

**AN EMPIRICAL STUDY OF TAX AND INFLATION  
EFFECTS TOWARD DIVIDEND POLICY IN  
INDONESIAN LISTED COMPANIES**

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## ABSTRAK

Polisi dividen merupakan salah satu perkara yang sangat penting dalam membuat keputusan untuk pelaburan. Bukti-bukti empirikal yang lalu menggunakan proksi teori penyimpangan dividen, teori kos agensi, teori dividen isyarat, *pecking order theory*, dan aliran tunai bebas untuk menyiasat teori penentu dasar dividen. Kajian ini menambah baik penyelidikan terlebih dahulu dengan menyiasat kesan cukai dan inflasi terhadap dasar dividen bagi syarikat-syarikat yang tersenarai di Bursa Saham Indonesia 2000-2009. Kajian ini menggunakan kaedah *Ordinary Least Squares* (OLS) untuk mengukur kesan-kesan cukai dan inflasi terhadap dividend. Keputusan menunjukkan bahawa cukai dan inflasi tidak memberi kesan kepada polisi dividen bagi semua sampel firma-firma di Indonesia. Walau bagaimanapun, keputusan yang diperolehi adalah berbeza apabila uji kaji yang dijalankan terhadap syarikat-syarikat tersebut diklasifikasikan kepada sektor industri masing-masing. Kajian ini membuktikan bahawa terdapat empat jenis sektor industri yang positif terhadap cukai, iaitu industri Pertanian industri, industri Barang, industri Pelbagai, dan Harta, industri Harta Tanah dan Bangunan Pembinaan. Sebaliknya, industri Perlombongan tidak dipengaruhi secara langsung oleh cukai. Sementara itu, hanya dua sektor industri yang didapati positif dan dipengaruhi oleh inflasi, iaitu industri Pertanian dan industri Asas dan Kimia.

Kata kunci: polisi dividen, cukai, inflasi, sektor industri

## **ABSTRACT**

Firm's dividend policy is one of the main considerations in investment decision-making. Past empirical evidences use proxies of dividend irrelevance theory, agency cost theory, dividend signaling theory, pecking order theory, and free cash flow theory to investigate the determinant of dividend policy. This study extends the prior researches by investigating the effects of tax and inflation towards the dividend policy of listed firms in the Indonesian Stock Exchange from 2000 to 2009. This study applies the Ordinary Least Squares (OLS) method to measure the effects. The findings reveal that both tax and inflation do not significantly affect the dividend policy of all sample Indonesian firms. However, the result comes up differently when those firms are classified into their respective industry sectors. This study documents the evidence that four industry sectors are positively affected by tax, namely Agriculture industry, Consumer Goods industry, Miscellaneous industry, and Property, Real Estate and Building Construction industry. The Mining industry, on the other hand, is negatively affected by tax. Meanwhile, only two industry sectors that are found to be positively affected by inflation, which are Agriculture industry and Basic Industry and Chemical industry.

**Keyword:** Dividend policy, tax, inflation, industry sectors

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## **LIST OF ABBREVIATIONS**

DPO	Dividend Payout
DPOP	Previous Dividend Payout
DW	Durbin-Watson
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GROW	Growth Opportunity
IDX	Indonesian Stock Exchange
INF	Inflation
JSX	Jakarta Stock Exchange
LIQ	Liquidity
OLS	Ordinary Least Squares
PRFT	Profitability
VIF	Variance Inflation Factor
SSX	Surabaya Stock Exchange
SZ	Firm Size
TANG	Asset Tangibility
TAX	Effective Tax Rate

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

Companies, in order to ensure their on-going operations, need injections of funds from either shareholders or bondholders. In return, the bondholders get periodical payment, and the shareholders receive dividends. When a company earns the profit, the money can be either reinvested in future prospective projects or can be paid to the shareholders as dividends. Dividend is profit distribution to the shareholders at a specified percentage of the company's earning decided by the board of directors. Dividend payment is not an obligation for the company; instead it is an option, whether to pay or not to pay. However, the companies that pay dividends usually catch more investor's attention since they have invested their money into the company, they will then expect for the return. Black (1976) supports the idea by saying that investors put their attention on dividend considering that through dividend or prospect of dividend, they obtain the return from their investment.

Dividend policy is the decision that a company can develop and implement the dividend portion without threatening the company's financial position in the long run. The dividend policy has been widely discussed in past financial research with debatable perceptions and mixed findings. This study focuses more on tax and inflation effects on dividend policy. Miller and Modigliani (1961) documented that under the perfect capital market condition, firm's dividend decision is not a value at all. This assumption is called the dividend irrelevance theory. However, the real world financial markets do not satisfy such conditions of perfect capital markets. The

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## REFERENCES

- Afza, T. (2010). Ownership Structure and Cash Flows As Determinants of Corporate Dividend Policy in Pakistan. *International Business Research*, Vol. 3.
- Aivazian, V., Booth, L., & Cleary, S. (2003). Dividend Policy and the Organisation of Capital Markets, *Journal of Multinational Financial Management*, Vol. 13, No. 2, pp. 101-121.
- Aivazian, V. A., Booth, L., & Cleary, S. (2004). Dividend Smoothing, *Working Paper*, (University of Toronto, Rotman).
- Al-Kuwari, D. (2009). Determinants of Dividend Policy in Emerging Stock Exchanges: The Case of GCC Countries. *Global Economy & Finance Journal*, Vol. 2, pp.38-63.
- Al- Malkawi, H. N. (2007). Determinants of corporate dividend policy in Jordan: an application of the Tobit Model, *Journal of Applied Accounting Research*, Vol. 23, pp. 44-70.
- Ahmed, H., & Attiya, J. (2009). Dynamics and Determinants of Dividend Policy in Pakistan (Evidence from Karachi Stock Exchange Non Financial Firms), *International Journal of Finance and Economics*, Issue 25, 148-171.
- Anil, K., & Sujata, K. (2008). Determinants of Dividend Payout Ratio-A study of Indian Information Technology Sector, *International Research Journal of Finance and Economics*, Issue 15(2008), 63-71.
- Ayub, M. (2005). Corporate Governance and Dividend Policy, *Pakistan Economic and Social Review* 1 XLIII (2005): pp. 115-128.
- Barclay, M.J, Smith, C.W., & Whatts, R. L. 1995. The Determinants of Corporate Leverage and Dividend Policies, *Journal of applied corporate finance*, vol 7, pp 4-19.
- Basiddiq, A., & Hussainey, K. (2009). The Association between Dividend Payout and Outside Directorships, *Journal of Applied Accounting Research*, Vol. 10, No. 1, pp. 4-19.
- Basse, T., & Reddemann, S. (2011). Inflation and the Dividend Policy of US Firms. *Managerial Finance*, Vol. 37 No. 1, pp.34 – 46.
- Black, F. (1976). The Dividend Puzzle. *Journal of Portfolio Management*, 2, 5-8.
- Booth, A. (1998). The Indonesian Economy in the Nineteenth and Twentieth Centuries: *A History of Missed Opportunities*. London: Macmillan.
- Bradley, M., Jarell, G., & Kim, E. H. (1984). On the Existence of an Optimal Capital Structure: Theory and Evidence. *Journal of Finance*, Vol. 39, pp. 857-78.

- Bradley, M., Capozza, D. R., & Seguin, P. J. (1998). Dividend Policy and Cash-Flow Uncertainty, *Real Estate Economics* 26, 555-580.
- Bronfenbrenner, M., & Holzman, F. D. (1963). Survey of Inflation Theory, *American Economic Review*, 53 (4), 593–661.
- Campbell, J. Y., & Robert J. S. (1988). The Dividend-Price Ratio and Expectations of Future Dividends and Discount Factors, *Review of Financial Studies* 1, 195–228.
- Charitou, A., & Vafeas, N. (1998). The Association Between Operating Cash Flows and Dividend Changes: An Empirical Investigation, *Journal of Business Finance & Accounting*, Wiley Blackwell, Vol. 25 (1&2), pages 225-249.
- Denis, D., & Osobov, I. (2008). Why Do Firms Pay Dividends? International Evidence on the Determinants of Dividends Policy, *Journal of Financial Economies*, Vol. 89 No.1, pp. 62-82.
- Dewi, S. C. (2008). Pengaruh Kepemilikan Managerial, Kepemilikan Institusional, Kebijakan Hutang, Profitabilitas, dan Ukuran Perusahaan terhadap Kebijakan Dividen. *Jurnal Bisnis dan Akuntansi*, Vol. 10.
- Fama, E. F., & French, K. (2000). Testing Tradeoff and Pecking Order Predictions About Dividends and Debt. *The Center of Research in Security Prices Working Paper*: 506.
- Fama, E. F., & French, K. (2002). Testing Trade-Off and Pecking Order Predictions about Dividends and Debt, *The Review of Financial Studies* 15, 1-33.
- Ferri, M. G., & Jones, W. H. (1979). Determinants of Financial Structure: A new Methodological Approach. *The Journal of Finance*, 34(3), 631.
- Ferris, S., Jayaraman, N., & Sabherwal, S. (2009). Catering effects in corporate dividend policy: The international evidence, *Journal of Banking and Finance*, forthcoming.
- Galpin, N. (2004). Can the Pecking Order Explain the Costs of Raising Capital? Indiana University, *Kelley School of Business Working Paper*: 1-46.
- Gadhoum, Y. (2000). Family Control and Grouping: Possible Expropriation via Dividends, *Working Paper*, CENTOR.
- Gugler, K., & Yurtoglu, B. B. (2003). Corporate Governance and Dividend Payout Policy in Germany. *European Economic Review* 47, 731-758.
- Hadiwidjaja, R. D., & Triani, L. F. (2009). Pengaruh Profitabilitas Terhadap Dividend Payut Ratio Pada Perusahaan Manufaktur di Indonesia. *Jurnal Organisasi dan Manajemen*, Vol. 5, pp 49-54.

- Higgins, R. C. (1972). The Corporate Dividend Saving Decision. *Journal of Financial Quantitative Analysis*, 7(2): 1527-1541.
- Ho, H. (2003). Dividend Policies in Australia and Japan, *International Advances in Economics*, Res 9(2), p 91-100.
- Jensen, C. M., & Meckling, W. H. (1976). Theory of Firm: Managerial Behavior, Agency Cost and Capital structure, *Journal of Financial Economics* 3, 305-360.
- John, K., & Senbet, L. (1998). Corporate Governance and Board Effectiveness. *Journal of Banking & Finance*, 22: 371–403.
- Lintner, J. (1956). Distribution of Incomes of Corporations among Dividends, Retained Earnings, and Taxes. *American Economic Review* 46: 97-113.
- Meggins, W. L. (1997). *Corporate Finance Theory*, Addison-Wesley Educational Publisher Inc, United States.
- Miller, M. H., & Modigliani, F. (1961). Dividend Policy, Growth and the Valuation of Shares. *Journal of Business*, 34, 411-33.
- Myers, S. (1984). The Capital Structure Puzzle, *Journal of Finance*. 39: 575-592.
- Naceur, S. B., Goaied, M., & Belanes, A. (2006). On the Determinants and Dynamics of Dividend Policy, *International Review of Finance*, 6:1-2, PP: 1-23.
- Naeem, S., & Nasr, M. (2007). Dividend Policy of Pakistani Firms: Trends and Determinants. *International Review of Business Research Papers*, 3(3), 242-254.
- Puspita, Fira. (2009). Analisis Faktor-Faktor Yang Mempengaruhi Kebijakan Dividend Payout Ratio. Universitas Diponegoro, Semarang, Indonesia.
- Rahmawati, I. (2007). Faktor-Faktor yang Mempengaruhi Kebijakan dividend dan Pengaruhnya Terhadap Nilai Perusahaan Pada Perusahaan-Perusahaan di BEI Periode 2000-2004. *Jurnal Riset Akuntansi*, Vol.6 pp, No.1
- Sugiarto. (2008). Kebijakan Dividend Perusahaan-Perusahaan Terbuka Non Keuangan yang dikontrol Keluarga, *Jurnal Akuntabilitas*, Vol. 7, pp 135-149.
- Taswan. (2003). Analisis Integrasi Strategis di LIK dan Dividen Terhadap Nilai Perusahaan dan Faktor-Faktor yang Mempengaruhinya. *Jurnal Bisnis dan Ekonomi*.
- Titman, S., & Wessels, R. (1988). The Determinants of Capital Structure Choice, *Journal of Finance* 43, 1-19.
- Van Horne, J. C., & Sinaga, M. (1994). *Dasar-Dasar Manajemen Keuangan Jilid 2*.

Jakarta: Penerbit Erlangga.

Vasiliou, D., & Eriotis, N. (2003). Dividend Policy: An Empirical Analysis of the Greek Market, *International Business and Economics Research Journal*, Vol. 3, No.3, pp. 49-57.

von Mises, L. (1949). Human Action. A Treatise on Economics (1996 ed.). New York: *The Foundation for Economic Education*.

Wu, C. 1996. Taxes and Dividend Policy. *International Review of Economics and Finance*, S(3): 291-305

Yiadom, E. M., & Agyei, S. K. (2011). Determinants of Dividend Policy of Banks in Ghana. *EuroJournals*. Issue 61.