Alpha	0.537***	0.543**	0.550**	-0.042
	(4.128)	(2.089)	(2.481)	(-0.157)
MKT Belgium	0.904***			
	(26.784)			
MKT France		0.923***		
		(14.624)		
MKT Sweden			0.865***	
			(16.801)	
MKT Hong Kong				1.133***
				(12.795)
Observations	239	239	239	239
R-squared	0.832	0.693	0.773	0.750

This table presents results based on the CAPM for equally weighted family holding portfolios on the Belgian, French, Swedish and Hong Kong market. The returns of the portfolios are in USD, with the respective local benchmark market index and 3-month T-Bill rate used as risk-free rate. The α estimates are on a monthly basis and in percentage terms. T-statistics are calculated with Newey–West standard errors and lags of order five. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.