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In This Issue

A General Equilibrium Model of Formalization of a Dualistic Economy and Evidence from Indonesia

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As in many developing economies, a large share of employment in Indonesia, nearly 50 percent in 2015, is in the informal sector, where entrepreneur skills and productivity are low compared to the formal sector. The informal sector contributes little to government tax revenue, which funds public infrastructure and services. Countries with a high share of informal employment can be trapped in low productivity due to the lack of investment in public infrastructure and services for development. Two important questions arise. First, why do not formal firms employ more workers, so that the economy can be more productive? Second, how can we enable the formal sector to expand?

To shed light on these questions, this study puts forward a micro-foundation model to study both demand-side and supply-side determinants of formality. The model features location sorting and occupation selection of a population of workers of heterogeneous skills, who have a taste for consumer-good variety supplied in the economy. The economy comprises two regions, each of which trades with the rest of the world subject to a trade cost and offers an amenity to the freely mobile workers subject to congestion. The occupation choices include i) formal sector entrepreneurs, who pay a fixed tax to access local public infrastructure and services to trade with the rest of the world, ii) informal sector entrepreneurs, who pay no tax and sell only to local population, and iii) employees, who receive a competitive wage rate that equalizes employees' amenity-adjusted real income across the regions. The productivity of entrepreneurs increases with their skill. In equilibrium, high-skill workers will choose the form entrepreneur occupation; middle-skill workers, the informal entrepreneur occupation; and low-skill workers, the employee occupation. In addition, the region with better infrastructure, hence a lower cost for trading, will attract higher-skill formal entrepreneurs, who can benefit more from the lower trading cost.

The authors report three key findings. First, the coexistence of the formal and informal sectors is essentially the result of the tradeoff between efficiency, which motivates concentration of employment in the relatively few high-skill formal firms, and consumption diversity, which expands with local informal entrepreneurship. A stronger preference for diversity raises the demand for local informal entrepreneurship, reducing formal employment share but elevating wage rates in the economy.

Second, the study shows that a greater share of skilled workers in the population encourages formalization by increasing the supply of productive entrepreneurs, who are able to take advantage of the opportunities to trade offered by the formal sector. Third, greater external demand also encourages formalization by raising the productivity of formal entrepreneurs.

The predictions of the model are consistent with the recent trends observed in Indonesia. The chart below shows the rise in formal employment share coincident with the increases in high-school graduate share in the working population (a supply-side determinant of formalization) and export volume (a demand-side determinant). The model also predicts increased regional concentration of employment due to these changes in the supply-side and demand-side factors, consistent with the observation.

In conclusion, the study provides new insights to the role of informal sector in a developing economy and effective policies for economic development. The informal sector helps to expand local consumption diversity when high-skill entrepreneurs are scarce in the economy. Instead of discouraging informal entrepreneurship, policies to promote economic development should focus on human capital upgrading to increase the supply of skilled entrepreneurs and trade cost reduction to expand export opportunities.

Chart: The Trends of Employment Formalization, Worker Education Level, and Export of Goods in Indonesia, 1995 to 2015.
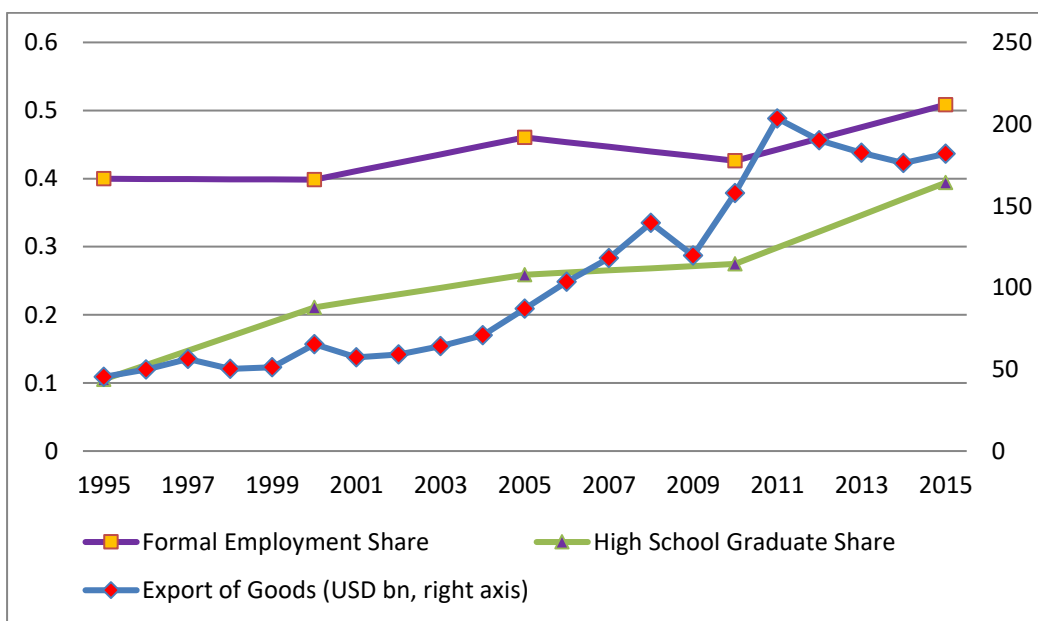
Data sources: CEIC, Indonesia Census data 2000-2010, and National Labor Force Survey 1995 and 2015.

Are Mutual Fund Managers Paid For Investment Skills?

Markus Ibert *(Stockholm School of Economics & Swedish House of Finance),*

Ron Kaniel *(University Rochester),* **Stijn Van Nieuwerburgh** *(New York University)*

and **Roine Vestman** *(Stockholm University)*

While a large and growing number of investors are placing their assets with fund managers, the compensation of these managers is a blind spot as little is known about the money they actually make. This study collects a unique data set on mutual fund manager compensation to shed light on the determinants of their compensation. The data is on the universe of mutual funds sold in Sweden, which is an economy with a highly developed mutual fund industry. The aim is to have a better understanding of the economic relationship between the firm and the fund managers they employ. This relationship, in turn, is important for investors providing their assets to such funds.

The study finds a significantly lower sensitivity of pay to manager-level assets under management (AUM), compared the fixed fraction of AUM charged by funds. It also finds weak sensitivity of pay to performance. The authors show that firm-level characteristics add substantial explanatory power for manager pay.

Using Morningstar data, the authors link the names and tenure of the persons managing funds to tax records, which provide annual income and other forms of compensation and also give access to their demographics, education and financial income. For each manager and year, the paper connects pay to AUM and to the return on that manager's portfolio of funds. This novel data provides a unique ability to study the determinants of manager pay and the interplay between the fund manager and his firm.

While in the mutual fund industry fees are proportional to AUM, this study's first result shows that although there is a strong relationship between the income of the manager and size of the funds under management or funds fee revenue, the relationship is concave. The second result indicates that the relationship between pay and performance is quite weak. The component of revenue that is unrelated to past fund performance remains the dominant diver of pay.

The authors say that since mutual fund companies manage multiple funds, this raises the possibility that manager pay depends not only on the revenue and performance of the funds that he manages but also on the revenue and performance of the other funds in the same fund family. The authors' analysis uncovers, first that there systematic pay differences across firms. Second, the sensitivity of manager pay to firm revenue is comparable to that of the revenue generated by the manager.

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Importantly, firms with higher profits pay significantly more. At the same time, profitability lowers the sensitivity of compensation to manager revenues and increases that to performance. The authors say that this evidence is consistent with a pay package that contains one component that depends on manager-level revenues and another component that comes out of a firm-wide bonus pool. This bonus pool is there only when the firm makes a profit. Pay for performance is only present in profitable firms, but even there it is found to play a small role in determining pay.

The fund family's role has received fairly little attention in prior literature. The paper's results highlight the key role fund families have in setting manager compensation, as well as emphasize the importance of better understanding the role of the fund manager within the fund family.

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Boards and Information: Evidence from Stock Returns after CEO Subjective Performance Reviews

Moqi Groen-Xu *(London School of Economics and Political Science),*

Peggy Huang *(US Securities and Exchange Commission)* and **Yiqing Lu** *(New York University)*

The information content of CEO subjective performance reviews is the focus of this study. The authors propose a novel proxy of positive reviews based on evidence of real CEO contracts: salary raises. It shows that performance review outcomes in fact predict long-term stock returns. A long-short portfolio strategy that invests in firms with CEO salary increases earns abnormal returns of 6% to 8% annually.

The authors say that subjective performance reviews may not be effective if the underlying information is rigged by the CEO. If firms use subjective performance reviews as intended and pay CEOs for good long-term performance, then such raises should predict better future performance.

Furthermore, only those salary increases offered by firms with contracts that schedule subjective performance reviews or investing heavily in R&D predict favourable long-run performance. This pattern of results was virtually unaffected when the authors adjusted the portfolio returns by size, value, and momentum factors.

The study shows that subjective performance reviews are not rigged by CEOs to their favour. Positive outcomes of such reviews are followed by positive stock price development. A long-short portfolio strategy that invests in firms with stand-alone salary increases and takes a short position in firms without salary increase earns abnormal returns.

The authors find an upswing in real firm activities following stand-alone salary increases. Specifically, the number of product announcements goes up in firms that give such raises one year after the compensation change. Abnormal returns likewise increase around subsequent announcements of product development.

They also find that for firms with more effective boards, the soft information embedded in subjective performance reviews is more predictive of future returns. In addition, compensation changes in firms with more information asymmetry predict higher future returns. All these results show that executive compensation changes have soft information about a firm's innovation activities, whose interpretation is subject to the board's effectiveness and the information environment of investors.

The authors did several robustness checks to show that stand-alone salary increases are indeed related to subjective evaluation. They show that firms with more R&D investment are more likely to sign contracts having explicit review clauses. Such CEO contracts are also more likely in firms characterized by greater dispersion among analyst forecasts and/ or higher return volatility.

This paper complements a growing literature on the use of board information in the corporate governance context as well as the theoretical literature on subjective evaluation of executives. It also contributes to the literature on the market's ability to value R&D investment. Instead of studying pay based on explicit performance measures, the study provides evidence taken from CEO contracts whose terms do not rely on such measures and show how they play a key role in encouraging long-term innovation decisions. An important tool of corporate governance, subjective performance review enables a board to encourage long-term investment when the market is delayed in recognising them. ends

Table 6: Calendar-time portfolio returns

Compensation changes	Excess returns	3-factor alpha	4-factor alpha	Excess returns	3-factor alpha	4-factor alpha	Excess returns	3-factor alpha	4-factor alpha
	Year 1 after salary change			Year 1.5 after salary change			Year 2 after salary change		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A: Stand-alone salary increases									
Stand-alone salary increase	1.01%	0.77%	0.85%	0.84%	0.76%	0.80%	0.72%	0.58%	0.60%
No change in salary	0.55%	0.19%	0.35%	0.56%	0.44%	0.50%	0.57%	0.43%	0.49%
Spread	**0.46%**	**0.58%**	**0.50%**	**0.28%**	**0.33%**	**0.30%**	0.15%	0.15%	0.11%
T-stat	2.57	3.62	3.13	1.71	2.07	1.88	0.95	1.02	0.81
Panel B: Stand-alone salary increases -- excluding 2001-2003									
Stand-alone salary increase	1.03%	0.73%	0.86%	0.79%	0.74%	0.76%	0.56%	0.52%	0.54%
No change in salary	0.51%	0.06%	0.39%	0.41%	0.31%	0.37%	0.23%	0.18%	0.24%
Spread	**0.53%**	**0.67%**	**0.47%**	**0.39%**	**0.43%**	**0.39%**	**0.33%**	**0.34%**	**0.31%**
T-stat	2.50	3.66	2.70	1.98	2.33	2.01	1.85	2.20	2.07
Panel C: Stand-alone salary increases: reasons									
Spread_subjective reason	**0.56%**	**0.73%**	**0.66%**	0.34%	**0.38%**	**0.39%**	0.17%	0.19%	0.17%
T-stat	1.91	2.87	2.56	1.56	1.75	1.77	0.85	1.02	0.92
Spread_objective reason	0.54%	**0.70%**	0.57%	-0.05%	-0.01%	-0.14%	-0.37%	-0.38%	-0.44%
T-stat	1.37	1.98	1.61	-0.11	-0.02	-0.33	-1.06	-1.08	-1.34
Panel D: Stand-alone salary increases: R&D/sales									
Stand-alone salary increase*high R&D/sales	1.01%	0.79%	0.88%	0.88%	0.82%	0.86%	0.85%	0.70%	0.72%
No change in salary*high R&D/sales	0.50%	0.13%	0.28%	0.51%	0.39%	0.45%	0.61%	0.45%	0.54%
Spread_highR&D/sales	**0.51%**	**0.66%**	**0.60%**	0.37%	**0.43%**	**0.41%**	0.23%	0.25%	0.18%
T-stat	1.82	2.49	2.26	1.42	1.79	1.71	0.86	1.03	0.80
Stand-alone salary increase*low R&D/sales	0.60%	0.37%	0.46%	0.22%	0.21%	0.21%	0.77%	0.50%	0.50%
No change in salary*low R&D/sales	0.22%	-0.41%	-0.28%	1.22%	1.22%	1.32%	2.59%	2.49%	2.55%
Spread_lowR&D/sales	0.38%	0.78%	0.74%	-1.01%	-1.01%	-1.11%	-1.82%	-1.99%	-2.05%
T-stat	0.54	1.13	1.07	-0.93	-0.96	-1.08	-1.52	-1.58	-1.64
Panel E: Four factor loadings, Year 1 after salary change									
	MKT	T-stat	SMB	T-stat	HML	T-stat	UMD	T-stat	
Stand-alone salary increase	0.97	30.69	0.10	2.88	0.23	5.20	-0.08	-3.12	
No change in salary	1.09	29.66	0.07	1.69	0.50	9.59	-0.16	-5.42	
Spread	-0.12	-2.89	0.03	0.56	-0.25	-4.14	0.08	2.33	

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Note: This table shows calendar-time equally weighted monthly returns and t-statistics for portfolios sorted by changes in compensation. We form portfolios for each month; these portfolios include all companies that made the same type of compensation change and filed their proxy statements within the prior 12 months. These portfolios so constructed are rebalanced monthly. In Panel A, we sort stocks into two portfolios, one consisting of firms with stand-alone salary increases and the other consisting of firms with no such increases. Panel B reports subsample analysis excluding years 2001 to 2003. In Panel C, we further sort firms with stand-alone salary increases based on the reasons for salary changes listed, namely, subjective reasons and objective reasons. In Panel D, we double sort firms with stand-alone salary increases and R&D/sales. We rank firms by R&D/sales above and below industry median in each year. We compute excess returns, three- and four-factor alphas (as in Fama and French (1996), and Carhart (1997)) by running time-series regressions of excess portfolio returns on the market (MKT), size (SMB), value (HML), and momentum (UMD) factor returns. Panel E reports the factor loadings based on the four-factor model for portfolios in Panel A and their t-statistics. Standard errors are computed after Newey-West adjustment with three lags. The spreads of long-short portfolio returns are indicated in bold if they are positive and significant at the 10% level.

Table 7: Stock return regressions

Dependent variable	Monthly stock return 1 year after salary change			Monthly stock return 1.5 years after salary change			Monthly stock return 2 years after salary change		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Stand-alone salary increase	0.009***	0.009***	0.005***	0.006***	0.006***	0.003*	0.003	0.003	0.001
	(0.002)	(0.002)	(0.022)	(0.002)	(0.002)	(0.022)	(0.002)	(0.002)	(0.020)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm cluster	Yes	No	No	Yes	No	No	Yes	No	No
Two way cluster	No	Yes	No	No	Yes	No	No	Yes	No
Fama-Macbeth	No	No	Yes	No	No	Yes	No	No	Yes
N	33032	33032	33032	33032	33032	33032	33032	33032	33032

Note: This table reports the coefficients and standard errors (in parentheses) of forecasting regressions of monthly stock returns on compensation changes. The dependent variables in columns 1, 2, and 3 are the monthly stock returns 1 year after compensation changes; in columns 4, 5, and 6, they are the monthly stock returns 18 months after compensation changes; in columns 7, 8 and 9, they are the monthly stock return 2 years after compensation changes. The independent variable is the dummy variable indicating stand-alone salary increases. Control variables include one-, two-, three-, four- and five-month lagged returns, logarithms of asset size and market-to-book ratio with one-year lag. We estimate pooled regression in columns 1, 2, 4, 5, 7 and 8. Standard errors are clustered by firm in columns 1, 4, and 7 and by firm and year-month in columns 2, 5, and 8. Fama and Macbeth (1973) regressions are estimated in columns 3, 6 and 9.

*** Significant at the 1% level.
*** Significant at the 5% level.*
* Significant at the 10% level.

Estimating Productivity of Public Infrastructure Investment

Guiying Laura Wu *(Nanyang Technological University)*, **Qu Feng** *(Nanyang Technological University)* and **Zhifeng Wang** *(Nanyang Technological University)*

This study looks at three important, controversial and long-lasting research questions on public infrastructure spending by studying the experience in China. The authors investigate what is the average rate of return of public infrastructure investment. The answer to this question is at the centre of the current policy debate. If the investment earns a high enough real return, it is actually possible to reduce the debt burden of future generations. Further the study investigates if public infrastructure investment does raise output and income, is it because of the Keynesian demand effect or does it indeed enhance productivity of the supply side? The authors also want to know that if the average rate of return on public infrastructure investment is indeed positive, what are the underlying mechanisms for such investment to promote aggregate productivity?

To get over identification issues, the study uses a set of new methodologies. First, instead of estimating an aggregate production function, the authors estimate a production function using Chinese firm-level production data matched with province-level public infrastructure data. Second, by modelling a demand system they distinguish the revenue-based total factor productivity (TFPR) from the quantity-based total factor productivity (TFPQ). Thirdly, the authors estimate an endogenous productivity model in which public infrastructure investment affects firm productivity.
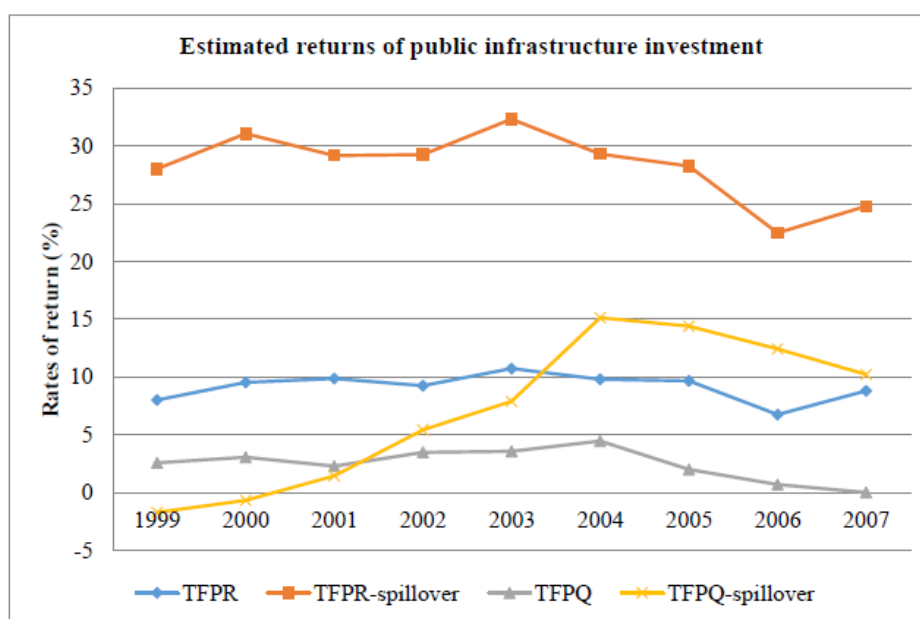
Note:

This figure reports the returns of public infrastructure investment over 1999-2007 in 4 models: TFPR, TFPR with spillover effects, TFPQ and TFPQ with spillover effects, respectively.

Using a panel of Chinese manufacturing firms matched with province-level public infrastructure investment from 1998 to 2007, the study finds that there is a 9.2% annual real rate of return of public infrastructure investment in the TFPR model. This means that public infrastructure investment does have large and positive effects on average. Second, in contrast, the return estimated from the TFPQ model is much smaller, which suggests that more than two-thirds of the positive effect on output is indeed via the Keynesian demand effect.

The authors further consider the spill over effects of public infrastructure investment across regions. In a specification where public infrastructure investment is allowed to have national spill over effects on firms locating outside of the province, the estimated rates of return triple. By using their estimation strategy, substantial heterogeneity in the estimated effects across firms allows the authors to investigate the underlying mechanism of why public infrastructure investment is productive at the aggregate level.

Overall, this study finds that there is strong and robust evidence on the productivity effect of public infrastructure investment. The average rate of return on private investment lies in between the returns of public infrastructure investment with and without spill over effects. Second, more than two-thirds of the contribution of public infrastructure investment to output is via the short-run Keynesian demand effect, although the long-run quantity-based total factor of productivity also benefits from such investment. Third, firm-level evidence on firm characteristics and dynamics is consistent with the hypothesis that public infrastructure investment contributes to aggregate productivity by facilitating resource reallocation from less productive firms to the more productive firms.

Naughty Firms, Noisy Disclosure: Effects of Cartel Enforcement on Corporate Disclosure

Thomas Bourveau *(Hong Kong University of Science and Technology),*

Guoman She *(Hong Kong University of Science and Technology)*

and **Alminas Zaldokas** *(Hong Kong Univesity of Science and Technology)*

In this study the authors look at how financial disclosure can assist tacit coordination in the product markets. Given the recent demands of securities market regulation to increase transparency and disclose more information in their financial statements, this raises a question of potential conflict between securities market regulation and antitrust regulation.

Since both product market and disclosure choices are likely to be endogenously determined, the authors' identification strategy relies on the exogenous variation in the incentives for tacit

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coordination and looks at whether firms adapt their disclosure strategies. The authors argue that incentives for tacit coordination increase when the illegal explicit collusion costs that come from stronger antitrust enforcement rise. They consider a sample of U.S. listed companies from 1994 to 2012 and develop a measure meant to capture exogenous increase in explicit collusion costs at the industry level. In their measure the authors rely on the leniency law passage in the countries with which U.S. firm's industry trades. The leniency law allows the cartel member, who provides crucial evidence to the cartel prosecutors, to obtain amnesty and thus reduce legal exposure. These laws have been shown to be effective in convicting the existing cartels and deterring the formation of the new ones.

By exploiting this exogenous variations to the costs of illegal price-fixing and thus higher incentives for tacit coordination, the study finds that U.S. firms start sharing more detailed information in their financial disclosures about their customers, contracts, and products, potentially benefiting peers and helping to tacitly coordinate actions in product markets. In particular, firms are required to submit material contracts with customers as part of their financial disclosure requirements but they can choose to redact certain information. The authors find that following the rise in the explicit collusion costs and thus higher incentives for tacit coordination, the firms provide more information on product prices, quantities, and contract durations in these material contracts. Moreover, the authors find that firm executives discuss more on product market strategies in the earnings' conference calls with equity market analysis. They also provide more information on the identity of their major customers.

Importantly, the authors find that firms which adapt their disclosure strategies do not experience a negative drop in profitability following the passage of foreign leniency laws (solid line) while the profitability of the firms which do not change their disclosure in fact suffers (dashed line).
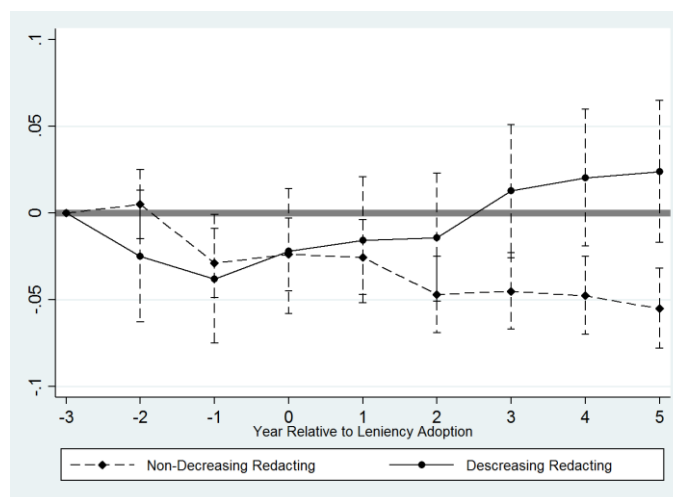
These findings imply that in addition to financial market participants, financial disclosure also benefits other audiences and in particular some information helps firms tacitly coordinate product market behavior with their rivals. These results have important policy implications, suggesting that financial disclosure rules should take into account potential externalities to antitrust enforcement, and calling for more regulatory cooperation. Overall, the findings of this study suggest that transparency in financial statements can come at the expense of consumer welfare.

Politicizing Consumer Credit

Pat Akey *(University of Toronto)*, **Rawley Z. Heimer** *(Cleveland Fed)*
and **Stefan Lewellen** *(London Business School)*

This paper uses shocks to the political standing of U.S. Senators and a proprietary database of Americans' credit histories to examine the relationship between political power and consumer access to credit in the United States. The authors say that unlike the existing literature, they find that increases in political power are associated with *reductions* in consumer credit access in a politician's home state relative to other, unaffected states.

These reductions in credit supply are also more pronounced in areas with few politically active citizens and many politically connected banks. In contrast, the authors do not find any significant relationships between political power and household credit demand. Collectively, these results challenge the conventional wisdom that political influence is used to expand consumer credit supply.

The authors' primary tests examine three aspects of consumer credit: access to credit (as measured by the ratio of new accounts to new applications), the demand for credit (as measured by new credit applications), and total credit provision (the number of new credit accounts opened by a consumer). Most of the tests also focus on "disadvantaged" borrowers, since these borrowers are more likely to be affected by any material change in consumer credit markets, whether politically motivated or otherwise.

This study finds that increases in political power decreases the supply of consumer credit in the politician's home state by an average of 4.5 to 8 percent relative to credit supply in unaffected states. Moreover, these effects are primarily concentrated within segments of borrowers that tend to be credit constrained. The authors say that these results are robust to increasingly stringent geographic fixed effects as well as individual fixed effects, which account for unobserved heterogeneity in borrower quality across political constituencies. These results also hold after controlling for consumers' credit scores at the time of their applications.

The authors say that their results are consistent with a political protection hypothesis whereby banks tighten screening standards on disadvantaged borrowers once they are protected by a powerful home-state Senator. Consistent with this explanation, the authors say that they find that the largest reductions in credit supply occur in Census tracts that are most likely to having lending caused by regulatory guidelines in the Community Reinvestment Act.

The study also finds that the largest contractions in credit to disadvantaged borrowers occur in areas that are politically unengaged, while the effects are amplified in regions with a large proportion of politically connected banks. Additionally, the study finds that the applicants who get credit

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following political power shocks tend to be of higher observable credit quality than the applicants who get credit prior to political power shocks.
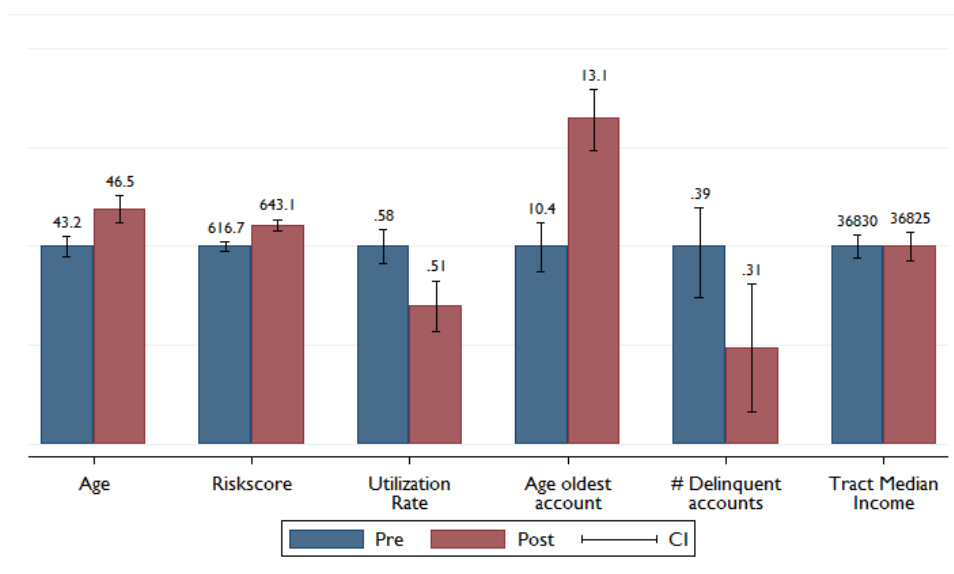
Finally, the authors find that banks become more profitable following these shocks. Collectively, these results suggest that increased political power causes lenders to tighten screening standards in a manner that reduces credit provision to disadvantaged borrowers.

The Value of Offshore Secrets – Evidence from the Panama Papers

James O'Donovan *(INSEAD)*, Hannes Wagner *(Bocconi University)*
and Stefan Zeume *(University of Michigan)*

The goal of this paper is to provide large-scale evidence that firms use secret offshore vehicles to circumvent regulations – to the benefit of their shareholders. Providing such evidence is challenging as information on secret offshore activities is difficult to get. The authors use the data leak of the Panama Papers on April 3, 2016, to study whether and how the use of secret offshore vehicles affects firm value around the world. The data provide insights into the operations of more than 214,000 offshore vehicles incorporated in tax havens by Panama based law firm Mossack Fonseca.

Judging from news stories following the Panama Papers data leak, the most popular uses of secret offshore vehicles among publicly traded firms are financing corruption as well as tax evasion. And indeed, the leaked data have prompted a surge in tax evasion and anti-bribery investigations

around the world. At the same time, the secrecy of offshore operations allows managers to expropriate shareholders.

The authors base their empirical analysis on a unique database of publicly traded firms that they connect to the Panama Papers. Starting with 23,540 publicly traded firms from 73 countries, they match subsidiaries, directors, and directors of subsidiaries of public firms to the leaked data. The matching process succeeds in tracing 397 public firms as users of offshore vehicles incorporated by Mossack Fonseca. These firms are spread across the globe and are in a wide range of industries. They tend to be large, have more international operations and are more exposed to perceptively corrupt countries, particularly to countries where high ranked government officials were implicated by name in the leaked data.

Empirical analysis shows that firms connected to the Panama Papers experienced significantly negative returns around event dates associated with the data leak. In economic terms the data leak erased US$135 billion in market capitalization among 397 public firms that they trace as users of offshore vehicles exposed in the Panama Papers. This reflects a drop in firm value of 0.7 percent relative to same-country and same-industry firms without such exposure. The figure below documents the drop in firm value around relevant event dates, and the results are robust to alternative event windows, alternative risk adjustments, and to matched sample analysis.

Figure: Abnormal returns around dates relevant for the Panama Papers data leak
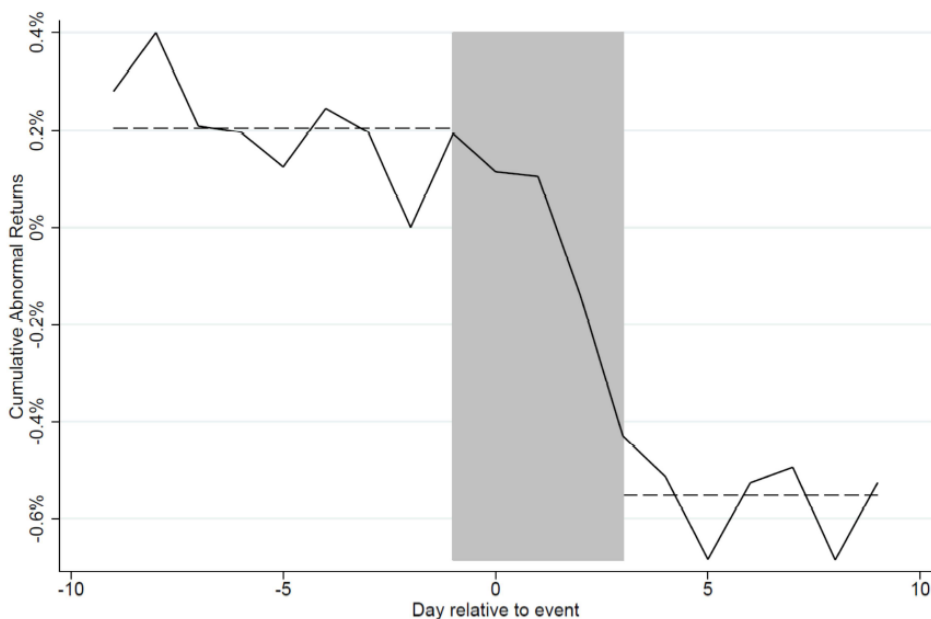
Firm value declines only when offshore activities were previously secret. In addition, the study shows that the leak reduces the net benefits of using secret offshore vehicles to violate anti-bribery regulations and evade taxes. However, the authors also provide evidence that the leak reduces expropriation activities. Taken together, firms use secret offshore vehicles for value-enhancing but potentially illegal activities that go beyond tax avoidance. Offshore intermediaries facilitate such activities.

The contribution of this paper lies in providing novel large-scale evidence on the use of secret offshore vehicles. The paper also highlights the role played by offshore intermediaries such as Mossack Fonseca in facilitating illegal activities. The vast market for offshore intermediation and firms' willingness to pay for intermediary services may in fact be explained by the finding that such activities create shareholder value when undetected.

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