

Political Orientation of Government and Stock Market Returns

Jedrzej Bialkowski^{*}, Katrin Gottschalk^{**}, Tomasz Piotr Wisniewski^{***}

Abstract

Prior research documented that U.S. stock prices tend to grow faster during Democratic administrations than during Republican administrations. This letter examines whether stock returns in other countries also depend on the political orientation of the incumbents. An analysis of 24 stock markets and 173 different governments reveals that there are no statistically significant differences in returns between left-wing and right-wing executives. Consequently, international investment strategies based on the political orientation of countries' leadership are likely to be futile.

JEL classification: G11; G14; G15

Keywords: Stock market returns; Politics; Presidential puzzle

^{*} *Corresponding author:* Department of Finance, Faculty of Business, Auckland University of Technology, Private Bag 92006, Auckland 1020, New Zealand, E-mail: jedrzej.bialkowski@aut.ac.nz, Phone: ++64 9 921 9999-5401, Fax: ++64 9 921 9629.

^{**} Department of Economics, European University Viadrina Frankfurt (Oder), Große Scharrnstr. 59, 15230 Frankfurt (Oder), Germany, E-mail: gottschalk@euv-ffo.de, Phone: ++49 335 5534-2667, Fax: ++49 335 5534-2959.

^{***} Department of Finance, Faculty of Business, Auckland University of Technology, Private Bag 92006, Auckland 1020, New Zealand, E-mail: tomasz.wisniewski@aut.ac.nz, Phone: ++64 9 921 9999-5393, Fax: ++64 9 921 9889.

This paper is also published in Enterprise and Innovation: Research Papers of the Faculty of Business, Auckland University of Technology, where Jedrzej Bialkowski and Tomasz Piotr Wisniewski are Senior Lecturers.

Copies of other papers in the Enterprise and Innovation series are archived at the Enterprise and Innovation website and can be downloaded as Adobe Acrobat (PDF) files: <http://www.aut.ac.nz/business/enterprise>

I. Introduction

An important question faced by every voter on the Election Day is which of the parties is best equipped to foster the development of economy and capital markets. In the pursuit of their own political agenda, the winning party or coalition can fine-tune the fiscal policy and significantly impact on the future economic outcomes. Depending on their political orientation, the objectives of different camps can be quite disparate. As suggested by the partisan theory of Hibbs (1977), left-wing governments tend to cater for the well-being of their working class electorate by targeting unemployment. Right-wing governments, on the other hand, prioritize reduction in inflation so feared by the higher income and occupational status groups.

Several earlier papers focused specifically on the relationship between political orientation of the executive branch of the government and stock market performance. Johnson *et al.* (1999) and Santa-Clara and Valkanov (2003) report that U.S. stock market returns were higher under Democratic than Republican presidencies, with the difference being particularly large for small stock portfolios. This anomaly can not be explained away by variations in business cycle proxies. Huang (1985) and Hensel and Ziemba (1995) look at whether presidential trading strategies are able to improve investors' risk-return trade-off.

Our paper adds to the presidential puzzle literature by extending the empirical analysis beyond the U.S. stock market. The data set compiled for this study covers 24 OECD countries and 173 governments. Since elections are relatively infrequent, a multi-country approach allows increasing the number of observations and the power of statistical tests. Furthermore, it provides useful insights to international investors who wonder whether the conclusions obtained from the U.S. data can be generalized in a global context.

The remainder of this letter is organized as follows. The next section describes data sources and sample characteristics. Section III investigates the behavior of stock market indices around the Election Day and throughout the tenure of different administrations. The implications for investors and conclusions are contained in the last section.

II. Data

In order to investigate the nexus between political variables and stock returns, the authors attempted to construct a comprehensive data set including all OECD countries. Regrettably, Iceland, Ireland, Luxembourg, Slovakia, South Korea, and Switzerland had to be excluded from the analysis because either MSCI did not provide data on stock market indices for these capital markets, or there was not a single change in the orientation of the government throughout the period for which the index was available. The returns for the remaining 24 countries were computed using the U.S. dollar denominated, value-weighted, and dividend-adjusted MSCI Country Indices spanning a period from January 1980 through December 2005. Whenever daily data on MSCI indices was not available from January 1980, the sample period was adjusted accordingly. The stock market data was sourced from Thomson Financial Datastream.

The prevailing political system in a given country (presidential or parliamentary) determines the relevant type of election that will be examined. Election dates as well as the exact start and end dates of each government's term in office were obtained from Banks *et al.* (2004), Caramani (2000), Lane *et al.* (1991), Laver and Schofield (1998), and Müller and Strøm (2000). The classification of governments into left- and right-leaning administrations was taken from Alesina and

Roubini (1992), Alt (1985), and Banks *et al.* (2004). Coalition governments were attributed to the political camp they are conventionally associated with. Table 1 describes the characteristics of the political and financial variables used in this letter.

[Table 1 about here]

Over 60% of the countries had daily MSCI index data available from January 1980, whereas in the remaining cases the index starts at a later date. Among the 24 nations, Denmark and Australia had the highest number of governments included and Greece had the lowest. The data set covers a comparable number of 85 left-wing and 88 right-wing governments. Although the number of right-wing cabinets was slightly higher, the left-wing governments had tenures that were on average 70 days longer. This translates into longer overall term in office for the left camp.

III. Results

Abnormal Returns around the Election Day

One of the features of political systems is that elections do not necessarily coincide with an immediate change in the executive. For instance, the U.S. elections are always held on Tuesday following the first Monday of November, whereas the presidential term starts on the 20th of January the following year. This study investigates the relationship between politics and stock markets by focusing both on the entire term of office and on the day on which voters cast their ballots.

It is conceivable that in the face of political changes investors adjust their required risk premium on assets. If they attribute greater uncertainty to the left of the political scene, the stock market will be expected to offer higher returns under left-wing incumbencies. The higher returns would be a form of compensation for the

increased risk. In this scenario, however, the prices on the Election Day are likely to plummet. This is an immediate consequence of the increased discount rate and the resultant lower present value of future cash flows of all firms. The story of changing risk premia is consistent with the previously discussed presidential puzzle and Riley and Luksetich (1980) findings showing the existence of negative returns around the Election Day for Democratic victories and positive returns for Republican wins.

[Figure 1 about here]

In its first step, this analysis examines international stock market patterns around the Election Day using a simple event study. The abnormal returns are defined as difference between the returns on the respective MSCI Country Index and the MSCI World Index. Figure 1 depicts the cumulative abnormal returns separated by orientation of the election winner. The plots show no apparent market reaction around the day when the uncertainty about future political leadership is resolved. The cumulative abnormal returns for the right-wing and left-wing election winners oscillate within a narrow range and fail to reach statistical significance. Consequently, the conclusion that investors re-adjust their discount rates in response to election results is not supported in our data. It is also unlikely that highly profitable trading strategies based on the predictions of election outcomes can be designed.

Returns during the Term of Office

Having established that the announcement effect around elections is negligible, our focus turns to measuring stock market performance throughout different incumbencies. Table 2 presents the dollar-denominated annualized returns corresponding to calendar years of tenure. The second column shows mean returns

under left-wing rules and is juxtaposed with the third column which reports similar statistics for the right-wing governments. A bootstrap test based on 1,000 replications is used to verify whether the difference between these two columns is equal to zero.

[Table 2 about here]

According to Table 2, the Democrat premium in the U.S. is around 7.7% per annum, which is in line with the findings of previous studies using value-weighted indices (see Huang (1985), Johnson *et al.* (1999), and Santa-Clara and Valkanov (2003)). The U.S. experience does not, however, generalize in the global context. A closer inspection reveals that 14 out of the 24 considered stock markets actually offered a right-wing government premium. Out of the five cases with bootstrap *p*-value below 10%, two favored right-wing governments and three favored the political left. Overall, the stock market returns were 34 basis points higher when the left-wing cabinets were in power, but this result is not statistically significant. In light of these findings, international investors should exercise a great deal of caution whenever speculating on the orientation of the executive.

IV. Conclusions

Several earlier papers noted that U.S. stock prices tend to grow faster when Democrats are in office. This anomaly persisted for almost a century and opportunities to exploit it in security trading were present. Since political orientation of the incumbent president is common knowledge, this result may *prima facie* appear as a violation of the Efficient Market Hypothesis. Alternatively, it may be interpreted as an increased risk premium accruing to investors who decide to hold stocks throughout the tenure of left-wing administrations. If the latter explanation was

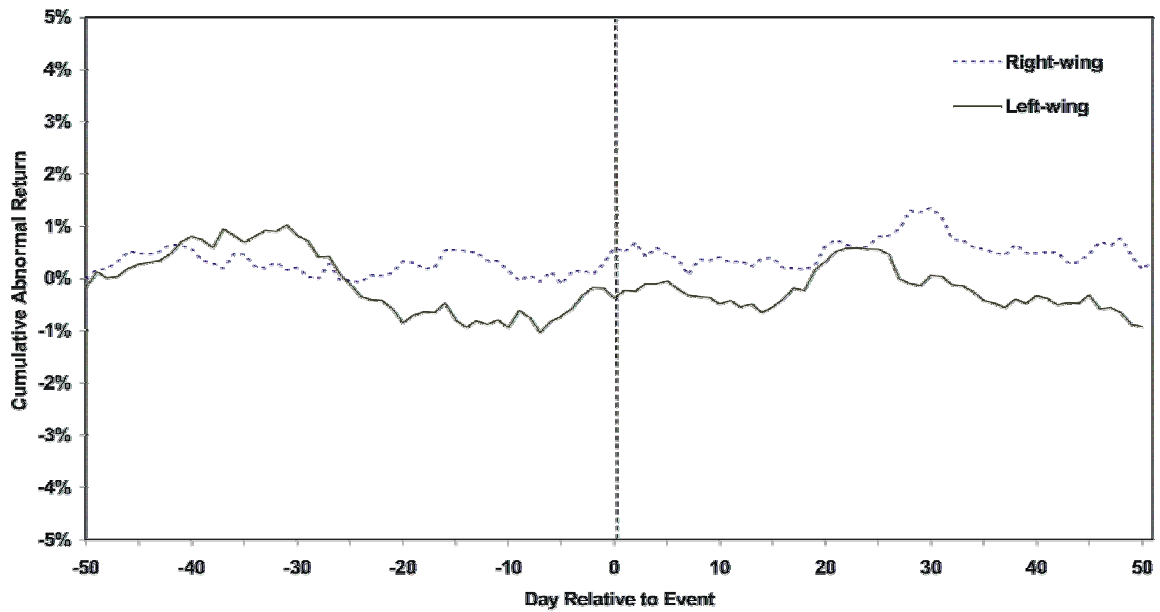
correct, one would expect high returns during left-wing rules not only in the U.S., but also in other countries.

To verify the above-mentioned hypothesis, this study used a comprehensive database covering 24 OECD countries and 173 governments. The results based on the international sample indicate that there are no statistically significant differences in returns between left-wing and right-wing governments neither in the election period nor throughout the tenure. The anomaly observed in the U.S. appears to be country-specific and investors who diversify their portfolios internationally should be wary of allocating their money based solely on the political orientation of the countries' leadership.

References

- Alesina, A., Roubini, N., 1992. Political cycles in OECD economies. *Review of Economic Studies*, **59**, 663–688.
- Alt, J.E., 1985. Political parties, world demand, and unemployment: domestic and international sources of economic activity. *American Political Science Review*, **79**, 1016–1040.
- Banks, A.S., Muller, T.C., Overstreet, W.R. (Eds.), 2004. *Political Handbook of the World 2000-2002*. CQ Press, Washington DC.
- Caramani, D., 2000. *The Societies of Europe: Elections in Western Europe since 1815 – Electoral Results by Constituencies*. Palgrave Macmillan, Basingstoke, UK.
- Hensel, C.R., Ziemba, W.T. 1995, United States Investment Returns during Democratic and Republican Administrations, 1928-1993, *Financial Analysts Journal*, March-April, 61–69.
- Hibbs, D.A. Jr., 1977. Political Parties and Macroeconomic Policy, *American Political Science Review*, **71**, 1467–1487.
- Huang, R.D., 1985. Common Stock Returns and Presidential Elections, *Financial Analysts Journal*, March-April, 58–61.
- Johnson, R.R., Chittenden, W. Jensen, G., 1999. Presidential Politics, Stocks, Bonds, Bills and Inflation, *Journal of Portfolio Management*, **26**, Fall, 27–31.
- Lane, J.-E., McKay, D.H., Newton, K., 1991. *Political Data Handbook: OECD Countries*. Oxford University Press, Oxford.
- Laver, M., Schofield, N., 1998. *Multiparty Government: The Politics of Coalition in Europe*. University of Michigan Press, Ann Arbor.
- Müller, W.C., Strøm, K. (Eds.), 2000. *Coalition Governments in Western Europe*. Oxford University Press, Oxford.
- Riley, W.B., Luksetich, W.A., 1980. The Market Prefers Republicans: Myth or Reality, *Journal of Financial and Quantitative Analysis*, **15**, 541–560.
- Santa-Clara, P., Valkanov, R., 2003. The Presidential Puzzle: Political Cycles and the Stock Market, *Journal of Finance*, **58**, 1841–1872.

Figure 1:
Cumulative Abnormal Returns around the Election Day



Note: This figure depicts cumulative abnormal returns around the Election Day (Day 0) for right-wing and left-wing government wins. In instances where elections took place during the weekend, Day 0 is defined as the first day of trading after the elections. Abnormal returns are calculated as the difference between the return on the respective MSCI Country Index and the MSCI World Index. They are subsequently averaged across all relevant events and cumulated over time to obtain the cumulative abnormal return.

Table 1:
Sample Description

<i>Country</i>	MSCI index starting date	Number of left-wing governments	Number of right-wing governments	Number of days left-wing government in office	Number of days right-wing government in office
<i>Australia</i>	1-Jan-80	5	6	4,749	4,382
<i>Austria</i>	1-Jan-80	6	2	7,339	1,792
<i>Belgium</i>	1-Jan-80	2	6	1,999	7,132
<i>Canada</i>	1-Jan-80	5	3	5,734	3,397
<i>Czech Republic</i>	30-Dec-94	2	2	2,359	1,295
<i>Denmark</i>	1-Jan-80	5	6	4,211	4,920
<i>Finland</i>	1-Jan-87	5	1	5,126	1,448
<i>France</i>	1-Jan-80	4	4	5,346	3,785
<i>Germany</i>	1-Jan-80	4	5	3,261	5,870
<i>Greece</i>	1-Jun-01	1	1	1,013	296
<i>Hungary</i>	2-Jan-95	2	1	2,230	1,421
<i>Italy</i>	1-Jan-80	6	3	7,487	1,644
<i>Japan</i>	2-Jan-80	1	9	885	8,245
<i>Mexico</i>	1-Jan-88	3	1	4,718	1,491
<i>Netherlands</i>	1-Jan-80	2	7	2,891	6,240
<i>New Zealand</i>	2-Jan-87	4	3	3,248	3,325
<i>Norway</i>	1-Jan-80	5	5	5,029	4,102
<i>Poland</i>	1-Jan-93	2	2	2,635	1,747
<i>Portugal</i>	4-Jan-88	2	3	2,350	3,856
<i>Spain</i>	1-Jan-80	5	3	5,161	3,970
<i>Sweden</i>	1-Jan-80	6	2	7,021	2,110
<i>Turkey</i>	4-Jan-88	2	4	1,407	4,799
<i>United Kingdom</i>	1-Jan-80	3	4	2,800	6,331
<i>United States</i>	1-Jan-80	3	5	3,307	5,824
<i>Overall</i>		85	88	92,306	89,422

Note: The first column lists all of the 24 OECD countries included in the sample. The dates from which daily stock prices for the respective MSCI Country Indices became available in Datastream are shown in the second column. For any given country, the number of left-wing and right-wing governments that were in office between the index start date and the end of 2005 are indicated, as well as the overall number of days corresponding to the tenures of either political camp.

Table 2:
Political Orientation of Government and Stock Market Returns

<i>Country</i>	Returns [%]			
	Left-Wing	Right-Wing	Difference	Bootstrap <i>p</i> -value
<i>Australia</i>	11.0897	2.0911	8.9986	0.1140
<i>Austria</i>	4.5204	19.4968	-14.9764	0.0490**
<i>Belgium</i>	2.3024	9.8324	-7.5300	0.2060
<i>Canada</i>	5.6661	7.7861	-2.1200	0.3680
<i>Czech Republic</i>	18.1543	-3.9685	22.1228	0.0730*
<i>Denmark</i>	-0.8029	13.3258	-14.1287	0.1090
<i>Finland</i>	9.9560	12.9370	-2.9810	0.4440
<i>France</i>	13.4530	1.5492	11.9038	0.0690*
<i>Germany</i>	-4.1297	14.1892	-18.3189	0.0160**
<i>Greece</i>	3.1633	31.0425	-27.8792	0.1480
<i>Hungary</i>	33.4150	-5.9310	39.3460	0.0190**
<i>Italy</i>	10.9697	2.9079	8.0618	0.2260
<i>Japan</i>	0.43515	7.9392	-7.5041	0.2690
<i>Mexico</i>	20.1139	13.8611	6.2528	0.3610
<i>Netherlands</i>	4.9962	11.1087	-6.1125	0.2330
<i>New Zealand</i>	-3.9651	3.0679	-7.0330	0.2460
<i>Norway</i>	3.3169	9.9913	-6.6744	0.2020
<i>Poland</i>	8.0489	28.1800	-20.1311	0.1690
<i>Portugal</i>	4.5779	0.3350	4.2429	0.3320
<i>Spain</i>	12.4139	3.0942	9.3197	0.1270
<i>Sweden</i>	15.0895	9.7092	5.3803	0.3030
<i>Turkey</i>	0.9501	8.2212	-7.2711	0.3670
<i>United Kingdom</i>	3.1467	10.6031	-7.4564	0.1490
<i>United States</i>	13.9556	6.2568	7.6988	0.1230
<i>Overall</i>	8.6992	8.3588	0.3404	0.5580

Note: The first column lists all of the 24 countries included in our sample. The next two columns report annualized dollar-denominated average stock market returns during the tenure of left-wing and right-wing governments. Column 4 shows the difference between the two estimates. The last column lists the bootstrap *p*-values for the null hypotheses that the differences in column 4 equal zero. The bootstrap procedure was performed as follows. For a single bootstrap, sample returns were drawn at random with replacement to match the number of days in office for the left-wing and right-wing governments in our original sample. Subsequently, the annualized average returns for both camps were computed and the difference was recorded. This procedure was repeated 1,000 times to develop an empirical distribution for the difference under the null and the *p*-value was extracted from this distribution.

Postgraduate Research Programme
“Capital Markets and Finance in the Enlarged Europe”
Working Paper Series

2001

- The Problem of Optimal Exchange Rate Systems for Central European Countries, Volbert Alexander, No. 1/2001.
- Reaktion des deutschen Kapitalmarktes auf die Ankündigung und Verabschiedung der Unternehmenssteuerreform 2001, Adam Gieralka und Agnieszka Drajewicz, *FINANZ BETRIEB*.
- Trading Volume and Stock Market Volatility: The Polish Case, Martin T. Bohl und Harald Henke, *International Review of Financial Analysis*.
- The Valuation of Stocks on the German „Neuer Markt“ in 1999 and 2000, Gunter Fischer, *FINANZ BETRIEB*.
- Privatizing a Banking System: A Case Study of Hungary, István Ábel und Pierre L. Siklos, *Economic Systems*.
- Periodically Collapsing Bubbles in the US Stock Market?, Martin T. Bohl, *International Review of Economics and Finance*.
- The January Effect and Tax-Loss Selling: New Evidence from Poland, Harald Henke, *Eurasian Review of Economics and Finance*.
- Forecasting the Exchange Rate. The Model of Excess Return Rate on Foreign Investment, Michal Rubaszek und Dobromil Serwa, *Bank i Kredyt*.

2002

- The Influence of Positive Feedback Trading on Return Autocorrelation: Evidence for the German Stock Market, Martin T. Bohl und Stefan Reitz, in: Stephan Geberl, Hans-Rüdiger Kaufmann, Marco Menichetti und Daniel F. Wiesner, Hrsg., *Aktuelle Entwicklungen im Finanzdienstleistungsbereich*, Physica-Verlag, Heidelberg.
- Tax Evasion, Tax Competition and the Gains from Nondiscrimination: The Case of Interest Taxation in Europe, Eckhard Janeba und Wolfgang Peters, *The Economic Journal*.
- When Continuous Trading is not Continuous: Stock Market Performance in Different Trading Systems at the Warsaw Stock Exchange, Harald Henke, No. 3/2002.

- Redistributive Taxation in the Era of Globalization: Direct vs. Representative Democracy, Silke Gottschalk und Wolfgang Peters, *International Tax and Public Finance*.
- Sustainability of Public Finances at the State Level: Indicators and Empirical Evidence for the German Länder, Helmut Seitz, No. 5/2002.
- Structure and Sources of Autocorrelations in Portfolio Returns: Empirical Investigation of the Warsaw Stock Exchange, Bartosz Gebka, *International Review of Financial Analysis*.
- The Overprovision Anomaly of Private Public Good Supply, Wolfgang Buchholz und Wolfgang Peters, *Journal of Economics*.
- EWMA Charts for Monitoring the Mean and the Autocovariances of Stationary Processes, Maciej Rosolowski und Wolfgang Schmid, *Sequential Analysis*.
- Distributional Properties of Portfolio Weights, Yarema Okhrin und Wolfgang Schmid, *Journal of Econometrics*.
- The Present Value Model of US Stock Prices Redux: A New Testing Strategy and Some Evidence, Martin T. Bohl und Pierre L. Siklos, *Quarterly Review of Economics and Finance*.
- Sequential Methods for Detecting Changes in the Variance of Economic Time Series, Stefan Schipper und Wolfgang Schmid, *Sequential Analysis*.
- Handelsstrategien basierend auf Kontrollkarten für die Varianz, Stefan Schipper und Wolfgang Schmid, *Solutions*.
- Key Factors of Joint-Liability Loan Contracts: An Empirical Analysis, Denitza Vigenina und Alexander S. Kritikos, *Kyklos*.
- Monitoring the Cross-Covariances of Multivariate Time Series, Przemyslaw Sliwa und Wolfgang Schmid, *Metrika*.
- A Comparison of Several Procedures for Estimating Value-at-Risk in Mature and Emerging Markets, Laurentiu Mihailescu, No. 15/2002.
- The Bundesbank's Inflation Policy and Asymmetric Behavior of the German Term Structure, Martin T. Bohl und Pierre L. Siklos, *Review of International Economics*.
- The Information Content of Registered Insider Trading Under Lax Law Enforcement, Tomasz P. Wisniewski und Martin T. Bohl, *International Review of Law and Economics*.
- Return Performance and Liquidity of Cross-Listed Central European Stocks, Piotr Korczak und Martin T. Bohl, *Emerging Markets Review*.

- When Continuous Trading Becomes Continuous, Harald Henke, *Quarterly Review of Economics and Finance*.
- Volume Shocks and Short-Horizon Stock Return Autocovariances: Evidence from the Warsaw Stock Exchange, Bartosz Gebka, *Applied Financial Economics*.
- Institutional Trading and Return Autocorrelation: Empirical Evidence on Polish Pension Fund Investors' Behavior, Bartosz Gebka, Harald Henke und Martin T. Bohl, *Global Finance Journal*.
- Insiders' Market Timing and Real Activity: Evidence from an Emerging Market, Tomasz P. Wisniewski, in: S. Motamen-Samadian, Hrsg., Risk Management in Emerging Markets (3), Palgrave Macmillan, New York.
- Financial Contagion Vulnerability and Resistance: A Comparison of European Capital Markets, Dobromil Serwa und Martin T. Bohl, *Economic Systems*.
- A Sequential Method for the Evaluation of the VaR Model Based on the Run between Exceedances, Laurentiu Mihailescu, *Allgemeines Statistisches Archiv*.
- Do Words Speak Louder Than Actions? Communication as an Instrument of Monetary Policy, Pierre L. Siklos und Martin T. Bohl, *Journal of Macroeconomics*.
- Die Aktienhaussen der 80er und 90er Jahre: Waren es spekulative Blasen?, Martin T. Bohl, *Kredit und Kapital*.
- Institutional Traders' Behavior in an Emerging Stock Market: Empirical Evidence on Polish Pension Fund Investors, Svitlana Voronkova und Martin T. Bohl, *Journal of Business Finance and Accounting*.
- Modelling Returns on Stock Indices for Western and Central European Stock Exchanges - a Markov Switching Approach, Jedrzej Bialkowski, *South-Eastern Europe Journal of Economics*.
- Instability in Long-Run Relationships: Evidence from the Central European Emerging Stock Markets, Svitlana Voronkova, *International Review of Financial Analysis*.
- Exchange Market Pressure and Official Interventions: Evidence from Poland, Szymon Bielecki, No. 12/2003.
- Should a Portfolio Investor Follow or Neglect Regime Changes? Vasyl Golosnoy und Wolfgang Schmid, No. 13/2003.
- Sequential Monitoring of the Parameters of a One-Factor Cox-Ingersoll-Ross Model, Wolfgang Schmid und Dobromir Tzotchev, *Sequential Analysis*.
- Consolidation of the Polish Banking Sector: Consequences for the Banking Institutions and the Public, Olena Havrylchuk, *Economic Systems*.
- Do Central Banks React to the Stock Market? The Case of the Bundesbank, Martin T. Bohl, Pierre L. Siklos und Thomas Werner, *Journal of Banking and Finance*.

- Reexamination of the Link between Insider Trading and Price Efficiency, Tomasz P. Wisniewski, *Economic Systems*.
- The Stock Market and the Business Cycle in Periods of Deflation, (Hyper-) Inflation, and Political Turmoil: Germany 1913 – 1926, Martin T. Bohl und Pierre L. Siklos, in: Richard C. K. Burdekin und Pierre L. Siklos, Eds., *Deflation: Current and Historical Perspectives*, Cambridge University Press, Cambridge.
- Revision Policy for the Two Assets Global Minimum Variance Portfolio, Vasyl Golosnoy, No. 19/2003.
- Price Limits on a Call Auction Market: Evidence from the Warsaw Stock Exchange, Harald Henke und Svitlana Voronkova, *International Review of Economics and Finance*.
- Efficiency of the Polish Banking Industry: Foreign versus Domestic Banks, Olena Havrylchuk, *Journal of Banking and Finance*.
- The Distribution of the Global Minimum Variance Estimator in Elliptical Models, Taras Bodnar und Wolfgang Schmid, No. 22/2003.
- Intra- and Inter-regional Spillovers between Emerging Capital Markets around the World, Bartosz Gebka und Dobromil Serwa, *Research in International Business and Finance*.
- The Test of Market Efficiency and Index Arbitrage Profitability on Emerging Polish Stock and Futures Index Markets, Jędrzej Białkowski und Jacek Jakubowski, No. 24/2003.

2004

- Firm-initiated and Exchange-initiated Transfers to Continuous Trading: Evidence from the Warsaw Stock Exchange, Harald Henke und Beni Lauterbach, *Journal of Financial Markets*.
- A Test for the Weights of the Global Minimum Variance Portfolio in an Elliptical Model, Taras Bodnar und Wolfgang Schmid, No. 2/2004.
- Testing for Financial Spillovers in Calm and Turmoil Periods, Jędrzej Białkowski, Martin T. Bohl und Dobromil Serwa, *Quarterly Review of Economics and Finance*.
- Do Institutional Investors Destabilize Stock Prices? Emerging Market's Evidence Against a Popular Belief, Martin T. Bohl und Janusz Brzeszczyński, *Journal of International Financial Markets, Institutions & Money*.
- Do Emerging Financial Markets React to Monetary Policy Announcements? Evidence from Poland, Dobromil Serwa, *Applied Financial Economics*.
- Natural Shrinkage for the Optimal Portfolio Weights, Vasyl Golosnoy, No. 6/2004

- Are Financial Spillovers Stable Across Regimes? Evidence from the 1997 Asian Crisis, Bartosz Gebka und Dobromil Serwa, *Journal of International Financial Markets, Institutions & Money*.
- Managerial Ownership and Informativeness of Accounting Numbers in a European Emerging Market, Adriana Korczak, No. 8/2004.
- The individual stocks arbitrage: Evidence from emerging Polish market, Jędrzej Białkowski und Jacek Jakubowski, No. 9/2004.
- Financial Contagion, Spillovers, and Causality in the Markov Switching Framework, Jędrzej Białkowski und Dobromil Serwa, *Quantitative Finance*.
- Foreign Acquisitions and Industry Wealth Effects of Privatisation: Evidence from the Polish Banking Industry, Martin T. Bohl, Olena Havrylchyk und Dirk Schiereck, No. 11/2004.
- Insiders and the Law: The Impact of Regulatory Change on Insider Trading, Aaron Gilbert, Alireza Tourani-Rad und Tomasz Piotr Wisniewski, *Management International Review*.
- Do Insiders Crowd Out Analysts? Aaron Gilbert, Alireza Tourani-Rad und Tomasz Piotr Wisniewski, *Finance Research Letters*.
- Measuring the Probability of Informed Trading: Estimation Error and Trading Frequency, Harald Henke, No. 14/2004.
- Discount or Premium? New Evidence on the Corporate Diversification of UK Firms, Rozalia Pal und Martin T. Bohl, No. 15/2004.
- Surveillance of the Covariance Matrix of Multivariate Nonlinear Time Series, Przemysław Śliwa und Wolfgang Schmid, *Statistics*.
- Specialist Trading and the Price Discovery Process of NYSE-Listed Non-US Stocks, Kate Phylaktis und Piotr Korczak, No. 17/2004.
- The Impact of Regulatory Change on Insider Trading Profitability: Some Early Evidence from New Zealand, Aaron Gilbert, Alireza Tourani-Rad und Tomasz Piotr Wisniewski, in: M. Hirschey, K. John and A.K. Makhija, Eds., *Corporate Governance: A Global Perspective*, Advances in Financial Economics, Vol. 11, Elsevier, Amsterdam.
- Macroeconomic Uncertainty and Firm Leverage, Christopher F. Baum, Andreas Stephan und Oleksandr Talavera, No. 19/2004.
- Is the Close Bank-Firm Relationship Indeed Beneficial in Germany? Adriana Korczak und Martin T. Bohl, No. 20/2004.
- International Evidence on the Democrat Premium and the Presidential Cycle Effect, Martin T. Bohl und Katrin Gottschalk, *North American Journal of Economics and Finance*.

- Technological Change, Technological Catch-up, and Capital Deepening: Relative Contributions to Growth and Convergence During 90's. A Comment, Oleg Badunenko und Valentin Zelenyuk, No. 22/2004.
- The Distribution and Heterogeneity of Technical Efficiency within Industries – An Empirical Assessment, Michael Fritsch und Andreas Stephan, No. 23/2004.
- What Causes Cross-industry Differences of Technical Efficiency? – An Empirical Investigation, Michael Fritsch und Andreas Stephan, No. 24/2004.
- Correlation of Order Flow and the Probability of Informed Trading, Harald Henke, No. 25/2004.

2005

- Steht der deutsche Aktienmarkt unter politischem Einfluss?, Martin T. Bohl und Katrin Gottschalk, *FINANZ BETRIEB*.
- Optimal Investment Decisions with Exponential Utility Function, Roman Kozhan und Wolfgang Schmid, No. 2/2005.
- Institutional Investors and the Information Content of Earnings Announcements: The Case of Poland, Piotr Korczak und Amir Tavakkol, *Economic Systems*.
- Regional Disparities in the European Union: Convergence and Agglomeration, Kurt Geppert, Michael Happich und Andreas Stephan, No. 4/2005.
- Do Eurozone Countries Cheat with their Budget Deficit Forecasts? Tilman Brück und Andreas Stephan, *Kyklos*.
- The Role of Asset Prices in Euro Area Monetary Policy: Specification and Estimation of Policy Rules and Implications for the European Central Bank, Pierre L. Siklos und Martin T. Bohl, No. 6/2005.
- Trading Behavior During Stock Market Downturns: The Dow, 1915 – 2004, Martin T. Bohl und Pierre L. Siklos, No. 7/2005.
- The Bundesbank's Communications Strategy and Policy Conflicts with the Federal Government, Pierre L. Siklos und Martin T. Bohl, *Southern Economic Journal*.
- The Relationship between Insider Trading and Volume-Induced Return Autocorrelation, Aaron Gilbert, Alireza Tourani-Rad und Tomasz P. Wisniewski, *Finance Letters*.
- The Individual Micro-Lending Contract: Is it a Better Design than Joint-Liability? Evidence from Georgia, Alexander S. Kritikos und Denitza Vigenina, *Economic Systems*.
- Tail Behaviour of a General Family of Control Charts, Wolfgang Schmid und Yarema Okhrin, *Statistics & Decisions*.

2006

- Leaders and Laggards: International Evidence on Spillovers in Returns, Variance, and Trading Volume, Bartosz Gębka, No. 1/2006.
- Stock Market Volatility around National Elections, Jędrzej Białkowski, Katrin Gottschalk und Tomasz Piotr Wisniewski, No. 2/2006.
- Investment Decisions with Distorted Probability and Transaction Costs, Roman Kozhan und Wolfgang Schmid, No. 3/2006.
- Multiple Priors And No-Transaction Region, Roman Kozhan, No. 4/2006.
- Mean-Variance Portfolio Analysis under Parameter Uncertainty, Taras Bodnar und Wolfgang Schmid, No. 5/2006.
- Institutional Investors and Stock Market Efficiency: The Case of the January Anomaly, Martin T. Bohl, Katrin Gottschalk, Harald Henke und Rozália Pál, No. 6/2006.
- Allocative efficiency measurement revisited – Do we really need input prices? Oleg Badunenko, Michael Fritsch und Andreas Stephan, No. 7/2006
- Statistical Inference of the Efficient Frontier under Autocorrelated Asset Returns, Taras Bodnar, Wolfgang Schmid und Taras Zabolotskyy, No. 8/2006
- Political Orientation of Government and Stock Market Returns, Jędrzej Białkowski, Katrin Gottschalk und Tomasz Piotr Wisniewski, No. 9/2006