TRIPLE-A
BRIEFING NOTES

TRIPLE-A SURVEY ON INVESTORS PREFERENCES ON ENERGY EFFICIENCY INVESTMENTS

Briefing Note No.3, March 2021

SUMMARY

The 3rd Triple-A Briefing Note presents and analyses the results that emerged from the Triple-A stakeholder consultation on the investors' preferences on Energy Efficiency (EE) investments. The consultation took place from February to March 2021 and was a structured participatory approach that utilised a questionnaire dedicated to this purpose.

In particular, a dedicated questionnaire was developed in the context of *Task 3.2: Assessment of Member States Risk Profiles*, in view of estimating the Cost of Capital of EE projects from the investor's point of view. Sixty-eight (68) responses were provided by bankers, investors and EE experts across the eight Triple-A case study countries, namely Bulgaria, Czech Republic, Germany, Greece, Italy, Lithuania, Spain and the Netherlands.

KEYWORDS

Energy Efficiency Investments; Financial Instruments; Cost of Capital; Stakeholders Consultation

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1 Introduction

Stakeholder engagement is of paramount importance in order for the targets set in the context of Triple-A to be met. In this respect, a special focus should be laid on reaching the target groups with the appropriate background per case, also ensuring their empowerment through actively participating in decision making[1].

Investors are considered the key target group in order to achieve Triple-A objectives. First, the Triple-A methodology, is oriented to investors and creates high added value for them[2]. Moreover, investors could play a crucial role in fostering EE investments, by bridging the gap created from the fact that the current investment levels in EE are well below the required ones so as the targets set in a European level to be met[2]. Therefore, their preferences and behaviour need to be analysed, especially in the current macroeconomic environment that presents extreme particularities, such as the historical lows of interest rates[3].

This briefing note analyses the results of the [Triple-A Questionnaire on the investors' preferences](), which is a part of the Triple-A stakeholder consultation process and conducted as a primary step towards calculating the Cost of Capital of EE projects across Triple-A case study countries. The calculation of the Cost of Capital of EE projects was implemented in the context of the Triple-A Task 3.2: Assessment of Member States Risk Profiles.

The survey took place from January to February 2021, and in total, sixty-eight (68) responses were received, mainly from EE experts and investors. Due to the containment measures imposed to deal with the covid-19 pandemic, the consultation process implemented online, while the stakeholders were engaged mainly via e-mail and personal invitations.

2 Triple-A Questionnaire

The main objectives of this online questionnaire (Figure 1) are:

- To identify the main investor profiles involved in EE financing;
- To gather the preferences of each investor profile engaged in EE financing in terms of minimum required return at different risk classes (low-, medium- and high- risk class) and holding period (year) of investment;
- To estimate the capital structure through which an EE project is usually financed, i.e., the debt and equity shares.

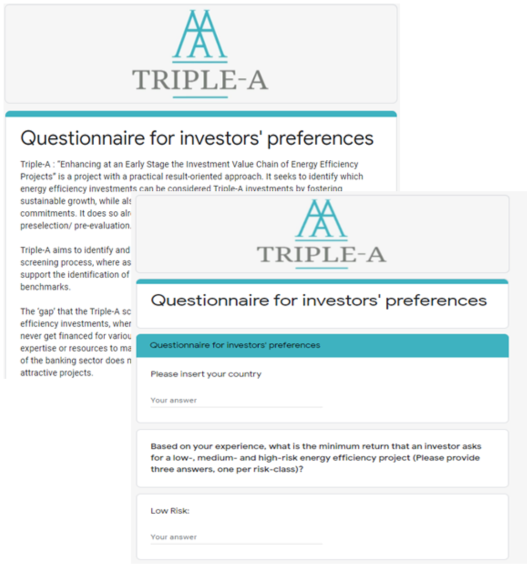

Figure 1: Triple-A Questionnaire on Investors' Preferences

The main characteristics of the questionnaire are the following:

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[1] Papapostolou, A., Karakosta, C., Mylona, Z., Psarras, J. (2020). Financing Sustainable Energy Efficiency Projects: The Role of Stakeholders. Book of Proceedings of the XIV Balkan Conference on Operational Research, Operational Research in the Era of Digital Transformation and Business Analytics, 30 September - 3 October 2020, Thessaloniki, Greece, (pp. 116-120), ISBN – 978-618-85079-0-6.

[2] Triple-A (2020). Final Standardised Triple-A Tools, Deliverable 4.2, Horizon2020 Triple-A project, No. 846569.

[3] EY (2018). WACC in the context of Risk, Return and Resilience at PR19: Ernst & Young report. Retrieved from https://www.unitedutilities.com

- Explorative, quantitative online questionnaire.
- Different question formats, from text questions to multiple choice and free text boxes.
- Questionnaire dissemination tool: Google Forms.
- Available in three languages: English, Spanish, Greek[4].

The main investor profiles (Figure 2) include Institutional Investors (38%), Retail Investors (29%), Energy Service Companies - ESCOs (10%), Impact Investors (7%), and Funds (7%)[5]. The "Other" category involves some investor categories for which only one answer was provided, such as "Real Estate Investors" and "National Promotional Institutions", which were excluded from the final sample to ensure the robustness of the results.

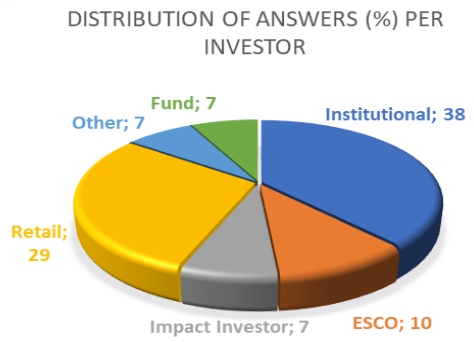

Figure 2: Distribution of Responses (%) per Investors' Profile

The majority of answers was provided for the Retail and Institutional Investors, suggesting that these two categories are the prevalent ones in EE financing.

In addition, responses were provided by stakeholders from all the Triple-A case study countries, while the majority emerged from stakeholders from Greece and the Netherlands, covering almost the half of the total sample of answers (45%; Figure 3). Next comes Czech Republic, Lithuania, Spain, Germany, Bulgaria and Italy in terms of the number of stakeholders who participated in the survey. In addition, some replies were collected by stakeholders from other countries apart from the Triple-A case study ones, such as Ireland and Switzerland and were classified under the "Other" category (Figure 3).

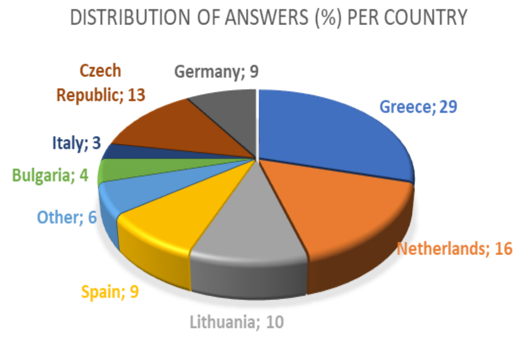

Figure 3: Distribution of Responses (%) per Case Study Country

After collecting the input and based on the results arisen on the minimum required return by each investor, the project IRR curves were constructed (Figures 4-5). These curves, from the investor's side, indicate how the minimum accepted project IRR by each investor profile varies across the different risk classes. From the project's perspective the curves indicate the minimum project IRR that an EE project should achieve to be regarded as eligible for each investor profile.

Each investor profile of the analysis has his own preferences at every risk class, varying also distinctly across risk classes (Figures 4-5). Institutional investors', Impact investors' and ESCOs' preferences vary in a symmetric way across risk classes (Figures 4-5). On the contrary, Retail investors' preferences increase at a greater rate at higher-risk classes, while Funds' preferences increase at a lower rate at higher-risk classes (Figures 4-5).

[4] Available at https://forms.gle/w7qnn7igcPziDCkCA (English version), https://forms.gle/WKEXcJBDMoABxt4s6 (Greek version), https://forms.gle/MLrmwgGiLLgj7Kf57 (Spanish version).
[5] Triple-A (2020). Report on the Cost of Capital Estimation of Energy Efficiency Projects across Member State Countries, Deliverable 3.3, Horizon2020 Triple-A project, No. 846569.

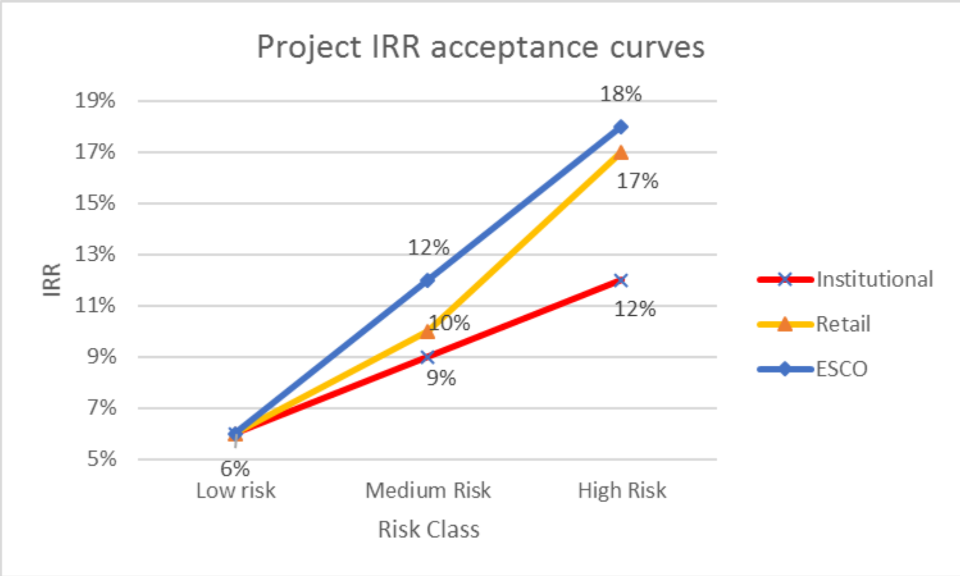

Figure 4: Project IRR Acceptance Curves for the Institutional, Retail and ESCO investor profiles

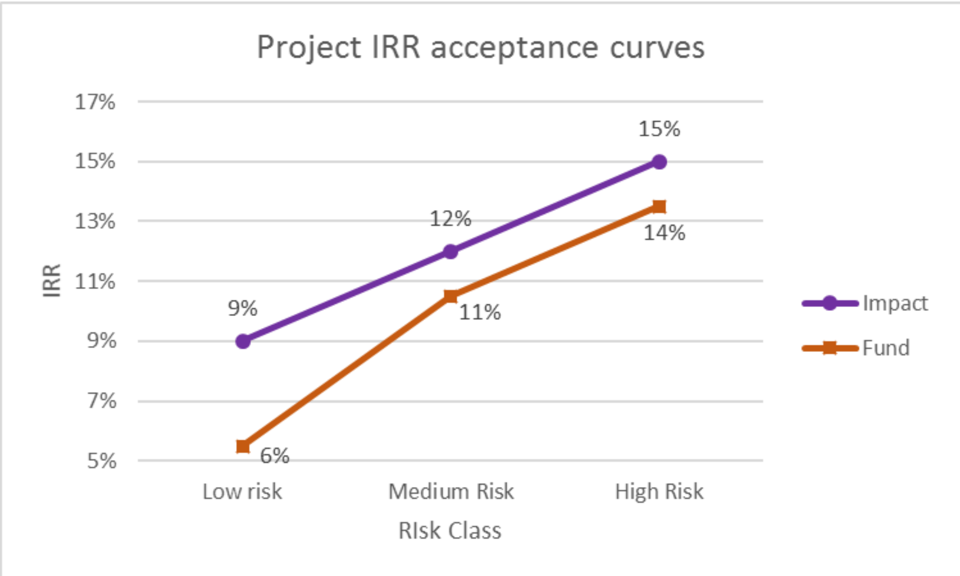

Figure 5: Project IRR Acceptance Curves for the Impact and Fund investor profiles

Although all the risk profiles analysed are risk-takers, since they accept to invest in projects of high risk, comparatively, Funds could be considered as higher risk-takers indicating a higher appetite for investing in high-risk projects. On the contrary, Retail Investors tend to be risk-averse, while the other investors' categories show risk neutrality over taking higher risks. As stakeholders commented, for larger-scale projects, investors' required returns may be slightly lower, while for smaller scale projects are slightly higher.

As regards the maximum accepted holding period per investor profile, i.e., the period that investors accept to hold their money on an investment before earning the required return[6], Impact Investors are the ones that accept the largest holding period (19 years; Figure 6),

[6] Triple-A (2020). Report on the Cost of Capital Estimation of Energy Efficiency Projects across Member State Countries, Deliverable 3.3, Horizon2020 Triple-A project, No. 846569

which is in line with their objectives that are not purely financial ones. The other investor profiles of the analysis have similar holding period preferences, ranging from 9 to 10 years (Figure 6).

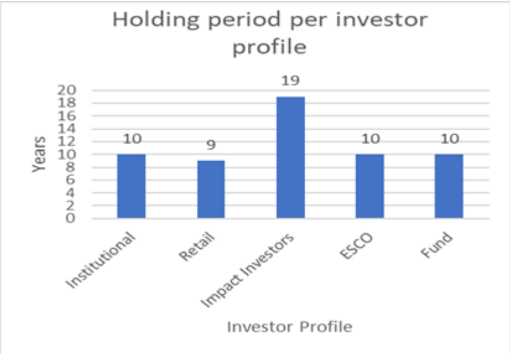

Figure 6: Holding Period per Investors' Profile

In many cases, EE projects investors are simultaneously the owners of the buildings or enterprises on which the EE measures are implemented, as reflected by stakeholders. In these cases, their holding period is the lifetime of the project under implementation.

It should be noted that the above-presented minimum required returns by investors (Figures 4-5) account for the Cost of Capital of EE projects, provided that each investor type in question will leverage all the necessary capital for the project's implementation.

However, usually, EE projects are financed via a mix of debt and equity (Figure 7). In particular, on average, the share of debt financing in the capital structure of an EE project ranges in the order of 40%, while equity share, i.e., investors, in the order of 60% (Figure 7).

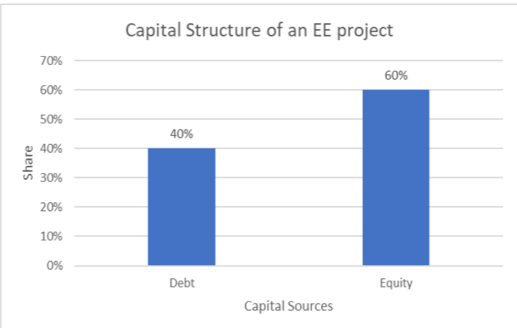

Figure 7: Capital Structure of an EE Project

Therefore, it can be concluded that, on average, an EE project is financed via a combination of debt and equity, with the share of equity being slightly higher. As pointed out by stakeholders, for a known technology, the debt share could be slightly higher compared to the case of new technology. Similarly, debt share could be slightly higher for larger-scale projects, at which mix structures of finance are usually observed. On the contrary, at small scale projects, capital leverage by solely debt or equity could be observed, as stakeholders highlighted.

3 Conclusions

Key conclusions regarding the investors' preferences are summarised below:

- **Institutional**, **Retail**, **Impact**, **Fund** and **ESCO** investor profiles are the ones that usually engaged in EE financing, with Institutional and Retail Investors being the most prevalent.
- Each investor profile has its own **distinct preferences**, varying also in a distinct way across risk classes.
- Retail Investors tend to be **risk-averse** compared to the other investors' profiles analysed. Funds are **risk-takers** and ESCOs, Institutional and Impact investors are **risk-neutral**, compared to the other investors' profiles analysed.
- **Impact Investors** accept the largest holding period (19 years), while the other investor profiles have similar holding period preferences, varying from 9 to 10 years.
- EE projects are usually financed via **a mix of debt and equity**, with the share of equity on the capital structure being slightly larger.
- The **scale** of an EE project can affect the required returns by investors and its capital structure.

Triple-A in Brief

Triple-A -Enhancing at an Early Stage the Investment Value Chain of EE Projects - is an EU-funded research project under the Horizon 2020 programme, aiming to assist financial institutions to increase their deployment of capital in EE, making investments more transparent.

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