



**Beyond Credit: A Taxonomy of SMEs and
Financing Methods for Arab Countries**
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Abstract

Recent studies have indicated that SMEs play an important role in economic growth, export promotion, and employment creation. Considering that the majority of Arab countries are currently trying to make progress in these areas, this paper aims to evaluate how SMEs fit into the regional economy and what steps need to be taken to ensure that they help attain higher rates of overall economic growth in the short, medium and long terms.

The study proposes a new taxonomy of SMEs differentiating between Traditional, Niche-finding, and Avant-garde SMEs, and shows that while Traditional SMEs already have some systems of financing in place, Niche-finding and Avant-garde SMEs, which show the greatest potential to enhance economic growth, export orientation, and attractiveness to inflows of foreign savings, do not lend themselves to conventional financial methods. It is argued that the creation of an enabling legal and regulatory environment for lease and venture capital financing may encourage the growth of these latter types of SMEs and thus boost the growth of Arab economies at large.

ملخص

تؤكد العديد من الدراسات الحديثة على أهمية الدور الذي تلعبه المشروعات الصغيرة والمتوسطة في حفز معدلات النمو الاقتصادي وتشجيع الصادرات وخلق فرص العمل. ونظراً لأن كثيراً من الدول العربية تسعى في الوقت الراهن لتحقيق هذه الأهداف الاقتصادية الثلاث، فقد استهدفت هذه الورقة تقييم الأداء الحالي للمشروعات الصغيرة والمتوسطة في المنطقة العربية، وذلك كخطوة أولى للتعرف على الإجراءات والسياسات التي من شأنها تحقيق المساهمة الايجابية والفعالة لهذه المشروعات في تحقيق المعدلات المستهدفة للنمو الاقتصادي في الأجل القصير والمتوسط والطويل. وتميز الورقة بين ثلاثة أنواع من المشروعات الصغيرة والمتوسطة الحجم، النوع الأول يشمل المشروعات التقليدية **Traditional**، والنوع الثاني يتضمن المشروعات التي تركز على أجزاء صغيرة من الأسواق **Niche-finding markets**، والنوع الثالث فيضم المشروعات الرائدة التي تتمتع بمهارات تكنولوجية عالية **Avant-garde**. واستناداً إلى هذا التقسيم، يرى المؤلف ضرورة التفرقة بين مصادر التمويل الملائمة لكل مجموعة من المجموعات الثلاث. وفي هذا الصدد، يرى أن أفضل وسيلة لتمويل المشروعات التقليدية هي الاعتماد على الحكومة والمؤسسات الأهلية. أما بالنسبة للمجموعتين الأخريين من المشروعات واللتين تساهمان - في تقدير المؤلف - بدرجة أكثر فعالية في رفع معدلات النمو وتشجيع الصادرات وخلق المزيد من فرص العمل، فهو يرى أن التأجير التمويلي يعد ملائماً للمشروعات التي تركز على أجزاء صغيرة من الأسواق، بينما يتناسب رأس المال ذو المخاطر العالية مع طبيعة المشروعات الرائدة، وذلك شريطة توفير الإطار القانوني والمؤسسي اللازم لكل من التأجير التمويلي أو رأس المال ذي المخاطر العالية في الدول العربية.

I. Introduction

Small and medium-scale enterprises (SMEs) have traditionally been confined to economic development studies that focused on their role in poverty alleviation and employment creation in poor countries.¹ Economic writings that focused on the positive role of small-scale firms, such as Schumacher (1973), were viewed by most economists as mere curiosities that went against the common wisdom that economic growth and development implied capitalization on economies of scale in industry. However, the link between SMEs, economic growth, entrepreneurship and international competitiveness has begun to play an important role in economists' perceptions of their role in advanced as well as developing economies.²

SMEs play a significant role in Arab countries, both in terms of the total number of enterprises, as well as their contribution to employment levels. The Arab Development Agency reported that the number of SMEs in the Arab world increased from 114,000 in 1990 to 130,000 in 1995, and that the number of workers in such enterprises increased from 1.845 million workers to 2.397 million workers. During that same period, the output of SMEs increased from \$35 billion to \$60 billion (or from 25 percent to 28 percent as a percentage of total manufacturing output), their exports increased from \$14.6 billion to \$17.9 billion, and their imports increased from \$24.4 billion to \$26.9 billion.³

This clear indication that SMEs play an important role in economic growth and export promotion, as well as employment creation, is the motivation for this paper. Looking beyond traditional SMEs, which are considered strictly as developmental tools for poverty alleviation and employment creation, this study concentrates on the other types of SMEs that are more capable of helping Arab countries attain higher rates of economic growth in the short, medium and long terms.

To this end, the study first considers how SMEs are currently affecting the growth rates in Arab economies in terms of overall economic growth in Part II. After establishing the significant influence SMEs have on growth rates, Part III proposes a taxonomy of SMEs that differentiates between the diversity of enterprises included under this umbrella term, namely, traditional SMEs, Market-niche finding SMEs, and Avant-garde SMEs. The section discusses

¹ See for instance the literature review in Admiraal (1997) and the references therein.

² See Acs (1996) and the references therein.

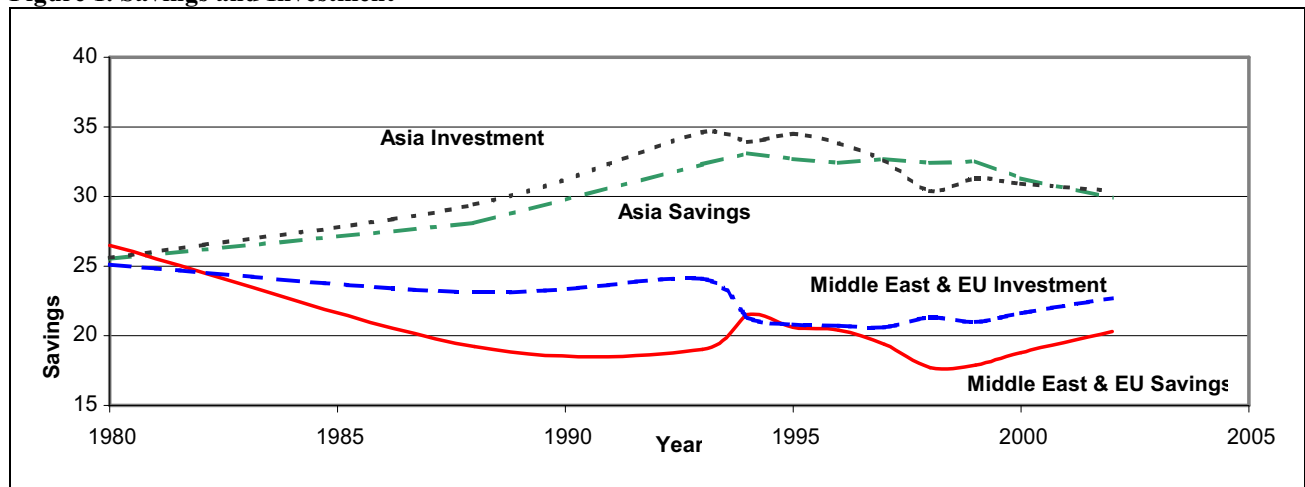
³ As reported in Cairo Chamber of Commerce (1999).

how each type functions in the general economy, evaluates whether they contribute more to short- or long-term growth, and then discusses ideal characteristics for the financial support systems they require. In Part IV, specific financing schemes are suggested for each SME type based on the general characteristics requested in the previous section. Part V concludes the paper by summarizing the proposals of the study.

II. The Economic Role of SMEs in the Arab World

The fundamental obstacles to raising the growth rates in Arab countries are the low levels of domestic savings and investment, coupled with a significant gap between the two. Figure 1 illustrates this fact by comparing the rates of savings and investment in the Middle East and Eastern Europe with those of the Asian countries that experienced much faster rates of growth during the 1990s. Even during the Asian crisis of the late 1990s, the rates of savings and investment in those countries remained significantly higher than their counterparts in the Arab countries. The higher rates of savings and investment are largely responsible for fueling the current Asian recovery and expectations of higher rates of growth in to the early 2000s. Figure 1 highlights two fundamental problems: (i) the need to increase Arab domestic savings and investment, and (ii) the need to close the gap between them, through inflows of foreign savings.

Figure 1. Savings and Investment

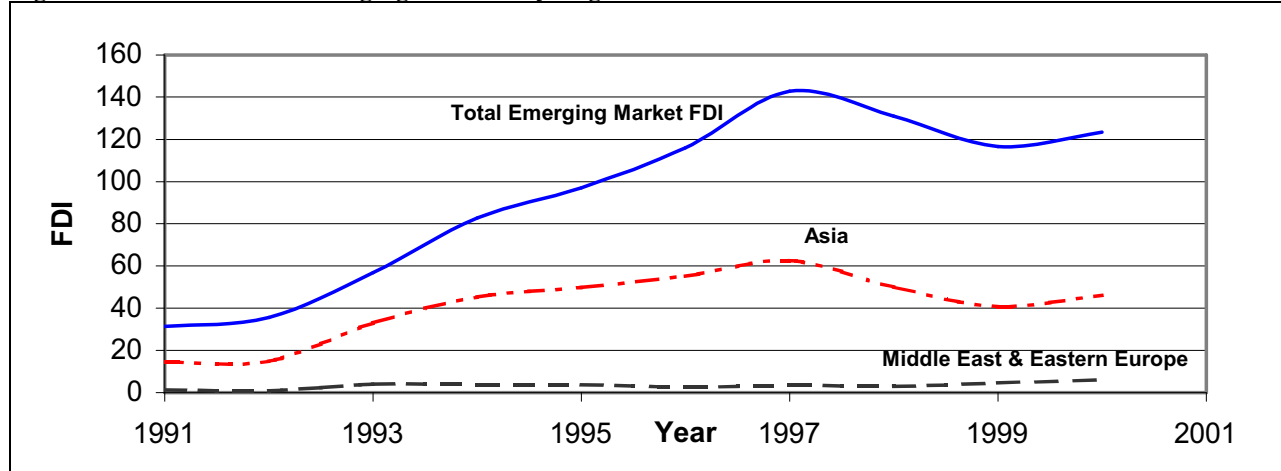


Source: *World Economic Outlook*, IMF, May 1999.

There are numerous methods for closing the gap between domestic savings and investment in developing countries. In recent years, the most prevalent of those methods has been foreign

direct investment (FDI), which is preferred by most developing countries due to its other externalities in the areas of technology transfer and export promotion.⁴ Unfortunately, as Figure 2 illustrates, flows of FDI to the region have lagged behind other emerging markets, even during the golden opportunity of the Asian crisis when flows to those countries slowed-down.

Figure 2. FDI Inflows to Emerging Markets by Region



Source: World Economic Outlook, IMF, May 1999.

SMEs and Economic Growth

It must be noted that the size of SME activity in an economy is not necessarily a direct contributor to economic growth. For instance, early empirical analyses of the relationship between firm size distribution in certain sectors and productivity growth (measured as TFP) show a negative relationship (Acs, Morck and Yeung (1999)). However, as the authors point out (*ibid.*, p.393), the effect of SMEs on growth seems to be more of a catalyst. SMEs tend to generate more innovations and develop an entrepreneurial class with the requisite managerial skills, thus making larger firms in the economy significantly more productive.⁵

Despite the invigorated interest in SMEs, there is a scarcity of data in all countries. Unfortunately, this lack of data is most extreme in the countries that need it most to formulate coherent policies towards SME promotion – the developing countries. In what follows, we shall

⁴ For a brief survey of the pros and cons of FDI and means of attracting its flows to Arab countries, see El-Erian and El-Gamal (1997).

⁵ See Carson, Cromie, McGowan, and Hill (1995) pp.74-76 for a discussion of the role of SMEs in developing such skills.

use the very limited information we could find on SMEs and their role in the Arab countries to make comparisons to other developing regions.

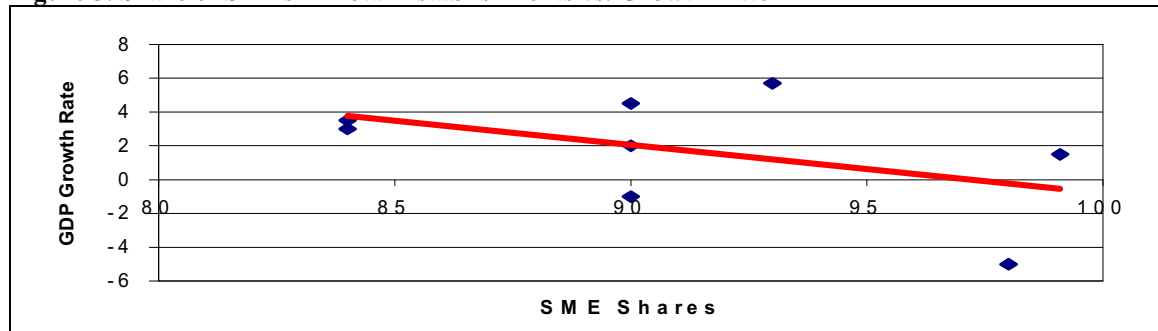
When comparing the relative numbers of SMEs to total enterprises across a group of Arab and Asian countries, the relationship between the size of the SME sector and GDP growth rates appears to be slightly negative, as shown in Table 1 and Figure 3.

Table 1. SMEs Share in Total Establishments and Their Contribution to Employment (%)

Economy	SMEs' share	SMEs' Contribution to Employment	Average GDP Growth Rate
Egypt ¹	90	75	4.5
Syria ²	90	62	2
Lebanon ³	84	-	3
Jordan ⁴	93	32.9	5.7
Tunisia ⁵	84	-	3.5
Brunei ⁶	90	70	-1
Hong Kong ⁶	98	60	-5
Japan ⁶	99.1	78	1.5
APEC ⁶ Member Countries	90	(32-84)	-

Sources: ¹Giugale, Marcelo, and Mobarak (1996) ²Shahin (1999), ³Hamdan (1995), ⁴Karmoul (1995), ⁵Bechr, Najah, and Nugent (1999) ⁶Global Information Network for SMEs web site: <http://www.gin.sme.ne.jp/>

Figure 3. Share of SMEs in Total Establishments vs. Growth Rate



This negative relationship is preserved (indeed strengthened) if we use another source – the official country statistics reported in Mansour (2000) – together with matched average GDP growth rates (Table 2). However, as one might notice, there are some dramatic discrepancies between the figures presented in Mansour’s data and those in Table 1. Contribution to employment in Egypt, for example, is reported at 75 percent in Table 1 and at 11 percent in Table 2. This difference can be attributed to the general poverty of data on SMEs, as well as the wildly different definitions used by different data collecting agencies.

Table 2. SMEs Share in Total Establishments and Their Contribution to Employment (%)

Economy	SMEs' share	SMEs' Contribution to Employment	Average GDP Growth Rate
Bahrain ¹	96.0	31.0	-2.0
Egypt ¹	76.0	11.0	4.5
Syria ¹	98.3	90.6	2.0
Lebanon ¹	99.1	78.5	3.0
Jordan ¹	92.5	40.8	5.7
Tunisia ²	84.0	-	3.5
Brunei ³	90.0	70.0	-1.0
Hong Kong ³	98.0	60.0	-5.0
Japan ³	99.1	78.0	1.5
APEC ³ Member Countries	90.0	32-84	-

Sources: ¹Mansour(2000), based on official figures; ² Bechri, Najah, and Nugent (1999);

³ Global Information Network for SMEs web site: <http://www.gin.sme.ne.jp/>

Nonetheless, we can see in Figures 4 and 5 that the negative relationship between the share of SMEs in the total number of establishment is preserved. Moreover, we can see that SMEs' contribution to overall employment is also negatively correlated to GDP growth rates.

Figure 4. Share of SMEs in Total Establishments vs. Growth Rate

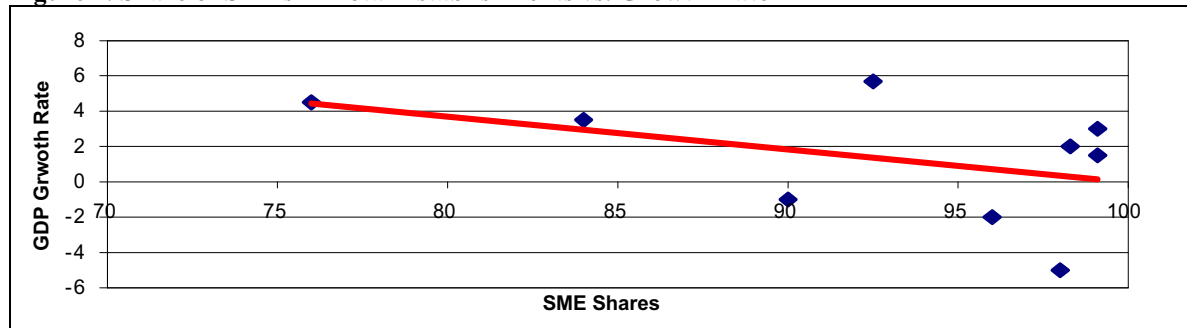
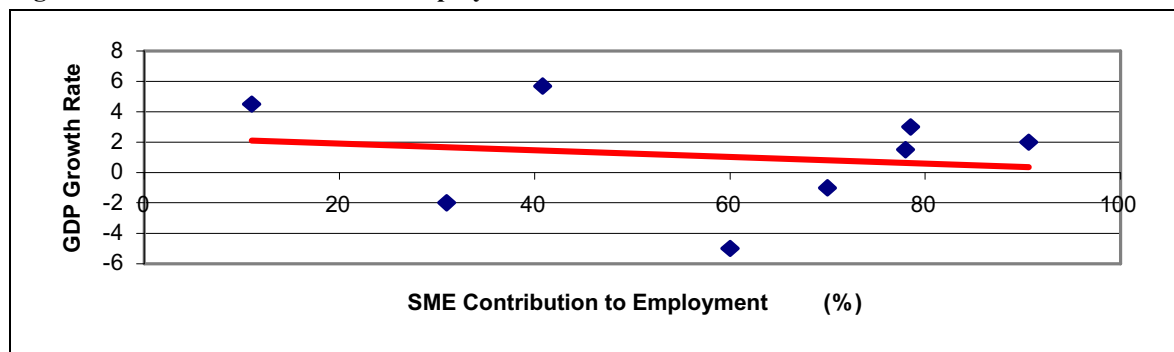


Figure 5. Share of SMEs in Total Employment vs. Growth Rate



SMEs and Export Growth

Evidence from the fast growing Asian countries of the 1990s suggests that the relationship between SME activities and overall export growth is rather complex. As illustrated in Table 3 and Figures 6 & 7, there seems to be a negative relationship between the percentage of total exports that are attributed to SMEs and overall export growth. On the other hand, there is a positive relationship between the contribution of SMEs to manufacturing and overall export growth. Those two relationships reconfirm the catalytic role played by SMEs that we have already seen in the area of economic growth. The direct influence of SMEs is seen in both cases to be paradoxically negative, but the positive externalities they generate for larger firms are undeniable, both in achieving higher rates of growth, and in enhancing the export-orientation of the growth path.

Table 3. SME Contribution to Output in Manufacturing, 1990s and Exports, 1991/2 (%)

Economy	SME contribution to manufacturing output	SME contribution to exports	Export growth rate
China	-	40-60	23
Japan	52	-	12
Republic of Korea	44	40	30
Singapore	19	16	22
Malaysia	-	15	26
Taiwan Province of China	39	56	-
Indonesia	30	11	14
Myanmar	71	-	9
Thailand	-	10	21
Vietnam	40-70	20	-

Source: Handbook on Foreign Direct Investment by SMEs: Lessons from Asia, United Nations, 1998

Figure 6. SMEs' Role in Promoting Export Growth I

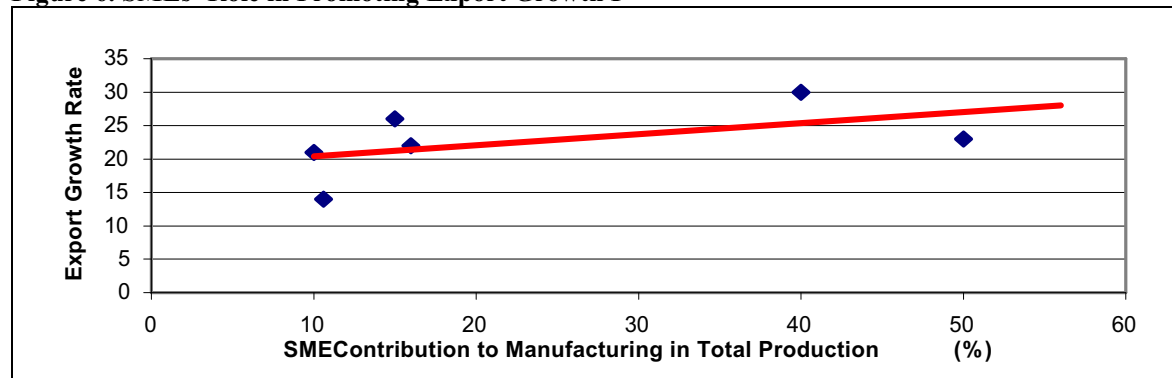
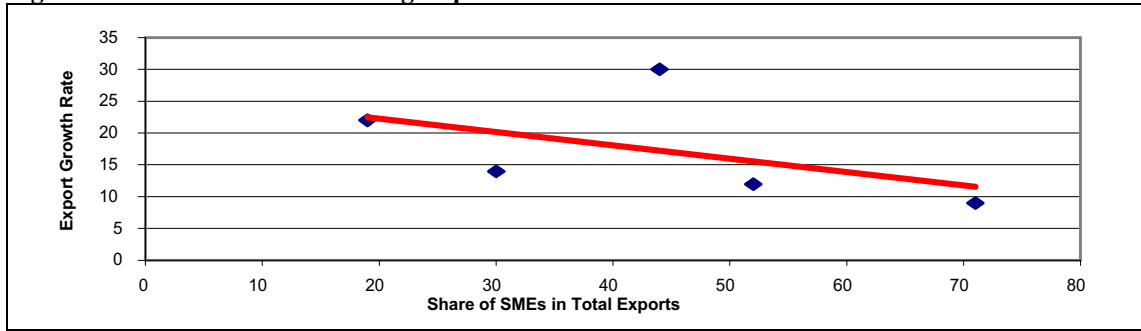


Figure 7. SMEs' Role in Promoting Export Growth II

This suggests that macroeconomic policy makers must target SMEs carefully. SMEs that contribute directly to exports (e.g. artisan sector production of quilts, rugs, leather products, etc., which is highlighted as a success story in Bangladeshi micro-finance) are not necessarily the type that contribute to GDP and overall export growth. The type of SMEs that contribute significantly to the growth of economic activity and exports seem to be those enterprises that function through subcontracting with the main industrial sectors of developing countries. The policy implications of this relationship draws attention away from the traditional micro-financing methods and target enterprises, and towards the more dynamic types of SMEs that could nurture the Arab world's emerging entrepreneurial class.

SMEs, FDI, Exports and Economic Growth

There is no available evidence on inward SME FDI flows for any developing countries, and raw data from which such data may be generated is not readily available. In United Nations (1998), an attempt was made to construct estimates of SME FDI by using home country data on outgoing FDI by host country, and defining all such investments of \$1 million or less as SME FDI inflows. The resulting series is reported in Table 4, along with GDP and export growth rates intended for a preliminary analysis.

Table 4. Selected Asian Economies: Inward FDI flows (% GDP) with respective Export and GDP Growth rates (%), 1995

Economy in 1995	Inward FDI flow	Export Growth Rate	GDP Growth Rate
China	0.04	23	7.8
Japan	0.003	12	-2.6
Republic of Korea	1.1	30	-6.8
Singapore	24.6	22	1.3
Taiwan Province of China	2.7	-	4.8
Indonesia	6.5	14	-13.7

Source: *Handbook on Foreign Direct Investment by SMEs: Lessons from Asia*, United Nations, 1998

It has long been maintained that inflows of FDI funds to firms, especially SMEs, contribute substantially to the development of human capital, both in terms of higher levels of skill and productivity, as well as managerial and entrepreneurial skills. Unlike other sources of funding, incoming SME FDI is likely to be an effective source of technology transfer, thus having a much more dramatic impact on overall productivity in the economy. Figures 8 and 9 clearly illustrate that there is a positive relationship between SME FDI and GDP growth, as well as export growth. In this regard, SME FDI seems to be a more appropriate catalyst for bringing into effect the classical growth and export enhancing advantages discussed in the FDI literature.⁶ Acknowledging the severe limitation of traditional SME micro-finance, this data seems to be suggesting that more innovative types of SME should be the primary targets of macroeconomic policy makers.

Figure 8. SME FDI Inflow's Role in Promoting Growth

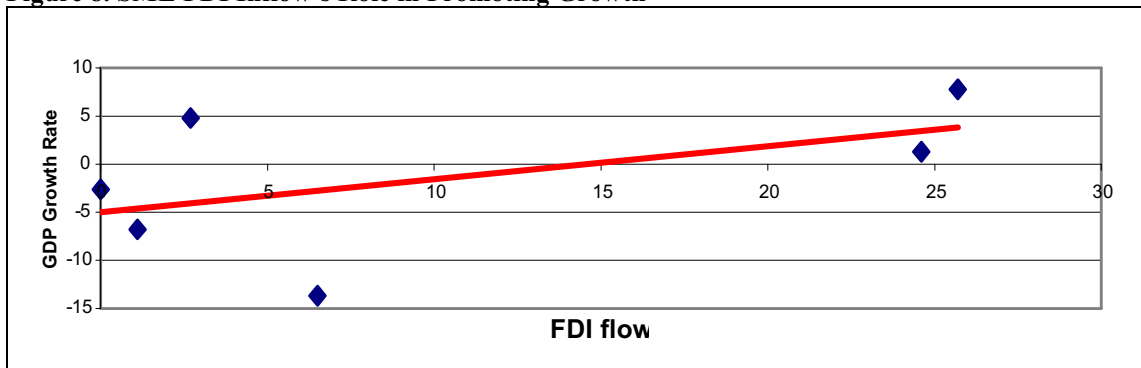
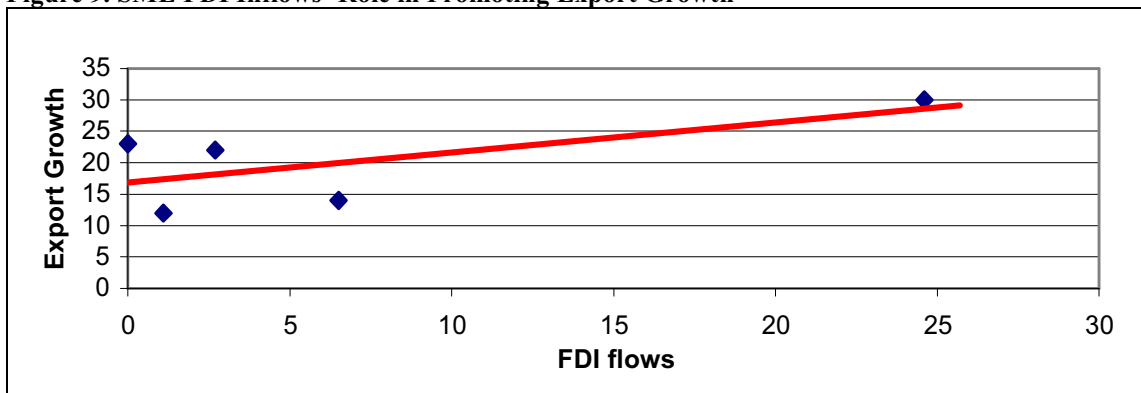


Figure 9. SME FDI Inflows' Role in Promoting Export Growth



⁶ See El-Erian and El-Gamal (1997) for a brief survey of those advantages as they pertain to the Arab world.

III. A Taxonomy of SMEs and their Economic Role

As mentioned before, although SMEs have become a popular topic of discussion in recent years, a very limited amount of critical thinking has been done on them to date – particularly in terms of the methodology most often used to approach them. Economists have traditionally discussed SMEs only in terms of size, distinguishing between micro-, small-, and medium-sized enterprises. However, proposing that such categories are not particularly conducive to study, this analysis presents a new taxonomy of SMEs that distinguishes between three main types: (i) SMEs in traditional production areas; (ii) SMEs that identify an emerging market niche; and (iii) SMEs in avant-garde (high-tech and other “new economy”) industries. All three types share some main features: (a) small size in terms of total employment and total capital stock; (b) a low capital-labor ratio; (c) high responsiveness to market conditions; and (d) unsuitability of the SME credit-risk structure for conventional bank financing. Moreover, all three types of SMEs offer similar economic advantages for growth and development, including: (i) employment creation, (ii) promotion of an entrepreneurial class, (iii) the creation of a more skilled labor-force, and (iv) enhanced economic dynamism.

However, despite these similarities, there are some fundamental differences among the three types of SMEs that render certain alternative sources of financing appropriate for some but not for others. In this section, we shall attempt to provide a more detailed taxonomy of the three SME types. In all three cases, our focus will be on the factors that render such enterprises “small or medium-sized”, their significance to the economy, whether they contribute more to short- or long-term growth, and ideal characteristics for the financial support systems they require.

Traditional SMEs

SMEs in traditional areas of production fit the classical stereotype of small-scale industry. Such enterprises specialize in producing goods and services, or components thereof, with technologies and managerial processes that do not exhibit economies of scale. This lack of economies of scale and the low-skilled labor-intensive aspects of their production and management technologies render them an ideal vehicle for employment creation and poverty alleviation. Such enterprises survive on direct production to the market, or subcontracting with larger enterprises that produce goods for a larger market. In either case, they draw on labor in the vicinity of a specific market or firm location. In the latter case, they rely on a flexible pool

of unskilled workers that can flow between the SME and traditional sector during various phases of the business cycles.

Such enterprises are expected to produce low rates of return on capital, and tend to be staffed and managed by relatively unskilled workers and entrepreneurs. In most cases, entrepreneurs in these types of enterprises in Arab countries lack access to bank credit for reasons similar to those faced by similar entrepreneurs all over the world:

- lack of efficient credit ratings systems, as well as lack of local financial institutions with direct knowledge of the borrowing agent;
- consequently, the agency problems and associated credit risk is perceived to be too high; and
- the fixed cost of establishing an information network or local branches is too high for commercial banks to undertake given the low rates of return expected to be earned by such enterprises.

This class of SMEs is the traditional class considered at length by economic development agencies, and for which a variety of financial solutions have been provided in theory and practice. Such solutions tend to concentrate on government-led efforts to encourage public banks to extend low-interest loans to such entrepreneurs, together with cooperative efforts from NGOs and international economic bodies.

Despite the concerted efforts of Arab governments, NGOs, and international economic bodies, there is still a significant classical credit gap for SMEs (Stiglitz and Weiss, 1981) in the Arab world. The following Table illustrates the size of this gap:

Table 5. Credit Gap for SMEs in the Arab World

Country	Outreach gap (number of borrowers)	Microfinancing gap (millions of U.S. dollars)
Egypt	1,475,000	371
Jordan	145,000	54
Lebanon	36,000	37
Morocco	485,000	194
West Bank & Gaza	33,000	17
Yemen	649,000	97

Source: Brandsma and Chaouali (1999).

Consequently, existing SMEs rely mostly on personal or family funds. The resulting dependence on individual (and family) wealth gives rise to the familiar situation in other contexts (c.f. Evans and Jovanovic, 1989; Black, de Meza and Jeffrey, 1996; and Cressy,

1996) that success of SMEs depends crucially on individual wealth and human capital. Table 6, which reveals the sources of funding of 173 surveyed SMEs in Egypt (representing 66 percent of the active borrowers in the region (Brandsma and Chaouali, 1999)), illustrates the general excessive dependence on private funds that is, without exception, more pronounced for smaller enterprises.

Table 6. Sources of Investment Capital for 173 Surveyed Egyptian SMEs (%)

Firm Size	Micro	Small	Medium
Personal Savings	87	69	64
Family and friends	4	3	0
Bank loan	8	27	36
NGO loan	1	0	0
Supplier loan	0	1	0

Source: Nathan Associates (1997).

This study also sheds light on the fact that traditional SME entrepreneurs are not a homogenous group. By evaluating the bimodal distribution of educational levels of the 173 surveyed SME entrepreneurs (Table 7), we can see that SME entrepreneurs in Egypt and elsewhere in the Arab world are a heterogeneous group, with a resulting heterogeneity of the type of SME they run.

Table 7. Educational Level of Entrepreneurs of 173 Surveyed Egyptian SMEs (%)

Educational Level	Micro Enterprise	Small Enterprise	Medium Enterprise
Post Graduate	0	3	4
University Graduate	20	39	52
Technical	20	19	8
High School	6	8	4
Basic Education	18	6	16
Read and Write	23	23	12
Read	4	0	0
Illiterate	9	2	4

Source: Nathan Associates (1997)

This empirical evidence seems to suggest that there is a vicious circle for financing the “Type 1” SMEs in the Arab world. This type of SME is of primary importance due to its employment of relatively poor and low-skilled (low human capital) workers and entrepreneurs. However, theory and evidence suggest that the government and NGO-sponsored “micro-finance” plays a minor role for such enterprises, a role that becomes more insignificant the more “micro” the finance tends to be. This result is not surprising, given the fact that the previously discussed classical problems with financing SMEs (higher credit risk and

asymmetric information, together with profit margins which are too low to justify the initial investment in local branches, and information and monitoring agencies) are particularly acute for such enterprises.

As recent studies⁷ have shown that of the 60 surveyed micro-finance programs in the region, only 2 are sustainable, with eight others approaching sustainability, an ideal solution for this vicious circle may be for Arab countries to implement group lending micro-finance agencies (e.g. Grameen Bank). Concentrating micro-finance operations on group-lending to the most traditional SMEs can help alleviate many of the sustainability problems facing NGOs and other funding agencies.

Market-niche-finding SMEs

The second type of SME entrepreneurs we consider are dynamic businessmen who discover unexploited market-niches in the domestic or world markets, and move quickly to capitalize on such a market niche. The “smallness” of this type of SME is dictated by the dynamic nature of their operations, shifting from one focus to another as market-niches are filled by competitors and new ones are identified. This type of SME is not suited for micro-financing or any other traditional form of financing administered by conventional bank loan officers. Attempting to finance such dynamic businesses through traditional loans is impractical for at least two reasons. First, loan officers are accustomed to evaluating projects based on past experience in the area of business and the performance of comparable competitors. However, by the very nature of the market-niche finders, they are pioneers in new markets, where neither they nor others have an established track record for the loan officer to analyze. Second, the monitoring costs in such dynamic areas are very high, and the type of group lending and agent-monitoring that are prescribed for traditional micro-finance are also inapplicable. Therefore, agency problems prevail for such SMEs, rendering them unattractive candidates for any type of conventional loan financing.

Two fundamental problems arise as a result of this mismatch between conventional bank lending institutions and our “Type 2” SMEs. First, due to the reluctance of banks to lend to such entrepreneurs, we expect excessive reliance on the entrepreneur’s wealth as well as informal financing through family and friends. Second, the only entrepreneurs in those types of

⁷ Brandsma and Chaouali, 1999.

SME sectors who will be able to obtain loans from conventional financial sources are the ones who seem to have low levels of credit risk due to such individual and family wealth. Those two factors, in turn, give rise to two sources of market distortion. First, active entrepreneurs in those sectors will not necessarily be the most talented in the economy, but rather the ones with the appropriate initial level of wealth. Second, the ability of those mediocre entrepreneurs to leverage their initial capital through access to conventional loans amplifies the riskiness of those sectors artificially, thus compounding the initial agency problems.

Thus, in order to allow the best entrepreneurial talents in the economy to participate in this sector and maximize economic efficiency, we need to develop a set of financing alternatives for this type of entrepreneurs. In general, the form of financing we seek for this type of SMEs must:

- require little knowledge of the industries in which the SME will venture,
- minimize agency problems and credit risks which are borne by the financial institution, and consequently
- be readily available at low cost to entrepreneurs with no initial wealth or track record.

Avant-garde SMEs

The final type of SME we consider is the “path-finding” type. The entrepreneurs involved in this type of enterprise are highly skilled risk-takers. While the “smallness” of the first type of SMEs was dictated by lack of economies of scale, and that of the second type was dictated by the dynamism and shifting emphasis on different markets, the “smallness” of this third type of SMEs is dictated by its riskiness. The first two types of SMEs had limited to no scope for utilizing economies of scale. In contrast, the third type of enterprise is predicated on taking substantial risks precisely because of the potential existence of significant economies of scale. The entrepreneur risks losing a substantial portion of the capital put into this type of enterprise, and therefore attempts to sink the minimum possible initial investment into it before increasing the size of the enterprise to capitalize on its significant economies of scale, if successful.

Like Type 2 SMEs, this type of SME exhibits features (lack of a track record, etc.) that render dependence on conventional financial means impractical and distortionary. However, it lacks the second type of SME’s emphasis on dynamism, which encourages investment in forms of fixed capital with multiple uses (e.g. vehicles, real estate, etc.). Such forms of capital are

easy to finance through lease contracts, since the agency risks are largely reduced by the financing agency's ability to inspect the leased capital goods periodically, and to seize possession in case of default. In the case of avant-garde enterprises, however, the capital investment can be largely in human capital (e.g. software firm, internet-based commerce, etc.) or unconventional forms of capital (e.g. manufacturing prototypes of a new machine, etc.). Such forms of capital are difficult to inspect, and virtually impossible to seize if the circumstances dictate such actions. Moreover, conventional financial institution employees (loan or lease officers) would need to acquire substantial amounts of human capital in the area in question to determine the feasibility and probabilities of success and failure of the enterprise.

These limitations suggest that the financial institutions that cater to this type of SME must possess two main properties. First, they must have substantial information on the specific sector within which the new SME is venturing. Second, they must rely on equity-based financing, since monitoring is virtually impossible and the capital in which funds are invested is difficult to recover if such an action is needed. Knowledge of the industry minimizes the initial cost of assessing the success probability of the SMEs, while equity investment allows the funding agency to share in its potential capitalization on economies of scale. The ideal institution for funding this "Type 3" SME would therefore consider a large number of potential investments in a specific sector, and diversify the high risks of each such investment by investing in a large number of relatively small enterprises. This is the model of venture capital financing, which is credited for the high technology based "new economy" which is spreading through much of the industrial world.

As we shall see, establishing a reliable and transparent system of intellectual and physical property rights is crucial for the existence of such a venture capital sector which undertakes significant risks, and relies for profitability on the security of equity stakes in highly profitable enterprises. Similarly, the lease financing approach advocated for the second type of SMEs requires security of property rights and transparency of the legal and regulatory system which allows the leasing agency to seize its assets if the SME were to shirk on its responsibilities. Any additional credit or legal risk would render such institutions inoperable, and limit the ability to create a thriving sector of SMEs of the second and third types. Needless to say, those latter two types of SMEs are the ones most conducive to economic growth, while the first is – at best – an indirect form of socio-economic welfare subsidization. Therefore, most of our policy suggestions would pertain to the creation of an enabling environment for the latter two types of financing.

IV. A Taxonomy of Matched Financing Sources for SMEs

Based on the outlines given in the previous section, we shall now suggest appropriate alternative sources of financing and government policies that can enhance the utilization of the three types of SMEs.

Group-lending to Traditional SMEs

The best means for funding the traditional type of SME is largely in place in many Arab countries, and constitutes traditional micro-finance. This type of finance is mostly conducted by conventional bankers, who undertake it reluctantly to satisfy government requirements. Thus, the largest active parties in this form of finance in the Arab world have tended to be state-owned banks, as well as NGO-financed operations.

However, as we have previously stated, most of those micro-finance operations in the region are not financially sustainable (c.f. Brandsma and Chaouali (1999)). The reasons for this unsustainability are the same ones which discourage private bankers from engaging in micro-finance: (i) lack of information about potential borrowers, (ii) low profit margins earned by the SMEs seeking micro-loans, and (iii) lack of collateral. The last two factors make micro-loans risky (due to adverse selection and moral hazard problems associated with the one-sided incomplete information), while the low profitability factor makes it difficult for banks to compensate for this risk through higher interest rates. As a result, micro-finance of SMEs continues to be an NGO and/or government subsidized industry, which renders it a form of transfer to the poor rather than a bona fide financing operation.

Such transfers to the poor are indeed warranted, and micro-finance may provide a more useful enabling environment to the poor than a simple welfare transfer. To help this emerging industry become more sustainable, it is important to solve the adverse selection and moral hazard problems outlined above. The tendency to-date seems to have concentrated on government and NGO-backed guarantee corporations intended to encourage private financial institutions to participate in micro-finance. However, it is well known (c.f. Adams and Vogel, 1984) that government and NGO-sponsored credit programs for the poor have extremely low repayment rates (below 25 percent). In the Egyptian experience, which comprises the lion's share of micro-credit in the Arab world, with the exception of Egypt's NBD which reports a repayment rate of 97 percent), most other banks in the Arab world seem to have experienced much lower repayment rates (Nathan Associates, 1997).

An alternative and complementary method that seems to have been largely ignored in the Arab world is the concept of group lending (Adams and Landman, 1979), popularized in recent years due to the perceived success of the Grameen Bank in Bangladesh (c.f. Hossein, 1998). The theoretical foundations for using groups' abilities to apply moral suasion, which can be viewed as a form of "social collateral" (Besley and Coate, 1995), have been well established in recent years. The basic idea is that moral hazard problems, and the associated agency costs incurred by the micro-lending institution, can be reduced significantly through a system of "agents monitoring other agents" (Varian, 1990). While the idea of group lending has been associated mainly with rural lending in rural Bangladesh (and earlier in Egyptian agricultural co-ops of the 1960s), the theoretical arguments for the alleviation of agency costs apply to other environments (e.g. groups of artisans, guilds and unions, etc.). To the extent that micro-lending to traditional SMEs continues to be a major part of NGO and government economic development policies, coupling this strategy with a group-lending approach may improve the sustainability of the lending institutions and assist better in achieving the goals of the sponsoring agencies.

Lending to "Niche-finding" SMEs

We argued in the previous section that the recently emerging class of Arab entrepreneurs is concentrated in dynamic enterprises, where they aim to capitalize on short to medium-term domestic or international market niches. Those entrepreneurs are very competitive, and thus may not be expected to exercise moral suasion on one another. Thus, they are very poor candidates for group lending institutions. Moreover, due to their dynamism, their geographic and sectoral affiliations are constantly shifting, which renders those of them who lack substantial collateral poor candidates for any form of lending. As we have argued in the previous section, the need for collateral limits this sector somewhat to those entrepreneurs who already have access to funding sources through individual wealth, family and friends. Lending to those individuals is tantamount to allowing them to exercise excess leveraging of their initial capital, thus amplifying the risks associated with the sector, and increasing the agency costs of lending to those without such initial sources of capital. The result, it was argued, is an inefficient allocation of resources towards already established entrepreneurs, limiting the desired potential for this sector to provide nourishment for a growing entrepreneurial class and encourage innovation.

For this class of entrepreneurs, the bulk of their capital needs may be office spaces and equipment, warehouses and storage spaces, transportation vehicles, etc. While the type of businesses in which their SMEs engage may be in constant flux, the forms of capital they require are by necessity traditional, and thus can be monitored. This suggests that lease and lease-purchase financing can be a very successful source of funding for entrepreneurs in this sector. The advantage of lease financing is that lease payments are calculated to ensure that the value of the asset after normal market depreciation remains above the balance needed for the lessee to purchase the object from the lessor. The leased object thus becomes a *de facto* collateral that the lessor may seize in case of default or if signs of abuse of the leased object are detected. Thus, the agency costs associated with moral hazard are reduced from costs of monitoring the activities of the agent to the much lower costs of inspecting the leased object. Due to the general use of the capital goods thus leased, it is not difficult for funding agencies to have in-house experts who can monitor the depreciation of this collateral.

The leasing vehicle is also useful due to its ease of securitization, which would allow the leasing companies to reduce the risk they bare. While Arab financial markets remain largely underdeveloped in the areas of asset-based securitization, some advances have begun, starting in the mid to late 1990s. For instance, the Saudi National Commercial Bank first introduced asset-backed securities (ABSs) in 1994, through its CFG division. The activities in such securities have been increasing within Saudi Arabia and mobilizing intra-regional financial flows.⁸ The increased emphasis of international banks on using ABSs as a vehicle for investing in emerging markets, and in particular in the Middle East and emerging European markets, suggests that a growth in the leasing industry and associated securitization can provide a valuable source of foreign investment funds.⁹ New developments in the area of reducing sovereignty risk through international insurance companies¹⁰ also promise that this sector may continue to grow in the future, provided that the Arab countries continue to liberalize their financial markets and develop a stable and transparent legal and regulatory framework.

⁸ C.f. Al-Jifri (1998) for a discussion of the increased volume of ABS trading in Saudi Arabia. There is also evidence that some Egyptian companies have used the NCB's services to securitize some of their own accounts receivables.

⁹ Chase, Bank of America and other international banks have begun paying more attention to the ABS market in the Middle East, c.f. *Asset Backed Security Week* (1997).

¹⁰ C.f. *Asset Sales Report International* (1999).

Venture Capital Financing of Avant-garde Entrepreneurs

The class of SMEs we labeled “Avant-garde” in Section II is perhaps the largest potential contributor to effecting the type of economic growth needed for Arab countries. This type of SME is more likely to attract FDI flows, cultivate managerial and entrepreneurial skills, and increase productivity in different parts of the economy. Unfortunately, the very advantages that make avant-garde SMEs attractive to a developing country also make traditional financing methods inapplicable to them.

The avant-garde SMEs are high-risk high-return ventures. This is not in the domain of conventional banks who provide low-risk low-return financial intermediation. Thus, conventional banks are limited to dealing with traditional SMEs, where low-risk implies low-return both at the enterprise and economic levels. The riskiness of the projects undertaken by SMEs is further exacerbated by the novelty of the sectors in which they operate. Another source of risk is the unconventional nature of avant-garde SME capital, a substantial portion of which takes the form of “inalienable” human capital which cannot be repossessed by a funding agency (Hart and Moore, 1994), thus rendering avant-garde SMEs poor candidates for lease financing.

The ideal financing method for high-risk high-return avant-garde enterprises, judging from historical experiences of advanced industrial economies, seems to be the venture capital model (Doerflinger and Rivkin, 1987). This model is predicated on the existence of groups of investors who are willing to invest in a number of small enterprises with high probabilities of complete failure and great success. They provide funds to SMEs in exchange for a claim to a share of the enterprise’s equity. If the enterprise is successful, the venture pays the investors handsomely. Venture capital firms attempt to reduce risks in a number of ways. First, they specialize in a specific industry, thus maximizing their ability to formulate good *ex ante* expectations of potential losses and gains for any potential enterprise. Second, they diversify the risk by investing simultaneously in a number of competing SMEs, thus increasing the chance that at least one of their investments will pay, compensating them for the many losses they may incur. Third, by staging their investment expenditures in each enterprise, they minimize agency risks induced by one-sided asymmetric information (c.f. Gompers, 1995).

This staging of investment also guards against the firms’ renegotiation of the investors’ claim at a later stage (Neher, 1999). Sahlman (1990) provides a methodical treatment of the

means by which venture capital firms monitor and exercise some control over the actions of entrepreneurs until such a time that their human capital is embodied in the enterprise. At this point in time, the value added of entrepreneurs is determined by their managerial abilities. Often, once an enterprise reaches that point of its development, the avant-garde entrepreneurs receive a compensation for their earlier efforts, and the enterprise is turned over to traditional managers who seek traditional means of debt and equity financing of the firm. If an avant-garde SME reaches this stage of development, the firm makes a transition out of the SME category into the mainstream sectors of the economy, carrying with it the advantages of increased productivity growth, and possible access to FDI inflows and export markets.

V. Concluding Remarks

The preceding taxonomy of SME types and their appropriate means of financing suggest that the government's role in encouraging SME growth and financing should be less direct than it seems to be in the Arab world. This involves limiting the role of NGO and government-sponsored micro-credit to the poor, and concentrating instead on creating an enabling environment for private financial institutions to take the lead. This enabling environment requires a transparent legal structure of property rights and repossession procedures to assure leasing companies that the costs of repossessing leased capital goods is manageable. Such a legal structure will also make it easier for venture capital firms to form and finance the most innovative SMEs, while ensuring the safety of their claims to equity in the emerging firms. The role of the government and NGOs in poverty alleviation and employment creation is likely to continue focusing on welfare-motivated transfers through micro-credit. However, it is advisable to take a longer-term view of the problems of development and poverty, recognizing that those welfare goals are perhaps best met if SMEs play a pivotal role in achieving a sustainable path of economic growth.

In summary, our three types of SMEs can be ranked in terms of their contribution to economic success, as well as their regulatory and legal requirements:

- Traditional SMEs contribute very little to long-term growth and development. The best financial vehicles for funding such SMEs is group-lending through conventional banks and NGOs. In their ability to attract money through international NGOs and

development funding agencies (e.g. IFC, USAID, etc.), this class of SMEs may assist in enhancing the inflow of foreign savings into Arab countries, through official and semi-official debt. Historically, this form of capital inflow has had the lowest correlation with economic growth and development. However, the main advantages of this type of SMEs and associated financing methods are the ability to meet short-term needs of poverty alleviation and employment creation, together with the fact that the regulatory framework for such financing is already in place in all Arab countries.

- Market niche seeking SMEs contribute more to long-term growth and development, and can serve as a vehicle for channeling private foreign savings through asset backed securitization of leasing company accounts receivable. The disadvantages of this type of SME is that it relies on the exploitation of market imperfections which are likely to disappear in the long term, as well as its limited potential for increasing FDI inflows. On the other hand, the existing class of entrepreneurs engaged in this sector has contributed to recent growth trends, and this class of SMEs may serve as a nurturing environment for more enterprising entrepreneurs to emerge. Moreover, the regulatory framework for meeting the financial needs of this sector is quickly taking shape in many Arab countries. As the market matures, traditional sources of development financing can contribute further to the maturity of this sector. Indeed, the IFC and other agencies have played a major role to-date in enhancing the potential for ABS financing to play a larger role in the region.¹¹

- In the long-term, the third class of SMEs is the only one in our taxonomy that promises to serve as an engine of private-sector led export oriented growth. It is also the class of SMEs best positioned to play a major role in enhancing the inflow of managerial and technology-transferring FDI. Unfortunately, the venture capital financial institutions best suited for funding such SMEs are very scarce in the Arab world, and the financial regulatory framework necessary for their viability remains largely underdeveloped in the Arab world.

¹¹ Starting in 1997, the IFC played a leading role in pioneering ABS finance in Lebanon and Morocco, c.f. *Asset Sales Report* (1996).

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