FAKULTÄT FÜR BETRIEBSWIRTSCHAFTSLEHRE
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Bachelor Theses FSS 2022: Topics (1/2)

TOPIC NR1: **Green derivatives**
Advisor: Mengqiao Du

TOPIC NR2: **Labor mobility, human capital risk, and gender**
Advisor: Mengqiao Du

TOPIC NR3: **The effect of gender diversity on firms– evidence from gender quotas in Europe**
Advisor: Mengqiao Du

TOPIC NR4: **Employee stock options and turnover**
Advisor: Mengqiao Du

TOPIC NR5: **Diversity in Innovation: Gender Imbalances in Entrepreneurship and Patenting**
Advisor: Larissa Ginzinger

TOPIC NR6: **Gender differences in preferences and women's labor market outcomes**
Advisor: Larissa Ginzinger

TOPIC NR7: **Foundation-owned firm performance**
Advisor: Iram Ansari

TOPIC NR8: **The impact of varying degrees of gender quota regulation on firm performance**
Advisor: Iram Ansari

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Bachelor Theses FSS 2022: Topics (2/2)

TOPIC NR9: **Gender gap in innovation**
Advisor: Clemens Müller

TOPIC NR10: **Inventor death and startup performance**
Advisor: Clemens Müller

TOPIC NR11: **Partisan affiliation and inventor productivity**
Advisor: Clemens Müller

TOPIC NR12: **Firms and ESG: why do firms care about ESG?**
Advisor: Chia-Yi Yen

TOPIC NR13: **Institutional Investors and ESG: Why do institutional investors care about ESG?**
Advisor: Chia-Yi Yen

TOPIC NR14: **Rating providers and ESG: Are ESG rating agencies reliable?**
Advisor: Chia-Yi Yen

TOPIC NR15: **Regulators and ESG: The role regulators play in encouraging sustainability**
Advisor: Chia-Yi Yen

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TOPIC NR1: Green derivatives

Advisor: Mengqiao Du

Derivatives, broadly, can reduce or mitigate different types of risk and have the ability to replicate cash flows and other features of the relevant underlying asset. This is why they can easily be used in different financing structures across capital markets, structured finance, private equity, project finance and banking. As such, they are intrinsically designed to incorporate new features such as addressing the needs of sustainable finance.

While "ESG-linked" derivatives have long been used by market participants (e.g. carbon credit derivatives), derivatives referencing ESG standards or benchmarks have not yet been fully embraced by the derivatives market. Derivatives on ESG-focused indices provide a ready means for selective investments based on ESG parameters. High profile ESG-linked derivative trades can also benefit ESG Finance initiatives related to the European Green Deal (and potentially the increased emphasis on ESG initiatives supported by the new US administration) by not only directing finance towards environmentally friendly areas, but by also incentivizing financial participants to meet their ESG targets.

On the one hand, derivatives can encourage sustainable investment and allow investors to hedge climate-related risks. On the other hand, ESG derivatives may play a distorting role in a coming green valuation bubble or enable cynical actors to engage in greenwashing. There are many interesting industrial reports and discussions on green derivatives but few academic research examining the real effects of green derivatives.

Requirements:
The student is expected to conduct a literature review on green derivatives. The discussions should include but are not limited to the green derivative products, the growth of the green derivative industry, the effect of the green derivatives on ESG investment, and more generally the effect of derivatives on capital markets. In addition, the student needs to collect a sample of green derivatives from online sources and summarize statistics of the underlying firm characteristics.

Introductory Literature:

- Lannoo, K., & Thomadakis, A. (2020). Derivatives in sustainable finance. CEPS-ECMI Study. Brussels: Centre for European Policy Studies, 3.
- White & Case Derivatives Insight – The Delta Report, ESG derivatives, 06 Apr 2021, https://www.whitecase.com/publications/article/esg-derivatives

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TOPIC NR2: Labor mobility, human capital risk, and gender

Advisor: Mengqiao Du

During the past 40 years, movement of individual workers between companies has become more frequent. In recent years, researchers have begun to explore labor mobility as a process that perpetuates labor market inequality, focusing in particular on the extent to which the impact of inter-firm mobility on wages varies between men and women. Results generally suggest that wage gains following voluntary inter-firm mobility are greater for men than for women (Quintana-Garcia and Elivira, 2017; Kronberg, 2013; Fuller, 2008; Light, 2005), although this varies according to family status (Fuller, 2008) and has declined over time for those in higher paying employment (Kronberg, 2013).

Labor mobility also represents a source of risk for firm owners. Donagelo (2014) finds that firms in industries employing workers whose labor skills are portable to other industries are more exposed to systematic risk than those in industries where workers have less portable skill. If female employees are less likely to leave firms, does having a larger proportion of female employees decrease the human capital risk of the firm?

Requirements:
The student is expected to conduct a literature review on labor mobility (including inter-firm, inter-industry, and geographical mobility) and human capital risk with a focus on gender-related topics. The discussions should include but are not limited to the gender difference in labor mobility and how labor mobility influences human capital risk. In addition, the student needs to show gender differences in labor mobility with U.S. census data.

Introductory Literature:

- Donangelo, A. (2014). Labor mobility: Implications for asset pricing. The Journal of Finance, 69(3), 1321-1346.
- Fuller, S. (2008). Job mobility and wage trajectories for men and women in the United States. American Sociological Review, 73(1), 158-183.
- Kronberg, A. K. (2013). Stay or leave? Externalization of job mobility and the effect on the US gender earnings gap, 1979-2009. Social Forces, 91(4), 1117-1146.
- Light, A. (2005). Job mobility and wage growth: evidence from the NLSY79. Monthly Lab. Rev., 128, 33.
- Quintana-Garcia, C., & Elvira, M. M. (2017). The effect of the external labor market on the gender pay gap among executives. Ilr Review, 70(1), 132-159.

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TOPIC NR3: The effect of gender diversity on firms– evidence from gender quotas in Europe

Advisor: Mengqiao Du

Despite the rise in women's labor market participation over the past decades, women are still underrepresented in competitive industries and high-level positions. Many countries have adopted mandatory gender quotas on board of directors or politicians to promote gender equality. As of 2021, 133 countries have adopted gender quotas in political positions. Following Norway's lead in 2003, many countries and regions including Germany, India, Israel, Italy, and California have adopted mandatory board quotas.

Numerous studies examine the impact of gender diversity on boards, which is typically advocated on the grounds of attaining greater social equality or deepening the director talent pool (Terjesen et al. 2009). However, most studies on gender diversity only focus on correlation. Adams and Ferreira (2009) show that female directors have better attendance records than male directors, male directors have fewer attendance problems the more gender-diverse the board is, and women are more likely to join monitoring committees. Huang and Kisgen (2013) find that male executives undertake more acquisitions and issue debt more often than female executives. Gender quotas may provide a unique setting to study the effect of gender diversity on firm decisions.

Requirements:
The student is expected to conduct a literature review on gender diversity on boards and its effect on firm decisions. The discussions should include but are not limited to the adoption of gender quota and how gender diversity on boards influence firms' performance and policies. In addition, the student needs to show empirically how gender quota influences board of director compositions in Europe.

Introductory Literature:

- Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. Journal of Financial Economics, 94(2), 291-309.
- Huang, J., & Kisgen, D. J. (2013). Gender and corporate finance: Are male executives overconfident relative to female executives?. Journal of financial Economics, 108(3), 822-839.
- Terjesen, S., Sealy, R., & Singh, V. (2009). Women directors on corporate boards: A review and research agenda. Corporate governance: an international review, 17(3), 320-337.

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TOPIC NR4: Employee stock options and turnover

Advisor: Mengqiao Du

Employee stock options are a common form of equity compensation, especially among startups and tech companies. Employee stock options are commonly viewed as an internal agreement providing the possibility to participate in the share capital of a company, granted by the company to an employee as part of the employee's remuneration package (Huddart and Lang, 1996). Regulators and economists have since specified that ESOs are compensation contracts.

When firms grant broad-based employee stock options (BBSOs), they provide an incentive for employees to remain with the firm until those options vest. BBSO grants thus should be associated with turnover reductions at granting firms. Whether an effect should be seen in practice, however, is unclear. Competitors often poach employees with options by granting a signing bonus to make the employees whole, in which case BBSOs impose costs on competitors, but do not affect turnover. A reduction in turnover may also be temporary, as employees merely delay joining competitors until after their options vest (Aldatmaz et al. 2018).

Requirements:
The student is expected to conduct a literature review on employee stock options and turnover. The discussions should include but are not limited to the pros and cons of employee stock options and how employee stock options influence turnover. In addition, the student needs to gather data on employee stock options in U.S. firms and show the trend of using employee stock options across industries and over time.

Introductory Literature:

- Aldatmaz, S., Ouimet, P., & Van Wesep, E. D. (2018). The option to quit: The effect of employee stock options on turnover. Journal of Financial Economics, 127(1), 136-151.
- Huddart, S., & Lang, M. (1996). Employee stock option exercises an empirical analysis. Journal of Accounting and Economics, 21(1), 5-43.

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TOPIC NR5: Diversity in Innovation: Gender Imbalances in Entrepreneurship and Patenting

Advisor: Larissa Ginzinger

Innovation is critical to economic development and hinges on the full participation of the scientific workforce. Yet, a growing body of innovation studies demonstrates that there are large disparities in the exploitation of human capital for innovation. Particularly, women are severely underrepresented among both entrepreneurs and patent holders. For instance, Gompers & Wang (2017) find that from 1990 to 2016 women have constituted less than 10% of the entrepreneurial labor pool in the US. Similarly, women's patenting activity only accounted for approximately 3% to 11% of total patenting activity in the US between 1976 and 2013 (Sugimoto et al., 2015). The persistence of this gender gap runs counter to more general labor market trends known as the "grand convergence" (Goldin, 2006, 2014).

Recent research has attempted to examine potential explanations for the gender gap in innovation. For instance, Ewens & Townsend (2020) examine whether early-stage investors have gender biases that affect their investment decisions. They find that female founders are significantly less successful garnering interest and raising capital from male investors compared to observably similar male founders. In contrast, the same female founders are actually more successful than male founders when addressing female investors. In a similar spirit, Desai (2019) provides evidence that patent examiners are more likely to grant patents to inventors from their own racial group or gender than to other applicants.

Requirements:
The primary goal of this bachelor's thesis is to provide a comprehensive literature survey on gender imbalances in entrepreneurship and patenting. The discussion should include, but is not limited to, (1) the status quo of gender imbalances in entrepreneurship and patenting; (2) an overview of more general labor market trends concerning women's education and labor market outcomes; (3) a comprehensive review and comparison of the most common explanations for the gender gap in entrepreneurship and patenting; (4) highlighting potential (policy) measures that can help to alleviate gender imbalances in innovation.

Introductory Literature:

- Desai, P. (2019). Biased regulators: Evidence from patent examiners. Working Paper, Tilburg University.
- Ewens, M., & Townsend, R. R. (2020). Are early stage investors biased against women?. Journal of Financial Economics, 135(3), 653-677.
- Calder-Wang, S., & Gompers, P. A. (2021). And the children shall lead: Gender diversity and performance in venture capital. Journal of Financial Economics, 142(1), 1-22.
- Goldin, C. (2006). The quiet revolution that transformed women's employment, education, and family. American Economic Review, 96(2), 1-21.
- Goldin, C. (2014). A grand gender convergence: Its last chapter. American Economic Review, 104(4), 1091-1119.
- Gompers, P. A., & Wang, S. Q. (2017). Diversity in innovation. National Bureau of Economic Research Working Paper.
- Hebert, C. (2020). Gender stereotypes and entrepreneur financing. SSRN Working Paper Series.
- Sugimoto, C. R., Ni, C., West, J. D., & Lariviére, V. (2015). The academic advantage: Gender disparities in patenting. PloS one, 10(5), e0128000.

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TOPIC NR6: Gender differences in preferences and women's labor market outcomes

Advisor: Larissa Ginzinger

Despite significant labor market progress over the last decades, women remain severely underrepresented in high-status, high-earning occupations. One of the most prominent explanations for gender differences in labor market outcomes are differences in psychological attributes and preferences between men and women that may make some occupations more attractive to women and others more attractive to men.

Psychological and experimental studies have highlighted factors that appear to systematically differ between men and women, such as taste for competition and risk aversion (see, e.g., Niederle & Vesterlund, 2007; Eckel & Grossman, 2008). Moreover, the findings in laboratory studies have initiated a growing body of research aimed at testing the relevance of these factors for labor market outcomes in real-world settings. For instance, Reuben et al. (2021) show that gender differences in taste for competition account for about 10% of the gender gap in compensation among recent MBA graduates. A related strand of literature aims at better understanding the sources of these gender differences in psychological attributes and traits: Are evolution and biology dictating gender differences in preferences? Or are these differences an outcome of child-rearing practices?

Requirements:
The primary goal of this bachelor's thesis is to provide a comprehensive literature survey on gender differences in preferences and psychological attributes and the effects on women's educational choices and labor market outcomes. The discussion should include, but is not limited to, (1) the status quo of gender differences in labor market outcomes; (2) an overview of existing gender differences in preferences; (3) a comprehensive review of the literature investigating the effects of gender differences in preferences on women's educational choices and labor market outcomes; (4) a comprehensive review of the literature exploring the sources of gender differences in preferences; (5) a comparative analysis in light of studies examining alternative/complementary reasons for gender differences in labor market outcomes.

Introductory Literature:

- Andersen, S., Ertac, S., Gneezy, U., List, J. A., & Maximiano, S. (2013). Gender, competitiveness, and socialization at a young age: Evidence from a matrilineal and a patriarchal society. Review of Economics and Statistics, 95(4), 1438-1443.
- Bertrand, M. (2011). New perspectives on gender. Handbook of Labor Economics, Vol. 4, pp. 1543-1590.
- Eckel, C. C., & Grossman, P. J. (2008). Men, women, and risk aversion: Experimental evidence. Handbook of Experimental Economics Results, Vol.1, pp. 1061-1073.
- Flory, J. A., Leibbrandt, A., & List, J. A. (2015). Do competitive workplaces deter female workers? A large-scale natural field experiment on job entry decisions. The Review of Economic Studies, 82(1), 122-155.
- Gneezy, U., Leonard, K. L., & List, J. A. (2009). Gender differences in competition: Evidence from a matrilineal and a patriarchal society. Econometrica, 77(5), 1637-1664.
- Niederle, M., & Vesterlund, L. (2007). Do women shy away from competition? Do men compete too much?. The Quarterly Journal of Economics, 122(3), 1067-1101.
- Reuben, E., Sapienza, P., & Zingales, L. (2021). Taste for Competition and the Gender Gap Among Young Business Professionals. NBER Working Paper No. 21695, Available at SSRN 2687843.

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TOPIC NR7: Foundation-owned firm performance

Advisor: Iram Ansari

In recent years, a trend of shifting from traditional family and non-family to so-called foundation-owned firms has been observed. For instance, as of 2017, many large German firms from various industries are owned by foundations – including Bertelsmann, Bosch, Korber, ThyssenKrupp, ZF Friedrichshafen, Aldi, and Lidl. Most of the foundation-owned firms seem to be originating from family firms. Such a shift is motivated by various family-related (e.g. lack of successors, family legacy) or business-related (e.g. profit maximization, tax optimization) or philanthropic factors. A growing body of literature has emerged around the performance of foundation-owned firms, but remains inconclusive (e.g. Achleitner et al., 2020).

Requirements:
The student is asked to conduct a literature review on the impact of foundation-owned firms on firm performance, and extract the different reasons explaining this relationship from the literature. The literature review should also include, but is not limited to, (1) the role of foundation purpose (family versus charitable foundation), stock market listing and family involvement; (2) a comparison of foundation-owned firms to non-foundation firms, with a focus on their institutional logic (e.g. family goals such as family legacy; or business goals such as profit maximization, expansion of customer base etc.); and (3) a discussion on factors contributing to the better/worse performance of foundation-owned firms versus traditional firms. The student shall also try to incorporate statistics on how many firm in Germany are foundation owned (preferably over at least 5 years). It is encouraged to include the corporate governance literature on blockholder ownership effects where appropriate in the discussion.

Introductory Literature:

- Achleitner, A.-K., Bazhutov, D., Betzer, A., Block, J., and Hosseini, F. (2020) Foundation ownership and shareholder value: an event study. *Review of Managerial Science*, 14(3), 459-484.
- Block, J., Jarchow, S., Kammerlander, N., Hosseini, F., and Achleitner. A. K. (2020) Performance of foundation-owned firms in Germany: The role of foundation purpose, stock market listing, and family involvement. *Journal of Family Business Strategy*, 11(4), 100356.
- Brody, D., and Strauch, C. (1990). Who Are the Family Foundations' Findings from the Foundation Management Survey. *Family Business Review*, 3(4), 337-346.
- Hansmann, H., and Thomsen, S. (2013). Managerial distance and virtual ownership: The governance of industrial foundations. ECGI—Finance Working Paper, 372.
- Khovrenkov, I. (2019). Does foundation giving stimulate or suppress private giving? Evidence from a panel of Canadian charities. *Public Finance Review*, 47(2), 382-408.
- Villalonga, B. and Amit, R. (2008) How are U.S. family firms controlled? *The Review of Financial Studies*, 22(8), 3047-3091.

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TOPIC NR8: The impact of varying degrees of gender quota regulation on firm performance

Advisor: Iram Ansari

Several countries have responded to gender inequality in boardrooms by adopting mandatory and/or non-mandatory but preferred quotas. Norway, Belgium, France, Germany and Italy are some countries that have introduced mandatory quotas. Others such as the Netherlands, Spain, and Sweden have introduced quotas following the 'comply or explain' principle with none to very minimal penalties for non-compliance. These are varying degrees of regulation which affect firm performance and board performance differently. Hence, the empirical literature on the impact of these gender quotas on firm performance is still inconclusive. While several papers find a negative relation when looking at mandatory quotas (e.g., Ahern and Dittmar, 2012), some find a positive link (e.g., Kuzmina and Melentyeva, 2020). Evidence also suggests that companies under non-mandatory regulation, perform better than those with mandatory quotas (e.g., Campbell and Mínguez-Vera, 2008).

Requirements:
The student is asked to conduct a literature review on the impact of gender quotas on firm performance. Firm performance here primarily refers to financial performance, but the student may also consider Corporate Social Responsibility (CSR) and board performance in your discussion. The discussion should include but is not limited to a balanced comparison of existing studies on the link between gender quotas and firm performance, a discussion of why these studies may yield different results, and a detailed overview on the various economic reasons for a link between gender quotas and firm performance posited in the literature. Throughout the discussion, it is important to consider the impact of the varying degrees of regulation and drawing on particular differences between countries with mandatory quotas versus others.

Introductory Literature:

- Ahern, Kenneth R., and Amy K. Dittmar. (2012) The changing of the boards: The impact on firm valuation of mandated female board representation. *The quarterly journal of economics*, 127(1), 137-197.
- Bøhren, Ø. and Strøm, R. Ø. (2010). Governance and Politics: Regulating Independence and Diversity in the Board Room. *Journal of Business Finance & Accounting*, 37 (9-10), 1281-1308.
- Campbell, K. and Mínguez-Vera, A. (2008). Gender Diversity in the Boardroom and Firm Financial Performance. *Journal of Business Ethics*, 83 (3), 435-451.
- Eckbo, B. E., Nygaard, K., and Thorburn, K. S. (2020). Valuation effects of Norway's board gender-quota law revisited. Tuck School of Business Working Paper, (2746786).
- Kuzmina, O., and Melentyeva, V. (2021). Gender diversity in corporate boards: Evidence from quota-implied discontinuities. Available at SSRN 3790376.

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TOPIC NR9: Gender gap in innovation

Advisor: Clemens Müller

Innovation is the central driver of growth in our economy. However there exists discrimination in the form of racism as well as sexism in many stages of the process, such as education, career choice, among many others. Among inventors – individuals in the US that own a patent – only around 7% are female. The research question is thus: Why do we see such a big gap? And second, how do we close this gap?

A number of explanations have been put forward already. One source of variation lies in career choices. Others lie in discrimination in the patent application process. The bachelor thesis will structure various reasons that were put forward in the past.

Requirements:
The thesis will start with an introduction into the literature on innovation and gender. Second, the student is tasked to provide basic summary statistics on the rate of female patenting in the U.S. from 1976 until 2018. Data on research output and gender of inventors will be provided. The student should visualize the historical trends in patenting in the U.S. Also, these rates should be split up into different technological fields. Of particular interest is, given current progress, to compute how long it would take to achieve gender parity when it comes to innovation.

Introductory Literature:

- Koffi, M., (2021): Gendered Citations at Top Economic Journals, AEA P&P, 111, 60-64
- Cook, L., Gerson, J., Kuan, J. (2021): Closing the Innovation Gap in Pink and Black, NBER Working Paper
- de Melo-Martín, I., (2013): Patenting and the Gender Gap: Should Women Be Encouraged to Patent More? Science and Engineering Ethics 19 (2): 491–504
- Ding, W. W., Murray, F., Stuart, T. E., (2006): Gender Differences in Patenting in the Academic Life Sciences, Science, New Series, 313 (5787): 665–67
- Hunt, J., Garant, J. P., Herman, H., Munroe, D. J. (2012): Why Don't Women Patent?, NBER Working Paper
- Meng, Yu, (2016): Collaboration Patterns and Patenting: Exploring Gender Distinctions, Research Policy 45 (1): 56–67
- Milli, J., Williams-Baron, E., Berlan, M., Xia, J., Gault, B., (2016): Equity in Innovation, Women Inventors and Patents, Institute for Women's Policy Research

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TOPIC NR10: Inventor death and startup performance

Advisor: Clemens Müller

How important is human capital for early-stage firms? There is an ongoing debate on whether it is better to bet on the horse (the startup, the idea, or the capital in place) or the jockey (the people who run it). In industries where human capital and physical capital can be easily traded-off, the sudden loss of human capital should not matter. For high tech start-ups, or innovation-intensive industries, human capital might matter a lot. Jaravel et al. (2018) show that when a team member dies, the productivity of coworkers decreases. Choi et al. (2021) show that early joiners of start-ups beyond the founding team matter for future performance.

To look further into this topic, data on inventor birth records will be analyzed together with performance data of startups in the U.S. The analysis will exploit a sudden loss of life of an inventor, which is defined as an inventor dying before the age of 60. Little is known about what industries are more/less affected by a sudden death of an inventor. Further research avenues are looking into whether venture capitalists (VCs) are able to mitigate such a sudden shock.

Requirements:
The thesis will start with a literature review on the importance of human capital for early-stage firms. Second, the student is asked to provide basic summary statistics on the start-up and inventor level. For this purpose, three data sources will be provided: 1) Data on start-up financing/outcomes. 2) Inventors that work for these start-ups. 3) Data on the sudden death of inventors. Third, the students will empirically analyze how important inventors are for start-up success. The student will be asked to replicate simple regressions similar to Jaravel et al. (2018) (figure 1, panel C) and Choi et al. (2021) (figure 5 and 6). Introductory programming experience will be needed to complete this task.

Introductory Literature:

- Jaravel, X., Petkova, N., Bell, A. (2018): Team-Specific Capital and Innovation. American Economic Review Vol. 108, No.4-5, 1034-1073
- Choi, J, Goldschlag, N., Haltiwanger J.C., and Kim J.D. (2021): Early Joiners and Startup Performance, NBER Working Paper Team-Specific Capital and Innovation
- Dimmock, S.G., Huang, J., Weisbenner, S.J. (2021): Give Me Your Tired, Your Poor, Your High-Skilled Labor: H-1B Lottery Outcomes and Entrepreneurial Success. Management Science, forthcoming

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TOPIC NR11: Partisan affiliation and inventor productivity

Advisor: Clemens Müller

Does a democrat inventor perform better under a democratic president? This thesis will analyze this research question. Existing literature has looked at the performance of politically connected firms either when CEOs or board members have close tied to politics. However recently made available data sources allow to make more detailed analyses possible.

The analysis will exploit novel data which links donation records to political parties of individuals with the universe of inventors in the U.S. This allows to look into productivity effects (measured as citations received) on a granular level over time depending on the political affiliation of an inventor.

Requirements:
The thesis will start with a small literature review in the cross-section of finance, innovation and politics. The main part of the bachelor thesis will be on generating summary statistics. What are the rates of patenting of republican vs. democrats? Are republican inventors producing more highly cited innovation? For this purpose, the following data sources will be provided: 1) Data on inventors from the United States Patent and Trademark Office (USPTO) from the years 1976-2018. 2) Party affiliation of around 100,000 inventors in the US. The student will be asked to replicate graphs similar to Short (2020). The final task will be to run a regression comparing independent to democrat and republican inventors conditional on which party occupies the presidency. Introductory programming experience will be needed to do this task.

Introductory Literature:

- Faccio, M. (2006): Politically Connected Firms, American Economic Review, Vol. 96, No. 1
- Short, N. (2020): Political Contributions by American Inventors, Working Paper
- Cohen, A., Hazan M.,Tallarita, R., Weiss, D. (2019): The politics of CEOs, Journal of Legal Analysis, Vol. 11, 1-45
- Fos, V., Kempf, E., Tsoutsoura, M. (2021) The political polarization of US firms, Working Paper

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TOPIC NR12: Firms and ESG: why do firms care about ESG?

Advisor: Chia-Yi Yen

As more and more investors are concerned about climate risks and social justice, sustainable investing has gained popularity and grown rapidly in recent years, particularly in the wake of the covid-19 pandemic. According to Reuters, up to November 2021, funds focusing on environmental, social, and corporate governance (ESG) issues saw a record $649 billion inflows, accounting for 10% of assets under management worldwide.[1] The switch of investing focus to non-financial factors has been a strong force that pushes firms, institutional investors, rating agencies, and regulators to make changes.

This study will focus on the impact of growing ESG awareness from the perspective of firms. Existing literature has found that firms' ESG practices are associated with their performance, valuation, and long-term risks. Flammer (2015) finds that passing a CSR proposal leads to positive announcement returns. Allman and Won (2021) document that firms adopting ESG regulations have better access to debt financing. Bolton and Kacperczyk (2021) point out that investors demand higher returns for firms exposed to higher carbon risks, indicating a higher cost of capital through equity financing. These studies provide evidence of why ESG activities add value. As shown in Servaes and Tamayo (2013), CSR activities are positively related to firm value if customer awareness of the firms is high. However, existing literature also notices the issue of "greenwashing," i.e., firms only emphasize salient CSR activities while neglecting unobservable ones. Wu et al. (2020) criticize that such greenwashing practice is just "a marketing gimmick," which increases CSR spending and hinders customers' ability to make informed decisions, calling for more disclosure transparency in eliminating such bad practices.

Requirements:
The student has to conduct a comprehensive literature review on firms' incentives to engage in ESG activities. The discussion should answer the following questions: What are the cost and benefits for firms to improve their ESG? Does better ESG performance increase firm value? How do ESG characteristics affect firm valuation, through cash flows or discount rate channels? Do better ESG characteristics reduce firms' systematic risk profile by lowering the cost of capital or firms' idiosyncratic risk profile by lowering the exposures to tail risks? Finally, please also discuss the incentive of firms to engage in greenwashing. Besides the literature review, the student has to collect ESG data from the MSCI KLD database and show a time trend of ESG development for US-listed firms.

Introductory Literature:

- Allman, E., & Won, J. (2021). The Effect of ESG Disclosure on Corporate Investment Efficiency. Available at SSRN 3816592.
- Bolton, P., & Kacperczyk, M. (2021). Do investors care about carbon risk?. Journal of Financial Economics, 142(2), 517-549.
- Flammer, C. (2015). Does corporate social responsibility lead to superior financial performance? A regression discontinuity approach. Management Science, 61(11), 2549-2568.
- Servaes, H., & Tamayo, A. (2013). The impact of corporate social responsibility on firm value: The role of customer awareness. Management Science, 59(5), 1045-1061.
- Wu, Y., Zhang, K., & Xie, J. (2020). Bad greenwashing, good greenwashing: Corporate social responsibility and information transparency. Management Science, 66(7), 3095-3112

[1] https://www.reuters.com/markets/us/how-2021-became-year-esg-investing-2021-12-23/

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TOPIC NR13: Institutional Investors and ESG: Why do institutional investors care about ESG?

Advisor: Chia-Yi Yen

As more and more investors are concerned about climate risks and social justice, sustainable investing has gained popularity and grown rapidly in recent years, particularly in the wake of the covid-19 pandemic. According to Reuters, up to November 2021, funds focusing on environmental, social, and corporate governance (ESG) issues saw a record $649 billion inflows, accounting for 10% of assets under management worldwide.[2] The switch of investing focus to non-financial factors has been a strong force that pushes firms, institutional investors, rating agencies, and regulators to make changes.

This study will focus on the impact of growing ESG awareness from the perspective of institutional investors. Existing literature has found that ESG investing is associated with fund flows, fund revenue, the ESG performance of its holding firms. Hartzmark et al. (2019) find that being labeled as high sustainability can bring in more than $24 billion net fund inflows. On the one hand, it encourages institutional investors to gravitate toward more sustainable investing; on the other hand, it also creates an incentive to greenwashing, particularly for actively-managed funds that have no standard investment framework to follow. Another interesting point is the relation between fund revenue and the ESG performance of holding firms. Lewellen and Lewellen (2022) estimate the monetary benefits of being an engaged investor—an additional $129,000 in management fee if its holding firm increases 1% in value. This creates an incentive for institutional investors to engage in ESG practices of their holding firms if such practices increase firm value (see topic NR12). However, it is not yet clear whether institutional investors drive ESG performance of their holding firms (Dyck et al., 2019; Brandon et al., 2021; Heath et al., 2021).

Requirements:
The student has to conduct a comprehensive literature review on the incentives of institutional investors to engage in ESG activities. The discussion should answer the following questions: What are the cost and benefits for institutional investors to engage in ESG investing? Do responsible investors invest responsibly? Are they a strong enough force to change firm behavior, such as driving CSR? Do they have an incentive to engage in greenwashing? Do the above discussions depend on actively- or passively-managed funds? Besides the literature review, the student has to collect ESG-focused fund data from Morningstar and show the time trend of newly-launched ESG-focused funds over the past years.

Introductory Literature:

- Brandon, R. G., Glossner, S., Krueger, P., Matos, P., & Steffen, T. (2021). Do Responsible Investors Invest Responsibly?. ECGI Working Paper Series in Finance.
- Dyck, A., Lins, K. V., Roth, L., & Wagner, H. F. (2019). Do institutional investors drive corporate social responsibility? International evidence. Journal of Financial Economics, 131(3), 693-714.
- Hartzmark, S. M., & Sussman, A. B. (2019). Do investors value sustainability? A natural experiment examining ranking and fund flows. The Journal of Finance, 74(6), 2789-2837.
- Heath, D., Macciocchi, D., Michaely, R., & Ringgenberg, M. C. (2021). Does Socially Responsible Investing Change Firm Behavior?. Available at SSRN 3837706.
- Krueger, P., Sautner, Z., & Starks, L. T. (2020). The importance of climate risks for institutional investors. The Review of Financial Studies, 33(3), 1067-1111.
- Lewellen, J., & Lewellen, K. (2022). Institutional investors and corporate governance: The incentive to be engaged. The Journal of Finance, 77(1), 213-264.

[2] https://www.reuters.com/markets/us/how-2021-became-year-esg-investing-2021-12-23/

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TOPIC NR14: Rating providers and ESG: Are ESG rating agencies reliable?

Advisor: Chia-Yi Yen

As more and more investors are concerned about climate risks and social justice, sustainable investing has gained popularity and grown rapidly in recent years, particularly in the wake of the covid-19 pandemic. According to Reuters, up to November 2021, funds focusing on environmental, social, and corporate governance (ESG) issues saw a record $649 billion inflows, accounting for 10% of assets under management worldwide.[3] The switch of investing focus to non-financial factors has been a strong force that pushes firms, institutional investors, rating agencies, and regulators to make changes.

This study will focus on the potential concerns in using ESG ratings provided by rating agencies. While sustainable investing relies on accurate assessment of firms' ESG performance, existing literature has documented problems resulting from measurement errors and conflict of interests in the ESG rating industry. As ESG implementation has not been defined consistently, different rating providers may measure ESG performance differently. This leads to disagreement in ESG ratings and may, in turn, discourage firms from investing in socially-beneficial projects (Avramov et al., 2021; Berg et al., 2019). It also casts doubt on whether these ESG ratings provide useful information (Daines et al., 2010). What concerns rating users more is probably the conflicts of interest between them and rating agencies. As pointed out in Tang et al. (2021), the institutional investors that own shares of KLD, one of the major providers of ESG ratings, may pressure KLD to issue a better ESG rating to other firms held by the same institutional investors. This is similar to the problem identified by Li (2018) in the proxy advisory industry: when selling services to both issuers and investors, proxy advisors are more likely to issue a favorable recommendation toward management. These studies call into question the objectivity of the rating agencies.

Requirements:
The student has to conduct a comprehensive literature review on the potential concerns of relying on ESG rating agencies for sustainable investing. The discussion should answer the following questions: Is there a measurement error problem for ESG ratings? How do major ESG rating providers measure ESG performance? Does the divergence of ESG ratings from different rate providers lead to negative consequences? In addition to the concerns of measurement errors, is there a conflict of interest between rating agencies and rating users? Besides the literature review, the student has to collect ESG ratings from different rating providers and discuss the divergence of these ratings.

Introductory Literature:

- Avramov, D., Cheng, S., Lioui, A., & Tarelli, A. (2021). Sustainable investing with ESG rating uncertainty. Journal of Financial Economics.
- Berg, F., Koelbel, J. F., & Rigobon, R. (2019). Aggregate confusion: The divergence of ESG ratings (pp. 1-42). Cambridge, MA, USA: MIT Sloan School of Management.
- Daines, R. M., Gow, I. D., & Larcker, D. F. (2010). Rating the ratings: How good are commercial governance ratings?. Journal of Financial Economics, 98(3), 439-461.
- Hartzmark, S. M., & Sussman, A. B. (2019). Do investors value sustainability? A natural experiment examining ranking and fund flows. The Journal of Finance, 74(6), 2789-2837.
- Li, T. (2018). Outsourcing corporate governance: Conflicts of interest within the proxy advisory industry. Management Science, 64(6), 2951-2971.
- Tang, D. Y., Yan, J., & Yao, C. Y. (2021). The determinants of ESG ratings: Rater ownership matters. Available at SSRN 3889395.

[3] https://www.reuters.com/markets/us/how-2021-became-year-esg-investing-2021-12-23/

TOPIC NR15: Regulators and ESG: The role regulators play in encouraging sustainability

Advisor: Chia-Yi Yen

As more and more investors are concerned about climate risks and social justice, sustainable investing has gained popularity and grown rapidly in recent years, particularly in the wake of the covid-19 pandemic. According to Reuters, up to November 2021, funds focusing on environmental, social, and corporate governance (ESG) issues saw a record $649 billion inflows, accounting for 10% of assets under management worldwide.[4] The switch of investing focus to non-financial factors has been a strong force that pushes firms, institutional investors, rating agencies, and regulators to make changes.

This study will focus on the role regulators play in encouraging sustainability. Existing literature has found that disclosure policies and taxes can be effective tools for policymakers to facilitate. Using international data, Krueger et al. (2021) find beneficial informational effects of mandatory ESG disclosure—more accurate and less dispersed analysts' earnings forecasts, less negative ESG incidents, and less stock price crash risks. Allman and Won (2021) document that firms adopting ESG regulations have better access to debt financing. Besides, taxes can also promote sustainable investing. For example, the federal tax credits in the US provide an incentive to invest in renewable energy. In addition to firms, institutional investors are also affected by the regulations; they have noticed that "regulatory risks [particularly climate risks] have begun to materialize" (Krueger et al., 2020) and are therefore switching to more sustainable investing.

Requirements:
The student has to conduct a comprehensive literature review on the effectiveness of ESG-related regulations around the world. The discussion should answer the following questions: How do ESG regulations evolve over time? How are ESG regulations developed in different regions? Are these regulations effective, and how? Do regulators address the "greenwashing" issue by increasing disclosure transparency (see NR12 and NR13)? Are the above discussions dependent on areas? Besides the literature review, the student has to compare and contrast ESG-related regulation across G7 economies.

Introductory Literature:

- Allman, E., & Won, J. (2021). The Effect of ESG Disclosure on Corporate Investment Efficiency. Available at SSRN 3816592.
- Krueger, P., Sautner, Z., Tang, D. Y., & Zhong, R. (2021). The effects of mandatory ESG disclosure around the world. Available at SSRN 3832745.
- Ioannou, I., & Serafeim, G. (2017). The consequences of mandatory corporate sustainability reporting. Harvard Business School research working paper, (11-100).
- Wu, Y., Zhang, K., & Xie, J. (2020). Bad greenwashing, good greenwashing: Corporate social responsibility and information transparency. Management Science, 66(7), 3095-3112

[4] https://www.reuters.com/markets/us/how-2021-became-year-esg-investing-2021-12-23/