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Trickle-down financing as an alternative to direct finance of SMEs

August 2019

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1. Motivation

Small and medium sized enterprises (SMEs) constitute a vital role in economic activity throughout the world. SMEs make up near or over 99% of total number of businesses across the countries and thereby sustain a sizeable value added and employment, boosting, or at times, holding back economic growth. SMEs are also integral ingredients to the political economy. They usually rely on labor-intensive means of production. Youth and skilled labor aside, they often create employment opportunities for unskilled labor, thus cushion migration to urban areas. They can comfortably locate in local economies, generate income in those provinces, help alleviate wage disparities if any, hence contribute to regional development through webs of economic and financial interdependence (Catal, 2007). SMEs are also key players in the wider eco-system of firms. Across countries at all levels of development, SMEs have an important role to play in achieving the Sustainable Development Goals, by promoting inclusive and sustainable economic growth.

Economically, it is fairly a difficult task to operate as an SME. Tybout (2000) looks into the so-called "missing middle" phenomenon in which a few large firms and many small firms contribute to the bulk of employment and value added in the economy. Policy mix regarding the manufacturing sectors in emerging economies historically has been pro-protection under the shield of heavy regulations, many of which have been biased in favor of large enterprises. Protectionist policies have hampered competition and efficient allocation of resources. Accordingly, manufacturers in these countries perform poorly as markets tolerate inefficient firms (cross-firm productivity dispersion has usually been high), monopoly power or oligopolistic structures are not rare and many small firms are unable or unwilling to grow, so important scale economies usually go unexploited.

Large firms have several advantages over SMEs and some of these are documented in the literature:

- Large firms have higher productivity growth compared to small firms (Ayyagari, Demirgüç-Kunt and Maksimovic, 2014).
- Large firms are set up by more skilled entrepreneurs and/or run by more talented managers (Rauch, 1991; Lucas, 1978).
- Large firms are better able to exploit economies of scale (Canbäck, Samouel and Price, 2006).
- Large firms may utilize the increasing returns associated with R&D, thereby foster higher productivity (Pagano and Schivardi, 2003).
- Large firms provide higher quality jobs than small firms as they draw workers from a more-talented pool of candidates, with positive spillovers for poverty alleviation (Brown et al., 1990).
- Large firms are able to establish multiple revenue streams via diversification, which may help offset economic downturns (Demsetz and Strahan, 1997).

- Large firms enjoy stronger brand recognition.

Many of the above advantages on large firms' behalf culminate into one major problem on SMEs: Funding. Various data sources and studies indicate that small firms in emerging economies rely on internal financing much more than large firms do. The likelihood of a small firm having access to a bank loan in low-income countries is about a third of what it is for a medium-sized firm, and less than half of what it is for a larger firm (IFC, 2010). Other than economic rationales, managerial deficiencies such as lack of sufficient financial data, issues related to corporate governance, transparency and disclosure problems, irresponsible financing practices (e.g. ignoring currency risks in financial statements), inadequate or insufficient collateral owned by these businesses to name a few, amplify the bottlenecks to funding. Last but not least, allocation of scarce loanable funds become even more stretched for SMEs in times of economic fluctuations, as banks would attach further (and subjective) risks to small firms.

Recent country surveys conducted by the World Bank Group have consistently showed that commercial banks have been increasingly focusing on SMEs, despite there is no firm evidence to suggest that SMEs are now more transparent nor that they are more creditworthy or efficient than they were before. This phenomenon had also been observed in Turkish banking data. Yet, starting from 2013 onwards, following the normalization policies of global central banks and due to the slump in the domestic demand, there is marked deterioration in the trend for SME funding via banks. SME investment rate, profitability and sales growth all dropped significantly more than those for large firms in the post-2013 period (Yılmaz and Cilasun, 2019). Both supply and demand forces curtail the appetite towards SME loans as destruction in corporate balance sheets through currency depreciation and the slowdown of the economy brought about a necessary deleveraging.

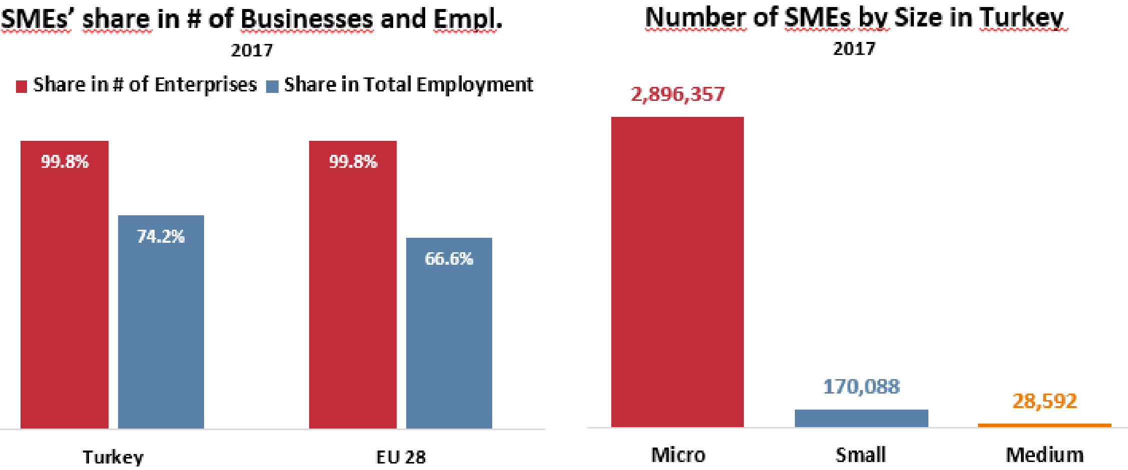
In this *Theme Look*, we ask whether allocating direct bank funding to the SMEs is economically sensible. We acknowledge that bank credit –among other debt instruments– may have the strongest association with higher investment, irrespective of size distribution of firms, thereby lifting up aggregate growth. Yet, it may also be possible that bank loans have more favorable effects on relatively larger firms' investment trajectory due to their scale advantage and/or their production efficiencies, especially in circumstances identified with domestic or external uncertainty, as capacities contract significantly faster for smaller firms. Besides, at times of high financial volatility and tepid economic growth, the odds of a crowding out usually rises rendering marginal cost of finance even higher for the SME segment. In such an environment, the "small" segment may extract funds from Small and Medium Enterprises Development Organization of Turkey (KOSGEB) and large firms may pursue their access to bank finance, leaving less room for the "Medium" segment. We belive there is rationale to extend

direct lending to the medium size segment, which is relatively transparent in financials and often has the capacity to generate a significant economic trickle-down impact on the small and micro segments, just like larger firms.

2. Current State of Turkish SMEs

2.1 SME Share in Economic Activity

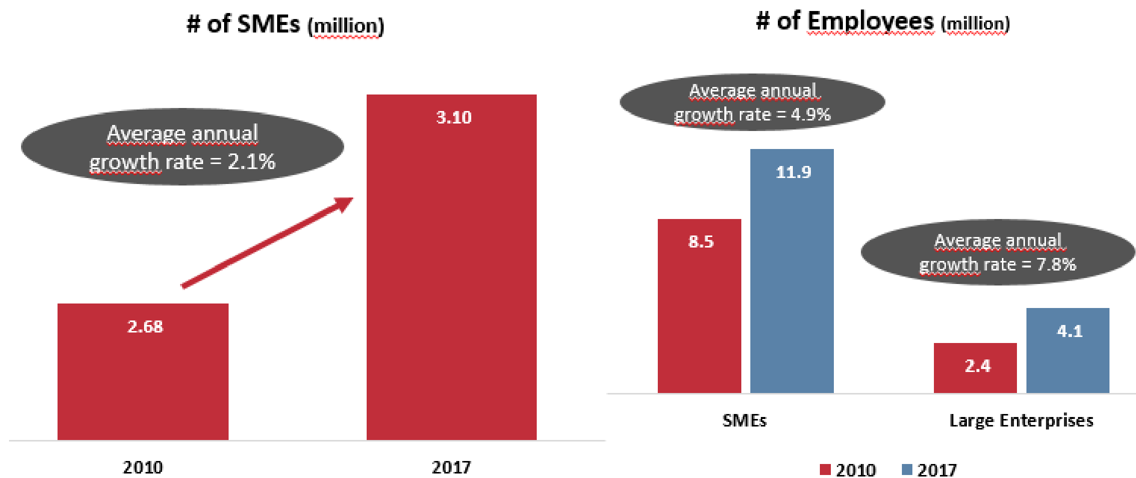
3.1 million SMEs represent 99.8% of all enterprises in Turkey and employ almost three quarters of the total workforce. Turkish SMEs mostly consist of micro enterprises. Enterprises that employ less than 10 persons account for 93.4% of all enterprises in Turkey; 5.5% are small enterprises and only 1.0% are of medium scale. These statistics are comparable to European Union, although the definition of SMEs are different[1]: Approximately 24 million European SMEs form the backbone of the economy by employing 93 million people and generating 3.9 trillion euros in value added (2016).



Source: *TurkStat, 2017; European Commision, Annual Report on European SMEs, 2016/2017*

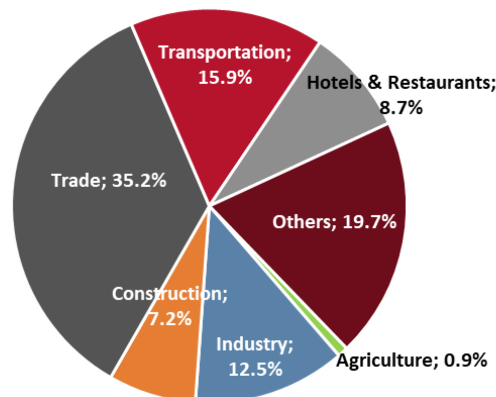
There has been a remarkable growth of SME numbers between 2010 – 2017. Firm entry statistics confirm that the number of SMEs grows at more than 2% annually reaching to 3.1 million in 2017. This means, approximately 70 thousand new SMEs were established every year. Besides, SMEs are the main contributors to the employment generation in Turkey.

[1] See Reference for definitional difference.



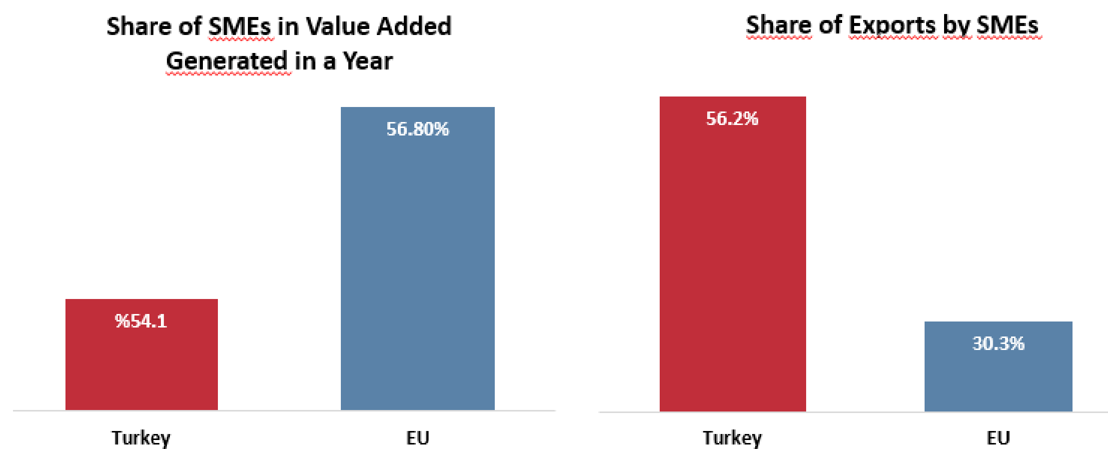
Source: *Turkish Statistical Institute (TUİK), TSKB Economic Research*

Real estate, trade, transportation, agriculture, restaurants and hotels are the economic activities in which sectoral allocation of SMEs have much a higher weight than that of large enterprises. According to Turkstats Business Registries study conducted in 2013, more than one third of all SMEs are clustered in the wholesale and retail trade. Transportation and storage activities contain almost 16% of all SMEs and manufacturing includes more than 12%. About 87.5% of these manufacturing enterprises are at micro level, 10.5% at small and 2% at medium sized.



Source: *TurkStat, Enterprises According to Business Registries 2013; Annual Report on European SMEs 2013/2014, TSKB Economic Research*

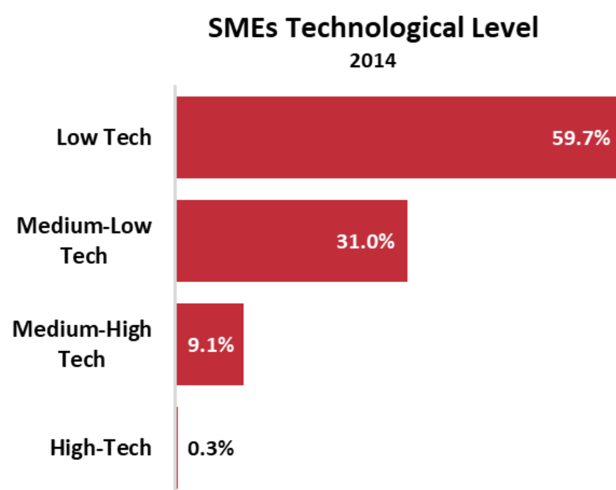
SMEs in both Europe and Turkey play a critical role to uplift the economy and foster international trade in goods. They create more than half of the value added generated in a year and are the driving force behind exports. SMEs in most developing countries contribute more to value added than large enterprises. However, in most countries SMEs are less likely to export to the distant markets due to high transportation costs. SMEs also constitute 50% of total investment in Turkey.



Note: 'EU' refers to EU27 and EU exports graph excludes 'intra' trade; latest data avalaible

Source: *TurkStat, 2017; European Commision, Annual Report on European SMEs, 2016/2017*

SMEs play an indispensable role in export performance of Turkey, but some improvements are needed so as to enhance their technological production level. Turkish SMEs concentrate mostly in labor-intensive industries. Even though there has been an increase in medium –high tech production by SMEs in recent years, there is still much room for improvement in their technological capacities. Only 3 per thousand of SMEs produce high-tech goods in Turkey and 60% of SMEs serving in manufacturing sector produce low tech goods.

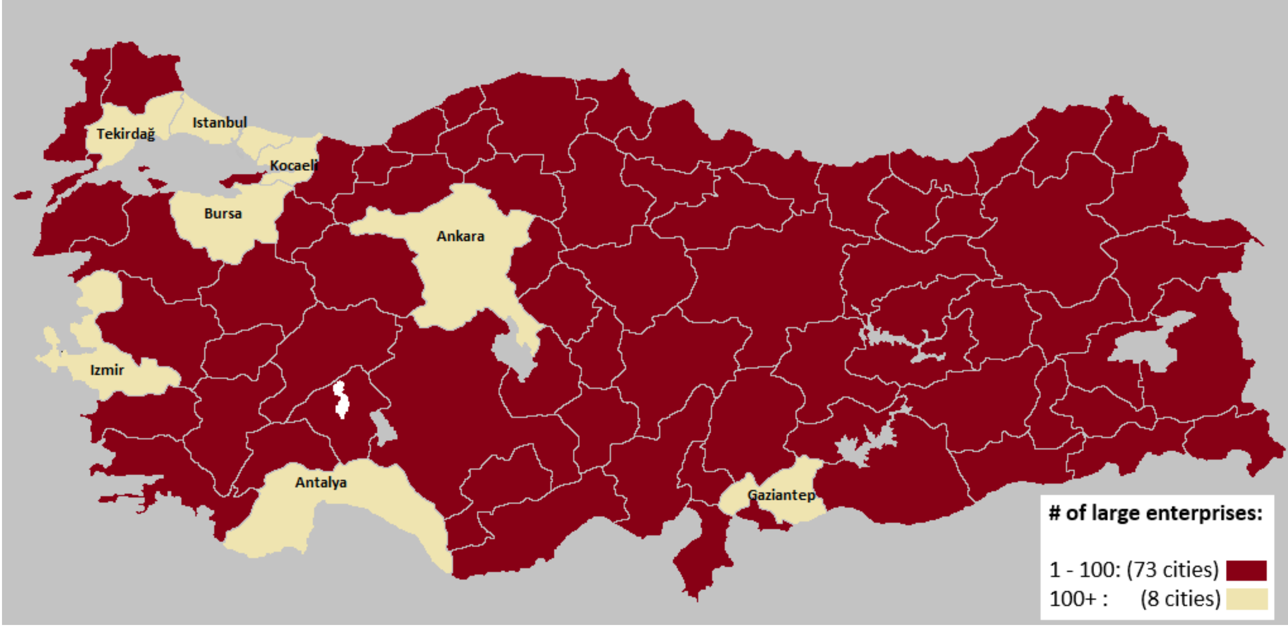


Source: *TurkStat, TSKB Economic Research*

Economic activity is undertaken largely by SMEs in Turkish cities: There are only 8 cities housing more than 100 large enterprises. 25 cities have less than 10 large enterprises[2]. To the east of capital city, Ankara, SMEs are the predominant firm structure to lead economic activity. Only the city of Gaziantep, which is an active trading hub on the Syrian border, has more than 130 large enterprises (in fact,

[2] Large enterprise refers to +250 employees and +40 million TRY annual sales.

Gaziantep has the least number of large enterprises among the cities with 100+ large enterprises). Concentration of large enterprises takes place in the Marmara region, but there is still a sizeable SME activity in the region: The average number of SMEs here exceeds 160 thousand and only İstanbul can surpass this threshold. İstanbul has more than 500 thousand SMEs, whereas there are about 1300 large enterprises in the city. Ankara has about 140 thousand SMEs and the capital city has 355 large enterprises. There are 10 cities with less than 5 large enterprises in each of them, yet they, on the average, houses about 3 thousand SMEs. Finally, there are 25 cities with less than 10 large enterprises in each of them.

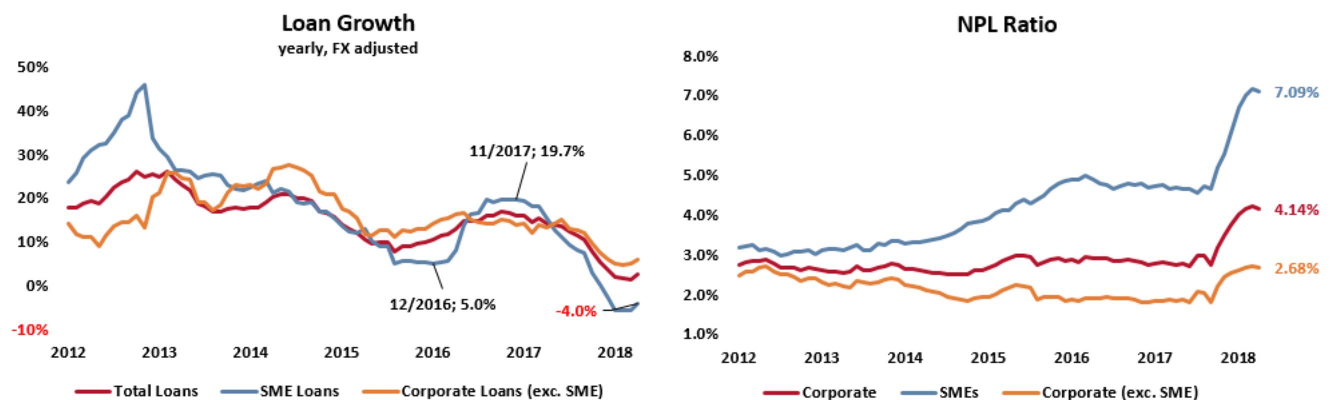


Source: *TEPAV statistics May 2017, mapping by TSKB Economic Research*

2.2 Bank Lending in Turkish SMEs

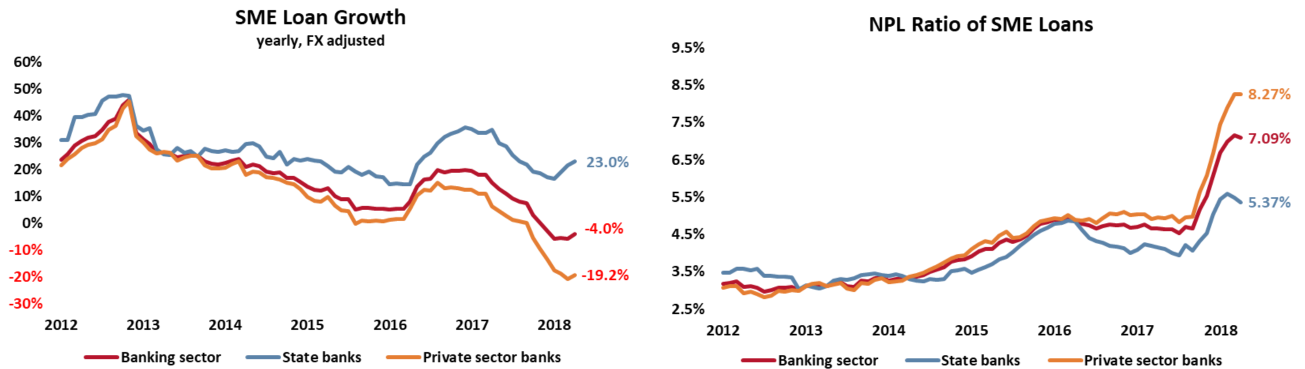
SMEs' share of commercial bank credit remained very low until very recently. It is estimated by the State Planning Organization of Turkey that SMEs received only 5% of the total bank credit in the 1990s. The full benefits of the financial liberalization policies in developing countries came to light in 2000s, when economic and political stability were largely achieved and institutional reforms were mostly realized. High liquidity, reduced government borrowing and increased competition for corporate lending began to push banks out of their comfort zone toward the more challenging (heterogeneous) and profitable (high risk) SME sector. In recent years, with the increased interest in providing financial services to SMEs, banks started to establish SME banking departments and provide SME clients with other financial services. Still, while more than 98% of total private businesses in developing countries are SMEs, due to information asymmetries between SMEs and banks, only a small percentage of banks' loan portfolios were lent to this sector (Ayyagari, Beck and Demirgüç-Kunt, 2007).

Turkey is an important emerging market that has showed remarkable progress in SME finance over the past years. SME loan growth has surpassed both corporate loans (excluding SMEs) and total loan growth up until 2014. SME loan growth almost came to a halt in late 2016 and government has initiated a rather deep "credit guarantee fund" (CGF, already extant) to address the faltering supply. With the start of CGF, SME loan growth again exceeded total loan growth and increased up to almost 20% y/y from a low of 5% y/y as of late 2017. CGF mechanism has attained this growth momentum without causing a significant negative impact in the SME NPL ratio, which stood below 5% level up until August 2018, a time when Turkish economy suffered from a rapid depreciation in Turkish lira, leading to a consequential destruction in the balance sheet of all corporate sector.



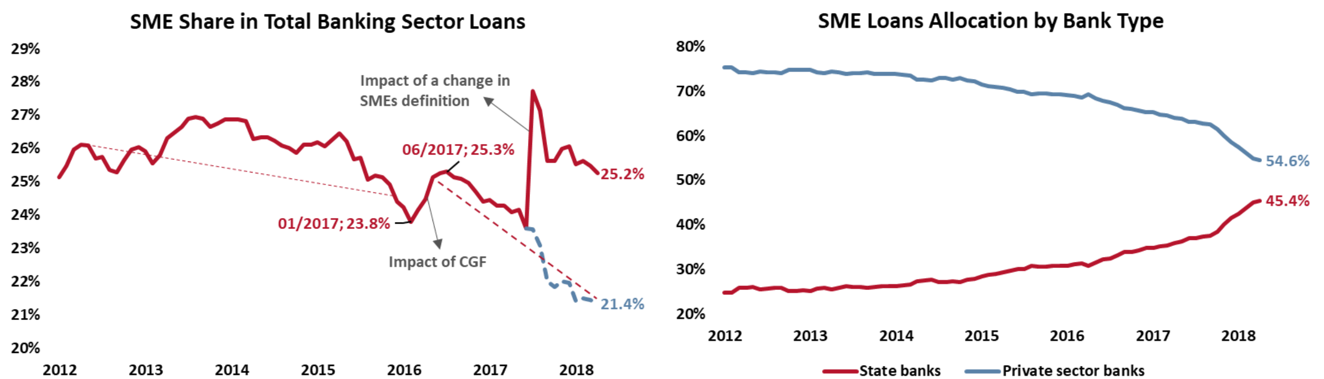
Source: *Banking Regulation and Supervision Agency (BDDK), TSKB Economic Research*

Public banks have utilized the CGF heavily and has been both rolling the SME loans at maturity and raising their SME exposure out of fresh loans. The result was an uplift in both SME loans and total loans via public bank activity. The remarkable occurrence in this process was generating a rather low NPL on public banks with respect to that of private banks.



Source: *Banking Regulation and Supervision Agency (BDDK), TSKB Economic Research*

Starting from 2013 onwards, we observe a declining trend in the share of SME loans in total loans even if public banks have attempted to fill the void. Right before the initiation of CGF facility, SME loan shares had bottomed at 23.8% in January 2017, the lowest in 5 years. With CGF, SMEs share in total bank loans increased to 25.3% in 6 months when it again curved down. In June 2018, the definition of an SME has changed and that generated a kink (a structural break) in the data. If this definitional change were not applied, then we would estimate a continuation of the declining trend in the share of SME loans.

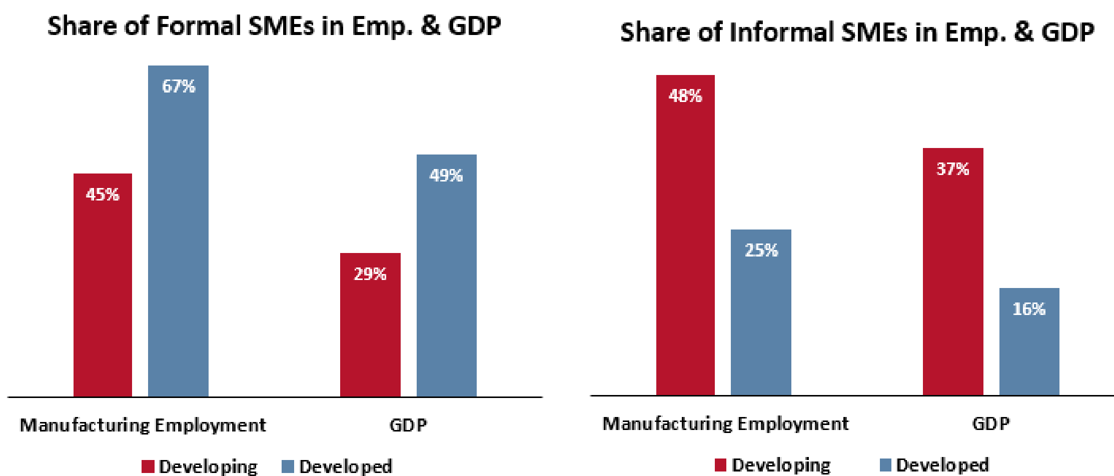


Source: *Banking Regulation and Supervision Agency (BDDK), TSKB Economic Research*

3. How Big is the SME Financing Problem?

3.1 SMEs are the Backbone of the Economy…

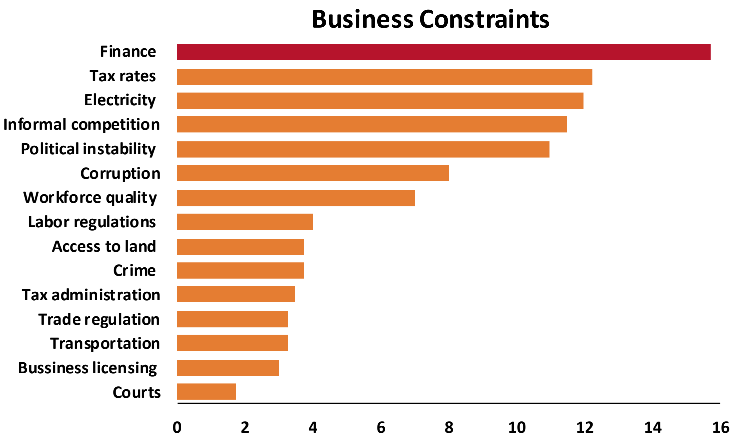
SMEs make up a large part of the private sector in almost all countries. They weigh heavily in the employment statistics. SMEs in the formal sector account for 50% of employees in developing countries (Ayyagari, Demirgüç-Kunt and Maksimovic, 2014). Authors also find that SMEs create a greater share of jobs relative to large firms even in countries that had an aggregate net job loss over their sample period. While small firms do not employ the largest number of people, they generate the most new jobs, across country income groups. Small firms with less than 20 employees generate 45.3% of the jobs (Ayyagari, Demirgüç-Kunt and Maksimovic, 2011). Although frequently contested in the literature, there is the evidence of a strong positive association between the share of SME labor in the total manufacturing labor force of a country and GDP per capita growth (Beck, Demirgüç-Kunt and Levine, 2005). SMEs also contribute up to 33% of GDP in developing economies; these numbers are significantly higher when taking into account the estimated contributions of SMEs operating in the informal sector (IFC, 2010).

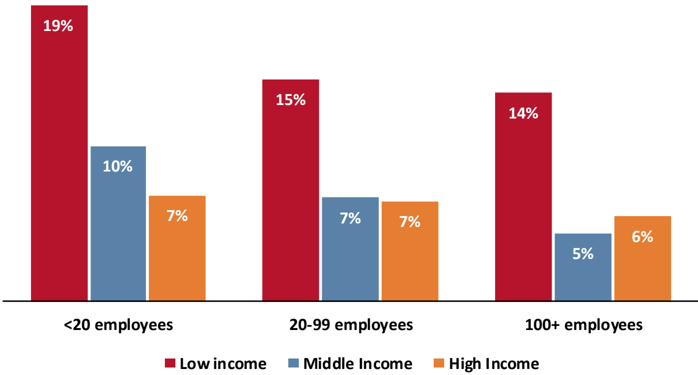


Source: *IFC (2010), based on Ayyagari, Beck and Demirgüç-Kunt (2007)*

Jenkins and Hussain (2014) used regression analysis to test the relationship between SME credit growth and the changing macroeconomic environment between 2007 and 2013. The empirical results from the Turkish market provide evidence that the macro environment (economic growth, stability, and government borrowing) has a significant relationship with the expansion of SME bank credit. The policy implication of the results is that in order to promote SMEs' access to credit, governments need to implement policies that will help the building of a conducive, healthy macroeconomic environment. Stability (macroeconomic, political, geopolitical, etc.) may be one necessary condition but far from being sufficient. Financial inclusion is at the core of the economic diversification, growth and job creation challenges in most emerging markets.

The International Finance Corporation (IFC) estimated that to satisfy the demand by formal SMEs around the world, credit had to increase between 0.9 and 1.1 trillion US dollars in 2011. Less than a decade has passed and World Bank estimates the current credit gap for formal SMEs 1.2 trillion US dollars. The total credit gap for both *formal* and *informal* SMEs is as high as 2.6 trillion US dollars. Overall, approximately 70% of all micro, small and medium-sized enterprises (MSMEs) in emerging markets lack access to credit. While the gap varies considerably region to region, it is particularly wide in Africa and Asia. In effect, firms responding to the multi-country World Bank's Enterprise Surveys, which are designed to benchmark the investment climate, revealed access to financing as the most serious obstacle in front of them. Beck, Demirgüç-Kunt and Maksimovic (2005) reported that financing obstacles had a significant impact on firm's growth and that the smallest firms were the most adversely affected. Across all country income groups, a much higher percentage of *small* firms identify access to financing as a severe obstacle compared to the percentage of *large* firms that identify it as a severe obstacle and this finance gap turns out to be highly significant in low income groups. That the relationship between firm size and financial constraints tends to be stronger in developing countries was studied in Angelini and Generale (2008) and they concluded that in non-OECD countries the differences between the estimated firm size distributions (constrained versus nonconstrained firms) become visually larger and statistically significant.





Source: *World Bank Enterprise Surveys, over the period 2006-2014*

3.2 But the Limited Financing to SMEs Derives From Their Intrinsically Weak Nature

Many SMEs are subject to critical deficiencies of moral hazard and adverse selection, both of which limit the supply of loanable funds. SMEs tend to be informal, young, have less publicly available information and may operate in unfamiliar sectors, all of which results in higher information asymmetries and risk, discouraging especially bank lending through rationing. There is high transaction costs of processing, monitoring and enforcing small loans. These drive a wedge between funding costs of financial institutions (FI) and the corresponding lending rate. Market imperfections, such as weak creditor protection, also amplify the issue. On the contrary, FIs view large firms as relatively low risk and cheap to service (per unit of funds lent), so they have preferential access to credit. Admittedly, expansion of information sharing systems via credit registries and/or credit bureaus may lead to an improvement in the efficiency of credit allocation and loan performance. This opaque nature of SMEs demands banks to rely more on "relationship lending" as loan officers try to gather soft information through personalized contacts. But relationship lending can discourage loans by large and foreign banks, as they look for impersonal relations with clients.

These firms, characteristically, do not have enough assets that can be delivered as collateral, which constrains demand. Land and buildings are the most common means of collateral, but financial developments help movable assets, such as accounts receivables, inventories or machinery, equipment count as collateral. Many countries have pursued reforms in the legal and institutional structures that govern how agents can create security interests over movable assets. Still, institutions need to clearly establish protect creditors' rights and guarantee swift judicial procedures, among other provisions. If not, SMEs will be more financially constrained than large firms.

One recently popular way for mostly governments to channel credit toward SMEs are credit guarantees. When a credit is guaranteed, the creditor faces lower risk, and can offer better lending conditions and require lower collateral. Via these mechanisms, it is highly likely that loan utilization will increase and financing conditions to targeted firms will enhance. Yet, guarantees can also be associated with lower creditworthiness and higher defaults as they are tending to accumulate risks within time, event deteriorating banking habits. The list of countries that scaled up or introduced new guarantee schemes with the last financial crisis includes Canada, Chile, Germany, the Netherlands Malaysia and Turkey.

Additionally, SMEs most often find it too costly to list in capital markets. Even when they do, they might fail to attract enough capital market financing, as investors in these markets prefer large companies, which are less risky and more liquid. Governments have tried to circumvent banks by developing specific capital markets targeted at SMEs. These markets offer listing and regulatory requirements

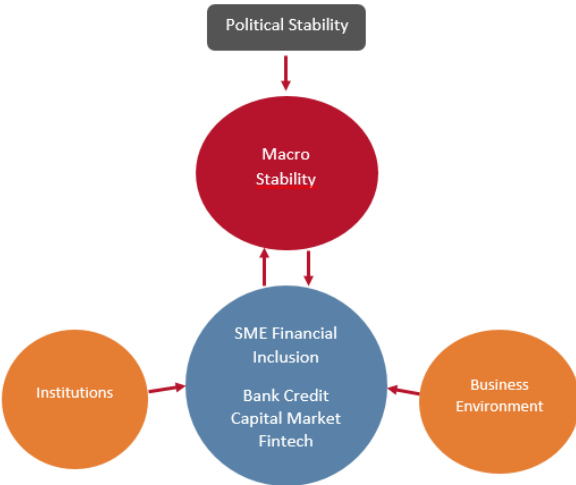
tailored to smaller firms such as lower fees, lower profitability requirements, and smaller issuances. Yet, these markets seem to be reaching a small number of firms.

Raising adequate finance is the Achilles' heel of the SME sector. This explains why the sector has been the target of systemic intervention by governments and international finance institutions around the world.

3.3. Internal Sources, Bank Finance and What Else?

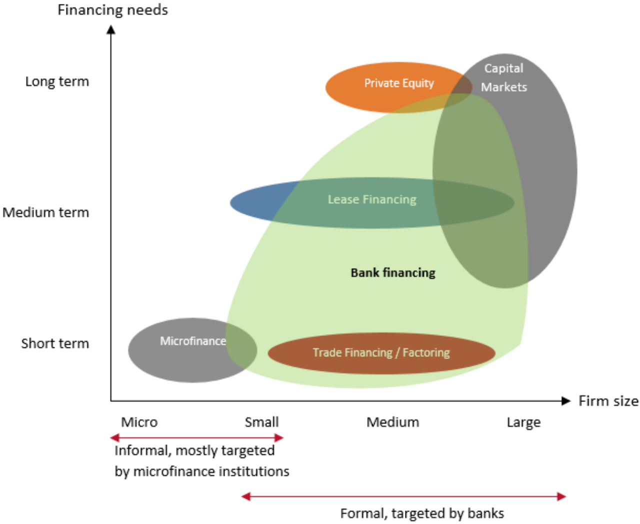
The requirements for a well-functioning ecosystem serving the financing needs of SMEs include fundamentals such as adequate macroeconomic policy frameworks and macroeconomic stability hand in hand with a large and diversified investor base. Weak savings mobilization through the formal financial system is an impediment to SME loanable funds market / capital market development in emerging economies. The size of institutional investors, including mutual funds, insurance companies and pension funds, is comparatively limited (excluding oil exporters, which channel significant amounts of domestic savings through sovereign wealth funds). Venture capital is also scarce. In addition, a range of institutional conditions also need to be in place, including strong and stable financial infrastructure, legal frameworks (property rights, contract enforcement, collateralization and insolvency), and regulatory and supervisory frameworks adapted to SMEs' specific needs.

Framework for SME Financial Inclusion



Source: *IMF 2019, Financial Inclusion of Small and Medium-Sized Enterprises in the Middle East and Central Asia*

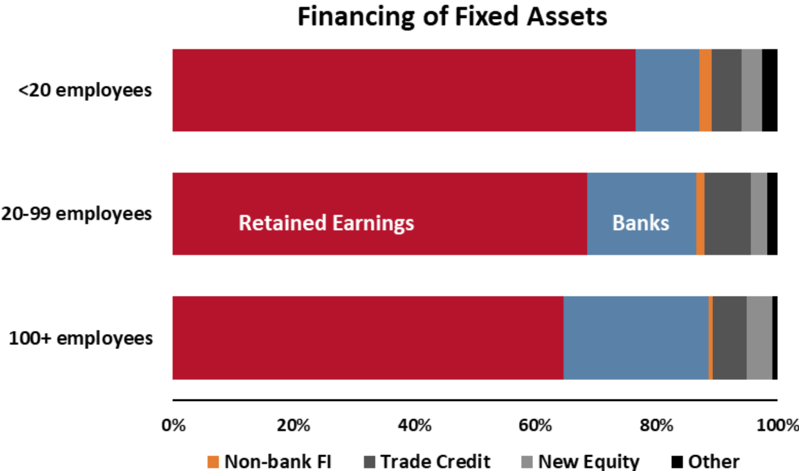
Available Financing Options



Source: *IFC*

It is critical whether firms are able to overcome the lack of bank finance by utilizing other sources of external finance when they need to finance their fixed asset investment. Firms in the above cited Enterprise Surveys were asked to estimate the proportion of the purchase of fixed assets that was financed from internal funds (i.e. retained earnings), banks, non-bank financial institutions, equity (i.e. IPOs), trade credit (i.e. credit from suppliers and/or advances from customers)

and some other sources (e.g. moneylenders, friends/relatives). As expected, SMEs make use of bank finance to a lesser extent than large firms do. In fact, smaller firms finance a lower proportion of their investment externally, particularly because they have limited access to bank loans. Ayyagari, Demirgüç-Kunt and Maksimovic (2017) sees no evidence that these firms disproportionately substitute (inadequate) bank finance with other sources of external finance, such as trade credit, factoring or equity finance compared to large firms. Main reason is alternate financing forms also require an appropriate institutional environment that supports its use.



Source: *World Bank Enterprise Surveys, over the period 2006-2014*

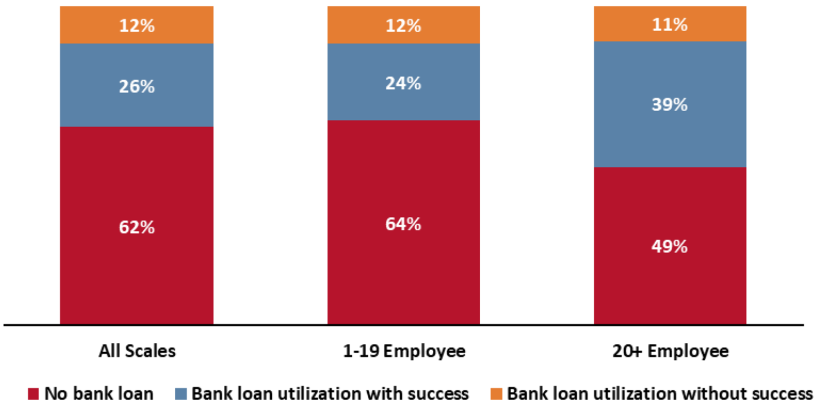
Furthermore, Beck, Demirgüç-Kunt and Maksimovic (2004) shows that small firms finance on average 13 percentage points less of investment with external finance than large firms, simply because they do not have full access to bank loans. Yet the paper reports that small firms also do not use disproportionately more leasing or trade finance compared to larger firms. Financing from these sources is positively associated with the financial development and does not compensate for lower access to bank financing of small firms in countries with underdeveloped institutions. The authors, though, find some evidence that medium-sized firms use more supplier credit and leasing finance than small and large firms. We may, though, expect also smaller firms, facing informational asymmetries in financial markets, to resort to trade credit or informal finance that rely on personal or commercial relationships, more extensively. As a result, we would expect trade credit to be a substitute for bank lending to small firms in countries with poor financial and legal systems.

4. SME Access to Finance in Turkey: Evidence in Favor of Non-bank Finance

Atlas of Turkey's Productivity Development, produced by Industry Directorate General under the Ministry of Industry and Technology (published on May 2018), has made use of a survey conducted on

more than 10 thousand manufacturing firms. The survey enquired whether firms have utilized bank loans in the last 3 years and produced some evidence that access to bank finance was rather weak and this was more conspicuous for smaller firms, which is in line with the SME finance literature. About 64% of enterprises with less than 20 employees and 49% of enterprises with 20+ employees turned out not to use any bank loans. Moreover, only 7% of enterprises that asked for a bank loan have been denied and only 2% have been turned down by both banks and government supports. That is, it may be inferred that the credit conditions might have not been appealing for enterprises.

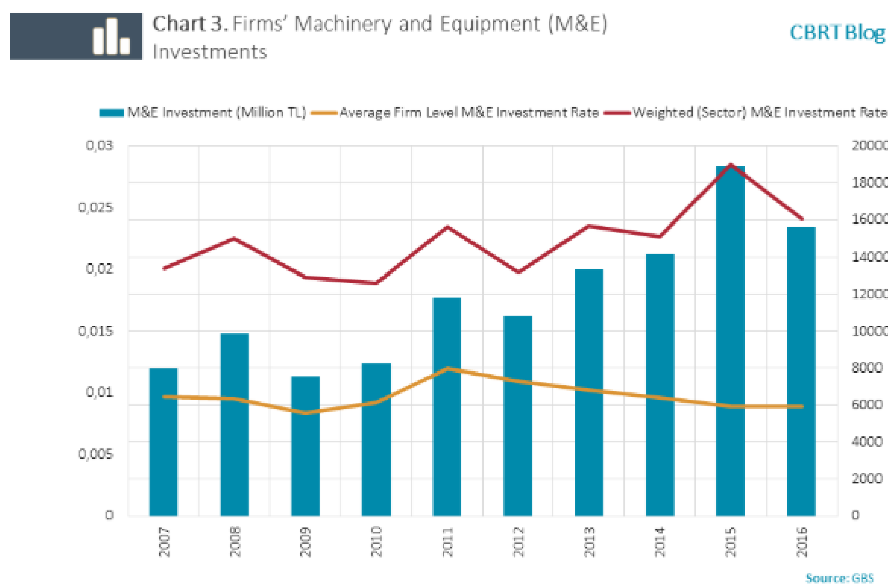
The survey also proposed some evidence that bank loans have a more favorable effect on relatively larger firms. Overall 62% of enterprises in the survey have not chosen to use bank loans. 26% of enterprises have asked for it, been granted and better off with the funding[3], whereas 12% of them have had the loan but turned out not to be advantageous in financial results. Among those who have taken bank loans within the last 3 years, 67% of enterprises with less than 20 employees stated that their production capacity and sales / net income have improved significantly. Yet this was true for 77% for enterprises with 20+ employees. In this segment of 20+ employees, half of the population has not asked for a bank loan but 39% of the sample has turned out to be better off. Only 24% of enterprises with less than 20 employees have declared to take benefit out of a bank loan. This finding somewhat contrasts with the existing literature, which claims smaller firms benefit more from access to bank credit in comparison to larger firms (Aterido, Hallward-Driemeier and Pages-Serra; 2007; Klapper, Amit, Guillén and Quesada 2007).



Source: *Atlas of Turkey's Productivity Development*, Industry Directorate General

[3] "Paper, plastics, leather, pharmaceuticals and chemicals" are the main sectors in which enterprises with less than 20 employees utilize bank loans extensively; and enterprises with 20+ employees tap bank loans mostly in "electrical appliances, electronics and main metal manufacturing sectors."

Above cited findings of the Productivity Development study may also have followed from a lack of investment appetite, more pronounced for small firms in the most recent period. This might have pursued from a declining trajectory of profitability for smaller firms; but it might as well have simply stemmed from lack of adequate finance. Cilasun, Samancıoğlu, Yılmaz (2018) examined investment behaviors of 261 thousand manufacturing industry firms registered in the Enterprise Information System (EIS) of Ministry of Science, Industry and Technology for the period of 2006-2016. The authors showed that investment rates for large firms generally increased (more rapidly than their sales), whereas those for small firms revealed a limited decline especially after 2011, noticeably in the form of machinery and equipment[4]. Moreover, Cilasun and Yılmaz (2019) piece put forward that SME investment rate dropped more than large firms in the post-2013 period. Authors calculated that SME profitability, sales growth and bank leverage also dropped more significantly vis-à-vis larger firms in the post-2013 period. They asked whether tighter credit standards or profitability explained better the divergence in the investment ratios of small and large firms.

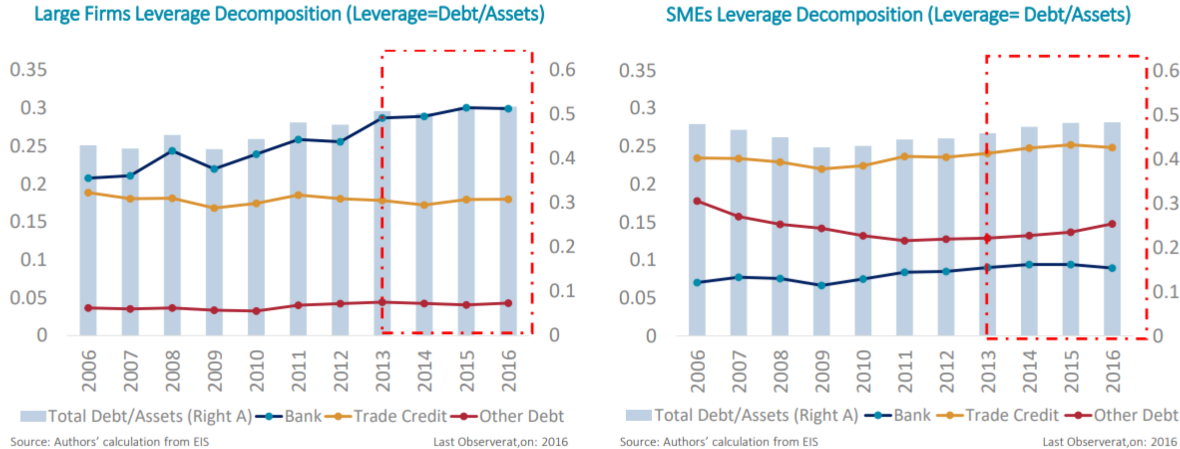


Source: *Cilasun, Samancıoğlu, Yılmaz,* http://tcmbblog.org (07/11/2018)

Inflation Report 2018-IV Box 4.2 interrogated the financing structure in the sector. Accordingly, total leverage, i.e., total liabilities / total assets, has steadily increased for both small and large firms since 2009. However, bank leverage, has displayed some significant size distribution effects. The use of bank loans among smaller firms stumbled at times; in contrast, utilization of bank loans among large firms revealed an almost uninterrupted hike. A declining bank leverage and an increasing total leverage

[4] Investment rate is the ratio of real investments to real net sales. Authors track the large/small firm investment dynamics via the use of average vs. weighted (sector) terms. With the dominance of small firms in the manufacturing industry, the average firm investment rate is affected by the tendencies of small firms, and similarly, the sector investment rate reflects the trend of relatively larger firms.

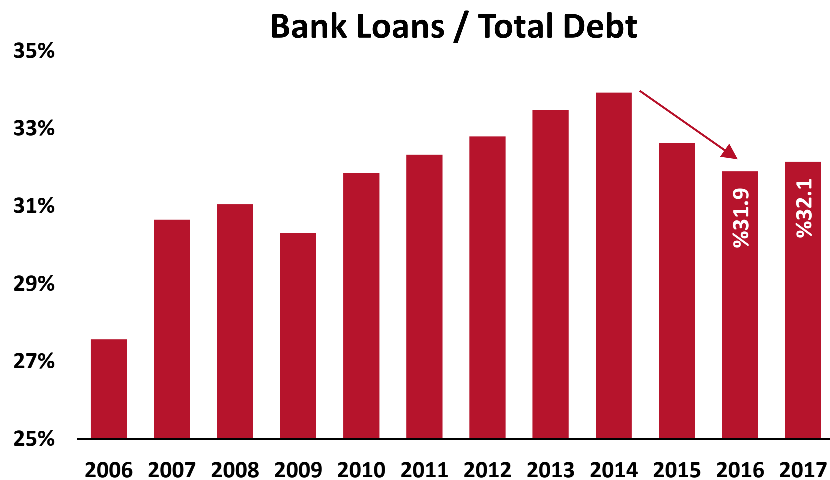
ratios might have pointed to a decrease in bank debts and an increase in non-bank debts (e.g., trade credits, receivables, etc.) of small firms after 2011. Yılmaz and Cilasun (2019) decomposed the elements of firm-level debt finance and presented the importance of trade credits, especially for SMEs. The benign upward trend in SME trade credits after 2013 (as opposed to large firms) worked to compensate the void generated by faltering bank finance.



Source: *Cilasun and Yılmaz (2019)*

Authors asserted that bank credit –among other debt instruments– and long-run credit access had the strongest association with higher investment for both small and large firms. This fits well with the finance literature. The coefficient of bank credit in large firms' investment estimations were 8.2 times higher, suggesting allocation of scarce bank loans to relatively larger firms in order to boost investment more efficiently. Yet, the estimation results also stressed the statistical significance of trade credits for SMEs with a *p-value* less than 0.05, whereas the standard errors were much smaller with respect to those of large firm estimation results. Notwithstanding, post-2013 period coincided with a deteriorating trend in investment appetite for smaller firms; hence non-bank finance measures might have not been efficiently utilized for SMEs.

We also utilized the same EIS dataset, aggregated for the whole sample of SME firms and calculated the F/X adjusted bank debt. We observed that from 2009 onwards, with the abundant global finance opportunities, SMEs bank debt in total debt stock (except *other debt*) increased to 33.9% in 2014 and then retreated to 2010 levels. The recapitilization of the Credit Guarantee Fund in late 2016, even if it was not designed for provision of investment loans, raised finance for more than 300 thousand firms, and helped lift the bank leverage for small firms, but with a lesser magnitude.



Source: *Enterprise Information System (EIS), TSKB Economic Research*

In a clear address to tail risks for Turkey in the post-2013 period, Yarba and Güner (2019) examined the resilience of corporate leverage dynamics on persistent uncertainty (in the form of both domestic and geopolitical developments). They concluded that both the share of the financial debt in total liabilities and the leverage of Turkish non-financial firms decreased significantly when uncertainty increased persistently and when macroprudential policy tools were tightened. They inferred that large firms may have coped with extended periods of uncertainty but SMEs were highly susceptible to such risks. The results of the study favor large firms in access to bank finance in times of market stress. That is, funding the (resilient) large firms via bank loans and letting the firm provide credit to its supply chain may work more efficiently at times when broadening the range of external financing instruments available to SMEs is a problem. In a further Yarba and Güner (2019) study, which pertains to Turkey's current fiscal expansion, the authors reveal that SMEs suffer much more than large firms in crowding-out periods of government leverage. Higher business risk hinders corporate leverage of private firms and SMEs, which is not the case for either large firms or public firms.

5. Concluding Remarks

In this *Theme Look*, we asked whether allocating direct bank funding to the “small” firms, particularly at times of economic slowdown, is economically sensible. Constructing effective and efficient SME lending programmes may require innovative solutions. Acceptance of more flexible forms of collateral or more popularly, utilizing loan guarantee schemes and/or putting emphasis on cash flow as a reinforcement to balance sheets in assessment of borrowing capacity, are still operative via banks. But these mechanisms have drawbacks as discussed at large. We acknowledge that bank credit –among other debt instruments– may have the strongest association with higher investment, irrespective of size distribution of firms, thereby lifting up aggregate growth. Yet, at times of high financial volatility and tepid economic growth, there is the likelihood that the credit conditions might have not been appealing for a sizeable number of Turkish enterprises. It is documented that the lack of investment appetite is more pronounced for small firms in years when Turkey underperforms it economic potential. We have evidence with Turkish firm-level data that bank loans generate more favorable effects on relatively larger firms’ investment trajectory, possibly due to their scale advantage and/or their production efficiencies, especially in circumstances identified with domestic or external uncertainty, as capacities contract significantly faster for smaller firms. Besides, the odds of a crowding out usually rises rendering marginal cost of finance even higher for the SMEs. In such environments, the small and medium segments may receive subsidized funds from organizations such as Small and Medium Enterprises Development Organization of Turkey (KOSGEB) and large firms may pursue their access to regular bank finance. This may render ‘*mid-caps*’ (or *medium-large* segments) deprived of necessary funds to operate. Mid-caps are transparent in their financials, often have large capacities to generate jobs and value added and they provide certain trickle down effects on their supply chains. This rationale also finds some support from the evidence for upward trend in SME trade credits after 2013 as well as investment enhancing impact of trade credits extended to small firms. Bank loans extended to large and medium-large size firms may embed trade credit packages targeted for SMEs to serve in the former’s supply chain. An important aspect of a successful policy design is to develop targeted capacity building programmes that include supply chain and cluster initiatives, which recognize the potential for developing tiers of suppliers to maximize these trickle-down effects, even including to micro enterprises as lower tier suppliers. As an alternative and/or reinforcement to financial support to the linked SMEs, *financial advisory services* may be provided so as to reorganize these enterprises and turn them into bankable firms in a foreseeable future. To that end, *sustainability scoring models* may be designed for supplier firms, which devise incentive mechanisms for both banks and SMEs (eg. allowing for lower provisions for high score SMEs in risk-weighted assets calculations).

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APPENDIX: Definition of an SME

Each country has a different economic structure and size of key financial/economic benchmarks to classify an enterprise as an SME may differ among countries. Turkey and Europe consider the same categories: (i) number of people employed and (ii) total sales or balance sheet size in a year.

Turkey

(since 24 June 2018)

Company Category of SMEs	Staff headcount	Turnover	or Balance Sheet Total
Micro	1 - 9	<= 3 million TRY	<= 3 million TRY
Small	10 - 49	<= 25 million TRY	<= 25 million TRY
Medium-Sized	50 - 249	<= 125 million TRY	<= 125 million TRY

Europe

Company Category of SMEs	Staff headcount	Turnover	or Balance Sheet Total
Micro	1 - 9	<= 2 million EUR	<= 2 million EUR
Small	10 - 49	<= 10 million EUR	<= 10 million EUR
Medium-Sized	50 - 249	<= 50 million EUR	<= 43 million EUR

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