THE ROLE OF DEVELOPMENT BANKING IN PROMOTING INDUSTRIALIZATION IN TURKEY

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Abstract - Development banks are influential institutions in financing development. Since their establishment back in the 19th century, development banks have played a leading role in supporting development in many countries. Despite the liberalization process of the 1980s and 1990s, development banks have continued to play an active role in financing development in the case of many countries. In the Turkish case, the performance of development banking in supporting development has varied over time. However, one feature has remained constant: development and investment credits did not contribute to the alleviation of regional imbalances even during the period of import substituting industrialization from the 1960s to 1979. Moreover, total fixed capital investments, which are the raison d’être for development banking in Turkey, have been mainly financed by commercial banks. Given the severe recession in the global economy, the development banks in Turkey may play a leading role in financing industrial and social projects.

Keywords - INSTITUTIONS AND GROWTH, DEVELOPMENT BANK, TURKEY, REGIONAL DEVELOPMENT

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1. INTRODUCTION

Development banks are state-backed financial institutions that are concerned with the provision of long term loans to not only profitable projects but also to socially beneficial ones. The rapid industrialization in many countries in the 19th century was achieved by state provision of long term loans to risky projects via development banks (Diamond, 1957; Boskey, 1961). In many countries such as Germany, Japan, France and Holland, development banks were intensely utilized to meet the needs of growing industry (Diamond, 1957). During this period, development banks provided technical support and cheap loans. They were also stakeholders in poor corporates. Last, but not the least, point is that they were very successful in accommodating entrepreneurship within those national economies.

Many advanced countries of today financed development projects via development banks during the course of their development. Yet, development banking activities became widespread in less developed countries at the second half of the 20th century. The necessity of rapid industrialization pushed less developed countries to utilize development banking scheme to this end. The development discourse at that time also rationalized state intervention in the financial sector. In those days, it was strongly argued that state regulation and intervention in finance would boost efficiency in real sector and fair allocation of resources. Accompanying the following state-dominant policymaking process, development banking was intensely utilized until the 1980s. However, state involvement in the financial sector has gradually diminished since then in line with the neo-liberal shift in economic policies. Financial activities have been directed by free market dynamics rather than regulated and directed markets.

Although the 1980s and 1990s witnessed financial liberalization in many parts of the world, the structure of development banking has not lost its vividness. In the post-1980 period, the decline in preferential credits to prioritized sectors coupled with the backwardness in capital markets particularly in developing countries exacerbated the need for financial intermediation of long-term financing. As will be discussed below, development banking as a notion has evolved in diversified directions in different countries but never lost its dynamism.

The Turkish development banking, in part, eccentrically departs from its peer country cases. As a dynamic structure, development banking is supposed to give fresh impetus to development in capital intensive parts of the country and help for poverty reduction in rural areas. However, Turkish development banking has never been so active in financing development and eliminating poverty as development banks in other developing countries. In Turkey, development banking activities were not held for either poverty alleviation or project finance even during the import substituting industrialization (ISI) period before the 1980s.
This study examines the evolution of Turkish development banking for an evaluation of its performance in terms of financing industrialization. It analyzes the role of development-investment credits in gross fixed investments in the 1963-2005 period by applying a co-integration and error correction modeling framework. We also discuss to what extent development banking has been effective in regional development and poverty reduction in Turkey by starting from the premise that regional imbalances and poverty can be reduced through rising industrialization. Also, on the basis of the discussion of the global changes in development banking in the post-1980 period, implications of the current financial crisis for development banking are highlighted.

Most of the country studies that analyze the performance of national development banking generally appraise the financial performance of development banking activities. These studies generally take into consideration the profitability of development banks operating earnings, cost of operations, gross and net profit margins, etc. (See for example Jain, 1989; Pouliezos, Siskos and Zopounidis, 1994). Yet, there are a few works that discuss the efficiency of development banking activities from a developmental perspective. For instance, Odedokun (1996) analyses the effects of development banking activities on resource allocation and investment utilization in LDCs by employing annual panel data from 38 LDCs. This study finds out that development banking generally has negative effects on the efficiency of investment utilization and resource allocation, as inflation rate and the size of public sector. Furthermore, Ndongko (1975) analyzes the lending characteristics of Cameron Development Bank to the industrial sector. The study points out that the Bank’s lending has been mainly in the form of short-term loans to finance marketing activities, housing and household equipment, and the Bank has not so far played its intended role in promoting industrial development. It further advocates that the emphasis should be on industrial operations rather than those kinds of short-term credits.

Similarly, despite the existence of many studies on Turkish development banking, the issue generally has not been discussed from a developmental perspective. Some of these works discuss the notion of development banking at a micro level with particular foci on the functions and organization schemes of development banks, etc. (see Can, 1993; Condur, 1994; Ucar, 1987). As well, some other works focus on specific issues regarding development banking. For example, Alici (1988) and Akcicek (1991) examine the project evaluation process fulfilled by development banks. Civelek (1996), on the other hand, evaluates the place of development banking within the Turkish banking system. Also, Sahinkaya (1998) discusses global development banking with a historical perspective, and then concentrates on the Turkish case. In all of these studies, the Turkish development banking remains to be discussed either very narrowly or too broadly. Furthermore, none of these works focuses on the performance of development banking from a developmental point of view. Even though there are some studies that focus on the performance of development banking, these studies were not analytical and were held in a qualitative manner (see Dolcubas, 1998; Bacak, 2007; Şahinkaya, 1998).
Apart from these a few studies, the performance of development banking has not been regarded as an issue in the discipline of development economics. Therefore, this paper will fill an important gap in the literature by presenting findings on the performance of development banking within the context of a developing country case: Turkey. The analysis will first allow us to evaluate to what extent development banks were functional in an era of Keynesianism and state-guided industrialization in the 1960s and 1970s. Secondly, it will shed light on what happened to this form of banking during the rise of neo-liberalism in the 1980s that market forces have become dominant in decision-making. This work will also provide a ground for the discussion of new possibilities for the utilization of development banks in order to foster industrialization in developing countries given that the current global recession can lead states in developing countries to play a more active role to this end.

The remainder of this paper is designed as follows: Section 2 discusses development banking within the context of institutional regulations in the process of industrialization. Section 3 provides a historical overview of development banking as a source of social utility. Section 4 sheds light on the Turkish development banking experience in its historical context and discusses its role in development with a regional emphasis. Section 5 presents the data and Section 6 examines the relationship between fixed investments and development-investment credits. The recent developments in the world’s development banking under the conditions of the current global financial crisis will be the foci of Section 7. Section 8 will conclude.

2. DEVELOPMENT BANKING WITHIN THE CONTEXT OF INSTITUTIONAL REGULATIONS IN THE PROCESS OF DEVELOPMENT

The period after the World War II when Keynesian policies were applied in developed countries coincided with a time when less developed countries were craving for economic development. In this period, a literature which explores the dynamics of the inequality between the industrialized and underdeveloped countries was flourished. Rosenstein-Rodan (1943), Nurkse (1953) and Rostow (1956)’s works were the products of this endeavor and mainly concentrated on the causes of underdevelopment. The new literature discussed the ways for achieving rapid industrialization. Underdevelopment was mainly explained with the lack of adequate capital and it is argued that sufficient capital should be somehow accumulated. With the help of the spirit of the time, the state was pointed out as a catalyst in capital accumulation. Thus, the main difference between the then new literature and classic literature was the role given to the state itself.

Rosenstein-Rodan (1943), Nurkse (1953) and Rostow (1956) assert that capital inadequacy was the main cause of underdevelopment, though their works do not specify the mechanisms that state would utilize to sustain development. In other words, the roles of the state in disseminating entrepreneurship and supporting productive capital were not clear in these studies. Gerschenkron (1962) and Cameron (1972), however, emphasize the
significance of the institutional structure beyond suggesting the state as a pioneer in development. Similar to the above-mentioned studies, Gerschenkron (1962) specifies that underdeveloped countries might converge to industrialized countries by realizing “great spurt” with the help of strong financial institutions. In this context, one may note that Gerschenkron (1962) emphasizes the importance of state-backed development banks for late-industrializers of Europe in the 19th century. In this work, he reiterates the German banking system as a strong financial structure. ¹ He also exemplifies his claim with the Russian experience. Russia’s need for capital was heavier than Germany in which the state itself was directly involved in the establishment of large scale enterprises. The state also intervened in the allocation of financial resources in Russia at the beginning of 20th century. Cameron (1972), on the contrary, advocates that state involvement in industrialization would not be so efficient, and individuals were to be the main driving force in development. He also criticizes Gerschenkron (1962) by pointing out to the fact that merely two country cases would not be the evidence of a successful state intervention.

After the World War II, the world economy as a whole grew continuously for nearly two and a half decades. During this period, not only the industrialized countries but also the less developed countries achieved high growth rates. However, after the 1970s the global growth trend did not continue. With the emergence of stagnation in advanced economies rooted in the falling rates of profit (Brenner, 2001), the crisis spread across the less developed ones. This has even led to the thought of the end of development economics. Since then, the roles of state in economy as a regulator, employer and direct investor have been underestimated (Wade, 1990). For the developing countries that were implementing the ISI strategy, the associated problems with this strategy forced them to leave this policy option in the late 1970s and the early 1980s. Meanwhile, the crisis in advanced capitalist countries led firms to utilize mechanisms to overcome the problem of falling rates of profits. Firstly, due to the rising liberalization and deregulation of markets, money capital and productive capital have become increasingly internationalized in search of higher profits (e.g. the fragmentation and relocation of production processes to late developed countries, rising international financial flows). Also, the state has withdrawn from many aspects of the economy through privatization, decreasing welfare expenditures etc. and has increasingly facilitated the global integration/expansions of their national capitals. However, the financial crises of the 1980s and 1990s that followed the liberalization of international financial flows in many country cases pointed out the need for re-thinking the role of the state in economy. As an early study, Wade (1990:9) reiterated that unless the necessary steps are taken to reshape the institutional framework of economy, the suitable climate for productive investment would not be attainable. ²

Since the 1980s the late developed countries have adopted financial liberalization so that the mobility of financial capital has increased. In this

¹ See Riesser (1911: 27-44) for the role of development banking and statist-banking system in transforming the production structure.
² See also Akyüz (1993, 2008).
period, capital flows across national borders gained a speculative and shorter-term characteristic along with the rising volumes of foreign direct investment. The less developed countries have tried to attract international financial flows in order to meet their capital needs. Those inflows have tended to be in the form of portfolio capital in many country cases and the associated short-termism has caused severe financial crises as in Mexico, Turkey, Thailand, and the Philippines. So, many emerging market economies tended to utilize financial flows pragmatically to enhance capital accumulation. South Korea, for instance, used these financial inflows for productive investment, on the other hand, Malaysia and Taiwan channeled those inflows to real estate development, consumer financing and stock exchange speculation.

Hence, financial liberalization and accompanied international capital flows have been accused of the frequent financial crises and of the detachment of financial sector from productive sector. Thus, the hegemony of neo-liberal policies in shaping international capital markets has been questioned. With such a perspective, Amsden (1989) and Wade (1990) analyzed the South Korean and Taiwanese experiences respectively. They stressed that these Asian latecomers created comparative advantages via extensive government intervention in Industrialization. Even the World Bank (1997) argued the need for a revision of the role of the state in economy. Furthermore, Chibber (1999, 310) stressed that many successful Asian countries had achieved high growth rates due to the state involvement in their economies. That is the success of these countries was mainly achieved due to the cooperation between their domestic private capitals and states.

The question whether the state should intervene in the economy has remained contentious. However, the frequencies of financial crises all over the world require economic policies to have a social dimension. Below, the discussion of the functionality of development banking will continue with a historical perspective.

3. DEVELOPMENT BANKING IN RETROSPECT

The rapid industrialization of the continental Europe in the 19th century was accompanied by the emergence of large financial institutions that were concerned with the provision of long-term loans as in France and Netherlands (Diamond, 1957). The existing commercial banks were unable to provide industry with long-term finance for two main reasons. Firstly, they were unwilling to bear the inevitable risks associated with the financing of new enterprises. Secondly, the commercial banks lacked the specialized skills required to deal with the higher risk related to long-term investments (Boskey 1961; Basu, 1965; Aghion, 1999). Hence, given the scarcity of private provision of long-term finance, many of these new large financial institutions were sponsored by national governments.

As well, after the World War I, the need for reconstruction stimulated the development of state-backed financial institutions. The involvement of banking systems in the industrialization of Europe during the previous century (19th
century) spread to other European countries such as Belgium, Poland, Finland, Italy and Hungary (Diamond, 1957; Boskey, 1961; Alsahlawi and Gardener, 2004). Aware of the fact that financial institutions could play a proactive role in financing development, these banks also successfully functioned as catalysts for industrialization. As the reconstruction proceeded, the institutions were assigned with the role of providing long-term finance to relatively new industrial sectors, such as iron, steel and shipbuilding as required for rapid development. All the cost born by the projects were shouldered by the state itself. The state support took the form of share capital provision, cheap loans, the provision of state-guarantees to bond issuances by these institutions, or a combination of the three (Diamond, 1957). The notion of development banking structure was also adopted by Latin Americans during the Great Depression years of the 1930s. Corporacion de Fomento in Chile has pioneered development banking in this geography. The state itself employed development banks to enhance development in a closed economy under the tough economic conditions of the Great Depression. While rising trade protectionism and competitive devaluations in many countries at that period contracted international trade, Latin American development banks wanted to utilize this opportunity to divert local capital to their local industries. However in the period of 1925 and 1945, the diminishing export revenues and decreasing capital inflows led the Latin experience to be unsuccessful.

The demands for reconstruction after the World War II triggered another wave of state-sponsored financial institutions. The German Kreditanstalt fur Wei-darufban (KfW) and the Japan Development Bank (JDB) are the two major examples. Although they originally intended to channel external funds for reconstruction, these institutions later evolved to long-term financial institutions (Aghion, 1999). After the World War II, many less developed countries also adopted development bank scheme to administer and channel World Bank loans and to provide long-term finance to newly created industrial enterprises (Diamond, 1957; Boskey, 1961). Unlike their predecessors, the majority of the post-World War II institutions were entirely state-owned and in this period, state acted as a catalyst and a coordinator and directed many economic activities via development banks (Bhatt, 1993; Aghion, 1999). These banks played a crucial role in the dissemination of financial expertise in the new industries in periods of scarcity of capital and skill. The loans provided by these development banks were small in quantity but its importance vis-à-vis qualitative contributions were praiseworthy (Diamond, 1957: 38-39). Their distinctive feature which separates them from other banks was their strategic decision-making in when and whom to support.

Even in the post-1980 period, development banks continued to be highly involved in development. The Japanese and South Korean cases are the strong evidences of this claim. Although the neo-liberal orientation since the 1980s has affected the aforementioned countries, the development banks in those counties have survived and provided policy-based finance to productive sector. The South Korean experience is a unique case; she has supported many industrial sectors with protectionist policies and utilized development banks in order to
channel credits to specific sectors. Apart from these very successful Asian experiences, Latin American countries have used the development banking scheme to bolster their industrial sectors and social projects even after the 1980s. Currently, there are 550 development bank worldwide with 152 of them located in Latin America and the Caribbean (Yeyati, Micco and Panizza, 2004).

Development banking activities have remained crucial in many countries, yet, their functionality has developed under different forms since the 1980s. Nowadays, development banks have been seeking opportunities to diversify their resources and in parallel they are actively tapping capital markets to use international money capital. They are mainly funding small-to-medium enterprises (SMEs) in developed countries, but their traditional role of bolstering heavy industries still goes on in developing countries. For the sake of risk diversification, development banks are operating co-lending activities. By doing so, they transfer monitoring-cost to a partner commercial bank and share credit risk. Besides their funding operations, they concentrate on consulting services like feasibility reports, technological consultancy, etc.

In sum, development banks have not only provided financial support to industrialization, but also contributed to the well-shaped distribution of capital within the societies by channeling their funds to the underdeveloped parts of the countries where commercial banks and other financial institutions were not eager to work. Their main objective by acting so was to promote productive investment in needy areas through technical assistance. The activities of development banks target those that have difficulty in gaining access to private financial markets, namely SMEs, agricultural sector, environmental projects and activities related to technological innovation. That is because they face higher intermediation costs and less diversified risks than those of large corporations. Within this streamline, development banks have been influential in balanced distribution of capital and have provided technical support to the less-developed parts of the countries. So the high effectiveness of development banks is also an indicator of reduced regional imbalances and poverty endeavor in that country.

4. THE TURKISH EXPERIENCE IN DEVELOPMENT BANKING

Development banking in Turkey has been initiated to settle a banking system that supports the development of entrepreneurship and industrialization within the country like many others.

In Turkey, the formation of national banking gathered momentum after the foundation of the Republic in 1923. Given the insignificant level of private capital accumulation in Turkey and the dominance by foreign banks in financial market the state itself took the initiative to develop a national banking system to support capital accumulation. To further Turkey’s economic development, new national banks were established between 1923-1932, either directly by the state or under significant influence of the state (Gultekin-Karakas 2009).

In the 1930s and 1940s, industrial development plans were fulfilled through the creation of a number of state banks. Because of the insufficient
level of private capital accumulation and the negative effects of the Great Depression on the economy, the government abandoned its policy of privately-driven industrialization. Consequently, from the 1930s onwards, the state became the driving force in industrialization: ‘most industrial plants were set up as state enterprises or, if in private hands, owed their existence to official support and protection’ (Vorhoff 2000, 145). In order to provide credit and to facilitate infrastructural and industrial investments stipulated by economic development plans, state banks were established in specialized sectors such as Sümerbank (1933), Belediyeler Bank (1933), Etibank (1935), Denizbank (1938) and Halk Bank (1938). These new banks can be evaluated under development bank scheme because of the sectoral credits that they allocated. For example, Etibank and Sümerbank directly got involved in the establishment and functioning of new state economic enterprises in various industries. Therefore, they had been transformed to a quasi-holding structure. It is argued that these banks were not able to act as development banks in real sense due to the fact that they had to meet the then urgent needs of Turkey. (Diamond, 1957; Boskey, 1961; Eroğuz 1982). However, even if they did not function as separate banks financing industry as development banks do, it would not be wrong to classify these banks under development banking given their role in the finance of industrial development.

Due to the state-led industrialization policy, Turkey entered in the 1950s with a remarkable progress in its industrial and commercial base. Altogether, the state-owned industries led by the great investor twins – Sümerbank and Etibank – gave the public sector a superior position in the overall economy. On the basis of the private capital accumulation achieved, the integration of the Turkish capitalism into the world capitalism accelerated after the World War II. In the process, economic policy became more liberal. Accompanying this change was an increase in credit opportunities from Western capitalist countries, especially under the Marshall Plan.

The very notion of development banking has flourished since the early 1950s together with the establishment of Turkish Industrial Development Bank (TSKB) under the auspices of the World Bank (Basu, 1965). Excluding the not-so-successful experience of Turkish Industry and Mining Bank (Türkiye Sanayi ve Maadin Bankası) in 1925 and the above-mentioned state banks of the 1930s, this bank is the first development bank in Turkey. The TSKB was established in 1950 at a time when liberal policies took effect after World War II. Shareholders of the bank consisted of the leading commercial banks of Turkey in addition to the government who also provided a profit guarantee for the bank’s shares to support involvement (Akıncı, 2000). The main objectives of the bank were determined as follows: to provide assistance to private enterprises in all sectors primarily in the industrial sector; to encourage and assist the participation of private and foreign capital in corporations established and to be established in Turkey; and to assist to the development of capital markets in Turkey (Diamond, 1957; Boskey, 1961). As being the only institution in Turkey which provided long-term finance and technical assistance to private sector in
the 1950s, the bank made significant contributions to private capital formation within the country.

Development banking gained a further momentum during the ISI period between the late 1950s and 1979 as many other development banks were established. During this period, the notion of planning became a central element of economic policymaking with the help of the establishment of State Planning Organization. In conformity with the ISI strategy, great importance were attached to the allocation and mobilization of resources through directed credits and incentive programs including subsidized lending to priority sectors/regions. Broadly speaking, the measures taken during this period transformed the whole financial system, and development banking in particular, as an instrumental part of the industrialization in Turkey. On the side of private commercial banking, an important outcome of the planned period, especially during the 1970s, was the evolution of private banks into “holding banks”, which indicated the ownership of commercial banks by conglomerates owned by wealthy families and active in various sectors. Subsidized credits were transferred to those conglomerates via the banking system in order to stimulate investments in prioritized sectors stipulated by the developmental plans.

On the public side, the public investments were financed by monetizing budget deficits, issuing low yield bonds mostly purchased by public contractual savings and bank deposits as well as foreign debts and aids.

Regarding development banking, four new non-deposit-collecting banks have been established in accordance with the development plans (Akıncli, 2000). The state banks especially the State Investment Bank (DYB) and the Central Bank, which then operated as a semi-development bank, were an important part of this financing mechanism as they allocated the funds that were created in accordance with the plan imperatives.

Yet this period did not last too long. The 1980s gave a new direction to development banking accompanying the neo-liberal restructuring of the economy. The ISI strategy could not last because of the foreign exchange scarcity and the associated supply bottleneck as well as the saturation of domestic markets especially in consumer durables. Therefore, the neo-liberal orientation of the 1980s brought about structural changes in productive investments which were previously held under the control of the state. In other words, the mode of development shifted from an inward-oriented accumulation regime with extensive state regulation and intervention to a stance that was export-oriented. The export-led accumulation regime provided the needed environment for Turkish capital to expand into the rising foreign exchange-earning sectors of the 1980s such as tourism, finance, international transportation and foreign trade.

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3 These are Tourism Bank of the Republic of Turkey (TC Turizm Bankası), Industrial Investment and Credit Bank (Sınai Yatırım ve Kredi Bankası), State Investment Bank (Devlet Yatırım Bankası) and State Industry and Labourers' Investment Bank (Devlet Sanayi ve İşçi Yatırım Bankası, transformed to Development Bank of Turkey).

4 State Investment Bank (DYB) was transformed to the currently active Turkish Eximbank in accordance with this policy change in economic development.
As the export-led development strategy reached its limits towards the end of the 1980s, short-term capital flows have been utilized in order to overcome the problem of capital scarcity in Turkey. Since the mid-1980s, especially the 1989-external financial liberalization, the banking sector became the main beneficiary of state borrowing policy. The sector heavily purchased high-yielding government securities by raising funds from abroad as well as domestic economy. Since almost all of the Turkish private commercial banks have been part of corporate conglomerates with some industry-trade bases, the banks were able to channel money capital derived from state debt finance to the expansion of their conglomerates. Therefore, while mainly small-to-medium scale productive capitalists were increasingly excluded from the credit system, banks provided a kind of protection for their holdings’ activities. The state indebtedness channeled money capital to those large scale industrial/commercial capitals in a period when they sought to internationalize their accumulation. In addition to industrial firms belonging to large holdings incorporating banks, other industrial firms with better liquid positions have also benefited by purchasing lucrative government paper (Gulítkin-Karakas 2009). Therefore, the bulk of firms’ revenues and profits started to come from such off-field operations rather than the firms’ principal production and sales activities (Akinci, 2001).

Graph 1: Change of DIC/TC (1963-2005)

The liberalization and deregulation period of the 1980s and 1990s has negatively affected development banking in Turkey. This policy change has showed itself in the declining share of development banking credits in total banking credits. As can be seen from Graph 1 the share of development and investment credits (DIC) in total credits (TC) plummeted from 25-30% to 10-
15% between the 1960s and the early 1980s, afterwards it posed standstill movement. The structural change in state-dominant policymaking towards neoliberal policies directly reflected itself on development banking during this period. As the role of the state in the provision of finance to industrial investments has declined, and the state started to play much more a role of regulator in the economy, some large state-controlled development banks were either liquidated (e.g. Industrial Investment and Credit Bank) or have been assigned to new roles (e.g. State Investment Bank was converted to Eximbank that provides finance to exporting activities). As well, after 1980, at a time of economic crisis, the priority for Turkish industry was to reorient/restructure their existing productive capacities for higher quality production and international competitiveness. Turkish manufacturers preferred to increase their capacity utilization rather than making new investments especially when interest rates and inflation were high in the 1980s. This resulted in the low investment performance in Turkey after the shift to the export-led strategy.

The declining trend of the 1980s in development banking activities has continued throughout the 2000s and the share of DICs in TC decreased to 4% in recent years. This dramatic decrease in DICs was mainly because of the adverse effects of the severe financial crises in 2000 and 2001 on Turkish banking.

Another point worth mentioning is that the allocation of development-investment credits among regions was not rational even in the 1970s (see Graph 2) when development banking was effective in supporting industry to some extent. That is, the disproportionate distribution of the DICs is obvious. It can be argued that in the process of industrialization, regional imbalances and poverty can be reduced if the credits are allocated in a way that are effective to this end. The criteria for the distribution of these credits among geographical regions, however, were ambiguous. The Middle North took quite high amount of DICs, albeit the region’s financing needs were comparably low taking into consideration of its demographic and industrial prospects. For instance, 66% of total DICs were placed to this region in the 1960s.

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5 The regional classification given by the Banks Association of Turkey for this data does not in fact reflect the currently used classification in Turkey. For example, some provinces that are in the Central Anatolia are reported to be in the Middle or North East. Ankara, which is also located at the Central Anatolia is classified under Middle North. The regions and provinces according to the classification of the Banks Association of Turkey are as follows:

1) Middle North: Ankara, Bilecik, Bolu, Çankırı, Çorum, Eskişehir, Kırşehir, Kütahya, Uşak, Yozgat
2) Aegean: Aydın, Balıkesir, Burdur, Çanakkale, Denizli, Isparta, İzmir, Manisa, Muğla
3) Mediterranean: Adana, Antalya, Gaziantep, Hatay, İçel, Kahramanmaraş
4) North East: Ağrı, Artvin, Erzincan, Erzurum, Kars
5) South East: Muş, Hakkari, Mardin, Bingöl, Bitlis, Diyarbakır, Siirt, Şanlıurfa, Van
6) Middle East: Adıyaman, Amasya, Elazığ, Malatya, Sivas, Tokat, Tunceli
7) Middle South: Afyon, Kayseri, Konya, Nevşehir, Niğde
8) Marmara: Bursa, Edirne, Kocaeli, Kırklareli, İstanbul, Sakarya, Tekirdağ
9) Black Sea: Giresun, Gümüşhane, Kastamonu, Ordu, Rize, Samsun, Sinop, Trabzon, Zonguldak
However, the Marmara region, as the engine of Turkey’s industrialization process, was scarcely able to reach the Middle North region in 1983. Moreover, if the Black Sea, Middle North and Marmara regions are left aside, the total share of remaining regions is trivial. There has occurred a little increase, however, after a government incentive scheme to priority development regions has been carried out since the 1990s. Generally speaking, neither the least developed regions nor the more industrialized regions have been able to use the DICs. The distribution among regions is quite disproportionate and there are no distribution criteria regarding either poverty alleviation or industry booster characteristics of development banks as the stylized fact assumes. If the DICs had been provided to the regions on the basis of their levels of development or financing needs of local investment projects, it would have been a rational allocation. However, as the Graph 2 shows, development banking credit facilities, even at times when the share of DIC in total banking credits was quite high, were not rationally distributed among regions for a well-balanced distribution of wealth. In sum, there has been a failure of development banking to a point that development banking has not been successful in utilizing...
idiosyncratic features to alleviate poverty and shore up local industrialization instrumentally. The next section will examine the effectiveness of development banks in well-balanced channeling of their funds to the regions of Turkey and will analyze the role of development banks in financial intermediation for the development of industry.

5. DATA

This study examines the relationship between development banking and industrialization in Turkey over the period of 1963-2005 by utilizing the deflated DIC and gross fixed investment (FI) variables as proxies. By doing so, the extent of the contribution of the development banking facilities to local industrialization is explored. It has been further examined that whether the total banking credits (TCs) or credits other than those of DICs (OTHERCRs) have a relationship with FI variables. Under the assumption that local industrialization increases the level of employment and reduces poverty, the result of the analysis will shed light on the performance of Turkish development banking regarding local industrialization and hence poverty alleviation. The analysis has been realized on examining the existence of a co-integrating relationship for the variables at hand and utilizing Vector Error Correction (VEC) Models. The existence of a co-integrating relationship between FI and DIC will signal that there is a long-term/equilibrium relationship between DIC and FI.

Graph 3. Change in Total Credits and Fixed Investments over Time

6 All the data used in the analyses were deflated by PPI (1963:100) in order to remove the effects of price changes.

7 We aimed to make the analysis on a regional basis, however, the regional ‘gross fixed investment’ data were not available. This situation constrained the analysis to a countrywide range.
Graph 3 shows the change in total credits and fixed investments over time. The two series follow a similar pattern suggesting a co-integrating relationship. Graph 4 depicts the relationship among investments, development investment credits and total credits other than development investment credits. It is interesting to observe that while the OTHERCRs have shown a significant increase through time, the DICs could not catch up. FI and OTHERCR also seem to follow a similar pattern, signaling that FI are mainly influenced by commercial credits rather than DIC. The level of DIC stays very low in comparison to the other two series examined. Graph 5 rescales the vertical axis for DIC in order to have a closer look at the changes in FI with the changing levels of DIC. As Graph 5 shows although the level of DIC is low compared to TC, DIC still has a similar pattern with FI. That is to say FI increases together with DIC.

**Graph 4. Fixed Investments, Development Investment Credits and Other Credits**

**Graph 5. Fixed Investments and Development Investment Credits**
6. RELATIONSHIP BETWEEN FIXED INVESTMENTS AND CREDITS

Considering that one of the main issues of time series analysis is the non-stationarity of the data, Augmented Dickey-Fuller unit root tests are applied to the mentioned economic variables as a first step. The test statistics are calculated by running regressions for constant only and constant with trend specifications. Schwarz Information Criterion (SIC) is used to select for the lags in the estimated test regressions. As it could be seen from Table 1, all the variables examined are first difference stationary, i.e. I(1). For although these time series are individually I(1), their bilateral linear combination may be I(0). In this case, it could be said that the two variables are co-integrated, i.e. they have a long-term/equilibrium relationship with each other.

We have employed Engle and Granger’s co-integration testing approach and tested for the stationarity of the error terms after estimating the three models given below.\(^8\)

\[
\text{RFI}_t = \beta_1 + \beta_2 \text{RDIC}_t + \varepsilon_t \\
\text{RFI}_t = \beta_1 + \beta_2 \text{RTC}_t + \varepsilon_t \\
\text{RFI}_t = \beta_1 + \beta_2 \text{ROTHERCR}_t + \varepsilon_t
\]

where:

RFI: Real Fixed Investments
RDIC: Real Development-Investment Credits
RTC: Real Total Credits
ROTHERCR: Real Credits Other than Development-Investment Credits.

The test results (Table 2) reveal a co-integrating relationship between FI and DIC, but none between FI and TC and/or OTHERCR. However, examining

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\(^8\) The lag length for these test regressions are also determined by Schwartz Information Criterion.
the structure in Graphs 3 and 4, it is observed that fixed investments follow a similar pattern with total credits or credits other than development and investment credits. The FI series mimic the pattern of these two series following from one lag behind. Therefore, the co-integration tests are replicated to examine the relationship between FI at time $t$ and the credit variables at time $t-1$. As it could be observed from the test results (Table 3), these series are in fact co-integrated.

### Table 2. Co-integration Test Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Constant Only</th>
<th>Constant and Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lag</td>
<td>Test Statistic</td>
</tr>
<tr>
<td>RFI, and RDCI,</td>
<td>0</td>
<td>-1.9346</td>
</tr>
<tr>
<td>RFI, and RTC,</td>
<td>0</td>
<td>-0.3373</td>
</tr>
<tr>
<td>RFI, and OTHERCR</td>
<td>0</td>
<td>-0.2045</td>
</tr>
</tbody>
</table>

** Null hypothesis of no co-integrating relationship is rejected at 5% significance level.

### Table 3. Co-integration Test Results Using Lagged Values of Credits

<table>
<thead>
<tr>
<th>Variables</th>
<th>Constant Only</th>
<th>Constant and Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lag</td>
<td>Test Statistic</td>
</tr>
<tr>
<td>RFI, and RDCI,</td>
<td>0</td>
<td>-1.6329</td>
</tr>
<tr>
<td>RFI, and RTC,</td>
<td>0</td>
<td>-3.2921**</td>
</tr>
<tr>
<td>RFI, and OTHERCR</td>
<td>0</td>
<td>-3.5192**</td>
</tr>
</tbody>
</table>

** Null hypothesis of no co-integrating relationship is rejected at 5% significance level.

* Null hypothesis of no co-integrating relationship is rejected at 10% significance level.

According to the test results, there is a long-term/equilibrium relationship between the simultaneous values of RFI and RDCI. However, for OTHERCR, it takes a one-year period for the credits to funnel into a project and result in a tangible investment.

Observing co-integrating relationships for the variables examined, an error-correction mechanism is employed to characterize the long- and short-term relationship between investment and credits. The following regressions are estimated for this purpose:

\[
\Delta RFI_t = \alpha + \beta_1 \Delta RFI_{t-1} + \beta_2 \Delta RDCI_t + \beta_3 \Delta RTC_{t-1} + \beta_4 \Delta OTHERCR_{t-2} + \beta_5 \Delta OTHERCR_{t-3} + \varepsilon_t
\]

The $\varepsilon$ term in the above specifications shows the error terms that are obtained from the related Engle-Granger test regressions. Parameter estimates for this term will signal the speed of adjustment for short-term deviations from the long-run equilibrium.
Table 4. Error Correction Model Estimation Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient (Std. Error)</th>
<th>Variable</th>
<th>Coefficient (Std. Error)</th>
<th>Variable</th>
<th>Coefficient (Std. Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\Delta RF_{t-1}$</td>
<td>-0.167 (0.187)</td>
<td>$\Delta RO_{t-1}$</td>
<td>-1.185*** (0.286)</td>
<td>$\Delta R_{t-1}$</td>
<td>-1.145*** (0.299)</td>
</tr>
<tr>
<td>$\Delta RDIC_{t}$</td>
<td>1.061 (1.074)</td>
<td>$\Delta RTC_{t-1}$</td>
<td>0.793*** (0.204)</td>
<td>$\Delta ROTHERCR_{t-1}$</td>
<td>0.798*** (0.218)</td>
</tr>
<tr>
<td>$\Delta RDIC_{t-1}$</td>
<td>0.924 (0.973)</td>
<td>$\Delta RTC_{t-2}$</td>
<td>-0.069 (0.114)</td>
<td>$\Delta ROTHERCR_{t-2}$</td>
<td>0.004 (0.124)</td>
</tr>
<tr>
<td>$\epsilon_{t-1}$</td>
<td>0.059 (0.079)</td>
<td>$\epsilon_{t-1}$</td>
<td>0.253 (0.151)</td>
<td>$\epsilon_{t-1}$</td>
<td>0.225 (0.159)</td>
</tr>
<tr>
<td>Constant</td>
<td>44211.39 (24047.74)</td>
<td>Constant</td>
<td>50386.22*** (20684.44)</td>
<td>Constant</td>
<td>47309.66*** (21280.29)</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.08</td>
<td>R-squared</td>
<td>0.40</td>
<td>R-squared</td>
<td>0.36</td>
</tr>
<tr>
<td>F-Statistic</td>
<td>0.75</td>
<td>F-Statistic</td>
<td>5.88***</td>
<td>F-Statistic</td>
<td>4.83***</td>
</tr>
</tbody>
</table>

Standard errors are reported in parenthesis. *** Significant at 1% significance level. ** Significant at 5% significance level.

Although co-integrated, FI and DIC variables do not have a causal relationship (Table 4). This may be an indicator of a potential external factor that affects both variables in the same way. All the parameter estimates are statistically insignificant and hence the error correction model estimated for these two variables is also insignificant as a whole. Turning to the results for the TC and other credit regression results, both these variables have a significant positive impact on FI. A positive change in these variables increases the change in fixed investments in the next period. A change in FI that is observed one-period back decreases the change in FI observed at this period. None of the parameter estimates for the error-correction terms is significant.

As statistically verified, the development banking activities have not been so influential on fixed capital investments unlike commercial credits do. Total fixed capital investments were mainly financed by commercial loans and the development banking activities have not been decisive in financing development in Turkey.

7. UNDER THE CONDITIONS OF CURRENT FINANCIAL CRISIS

THE ROLE OF DEVELOPMENT BANKING RECONSIDERED

Within the course of economic development, deregulation and deepening of financial markets and the emergence of private markets for long term debt may undermine the need for development banks. Yet, the processes of dismantlement and/or privatization have not been the sole reactions regarding development banking around the world in the post-1980 period. Indeed, the prominent role of development banks continues to exist in many countries as these banks have gained new functions to fulfill.

While the challenges of new economic and financial order in the post-1980 period threaten the functionality of development banks, they seek out a
new rationale for their existence in order to serve equality and development within local borders. Financial crises present new opportunities for development banks in many countries to demonstrate their continued public utility.

The recent financial crisis, despite being originated in developed countries, has affected the whole world economy. The initial impact stemmed from the direct exposure of the emerging market financial institutions to sub-prime related securities. Such impact was relatively small compared to developed countries and emerging countries appeared resilient to this direct effect. However, some secondary effects have hit the emerging markets severely. The squeeze in international liquidity along with capital outflows and shrinking world trade have sharply affected the emerging market economies. In this process, many countries have been developing diversified policies to alleviate the repercussions of the crisis and to support productive sector. Besides the global effects, domestic credit crunch have led governments to intervene in financial markets. Against this backdrop, many countries in the first hand utilized development banks in many ways. In the process of an unfolding financial crisis, these banks have been called on for many reasons:

- to stabilize domestic financial markets;
- to eliminate credit shortages caused by sharp reductions in private lending;
- to restructure corporates’ debts;
- and to attract capital inflows by creating new financial instruments.

For the stabilization of domestic financial markets during the global financial crisis, development banks intervened by restoring adequate market liquidity via credit allocation. This function was carried out by many development banks during previous financial crises, as well. Korea Development Bank (KDB), for instance, played an important role in this respect. In 2003, the bank also gave capital support to the credit card market. To counteract the 1997 crisis, an amendment to the KDB Act has been realized. By doing so, a capital injection has been made to the Bank without any parliamentary approval so that the bank could be utilized to mitigate the adverse effects of such crises (Amyx and Toyoda, 2006: 5).

Regarding the elimination of credit shortages, the governments have boosted credit facilities to productive sector via development banks in order to tackle the indirect effects of the global financial crisis. Corporate lending by development banks also helped to eliminate credit shortages which were caused by private banks amid their efforts to clean up non-performing loans and strengthen their capital ratios during crises. The emerging countries which have excessive reserves, such as Brazil, South Korea etc., are the ones whose development banks have taken the broadest actions. Moreover, those countries that have limited financial resources also spurred lending activity via development banks. The role played by Development Bank of Japan has been also very crucial during and after the Asian crisis. The co-financing activity for corporate lending between larger Japanese banks and regional banks halted during the Asian crisis. Today, Development Bank of Japan has shouldered this
As well, many development banks are active in facilitating corporate restructuring via various methods like debt-equity swaps, debt re-adjustments...
Table 5 shows the examples of the utilization of development banks during the recent crisis.

In Turkey, many measures related to productive sector, including tax cuts, incentive schemes, loan facilities etc., have been taken by the governmental authorities since the collapse of Lehman Brothers. However, there is no place for development banks to get involved in such economic measures. The industrial sector, particularly SMEs, have been severely affected: In February 2009, the Industrial Production Index decreased by 23.7% and the unemployment rate has risen to its peak (16%) in the history of the republic and among the highest in the world today. Development banking activities, if a responsibility has been given, will be very influential in severely affected sectors and regions. Such a step could be socially and economically effective especially in the poor regions of the country.

One outcome of the recent financial crisis in Turkey is the rise of an urgent need for an institutional mechanism in order to alleviate social and economic effects of the crisis. Although development banking notion has lost its importance in banking quantitatively, the demand for development banking will surely continue as long as the country holds special development targets and social projects which cannot be effectively handled by commercial banks. Many issues on Turkey's agenda today will likely involve development banking activities, such as the South-Eastern Anatolia Project (GAP), the support for SMEs, close relations with the Republics of Former Soviet Union, especially Turkish speaking Commonwealth of Independent State countries and the development projects to be undertaken as part of the European Union integration process.

From a regional development perspective, Turkey has significant regional disparities. Government endeavors especially in the East and South East Anatolia to promote development and adopt special policies to eliminate barriers to regional development. Development banks may play a significant role in channeling funds provided under various government incentive schemes to the priority development regions. As the private sector's production and investment tendency towards the region increases with the added stimulus of ongoing government support schemes, development banks will have a clear advantage of pioneering the development process and providing the private sector with unique consultation on these regions.

Looking from an international perspective and in light of the recent financial crises, there are more to say about the functions, capabilities and future prospects of development banks. The financial crises forced to seriously question the general perception that project financing and other unique tasks held by development banks could also be efficiently performed by commercial banks. Yet, in many countries, the crises were followed by an almost complete withdrawal of commercial banks from medium and long-term investment financing thereby causing considerable slow-downs in the recovery process. These events obviously ask for a refreshed emphasis on the importance of project financing and management by financial institutions that are equipped
with necessary skills and expertise. Against this backdrop, development banks are the most advantageous institutions that can acquire the necessary skills in order to overcome the social and economic repercussions of the financial crisis.

8. CONCLUDING REMARKS

This paper has provided a framework for the evaluation of the contribution of Turkey’s development banking to industrialization and hence to reduction in regional imbalances and poverty.

As discussed, development banking has lost position together with the rise of the neo-liberal policies since the 1980s. Yet even though this power loss was related to the traditional functions fulfilled by development banks, they appeared to gain new roles in national financial systems. That is to say that the roles that development banking plays not only in the development process of developing countries but also in the strategic policies adopted by developed economies have been reconsidered. On this ground, the theoretical analysis claims that the ideology of statism in general and development banking in particular gain new functions but never end.

The Turkish experience of development banking interestingly differs from many other peer country experiences. Although the seeds of development banking existed in the early stages of the Republic, the very notion of development banking started to function in real sense after the World War II. However, despite having a special place in banking system during the ISI period, development-investment credits were not successfully utilized to alleviate regional imbalances and poverty. That is because the funds have been distributed quite disproportionately and irrationally.

Moreover, fixed capital investments, which are the main rationale for the existence of development banks, have been financed notably with commercial credits all across the country. The results of the analyses held in Section 5 revealed that a long-term relationship only exists between the commercial credits and the fixed capital investments. Such a relationship has not been found when development and investment credits are employed. Yet in order to maintain industrialization and equity, development banks could have been good instruments for fixed capital investments in less developed regions thereby creating new job opportunities. Such a result would have also relieved the social tension in those regions.

Since the break out of the recent financial crisis, the function of development banking in poverty reduction and development has regained popularity in many developing countries. These countries are employing their banks for strategically important tasks; however, its importance is yet to be grasped in Turkey. Although many financial packages have been announced by the Turkish state, there is no role assigned to development banking in the implementation of these economic measures. Development banks, if has been given priority and responsibility, can be influential instruments in alleviating the adverse effects of the recent financial crisis and the ongoing recession.
APPENDIX
Share of Regions in Total DICs in Turkey (1963-1994)

Data Source: The Banks Association of Turkey.
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http://www.tbb.org.tr/english/book2007/2007.asp (Credit data is not available in use but has been compiled by the authors between 1963 and 2005 from the given web link)

LE RÔLE DES BANQUES DE DÉVELOPPEMENT DANS LE PROCESSUS D’INDUSTRIALISATION EN TURQUIE