

NOVEL METHODOLOGIES TO EXPLAIN SMES' INTERNATIONALISATION

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ABSTRACT

Family firms are the oldest and most predominant form of business in the world, it represents 70 to 90 per cent of the global Gross Domestic Product (GDP). Family firms worldwide vary from micro and small firms to large corporations which dominate the global business panorama. Family firms are an area of research which has drawn rising interest given the impact and influence that such firms have on the economy worldwide. One of the key challenges that these firms face in today's globalized markets is internationalization. Although various scholars have studied the various factors which play a role in this process, it is indeed necessary to adopt a more integrated vision. Internationalization is, at its core, a strategic decision. Therefore, it is essential to implement a methodology which accentuates an integrated vision and, considers the role and interplay of the various aspects influencing this decision, and also highlights the existent interdependencies. Game theory is the study of decision making by various rational players where decisions made by a player have repercussions on the outcomes of the other players. Strategic interdependence is the essence of game theory. In this paper, we aim to shed new light on one of the most challenging topics in family business literature by using the robust analytical approach provided by game theory. The internal consistency and mathematical fundamentals of game theory make it a forefront strategic tool to study the complex decision-making process related to internationalization, which this chapter will explore. The literature review undertaken will also address policy recommendations since these may contribute to the internationalization process of these firms, which are so vital for our economic landscape, as well as enabling a better knowledge of the impact of policy actions on such processes.

Keywords: *Family Firms, SMEs, internationalization, game theory*

1. INTRODUCTION

Growth is an essential challenge for family firms, which, in their majority, are small and medium enterprises (SMEs). The founder of the family firm creates the firm as a consequence of an entrepreneurship behaviour of exploiting an opportunity but needs to maintain the original entrepreneurial orientation and increment it through generations (Kellermanns, et al., 2008). Succession has been the form of growth most studied in family firms, and this is in line with most studies that show that only a small minority of these firms outlive their founders. Additionally, there is a negative relation between small size and survival (Christensen, Suarez & Utterback, 1998). In order to aid these firms to thrive, increased generational involvement has shown to lead to more international and entrepreneurial behaviour.

Therefore, although the firm was based on the founder's initial entrepreneurial efforts, these seem to decrease over time (Corbetta, 1995; Zahra, 2003) but the latter generations can bring a “fresh momentum” to the firm (Salvato, 2004, p. 73). Cruz & Nordqvist (2007) consider that the second generation family firms tend to have a higher external orientation, this was also the conclusion of Casillas, Moreno & Barbero (2009) who concur that the second-generation of the family firm positively influence growth driven by entrepreneurial orientation and internationalisation efforts. In the world of today, which is highly dynamic, characterized by the high speed of transformation and driven by fast innovation, for family firms internationalisation is not only a strategic option, for growth, but rather an imperative for long term survive (Kontinen & Ojala, 2010). This is the reality that SMEs face too. Various methodologies have been used to study these firms' internationalisation process; it is a strategic decision that the firm needs to make, which is influenced by, and, impacts other stakeholders. Game theory is the study of decision making by various rational players where decisions made by a player have repercussions on the outcomes of the other players. Strategic interdependence is the essence of game theory. This chapter aims to shed new light on one of the most researched topics in family business literature by using the reliable analytical approach provided by game theory. The internal consistency and mathematical fundamentals of game theory make it a forefront strategic tool to study the complex process related to the international process, in its various dimensions. Resorting to game theory allows to formally and systematically analyse the prevalent strategic interactions. This chapter contributes better to understand internationalisation in family firms through a strategic lens. Our findings show the research which has applied this methodology in family firms and also intersect with this methodology the two core dimensions: family firms and the internationalisation. The results indicate that this methodology is still in its early stages of use in this area, suggesting this is a gap which future research should aim to contribute to addressing. We finalise by reflecting on the impact and limitations of our findings and suggest future avenues of research and possible novel methodological applications to be used in this field.

2. FAMILY FIRMS

Family firms are said to be the beginning of any form of business activity (Wakefield, 1995). These organizations dominate the economic landscape of all the major economies (Shanker & Astrachan, 1996; Heck & Stafford, 2001; Morck & Yeung, 2003; Dyer, 2003; Astrachan & Shanker, 2003; Chrisman, Chua & Litz, 2003), so much so that two-thirds of all enterprises worldwide are said to be family firms (Gersick, Davis, Hampton & Lansberg, 1997). Notwithstanding the importance of family firm worldwide, there is no global consensus on what is defined as a family firm. The European Commission (2009) indicates that family-owned firms represent more than 65% of all organizations in the European Union and 40% to 50% of employment and are therefore considered to be "(...) *crucially important for Europe* (...)", by the President of the European Commission (Barroso, 2007). In Australia, family firms account for more than 70% of all businesses and in Latin America 65% to 90% and over 95% in the US, contributing in 40% to the American Gross National Product (GNP). In the United Kingdom family firms account for 70% of all enterprises in the private sector responsible for more 50% of the employment. In Portugal and Spain, these firms account for 70% and 75%, respectively, of the total of firms (International Family Enterprise Research Academy [IFERA], 2003). The importance attributed to family firms results from their presence but also due to the impact they have on the macroeconomic variables. Studies, in different countries, have shown that family firms play a crucial role in terms of economic growth as well as employment generation (IFERA, 2003; Anderson & Reeb, 2003; Neubauer & Lank, 1998; Poutziouris, 2001; Gallo, 1995). Although family firms are considered the world's most predominant form of business organization (Neubauer & Lank, 1998), there is still a lack of agreement as to their definition.

What is considered a family firm can be so varied that depending on the definition used, a total of 65% to 90% of all firms worldwide can be defined as family firms (Shanker & Astrachan, 1996). The majority of definitions of the family firm used by researchers have focused on family involvement, via ownership and/or management, or on firm intergenerational continuity. However, Westhead and Cowling (1998) used seven different definitions of family firms and applied them to a sample of 427 firms. They found that using the first of those definitions, more than 78% of the firms were defined as family firms but using the more restrictive definition (definition 7) only 15% classified. Although there is a lack of consensus with regards to the definition of family firm, the three cycles symbolic representation of the prevailing family firm paradigm (Moore, 2009; Tagiuri & Davis, 1996) has been widely accepted amongst scholars of family firms (Chrisman, Kellermanns, Chan & Liano, 2010; Distelberg & Sorenson, 2009; Heck, Hoy, Poutziouris & Steier, 2008). The three-cycle model (Tagiuri & Davis, 1992) shows the family business comprising three sets which are: ownership, family and business. The idea is that in the family firm, these three independent groups co-existent, interact and overlap. This configuration shows, through the lens of the general systems theory, that the family firm has characteristics which are common to other business systems but is, simultaneously, different from other firms due to the role played by the family subsystem which impacts the firm's cultural configuration and goal setting (Churchill & Hatten, 1987). Tagiuri and Davis (1992) contribute to the literature by showing that each set of people, in each group, have diverse goals, which can even be non-economic as proposed by Astrachan and Jaskiewicz (2008) and Gómez-Mejía et al. (2007), and this presents family firms with unique conflicts and challenges (Chrisman et al., 2010). The notion of family firm adopted in this chapter is the one presented by the European Union Expert Group on Family Business. The Expert Group was mandated to study the key challenges that family firms in the single market face, as well as to identify best practices in the area and recognize existing networks. Their findings and expertise are essential inputs for the European Commission on family business and SME relevant issues. They started by addressing the need for a commonly agreed-upon definition of a family firm in the European Union. They stressed that the adopted definition should be comprehensive, operational and comparable across the European Union. The definition presented, which was later approved, and has since been used by the European Union member states, reads (European Commission, 2009) that for a firm to be considered a family firm: “ 1) The majority of decision-making rights are in the possession of the natural person(s) who established the firm, or in the possession of the natural person(s) who has/have acquired the share capital of the firm, or in the possession of their spouses, parents, child or children's direct heirs; 2) The majority of decision-making rights are indirect or direct; 3) At least one representative of the family or kin is formally involved in the governance of the firm; 4) Listed companies meet the definition of family enterprise if the person who established or acquired the firm (share capital) or their families or descendants possess 25% of the decision-making rights mandated by their share capital”. The European Commission highlights (2009) that most SMEs (especially those that are small and micro) are family firms, and, simultaneously, that the vast majority of family firms are SMEs.

3. INTERNATIONALISATION

The family firm can grow inside the same geographical market or expand internationally. Researchers of family firm internationalisation are scarce although the topic has risen in interest in the more recent past. The sustainability of family firms depends on their capability to enter new markets and to generate new businesses and new products (Zahra, et al., 2004). Internationalisation is seen as very difficult for family firms (Graves, 2006). The ability to internationalize – especially in small businesses – may be prevented and discouraged by limited financial resources and poor managerial skill (Fernandez-Nieto, 2005; Graves & Thomas 2008).

In terms of funding, also the low awareness of government aid programs for internationalization, (Okoroafa, 1999) as well as the financing pecking order are additional obstacles for international growth of family firms (Gallo, et al., 2004). It is not just the difficulty in accessing the necessary capital but rather the internally designated preference order for its application which influences the international process (Claver, Rienda & Quer, 2009). Family ownership tends to have a negative effect on the scale and scope of internationalization (Fernández & Nieto, 2005; Graves & Thomas 2004). The desire to remain wholly family-managed makes it reluctant to involve external managers to obtain the required managerial capabilities for internationalization (Graves & Thomas, 2008). This reluctance includes the fear of having to change patterns of established behaviour (Gallo & Sveen, 1991). The conservative posture of the founders (Morris, 1998) and their aversion to risk taking (Sharma, et al., 1997) negatively affects the internationalization of family businesses. The importance given to stability and control is a common denominator of the founders of family firms (Mishra & McConaughy 1999). The focus of founders on stability, control, and wealth preservation tends to have a negative impact on the firm's growth beyond borders. The desire to maintain the independence and control of the company, choosing stability over change, relinquishing the importance of managerial skills, and avoiding risk-taking (Graves & Thomas, 2004; Zahra, 2003) explains why most of the family firms are established in local and domestic markets (Gallo & Garcia Pont, 1996; Okoroafo & Koh 2010). The risk-averse and control nature mentioned above translates in preferences of low debt to equity in family firms (Romano, Tanewski & Smyrniotis, 2001; Blanco-Mazagatos, et al., 2007). The financial structure of family firms is another important factor which shapes its international endeavours. The attitudes and characteristics of the founders and the family firm's financial structure play an important role in its international aspirations. Also, the later generations can influence the ability of the family firm to internationalize because attitudes and behaviours can vary by generations (Okoroafo & Koh 2010). Therefore, managerial succession can be the key to innovation and international expansion (Graves & Thomas, 2006). Fernández and Nieto (2005), empirically show that the second and subsequent generations are more interested in international markets and more engaged in the internationalization process. Younger generations can facilitate internationalization because they have new ideas and new ways of thinking, are more cosmopolitan (travelling and speaking foreign languages) and academically better prepared (Gallo & Sveen, 1991). Although Okoroafo (1999) suggests the contrary, some studies (Fernández & Nieto, 2006) show that the presence of the second generation in the organization relates positively with the commitment and extent of the internationalization process of the family firm, this is in line with the findings of Casillas, et al., (2009) which partially supports that firm risk-taking will have a more intense influence on growth in the second generation. In terms of choice of mode of entry into the international arena, Gallo, Arimo, Manet, and Cappeyuns (2000) show that family firm's style and preference for control influence the ability to enter strategic alliances. With regards to international sales, family influence has a positive association but a negative effect in terms of the number of countries Zahra (2003). Claver, et al. (2009) identified family-specific factors that influence the choice of entry mode into foreign markets. They hypothesize that the presence of younger generations would adopt more demanding forms of internationalization, but this was not confirmed. In a study of the family firms in the Spanish wines industry, Fuentes-Lombardo & Fernández-Ortiz (2010), refer many reasons which might (or not) prompt family firms to establish strategic alliances as a means for internationalization. Okoroafo & Koh (2010) empirically show that the propensity of the family firm towards internationalization does not change with the entry of younger generations. Kellermans, et al. (2008) go further and say that the entry of new generation is more oriented to conformity and continuity with the previous generations rather than to opt to change, which can be a consequence of having become more risk-averse after succession (Kaye & Hamilton,

2004). The next-generation family members are often more concerned with wealth preservation rather than furthering wealth creation which can impede growth (Molly, Laveren & Deloof, 2010). In summary, only in certain circumstances can generational succession support the international expansion of the family firm (Graves & Thomas, 2008). SMEs in general and family firms in particular, are driven to new markets not only looking to grow but also in search of increasing their profitability (Lu and Beamish 2006; Oviatt and McDougall 1994). However, the limitations these firms encounter result from their reduced size, making it more difficult to reap the advantages of economies of scale and increased productivity, factors which add value in international markets (Paul, Parthasarathy & Gupta 2017). On the other hand, from the lens of the resourced based view of the firm, given the reduced resource endowment of such firms, they need to be more strategic when employing them in the international process. It is the underlining logic which explains the traditional Upsala internationalisation model which views the internationalisation process as dynamic and gradual, where the firm, phase by phase, slowly commits itself more to the process. Nevertheless, Born Global firms, which are outward-oriented prove that age or size are not constraints for family firms and SMEs, alike, to successfully develop their presence in diverse international markets even competing with larger multinational firms (Knight & Cavusgil, 2004; Oviatt & McDougall, 1994). Nonetheless, the support systems in place that encourage and aid family firms and promote SMEs to internationalise, play a crucial role in the success of the majority of such firms. In Europe, the European Commission encourages governments to intervene and promote the internationalisation of SMEs, through its various programs ranging from attributing financial support to providing information and operational aid. The Final Report of the Expert Group on Supporting the Internationalisation of SMEs (European Commission, 2007) addresses the various ways how those firms should be supported.

4. GAME THEORY

Game theory is the study decision making's strategic. Antoine Cournot's study of duopoly, in 1838, is considered one of the earliest examples of formal game-theoretic analysis. In 1921, the mathematician Emile Borel suggested a formal theory of games which was advanced by John von Neuman, in 1929, with his theory of parlour games. Only in 1944, with the publication of Theory of Games and Economic Behavior, by Morgenstern and von Neuman, game theory was established as a field in its own right. Their work demonstrated diverse possibilities of application of game theory in economics and the basic terminology and problem setup presented in that book, which is accredited to giving birth to game theory, is used to this day. In 1950, John Nash introduced the distinction between cooperative and non-cooperative games. He developed an equilibrium concept for noncooperative games, known as the Nash equilibrium. Since then, game theory has been applied to various areas in economics and has expanded to subjects such as, and not limited to political science, evolutionary biology, sociology, psychology, conflict management, design of auctions for resource allocation, problems of war and negotiation. Nash, jointly with John Harsanyi and Reinhard Selten, was awarded the Nobel prize for economics in 1994, for "*their pioneering analysis of equilibria in the theory of noncooperative games*" (Nobel Media, 1994). A game is a formal explanation of a planned situation. A game is defined by its players, their information set, the possible actions available to them, and their preferences and payoffs. The players are the agents (i.e. individuals, groups, firms) who make the decisions. Their payoff also referred to as utility, is a numerical value which shows the desirability of an outcome for that player. The payoff of each player is influenced by his actions but also by the actions of the other players. The strategic interdependence of the players is the cornerstone of any game.

5. FAMILY FIRMS AND GAME THEORY

The succession process of the family firm is essentially a strategic decision, involving the founder and the potential successors. Game theory methodology provides a rigorous and objective analysis on one of the most demanding challenges that the family firm faces. The use of game theory to study family firm succession is still in its very early stages and has mainly focused on factors related to the business dimension. Michael-Tsabari and Weiss (2013) applied the Battle of the Sexes game to study succession in family firms. They proposed that each of the players (father and son) has an objective relating to the firm (passing of the firm and running for the position, respectively) but also each player values avoiding tension and conflict in the family. They showed that deficient communication leads to disagreements and clashes between father and son. Earlier, Lee et al. (2003) studied the importance of the potential successor's ability as well as the degree of the idiosyncrasy of the business, on the choice of successor. They showed that in high idiosyncratic businesses, families tend to prefer a successor from inside the family. Burkart et al. (2003) model focused on the choice between leaving the public firm to the family or to a professional manager and how the legal environment shapes that decision. Bjuggren and Sund (2001) also evidenced the role of the legal setting. They used game theory analysis to study alternative ownership succession options, and the role legal and transactional costs played. Blumentritt et al. (2013) conceived a game where the children simultaneously chose whether to run or not for the CEO position and then the father would choose his successor. Their results showed that in a particular situation when both the children decided to run, then the father would compare each child's attributes. Founders who prefer having a successor who wants the job to one who is more capable of maximizing the firm potential but is not as interested will choose the child endowed with greater desire in detriment to the ablest. They referred that family tension can result from sibling rivalry. More recently, Mathews and Blumentritt (2015) presented a sequential game where the children chose the level of effort to pursue the family firm CEO position, given the father's preference for one of them. They identified the possibility of first-mover advantage for the child who decides first and acknowledged situations where discord among siblings could occur, but did not explicitly consider sibling rivalry in their payoff functions as a cost. Non-economic factors related to the family dimension were introduced by Jayantilal et al. (2016), concentrating on the emotive cost of conflict resulting from sibling competition. Their results showed that this cost is fundamental in terms of successor selection and that the collaborative family outcome is better in promoting firm intergenerational succession.

6. INTERNATIONALISATION AND GAME THEORY

Firms' internationalisation emerges from the firms' need to affirm, grow or survive to the increasing competitiveness of markets. Benefits from internationalisation are undeniable, and governments design incentive policies to promote a higher degree of internationalisation strategies. Recently, the European policy, COSME, covers a specific program which supports the internationalisation process of European SMEs where the prime focus is the export strategy (see also European Commission, 2010). An internationalisation strategy is an arrangement that enables the entry of a firm's products, services, technology or other resources in an international market (Root, 1987). This decision to embrace foreign countries is not a simple process, and economic analysis supports the firm option. The main barriers to this internationalization process of SMEs are limited market information, capital shortage, inadequate human resources, and lack of government support. Bjornali and Aspelund (2012) showed that the public incentives to exports lead to higher degrees of internationalisation of SMEs. Also, Krugman et al. (2012) studied the impact of an export subsidy on both foreign and national markets and explored a microeconomic analysis of public policies to promote internationalisation. The game theory is a new methodology to explore this problem since the strategic behaviour of players,

governments and firms, must be untangled and predicted. Subsidies are an attractive policy instrument because they improve the relative position of a domestic firm in a noncooperative competition setting with foreign firms. There are several papers, which explore this analysis using game theory methodology. Eaton and Grossman (1986) analyzed the welfare effects of public policy on trade, considering oligopolistic markets, and characterized the optimal public policy according to market structure. They concluded that a subsidy is indicated for a Cournot oligopoly and a tax is generally optimal for Bertrand competition. Brander and Spencer (1985 & 2008) presented the international noncooperative equilibrium of strategic trade policies from both domestic and foreign governments. As intervention by these governments may lead to a Prisoner's Dilemma, the importance of trade agreements arises. They discussed the impact and definition of international regulations, such as GATT regulations, in global markets. Dobre (2008) showed that public policy promotes higher export degree and the use of subsidy leads to changes in the firms' incentives to internationalise. Recently, Hwang et al. (2015) compared the impact on the welfare of optimal specific and ad valorem export subsidies and concluded that the welfare under the specific subsidy regime is lower than that under the ad valorem subsidy regime if there is a high social cost of taxation distortion.

7. CONCLUSION

Family firms play a primordial role in the global economy as major contributors in terms of employment and wealth generation. The majority of these firms are SMEs. Although there is a lack of a generally accepted definition of the family firm, there is a consensus that they differ from non-family firms. Various are the characteristics of family firms which distinguish them from non-family firms such as their long term orientation; risk-averse strategic nature; their inward orientation and harmonious working environments, to name but a few, which might play a role on determining their internationalisation efforts. Internationalisation, in its various dimensions, is fundamentally a strategic decision characterized by the interdependence between the firm and its diverse stakeholders (ex. government, competitors, regulators, and other). This chapter analysed the methodology of game theory as it provides a robust analytical way to study this interdependent decision making. Although the use of game theory in this field is not novel it is still in its early stages and this chapter contributes to its advancement by highlighting the work that has been done. In terms of methodology this chapter focused on the use of game theory to study internationalisation of family firms. An opportunity for future research, in terms of methodology, would be to extend this to include experimental economics. This is a methodology which has proliferated in recent times, but has never been employed to study the internationalisation of family firms (and SMEs). Experimental data contrasts observed behaviour with the theoretically predicted outcomes. The results obtained by the use of game theory would then be tested in the laboratory to study the robustness of the equilibrium solutions. In practical terms, the results of those finding could contribute, not only at a firm level but also, possibly, for governmental policy relating to programs and funding aimed at promoting the internationalisation of SMEs and family firms.

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OIL REVENUES, FISCAL FRAMEWORK AND ECONOMIC DEVELOPMENT: THE CASE OF AZERBAIJAN

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ABSTRACT

The main objective of the study is to investigate and learn of the importance of economic diversification, development of non-oil sector and ways of rational use of oil revenues. Research work has been carried out on the basis of systematic analysis and methods. At the same time economic diversification policies have been reviewed and the results have been analyzed which applied in the oil-rich countries. The practical significance of the research is that, as a result of the implementation of complex measures proposed in the article that can be achieved macroeconomic stability and sustainable economic development regardless of oil revenues in Azerbaijan which it was justified by the evidence. At the same time, at result of the study found that oil-rich countries for reaching long-term economic growth and sustainable economic development should be able to develop the non-oil sector and obtain economic diversification. Besides, the continued focus on the overall rather than the nonoil balance, and the regular use of supplemental budgets to spend windfall oil revenues contribute to procyclicality of fiscal policy, risking costly boom-bust cycles. Against this background, this paper suggests several improvements to the framework for fiscal policy. The scientific innovation of research-the certain features and the ways of development of towards oil revenues to the non-oil sector has been found out and prepared proposals during practice by author.

Keywords: *Oil revenues, the development of non-oil sector, the non-oil sector*

1. INTRADUCTION

As an oil-producing country, Azerbaijan faces important challenges to its fiscal management. Oil revenue tends to show high volatility and uncertainty compared with other fiscal revenues owing to the volatility of oil prices and the uncertainty associated with the size and exhaustibility of oil reserves. As a result, today's choices about the rate of extraction of oil, investment in oil production capacity, , and the use of oil revenue have significant long-term economic implications. In addition, as oil revenue primarily originates from abroad in the form of export receipts, it can have a significant impact on the real exchange rate and the country's competitiveness depending on how the inflows of foreign currency are managed. Against this background, Azerbaijan has to consider a number of main questions regarding fiscal policy and the management of oil revenues and wealth. These include: how to assess the fiscal stance to better inform policy decisions; how to shield public expenditures and the non-oil economy from the high volatility in (and uncertainty about) oil revenue; and how to address sustainability and intergenerational equity issues (Khayati, A. (2019). In recent years, Azerbaijan has not met these challenges as well as it could have. Fiscal policy has focused on the overall balance, rather than the nonoil balance. This has contributed to procyclical fiscal policies, which amplified the boom leading up to the crisis). With ongoing pressures to spend windfall oil revenues, sustainability and intergenerational equity issues have taken a back seat. A well-designed and systematically applied fiscal framework is needed to promote more effective policy implementation. Given the massive fiscal stimulus Azerbaijan undertook in response to the crisis, there is an urgent need to unwind the crisis-related measures and return to a sustainable fiscal position while oil prices are still high. A strengthened fiscal framework, alongside a more ambitious fiscal consolidation, would create a virtuous circle with reduced fiscal and economic

vulnerabilities, lifted up credibility, and higher growth. This paper suggests developments to strengthen Azerbaijan’s fiscal framework. It includes specific recommendations to strengthen Azerbaijan’s fiscal framework to bring it in line with best practice, and is organized as follows (Mauricio V., and Pablo L., 2009).

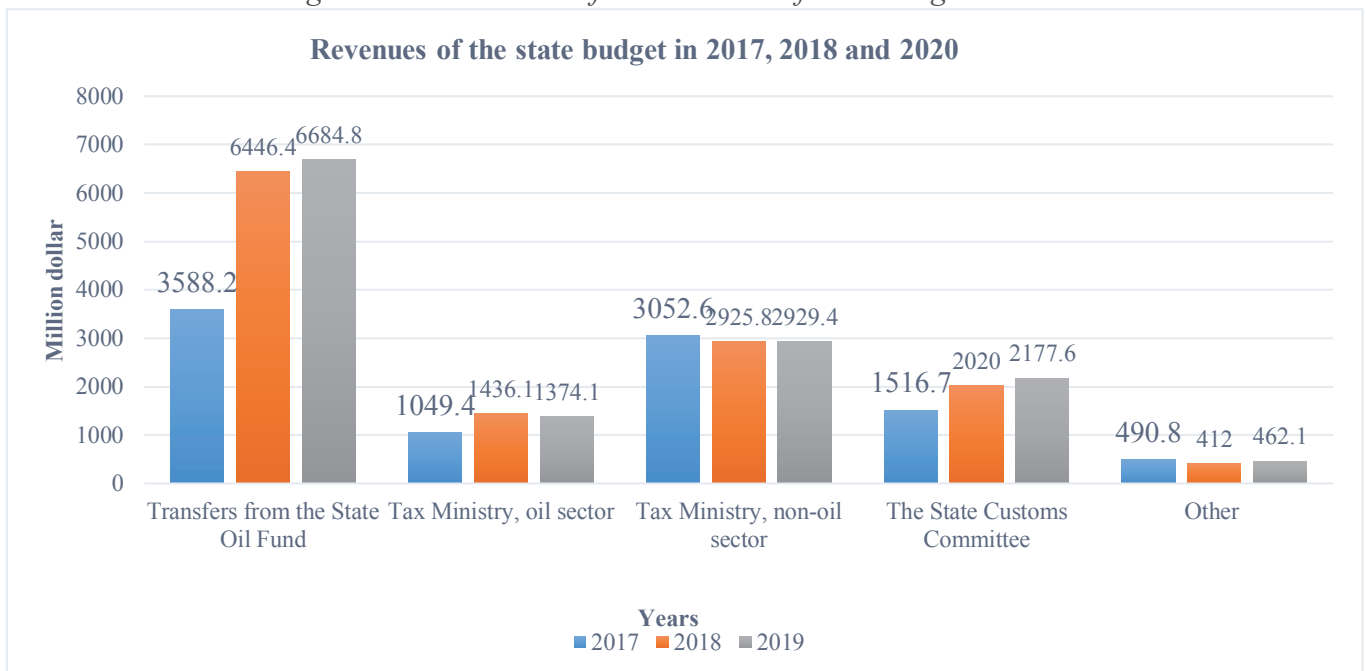
2. CURRENT SITUATION

Over many years rises and fall of world oil prices have been repeatedly reflected in the boom-bust cycles in oil-exporting countries the world over. The recent spectacular rise and equally spectacular fall in prices provides an opportunity to inquire whether anything is different this time. In this paper we limit the analysis to the experience, outlook, and long-term fiscal policy considerations for oil-producing countries and Azerbaijan. Because we are interested in gauging their fiscal vulnerability and sustainability from the angle of managing exhaustible oil wealth, we focus on the non-oil primary balance as the relevant indicator of how initial conditions and resource endowments can influence long-term considerations in several different models of fiscal rules (Robert Y. and Zaijin Z., (2009). Azerbaijan’s legal fiscal framework goes in the right direction and includes the following elements.

- First, it has relied on the nonoil balance as a key fiscal indicator. The budget code includes a long-term nonoil deficit target of minimum percent of Gross Domestic Product (GDP).
- Second, to manage macroeconomic volatility and uncertainty and to account for the longer-term consequences of spending decisions, Azerbaijan uses a medium-term fiscal framework, underpinned by rolling three-year budget plans, to set fiscal policies.
- Third, Azerbaijan maintains oil fund which realize two functions: fulfills long-run saving and creates a store of value for future generations and collects funds for “rainy day”.
- And finally, to ensure long-term fiscal sustainability (Vugar, B. (2011).

In recent years, the government has taken important steps to develop the non-oil sector in Azerbaijan. In addition, the economy has been diversified and many industries have been developed. However, oil revenues still form the basis of state budget revenues. We can see it in the Figure 1.

Figure 1: Revenues still form the basis of state budget revenues



Source: Finance Ministry

As Figure 1. shows that, oil revenues in Azerbaijan have a special share in the state budget. It also carries certain risks in terms of fiscal stability. In some oil countries better assessment, disclosure and management of fiscal risks—for instance the risks stemming from contingent liabilities, such as the deposit insurance scheme and risks associated with government stakes in non-financial enterprises—are also needed. The authorities' work to date to develop a methodology for assessing the sustainability of borrowing of state-controlled enterprises and to introduce limits on the size and profile of external borrowing by these enterprises are positive steps in this regard. International experience suggests that a fiscal rule, backed by strong political support, can help to anchor fiscal policy and achieve balanced economic growth. Some economists suggest two approaches: the long-term nonoil deficit which was used during the global financial crisis (for example in Russia), an oil-price rule, where revenue above a certain oil price is saved in the oil funds (Charleen G. and Zakharova D. 2019). An oil-price rule can seem appealing because it is easy to communicate and could help to delink government expenditure and the economy from oil price volatility. However, it would still be a second-best alternative to the nonoil deficit rule since it does not necessarily preserve the wealth from oil for future generations as a nonoil balance target does. Moreover, to be an effective fiscal anchor, the oil-price rule must be supplemented with a ceiling on expenditure to avoid procyclical fiscal policy. In countries with short reserve horizons, ensuring long-term sustainability should be the main focus of the fiscal framework. Pressures in countries running a large non-resource primary deficit could arise well ahead of the time when resources are exhausted. To prevent this outcome, fiscal policy should be anchored in the non-resource primary balance (NRPB) target derived from applying three possible methodologies: the Permanent Income Hypothesis (PIH), the Modified Permanent Income Hypothesis (MPIH), and the Fiscal Sustainability (FS) approach.

- The traditional PIH framework sets the fiscal target (NRPB) at a level that is consistent with future financial wealth. Under this approach, the NRPB remains constant over time, and is financed by the rate of return on the net present value of projected resource revenues, so that the resource wealth remains constant over time and is never depleted.
- The MPIH can help accommodate a more front-loaded spending path than allowed under the PIH. Instead of preserving financial wealth at a constant level over time, the MPIH allows financial assets to be drawn down for a few years during an initial scaling-up period. The drawdown would, however, need to be offset by fiscal adjustment in the future, to rebuild financial assets to the same level as under the traditional PIH.
- The FS framework accounts for the potential impact of the scaled-up spending on growth and non-resource revenues. This is a significant departure from the MPIH. An NRPB allowing a drawdown of government wealth to build human and physical capital and eventually stabilizing it at a lower level than under the PIH or the MPIH an still be consistent with fiscal sustainability objectives. Lower financial wealth will however generate a lower stream of resource-related income to the budget, resulting in a lower NRPB. Fiscal spending can still be stabilized at a higher level because higher growth will generate larger non-resource revenues.

In countries with long reserve horizons, managing volatility should be the main focus of the fiscal framework. Price volatility can lead to procyclicality and undermine sustainability. For example, resource revenue surges may induce spending increases, generating a fiscal impulse—as measured by changes in the NRPB—that is large in relation to existing supply, thus reinforcing economic cycles and volatility. Sustainability issues arise when commodity producers spend more than their expected long-term resource revenues. This can occur when they extrapolate temporary increases in prices and misprice their resource wealth, and/or fail to

maintain appropriate fiscal buffers to sustain current spending levels. All these actions can lead to the boom-bust cycles so often seen in commodity-producing countries. In these cases, a structural primary balance derived from a price-based smoothing rule can be useful to anchor fiscal policy. A simple way to mitigate the impact of price volatility is to target an overall primary balance based on a “notional” price that includes either backward looking prices, futures prices, or some combination of the two. The primary balance computed in this way is called “structural” since it is based on some underlying commodity price (rather than just the current one). This simple rule can be intuitive for policy makers since it includes resource revenues in the fiscal target (differently from the “pure” NRPB); it can also help support solvency through prudent forecasting of structural revenues by deliberately under-projecting the sustainable resource price. The choice of the price formula reflects a tradeoff between a preference for smoothing expenditures (when a longer smoothing period is chosen) and a need to adjust to changes in price trends (when a shorter moving average is selected), with implications for financial savings. A complementary expenditure growth limit can help reduce procyclicality. This extended rule can limit the growth of government spending in nominal or real terms, or as a percent of non-resource GDP. Such a rule is desirable to guide the scaling up of public investment where there are absorptive capacity constraints and where the volatility of resource windfalls require precautionary savings). It also helps smooth out volatility because it sets floors and ceilings for spending growth (Berg et al., 2012).

3. WHAT MUST BE DONE FOR SUSTAINABLE MACROECONOMIC DEVELOPMENT?

Oil countries will need to reformulate its fiscal framework to take into account potential revenue from natural resources. If natural resources prove to be commercially viable and sizeable, oil countries will become a commodity-producing country. Under these circumstances, it is an absolute prerequisite for the design of a prospective framework to set a fiscal regime appropriately—as this is the first step to attract investors and ensure a sustainable and sound development of the resource sector. This step should be followed by setting macro-fiscal anchors and supporting institutions. From a macro-fiscal perspective, exhaustibility and price volatility of natural resources will gain special importance for fiscal policy formulation. Exhaustibility raises issues of sustainability and intergenerational equity and calls for need for massive fiscal adjustment once resource wealth has been depleted. Price volatility complicates fiscal planning because it leads to revenue volatility and might require the adoption of certain fiscal rules to limit procyclicality. The relative importance of these objectives is likely to vary by country circumstances, such as the degree of resource dependence and the reserve horizon. An aggressive borrowing policy in anticipation of future resource revenues or excessive zeal to maintain government participation in all development projects could be counterproductive, given the uncertainty about the fiscal regime as well as the magnitude and temporal profile of the expected resource revenues. Even if these profiles of the revenues are in line with the assumptions behind the baseline or alternative scenario, the associated resource revenues are expected to be only moderate in size by international standards. This suggests that a very prudent approach to fiscal policy should be exercised when managing natural resources. The broad design of the fiscal regime for the sector proposed in draft legislation (not yet approved by cabinet) seems to be appropriate. The regime is a combination of a modest royalty, profit-based production sharing,. Royalty will generate government revenue from the start of production; production sharing based on the R-factor is likely to achieve a higher government share from highly profitable projects, while providing a relief to investors in times of low prices or high costs; and the imposition of the standard CIT will ensure that the sector receives the same corporate tax treatment as other sectors of the economy. Moreover, the four regime options modeled here appear to generate a government take in line with that observed in other petroleum

producing countries in the region and elsewhere. However, a more precise government take will only be known once bids are received and blocks awarded. The prospective macro-fiscal anchor should initially be focused on ensuring fiscal sustainability and intergenerational equity. The preferred option would be to focus the framework on ensuring sustainability and intergenerational equity, with fiscal anchors preferably determined by the MPIH framework or the FS framework that both account for the scaling up of public investment. If substantially more resources are confirmed, the first option could be superseded by the second one that focuses the framework on managing volatility, with fiscal anchors determined by the price-based structural balance frameworks. Both the price-based structural balance and its modification to limit expenditure growth could be of relevance for Lebanon, given its susceptibility to procyclicality and weak institutional capacity (Mariusz J. et al., 2014). Complementary fiscal institutions: *Azerbaijan* should create an independent fiscal agency. Currently, there is no independent agency responsible for producing or evaluating the macroeconomic and fiscal projections in the budget, or evaluating the government's proposed fiscal policies. An independent fiscal agency should be established to provide the government with alternative macroeconomic and fiscal forecasts, analysis of fiscal policy under various scenarios, and independent assessments of compliance with the fiscal rule. This agency could be established either outside or within the Ministry of Finance. *But*, good rules and fiscal agencies cannot be a substitute for fiscal discipline as rules can be abandoned or circumvented, underscoring the need for political support for such arrangements. In this paper, we address how Oil Producing Countries' fiscal framework will need to be reformulated to take into account potential resource revenue. Designing a fiscal regime appropriately is an absolute prerequisite to make sure the government can receive a fair share of the resources while investors face appropriate incentives to invest and *improve* the sector. This step should be followed by setting macro-fiscal anchors and supporting institutions. The prospective framework should initially be focused on ensuring fiscal sustainability and intergenerational equity. Strong institutional arrangements also need to underpin the prospective framework, to ensure that the pace of resource wealth's use is set in line with Azerbaijan's capacity constraints.

4. CONCLUSIONS AND RECOMMENDATIONS

In general, the non-oil sector in oil countries needs to be developed, the economy must be diversified, and the dependence of budget revenues on oil revenues should be eliminated. At the same time, domestic production should be increased and taxes should be increased to ensure budget revenues. Besides, strong institutional arrangements need to underpin the prospective framework, with the pace of resource wealth use set in line with capacity constraints. Key components include:

- A credible commitment to macro-fiscal stability and effective use of resource wealth should be underpinned by a strong *public financial management* (PFM) system. Specifically, reforms should include:
 - 1) transparent and comprehensive presentation of petroleum revenue and non-resource fiscal position;
 - 2) budgets should focus on medium term, with strong revenue forecasting framework in place;
 - 3) the coordination and selection of public investment projects needs to be strengthened;
 - 4) (iv) adherence to the EITI (the Extractive Industries Transparency Initiative) initiative would be highly advisable.
- Adopting a fiscal responsibility law could strengthen fiscal discipline by anchoring fiscal decisions on a rule-based framework. Key elements of the design would include:
 - 1) clear goals and instruments with a strong enforcement mechanism;
 - 2) monitoring and communication, broad coverage of fiscal activities;