Critique of Capital Controls in the Axis of Efficiency-Growth and Factor Productivity

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Abstract

Behind the most important tip how to analyze an economic phenomenon, event or policy and how to deal with the matter and which tools to use, while a total combination of instruments belonging to the economic theory are available, lies the fact that the discussed phenomenon has a long or short term character. One of the most important lessons we take from the economic literature is that obstacles on price mechanism such as the long-term price rigidities and contracts are removed and so the curve of aggregate supply is detected to be quite upright and therefore the total demand (shifting left or right that is to say increase or decrease) does not have much effect on the output. This intuition provides us an insight in laying emphasis on supply-side and needing to find other ways to move the upright supply curve right. This classical price mechanism approach, which regards economy as a matrix of prices, in which a large number of goods and services are in the same kind, has two key categories: growth and efficiency. The main issue in this picture, where each supply creates its own demand, is to increase the total supply (or more precisely to shift the curve of the long-term potential total supply to the right) or to reach the most effective cost and resource allocation which maximize the social welfare, while supply is used as a data. At this point, a total tool of microeconomics borrowed from classical economics stand in front of us. One of the most important shortages in the literature of capital controls is the fact that such a primary distinction is often not made and the microeconomics aspect of the matter is often not be included.

1. Introduction

The main axis of the economic literature on capital controls is to read the problematic of capital controls through the principles of macroeconomics. However, limitation of macroeconomic analysis is quite obvious. The average-based approach used by this analysis cannot reflect the economic picture as a whole for some of the cases, events or economies. Let us assume that there is a list of the success of students on any course in a classroom and the average score on this list is 53 out of 100. Reducing the students' overall success to one number and representing that success with that number makes our job easier. And perhaps there are no students in this class that have a score of 53. However, this average can be compared with the past ones or with the average of the other classes and as a result meaningful analysis can be carried out for the success of teachers, the interests of the students or similar topics. However, a deeper analysis such as the distribution of the success of the students in this class or the achievement trend of very successful or very unsuccessful students or the effect of successful and unsuccessful students on other students, requires to make a holistic assessment by discussing the students' status individually. So in some cases the microeconomics gap of the principles of macroeconomics or its limitation could come to the fore. Indeed, the real economy functions through micro-actors and channels. Average macroeconomic variables derived based on them, are only artificial variables to illustrate better the reality of field in our minds or make manageable. Therefore, flexible and holistic approach requires a consideration of the contents of microeconomics. Indeed, sectorial analyzes and even studies conducted on a company scale play an important role in order to better understand the globalizing and deepening markets and economies. As mentioned earlier, a tradition of thinking produced by the compromising of the economy literature indicates the relative importance of the micro-analysis in which growth and activity categories are discussed in the long-term when price mechanism gains flexibility. So that during this period, the macro analysis considering the potential output level to be constant, gives its position to the micro-analysis describing the changes of potential output based on the continuous evolution of the effectiveness and productivity axis as a result of micro-actors' expectations, decisions and functions.

When evaluating the content of the microeconomic studies done on capital controls analytically, the facts of activity, productivity and growth can be determined to constitute the main topics. As another finding, these all studies can be said to point to the negative effect capital controls under the main headings. And the studies constituting these entire studies often correspond to each other unlike macroeconomic studies.

2. Literature Review and Analytic Structure

The article of Forbes dated 2005 is an important study which conveys the microeconomic analysis carried out on capital controls with a systematic and analytic language. Forbes discusses supply of capital, the behavior of market mechanisms and the companies and individuals as the key categories in the study. In this study capital supply can be evaluated in the growth axis, while the market mechanism and the behavior of individuals and firms can be evaluated in the activity and productivity axis. According to the empirical analysis examined in the study, liberalization of capital markets on an international scale increases the supply of capital by reducing the cost of capital and by eliminating financial constraints. The increase in capital supply can be said to encourage growth through companies that find cheaper and easier external sources for the investments. However, the main interest of Forbes at this point (rather than investments stimulated by the increase in capital supply and thus, growth arising out of the increase in the capital goods accumulation) focuses on the fact that the small scale firms that and / or do not have a government concession and / or cannot enter into international financial markets benefit more the financial liberalization. Thus these 'small' firms play a key role in developing countries for the growth and employment. Although this kind of a finding bears a resemblance to the finding that the abolition of capital controls increases efficiency and growth in the economy by directing the capital to more productive firms, the key relationships here is rather a small company category rather than the activity[1].

In fact, Forbes handles the relationship between capital controls and the market mechanism market and thus the activity category in the section called as market discipline. The analytical finding of Forbes focuses on the fact that the abolition of capital controls increases efficiency in the economy by canalizing the capital to the companies working more effectively and by increasing competition. Forbes presents two more titles in the analysis of market mechanism called as the effect of the government's redistribution of capital and pricing, however these titles can also be considered under the first title. While Forbes underlines the decreasing potential ability of the government to determine the applications which privilege and reduce the activity of the government's redistribution of capital in the liberalization process of the capital market, it is clear at this point that there is an activity category in deeper. And Forbes also underlines the fact that in the liberalization process of the capital market, the ability of the market mechanism (increased liquidity) to price the assets accurately and having potential to convey an accurate information and signal about capital products. And it it is clear that under that statement lies in deeper the opinion of an increasing efficiency by canalizing the capital to more productive firms through correct price and the signals. Behaviors of the companies and individuals, which is the latest analytical category of Forbes can be handled in the market mechanism or activity axis, as previously mentioned. So that companies abstaining from paying similar taxes as an indication of capital controls and false income statements of individuals or tricks of avoiding constraints circulating in the back of them and the intuition that changes in the optimization decisions decrease the effectiveness are included in this section. The main emphasis should be put on the activity loss resulting from the deviation of the initial optimization decisions of the actors who avoid capital controls rather than (lies and tricks and the transaction costs tolerated to do them) on the redistribution of the resources from companies to the government or vice versa (Forbes, 2005: 1-30).

Abiad and others criticize the thesis that financial liberalization increases efficiency by equalizing the cost of capital for all firms (manufacturers) in the study carried on

[1] While each study is analyzed, the points proposed by the study should not be 'swallowed' as a whole. On the contrary, every word, phrase, sentence, paragraph and article should be internalized by inserting the rail logic we perceive things in our own minds, that is to say 'should be ‘chewed’. So that internalization or internalization process used here, refers to the fact that information and comments obtained from outside now become a part of our own mental world.

microeconomic analysis of capital controls (Abiad and others, 2004: 5). This equality does not represent activities when non-economic obstacles are taken into account.

In the microeconomic literature pointed out by the analysis based on the Pareto optimality criteria, the thesis stating that the optimal condition in which it is not possible to improve the situation of any other actor without deteriorating the situation of the other actor, occurs when the prices are same for all actors, can be proved easily through the tangency intuition and convex isoquant curves according to the origin. However, taking the non-economic obstacles into account (exceeding the redundant price category) equalizing of the cost of marginal products for each actor constitutes a basis. . Marginal profit of the company is set to zero in the profit maximization process; so that it indicates that the firm obtains all positive marginal profit until the marginal profit is zero. Thus the firm equalizes the marginal income to the marginal cost or marginal product revenue to the marginal production cost. Therefore, under the assumption of the companies' perfect competition to function over the price of the same goods in the commodity market, the equality of the marginal products represents the equality of marginal production cost and thus the activity. Indeed Abiad and others and Larrain and Stumpner evaluate the activity in their respective analysis through the marginal product category.

At this point, the equality of marginal product revenues to the marginal production cost in the firm's profit maximization process should be interpreted in an analytical way that capital is canalized to more productive companies and thus the effectiveness of the activity increases. The financial liberalization provides access to the funding markets of the firms and thus equalizes the cost of the marginal product of capital and so it is clear that it makes investments in direct proportion to the productivity of each company and thus manufactures. Indeed, the company's profit optimization, as previously the logic of which was stated, refers to the equality of the marginal product revenue to the marginal production cost and thus companies with a more upward marginal product revenue curve will demand capital /investment on a larger scale and manufacture. At this point it should be internalized that there is a perfect competition in the commodity markets in which firms sell their goods and so that the assumption that the differences in the marginal revenue curve of the firms arise from the productivity differences is made. Also it should not be overlooked that this analytical finding requires the status of the diminishing capital returns. As the used capital increases, the marginal product revenue falls to the standard value of the marginal production cost, so firms that are more productive and in which the marginal product revenue curve is higher, provide this equality at a higher level of capital/ investment and production.

In the same analysis, Abiad and others separate financial deepening and financial liberalization based on the activity categories (Abiad and others, 2004: 28). So that financial liberalization contributes to the efficiency by equalizing the international cost of the capital and financial deepening often arise in this process with financial liberalization. However, financial deepening or increase in the trading volume of financial markets is not theoretically a necessary condition for the financial liberalization. Therefore, at this point an original causality analysis should be made according to each situation. Indeed, it is emphasized in the empirical analysis like the one of Abiad and others addressing microeconomic analysis of capital constraints that the financial liberalization rather than financial deepening is decisive in the activity and growth

In his work conducted on financial liberalization and growth, Gehringer indicates that the financial liberalization encourages the growth based on total factor productivity in the economy. It is a fact that in the background of Gehringer's thesis underlies the increase in the total productivity induced by a more efficient allocation of capital and so on. However, the main emphasis of Gehringer is on the importance of explaining the microeconomic channels providing such an increase in the productivity and the asymmetry of the benefits of the financial liberalization to different sectors. So that it should be perceived to be noted at this point that analyses should be done to fill the micro-gaps of macroeconomic analysis by taking into account the specific features and structures of sectors and even firms. It is clear that microeconomic studies about the capital constraints, as previously mentioned, are conducted much less than the macroeconomic studies and there are so small number of analyses based on a specific character on such a company or industry scale in the microeconomic literature (Gehringer, 2013: 17).

The main topic of the study carried out by Larrain and Stumpner on the financial liberalization and the total productivity is similar to the main studies examined before. So that Larrain and Stumpner stress that financial liberalization increases activity in the economy and thus total factor productivity by channeling the capital to more productive firms and efficiency category is represented by the equality of the marginal product, or more clearly, by a decrease in the variance of the marginal product as the data section between firms and by other similar factors. These factors are considered as an increase in the covariance between the company's market share and the capital's marginal product, a decrease in covariance between the company productivity and the marginal product of the capital, and an increase in the covariance between total debt of the company and the marginal product of the capital (Larrain and Stumpner, 2012).

The economic logic behind the increasing factors of the covariance between company's market share and the marginal product of the capital, and total debt of the firm and the marginal product of the capital is based on the intuition that market share of the company is determined by the productivity level of the company and the more productive firms can borrow more, while promoting the expansion of the more productive firms by eliminating the debt constraints.The economic logic behind the representation of the decreasing factor of the covariance between the firm productivity and the marginal product of the capital positive effects of financial liberalization on the effectiveness is based on the intuition that while financial liberalization encourage the expansion of more productive firms by eliminating debt constraints and the use of more capital, the marginal product of capital decreases under the diminishing output assumption. While the economic logic behind the increasing factor of covariance between company's market share and marginal product of the capital and the company's total debt and the capital's marginal product is discussed, the result does not change when the intuition of the decreasing marginal product of capital is taken into account under the assumption of diminishing returns. When looked at in a wider perspective, it is obvious that less productive firms prior to the financial liberalization produce by borrowing or using more capital and it is true that the capital's marginal product falls as they borrow and increase the amount of the capital and the production. Therefore, it should be perceived that the position of the marginal product curve of capital, i.e. being at the bottom or on the top is decisive in comparing the previous and after status of financial liberalization.

In the study the perfect competition assumption is made in the labor market and the marginal product of the labor can be said to be the same for all companies, as marginal product revenue of labor is equalized to the marginal production cost of the labor, i.e., to the wage (and under the assumption that there is a perfect competition in the commodity market in which firms buy their goods) in the company's profit optimization process. Therefore, the financial liberalization does not affect the variance of the marginal product of labor and the covariance between market share of the labor and so on and other variables. Thus, it can be concluded that unlike the labor the financial liberalization increases the general activity in the economy by increasing the efficiency in the distribution of capital. Larrain and Stumpner, reveal the relative unit impact of the financial liberalization on the productivity between different industries in the empirical part of the study. In the study, industries with a higher financial dependence benefit more from the financial liberalization and, therefore, industries are classified according to the degree of financial dependence. Assuming that the one unit absolute impact of the financial liberalization on the productivity of the industry with the lowest financial dependence is zero, it is concluded that the financial liberalization increases the total factor productivity by nearly 35 percent, if a sealing technique that goes back in which all the relative effects of the financial liberalization on different industries are gathered (Larrain and Stumpner, 2012).

Several factors can be said to be missed in the economic literature on the efficiency, productivity and economic growth problematic. (i) The explanatory dynamic character of the efficiency is beyond doubt. However, while the activity category is analyzed, it is considered statically according to the definition of this term. So when discussing the issue of efficiency, whether the resources actually used and the distribution of goods and services produced maximize the social welfare is questioned and the phrases 'actually used' and 'produced' must be underlined. Unused resources but having the potential of being used and goods not produced but having the potential of being produced are excluded in the economy in which the production is made either at the level of Keynesian or classical. However, despite having such a kind of static character, it is clear that the category of activity produces dynamic results. So that the efficiency achieved in the current period, increases the material well-being and knowledge and skills by increasing the total factor productivity and growth and the economy is expected to be more efficient and productive in the future periods through a more productive and better equipped markets (and the institutions built on them). Thus, the increase in the importance of the activities as a set of processes that feed each other should be emphasized again. Furthermore, we can energize the initial description of the activity category including the time dimension in our minds by increasing the number of dimensions considered. So that companies and consumers can be assumed to take into account the profits and benefits in the current period as well as future periods. The only difference in the perception in which one price intuition constitutes an essential basis for each actor in the ensuring of the efficiency in the distribution of resources and commodity (pareto optimal distribution in which it is not possible to improve the situation any other one without worsening the situation of the other) is to determine the state of the actors by taking the future period of the indifference curves into account. However, such a definition moves away from reality by increasing the rationality degree of the 'rational' actors and it is often not possible to assign numerical values to the profit or gain for the situations of the game theory in a deterministic line, according to dualistic similar characteristics of the markets in which the actors function.

3. Concluding Remarks

The explanatory global character of the activity matter is beyond doubt. However, the microeconomic literature on capital constraints evaluates the efficiency category maximum at the level of three nationwide. If we design a single world exceeding beyond the borders in our minds and it can be mentioned about global efficiency in the distribution of resources and goods and welfare increases in the country scale can be detected as the individual parts of this great picture. Such a perception provides the abolition of capital constraints or encourages the increasing activity of the financial liberalization for both sides engaged in trading. Furthermore, the positive effects reflecting on the country's economy in which the increased activity on the other side or in the country is discussed and and integrated micro analysis that captures the math and the logic of the matter should be made by taking (the other side) positive effects in the opposite direction into account. (ii) The explanatory limitations of the activity issue is beyond doubt. The activity category in the economic literature is limited primarily by the property and current, actual benefits and the profits of the actors. The pareto optimal distribution is required in which it is not possible to improve the situation of one without worsening the situation of one of the resources and goods. If this presupposition is exceeded, it is clear that the issue will become subjective and the challenge of finding an objective measuring and instrument generally accepted at this point. Even if the purpose of maximizing social welfare without making a distinction in the initial benefit and profit distribution includes that every individual has an equal share in the social indifference curve, it is not possible to compare the marginal benefit of the individuals (they obtain from an asset) and as a more inclusively, or it is not possible to support it with a substantial and objective analytical basis, as the marginal benefits of the money is different for everyone. Also the consistency of such a perception that disregards the ownership in terms of cumulative effort in the previous period is also controversial. However, it should not be overlooked in the economic matrix that some interventions motivated by this perception have the potential of increasing the productivity. For example, granting tax privileges or subsidies of the state to more productive firms or industries increases the total factor productivity in the economy. However redistribution of income through taxes or changes in relative tax is clearly not effective according to pareto optimal criteria. Therefore, it is not true to use the activity category constantly instead of continuous productivity or total factor productivity. If a person, firm or country use resources effectively, productivity increases, but there are other areas of the productivity apart from the efficiency. So that factors such as a person's intelligence or climate of the country are one of the determinative variables of the productivity. (iii) The economic literature on capital constraints and similar problematic focuses on the fact that the increase in activity stimulated by the financial liberalization increases the total factor productivity and this increase promotes the channel of growth. However it should also be perceived that there is a transition from the growth in the same chain and the increase in total factor productivity to the effectiveness and causality or effect channel. So that growing and expanding markets in developing economies in which the productivity increases (and institutions that are built upon them) will enable the economy by producing more accurate information and signal and reducing asymmetric information and moral hazard.

References

ABIAD, A., N. OOMES ve K. UEDA (2004), 'The Quality Effect: Does Financial Liberalization Improve the Allocation of Capital?', International Monetary Fund Research Department, Working Paper: WP/04/112.

BARRO, R. J. ve X. SALA-I- MARTIN (2004), 'Economic Growth', The Mit Press, İkinci Baskı, Cambridge, MA.

CARDENAS, M. ve F. BARRERA (1997), 'On the Effectiveness of Capital Controls: The Experience of Colombia During the 1990s,' Journal of Development Economics, Vol. 54, No. 1, s. 27–57.

DE GREGORIO, J., S. EDWARDS ve R. O. VALDES (2000), 'Controls on Capital Inflows: Do They Work?,' Journal of Development Economics, Vol. 63, No. 1, s. 59–83.

EICHENGREEN, B. (2003), 'Capital Flows and Crises', The MIT Press., Cambridge, MA.

ENGEL, C. (2012), 'Capital Controls: What Have We Learned?', BIS Papers, No 68, s. 22-26.

FORBES, K. J. (2005), 'The Microeconomic Evidence on Capital Controls: No Free Lunch', National Bureau of Economic Research, Working Paper Number: 11372.

GEHRINGER, A. (2013) 'Financial Liberalization, Financial Development and Productivity Growth – An Overview', Economics Discussion Papers, No: 2013-46, Kiel Institute for the World Economy.

HABERMEIER, K., A. KOKENZNE ve C. BABA. (2011), 'The Effectiveness of Capital Controls and Prudential Policies in Managing Large Inflows', Internatıonal Monetary Fund Monetary and Capital Markets Department, Authorized for distribution by José Viñals August 5.

IGNACIO, F. (2003), 'Are capital controls good or bad? The example of Chile', Fundación Cilae Nota técnica NT , Vol. NT.02.03 (Oct), s. 1–6.

LARRAIN, M. ve S. STUMPNER (2012), 'Financial Liberalization and Aggregate Productivity: The Microeconomic Channels', Columbia University Financial Studies.

MAGUD, N. E., C. M. REINHART (2006), 'Capital Controls: An Evaluation', National Bureau of Economic Research, Working Paper Number: 11973.