Sustainable and Innovative Development in the Global Digital Age

Modern dividend policy strategies for sustainable socio-economic development

Natalia V. Gryzunova (0000-0001-8582-7389)¹⁽¹⁾, Olga V. Romanchenko (0000-0002-0804-7159)¹, Usmon S. Karimov (0000-0002-5566-5600)¹, Fatimat D. Ulbasheva (0000-0002-4933-6942)², Elena I. Gromova (0000-0002-3893-9828)¹

¹ Plekhanov Russian University of Economics, Moscow, Russia

² Lomonosov Moscow State University, Moscow, Russia

Abstract. The present time needs additional drivers for economic growth and market stabilization instruments which could be represented by dividend and tax policies. The main priority today (not only in Russia, but worldwide) is stability. Many companies form target groups of minority, institutional and majority shareholders and investors and motivate their specific fiscal behavior towards the company. All of this requires financial and social innovations and dividend strategies. The purpose of the article is identification of dependence between the dividend policy, key company performance parameters and investment behavior of the public. Whereas in the past, according to the firm value theory, companies tried to extend capitalization of companies and thus increase the shareholders' yield, presently shareholders are interested in creating a profitable dividend portfolio, since the returns on it have become comparable to deposits and bond investments. As far as the sources of income have changed, the tax policy is changing too. The financial behavior of market participants has changed; the disintermediation is fining off; further differentiation of tax and non-tax revenue rates has taken place. It is necessary to optimize the tax burden on investors, to differentiate them into financial groups and to ensure adequate dividend payments for each group.

Keywords: Dividend taxation · Dividend policy · Logistic curve · Financial group · Strategies.

1. Introduction

The fiscal policy, under the pressure of the global environment, has identified the main blocks that need to be modified in the first place. These include dividend and tax policies. Presently the dividend policy plays an important role in ensuring sustainable socio-economic development, by having a significant impact on a company's position in the capital market; stock and corporate bond price dynamics; investor quality; lending rates.

The sixties of the twentieth century were marked by serious attention to reconceptualisation of the dividend policy. The USA was a pioneer in this process. In those years, the following processes were developing in the United States: civil rights segregation; end of the US military expansion in Korea; origination of the financial mechanism for motivating target behaviour of media personalities. And of course, there appeared J. Lintner's headline-making research on dividend strategies. He showed that dividends not only were paid according to a company's financial performance, but often served as a lobbying tool and as a fiduciary political weapon. Dividend policy has been a stabilizer for more than

¹ Corresponding author: Gryzunova.NV@rea.ru

Sustainable and Innovative Development in the Global Digital Age

half a century, an anchor of people's financial behavior not only within companies, but also across regions and even countries. Politics is a concentrated expression of economics, which axiom is once again proved by the dividend payment patterns (Karnov, 2020; OECD Corporate Governance Principles, 2016).

In Russia, dividend payments are regulated by the Civil Code of the Russian Federation, Tax Code of the Russian Federation and a number of federal laws and regulations. However, dividends have so far been concentrated only on distributive functions.

The planned dividend amount is a function of the following variables: GDP growth rate; expected inflation; federal bond profitability; financial depth of the economy, etc. It is also important for organizational management to know the main holders of securities, the tax risks the key company shareholders might face. Thus dividend and tax policies shall be formed with consideration of tax comfort of the key investors (Oshurkova, 2019).

Individuals have been long shaping their income flow on the basis of deposits and bonds. The resulting profitability of these assets is touristic. The dividend portfolio creates additional passive income anyway. Therefore, the issues connected with timing, form of payout, types of follow-on issue become strategic for organizations and determine their dividend strategies. The sources of income have changed; this entails a tax reform.

Dividend policy is a strategic decision of a company, which primarily specifies the tax burden and political balance of power in the company – and often in the region. According to the estimates, at least 4% of dividend income on the average account for power structures' earnings in the EU (Anagnostopoulos et al., 2022; Horan and Spumoni, 2021).

2. Materials and Methods

The model includes both a continuum of individuals, households that are exposed to idiosyncratic labor income risk and a continuum of firms that are exposed to political and financial risks and sanctions. When developing a payout strategy, a firm previously used to deal with a dilemma between the owners' current consumption of profits and investments in expansion and growth. This was followed by the problem of ownership length, to be solved; for this purpose, many companies increased the frequency of dividend payments – two, four times a year. Now payment of dividends is in fact a norm and indicates the stability and profitability of a company.

Presently, the future of income tax, capitalization tax, and dividend tax and par fiscal non-tax payments is addressed at the level of theory and methodology. In the Russian Federation, most of the above items are included in the income tax, but the situation is changing.

At the level of practical solutions, the issue is to ascertain the length of the period during which people keep to certain behavior.

In the first case, every region specifies the level of differentiation of market actors and the ratio of tax and non-tax payments. Firms use diminishing return isoclines by combining resources. Individuals develop a dividend portfolio and create their own investment strategy to be monitored and adjusted by companies.

The government is to maintain the system of tax and non-tax revenues for the budget.

Tax support of dividend strategies has been practiced since the 1980s. K. Ramaswami (1979), in particular, estimated that every second or fourth tax law in every country is paid for and lobbied by corporations. Transnational corporations of every country use dividends to support political parties (Fama, 2018; Graham and Kumar, 2006). The dividend policy of organizations is presently balanced with tax portfolio (TP). Organizations' TP, as known, represents a relationship between the economic entity and the state towards achieving a balance of goals between the above actors, as far as tax and para-tax revenues are concerned. Far back, J.M. Keynes, A. Marshall and A. Pigou regarded taxes to be an investment dichotomy. The issue of tax and non-tax revenues in different countries and areas is dealt with in diverse ways, see Table 1. Some countries chose the way of incorporating non-tax payments into taxes, the others prefer to extend the tax base, still others are oriented towards changing the national tax system.

Sustainable and	Innovative	Development i	in the	Global	Digital Age	

RF – incorporation problem	Canada, Turkey, UK - presumed abandonment of	USA, Japan
being handled	income tax, extension of tax base	
Fiscal payment	Fiscal payment	Fiscal payment
Parafiscal payment	Parafiscal payment – inclusion in the tax base	Individual state taxes
Tax levy	Tax levy	Tax levy
Tax	Tax – reduction of the tax range	Ramsey tax
Tax duty	Tax duty	Tax duty
Non-taxable income	Non-taxable income	Non-taxable income

Table 1. Planned transformation of non-tax payments in line with financial groups' interests (Anagnostopouloset al., 2022; Website of Aswath Damodaran, 2022).

One of the key objectives is to provide tax comfort to key investors upon receipt of dividends [2]. Since a company is interested to increase the number of investors, it should include minimum of tax risks for them in its dividend policy [8]. At present, the following differentiation of tax rates is established, see Table 2.

Table 2. Tax rates, Article 284. Compiled by the author. Source: (Federal Law "On Amendments to Articles 284and 284.8 of Part Two of the Tax Code of the Russian Federation" dated 26.03.2022 No. 68-FZ, 2022).

Shares	
0 %	- stability rate, is applied to majority shareholders (representing at least 50% of the share capital); also
	applied in the case if a majority shareholder fails to sell its stock within 365 calendar days or more.
5 %	- applied for foreign entities on shares in international holding companies, with respect to income (to be)
	received before 1 January 2029, provided that a foreign entity used to be a public joint-stock company by
	way of redomiciliation
13 %	- applied in respect of dividend income in case if parties to a transaction are Russian organisations, or if
	the issuer is a foreign organisation, or according to ADR
15 %	- withheld on dividend income gained by non-residents from Russian organisations
Bonds	
15 %	- on state and municipal securities floated outside the Russian Federation
13 %	- all types of debt securities issued by Russian residents and circulated in the Russian Federation

The impact of financial environment on the individual is steadily increasing. Whereas previously it was common to refer to Man of Sense, now Man of Finance is increasingly mentioned. As to financial groups, an issue about the critical number of shareholders required to change the dividend policy in case of change in external conditions is discussed; another question is how the functions of the shareholders' customer service should change in case of change in financial indicators of the market. To answer these questions, the population models by Verhulst, Lotka-Volterra, Holling-Tanner, Bazykin may be deemed useful [8;9]. The affordance of models makes it possible to use them on the basis of digitalisation of people's financial behaviour. For instance, the Verhulst model is used, inter alia, to describe the escalation of population groups, armaments, social and political tension, etc. The Lotka-Volterra model is a biological model of interaction considering at least two antagonistic types, e.g. exploring the fluctuating patterns of urban residents' or company shareholders' behaviour (Gryzunova, 2020; Drozdyuk, 2019).

3. **Results**

The first step in modelling financial groups and their behaviour is assessing the nature and extent of financial signals' impact along with forecasting how the behaviour of market actors, above all, ordinary people with insignificant savings, will change. The latter represent the major driving force.

The Verhulst equation is used here – the logistic growth equation (Drozdyuk, 2019; Dumachev and Rodin, 2005):

$$Ch = \frac{\kappa}{1+10^{a+bt}} + F \ Ch = \frac{\kappa}{1+10^{a+bt}} + F$$
(1)

where Ch is the financial group size;

K is the maximum size of the financial group; t is time;

(F) is the base quantity, the starting point of measurement;

a, b represent the company- and market segment growth indices, equation parameters defining the logistic curve specificity.

Since we are having a logistic curve we have respectively several financial options (Horan and Sprumont, 2021; Conesa, 2018).

The second stage is predicting the impact consequences.

The third step is ascertaining the resource limit which represents the driver of competition.

The fourth step is differentiating and segmenting the area population into several groups with a preset level of savings and particular financial habits. The fifth step is identifying the fixed points of the model.

The Lotka-Volterra model allows to introduce additional technical and economic factors into the dividend policy model (Gryzunova, 2020; Dumachev and Rodin, 2005).

Another issue important for the dividend policy is the level of payments. In these terms, this is a fair value which is equal to product market price multiplied by variable factor's marginal efficiency.

Dividend policy is a specific set of instruments through which the process of distributing net profits is carried out and, at the same time, savings are built up. It is for a good reason that the ordinary people's most popular strategy is "laddering" – reinvestment of dividends in securities of the company that issued them. The dividend, being the shareholders' pecuniary gain, signals that the company in whose shares they have invested is performing well.

4. **Discussion**

In the 21st century, ecosystems trace shareholders' preferences, their migration and differentiation: majority, institutional, minority classes. Horan S. and Sprumont Yv. (2021) emphasise that one of the advantages of large industrial giants is the dividend flow forming a passive income for a large group of ordinary people, which positively affects the situation in the region; such companies have additional institutional bonuses (provided by a sponsored political party). This circumstance generates direct distortion of the capitalisation tax. We argue that in this situation the corporate tax is equivalent to the dividend tax and the capitalisation tax.

E.A. Badokina (2010) notes that young growing companies create opportunities for benefits, but not all investors are willing to take risks. If the market sentiment is positive, this will engender a tendency towards risk appetite.

Sawicki J. (2009), Oshurkova T.G. (2019), proponents of the theory asserting correlation of a dividend policy with shareholder composition, draw attention to the fact that the share of preferential taxation increases with the growth in the number of institutional owners, and capitalisation tax will then have a steadily decreasing trend. Fama E. (2018), Karnov M.M. (2020), Oshurkova T.G. (2019) draw attention to tax distortions in case of search for a compromise between different groups of shareholders.

Conesa J. C. (2018), making a study of corporate taxes in combination with dividend taxes, showed that the optimal scheme in the long run involves zero corporate taxes and positive dividend taxes. We additionally propose to use Ramsey taxes, since the shift from corporate taxes to dividend taxes will allow for a better distribution of profits and improvement of the fiscal result.

5. **Conclusion**

To summarise, it can be asserted that our model is the first one to combine the social model of financial groups' dividend strategy behaviour with tax portfolio technology. Profit planning should be based on the interests of financial groups (shareholders or co-founders). When designing a payout policy, a company aims to balance various financial and political interests and provide for corporate growth drivers.

In the current economic environment, when the market conditions are volatile, dividend policy is an "anchor" of stability and an indicator of organisation's efficient performance, being a marker of financial power within the company and a guarantor of sustainability of the corporate governance system.

References

- Anag nostopoulos A., Atesagaoglu O. E., Carceles-Poveda E. (2022). Financing corporate tax cuts with shareholder taxes. Quantitative Economics, Volume 13, Issue 1 (January), pp. 315-354. DOI: 10.3982 / QE1167
- 2. Fama E. (2018). Characteristics or lower propensity to pay?. Journal of financial economics, No 2, pp. 60-62. DOI:10.1016/S0304-405X(01)00038-1
- Gordienko M.S., Gryzunova N.V., Zakharova D.S., Polyakova A.G. (2018). Fiscal mechanisms for the deoffshorization of the russian economy\In the collection: 5th International Multidisciplinary Scientific Conference on social sciences and arts SGEM 2018. Conference proceedings, pp. 191-198. https://www.rea.ru/ru/publications/Pages/GordienkoMS.56.aspx.
- 4 GrahamJ. R. Do (2006). Dividend Clienteles Exist? Evidence on Dividend Preferences of Retail Investors, J. R. Graham, A Kumar. Journal of Finance. 2006 Vol. 61. P. 1305-1336. DOI:10.1111 / J.1540-6261.2006.00873.X.
- 5. Horan S., Sprumont Yv. (2021). Two-Stage Majoritarian Choice. Theoretical Economics, June 16, pp154-162

https://economics.uq.edu.au/files/34520/Yves-Sprumont-Two-stage-Majoritarian-Choice.pdf.

- Sawicki J. (2009). Corporate governance and dividend policy in Southeast Asia pre- and post-crisis /J. Sawicki. European Journal of Finance, Vol. 15, issue 2. P. 211-230; DOI:10.1080/13518470802604440. Corpus ID: 96454746.
- Badokina E.A. (2010). Dividend policy and market value of the company. Bulletin of the Research Center for Corporate Law, Management and Venture Capital, Syktyvkar State University, 2010. No. 3. C. 2. https://cyberleninka.ru/article/n/dividendnaya-politika-i-rynochnaya-stoimost-kompanii.
- 8. Gryzunova N.V. (2020). Financial engineering of business processes and investments of industrial companies in the innovation system of a metropolis \ In the book: Digital Economy: Trends and Development Prospects. collection of abstracts of reports of the national scientific-practical conference: in two volumes. pp. 191-194. https://elibrary.ru/item.asp?id=44291515
- 9. Drozdyuk A. (2019). Logistic curve. Toronto: Choven, 2019. vi + 271 + [3] p. ISBN ISBN 978-0-9866300-2-6

https://catalog.msu.by/opac/app/webroot/index.php?url=/notices/index/IdNotice:361705/Source:def ault

- 10. Dumachev V. N., Rodin V. A. (2005). Evolution of antagonistically interacting populations based on the two-dimensional Verhulst-Pearl model. Math-Net.ru, Vol. 17, no. 7, pp. 11-22. http://www.mathnet.ru/php/archive.phtml?wshow=paper&jrnid=mm&paperid=2767&option_lang= rus
- 11. ConesaJ.C. (2018). Capital Taxes and Redistribution: The Role of Management Time and Tax Deductible Investment. Stony Brook University Begoña Domínguez† University of Queensland September 10, 2018, 34 rubles ConesaJ.C. (2018). Capital Taxes and Redistribution: The Role of Management Time and Tax Deductible Investment. Stony Brook University Begoña Domínguez† University of Queensland September 10, 2018, 34p

Sustainable and Innovative Development in the Global Digital Age

- 12. Karnov M.M. (2020) Review of research on the relationship of concepts: dividend, share price, dividend policy and their impact on the welfare of shareholders. Article in the conference proceedings: Science and education. P. 93. https://elibrary.ru/item.asp?id=41719229
- 13. Oshurkova T.G. (2019).Dividends 2019 [Electronic resource] Access mode: https://centeryf.ru/data/economy/dividendy-2019.php.
- 14. Principles of corporate governance of the OECD. URL: http://www.corp-gov.ru/projects/principles-ru.pdf.
- 15. Website of Aswat Damodaran. URL: http://www. damodaran.com (date of access: 02/18/2022).