Understanding the role of venture capital and private equity on Iran’s future economic development

Workshop at IRAMOT 2016

Teheran, December 8, 2016
Abstract

Understanding the role of venture capital and private equity on Iran’s future economic development

In this workshop we will review in detail how the venture capital and private equity markets have evolved in Finland, South Korea, Taiwan, Malaysia and Vietnam, and what learnings we can draw from the history of these markets to how Iran can develop in the future.

These markets represent today different stages of maturity and sophistication when it comes to how technology companies are able to grow into globally competitive major players in their industry. We will discuss the decisions made by the governments in these countries, and what implications they have had for the development of the business ecosystem and growth. We will also take a concurrent view on the issues each of these countries are facing, and how that reflects to the stage Iran is now, and the decisions that are needed in Iran.

The end goal of the workshop is to develop an outline of policy for future Iranian growth, especially in the technology startup and mid-cap sectors, with the aim to create internationally leading Iranian companies. Participants are requested to actively participate in the discussion. No prior knowledge of the venture capital and private equity sector is needed, although familiarity with basic terms and concepts, and current day issues in Iranian economy and government policy will be beneficial.
Agenda

Iran is entering a new phase, where private equity can help drive growth especially in the SME and technology startup sectors.

Finland, South Korea, Malaysia and Vietnam have all gone – or are going – through a similar process and represent different stages of maturity.

Finland has built its private equity ecosystem step by step, but some gaps still remain.

Korean private equity is expanding rapidly, but is polarized and suffers from unclear and ever changing regulation.

Malaysian private equity is still early on, but can play a key role in building up SME capabilities, and has a strong SWF element.

Taiwanese private equity faces both challenges and opportunities, but seems to be in a political gridlock.

In Vietnam foreign capital is starting the private equity sector, but the legislative framework is still missing.

Iran can benefit from the experiences of these countries, but must also address fundamental issues in its economy.
Iran is entering a new phase, where private equity can help drive growth especially in the SME and technology startup sectors

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South Korea and Turkey can perhaps illustrate the paths available for Iran

Iran and similar economies in 1981 and their position today

<table>
<thead>
<tr>
<th>GDP/capita (in k$)</th>
<th>Iran, 1981</th>
<th>Turkey, 1981</th>
<th>South Korea, 1981</th>
<th>Population: 50,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household final consumption expenditure (in B$)</td>
<td>Iran, 2014</td>
<td>Turkey, 2014</td>
<td>South Korea, 2014</td>
<td></td>
</tr>
</tbody>
</table>

**South Korea:**
Literacy and land reforms combined with chaebol’s contribution through government largesse were key factors leading to rapid development.

**Iran:**
Growth hindered by the revolution, war and the imposed sanctions.

**Turkey:**
Successful integration with the world economy, solid public finances and a dynamic private sector buoyed by broadly market-friendly policies led to rising prosperity.

Source: The World Bank
Note: Indicators are calculated in constant 2005 $US. 1986 data was used instead of 1981 for household final consumption expenditure in Turkey.
In Turkey, financial markets boomed in the short term after market opened to foreign investments – but volatility was high.

Market capitalization, FPI and key events of Istanbul Stock Exchange

1990: Capital account liberalization became effective, leading to a surge of capital inflow

2001: Banking and currency crisis, followed by IMF backed structural reform

Note: Market capitalization in 2013 is measured as market capitalization at June 2013.
Source: World Bank; Istanbul Stock Exchange Review; Turkish Association of Capital Market
However, substantial foreign direct investments did not materialize until currency and interest risks decreased.

Foreign direct investments, exchange rate and interest rates in Turkey 1990-2013

Note: FDI are the net inflows of investment to acquire a lasting management interest (10% of voting stock)

Note: *Market capitalization in 2013 is measured as market capitalization at June 2013

Source: Foreign direct investment net inflow from World Bank; inflation.eu;
Further, once FDI did come, nearly 80% was in the form of M&A and only 10% of the deals originated from PE-VC investors.

Turkey M&A market volume based on type of acquirer (BUSD)

Deregulations started to show major effects after 2-3 years.

The door opens – as inflation stabilizes and GDP growth projected to reach 5% international investors look to enter Iran

GDP growth % and inflation rate (2000-2020f)

Note: 2015 GDP growth estimated at 0%. 2014 estimate based on Central Bank of Iran. Forecast takes into account current oil prices.
Source: IMF database December 2015 forecast, OPEC 2015 annual report, CBI
Private equity can accelerate growth in Iran via activities to foster innovation, increase productivity and competitiveness of businesses.

**Role of private equity to foster economic growth**

<table>
<thead>
<tr>
<th>PE activity</th>
<th>Outcome</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attracts investable</td>
<td>Increased capital investment in Iran</td>
<td>Greater innovation</td>
</tr>
<tr>
<td>funds</td>
<td>Additional asset class and attractive investment returns</td>
<td>Increased productivity</td>
</tr>
<tr>
<td>Offers investors</td>
<td>Improved management methods</td>
<td>Enhanced competitiveness</td>
</tr>
<tr>
<td>alternative</td>
<td>New business creation and sustainable</td>
<td></td>
</tr>
<tr>
<td>investment opportunities</td>
<td>employment</td>
<td></td>
</tr>
<tr>
<td>Invests in SMEs and</td>
<td>Improved corporate recovery</td>
<td></td>
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<tr>
<td>larger companies to</td>
<td>Improved corporate performance</td>
<td></td>
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<tr>
<td>support:</td>
<td></td>
<td></td>
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<tr>
<td>Start-up</td>
<td></td>
<td></td>
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<tr>
<td>Growth</td>
<td></td>
<td></td>
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<tr>
<td>Recovery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Succession</td>
<td></td>
<td></td>
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<tr>
<td>Provides managerial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>functions, business</td>
<td></td>
<td></td>
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<tr>
<td>standards and know-how</td>
<td></td>
<td></td>
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<tr>
<td>Corporate governance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management and industry expertise</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Frontier Economics (2013)
Iran is entering a new phase, where private equity can help drive growth especially in the SME and technology startup sectors.

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Iran can benefit from the experiences of these countries, but must also address fundamental issues in its economy.
According to a research, Finland, Korea, Malaysia and Vietnam are attractive VC-PE markets in 2016, Taiwan’s attractiveness decreasing.

Comparison of attractiveness of VC-PE sector by country

Source: IESE Business School, University of Navarra, *Venture Capital and Private Equity Country Attractiveness Index* (2016)
Finland, Korea, Malaysia and Taiwan exhibit different strength and weakness areas

IESE VC-PE country attractiveness index

Conclusion: developing equilibrium among the key drivers of VC and PE attractiveness is crucial
- These emerging markets present relatively attractive economic soundness and capital market infrastructure that is getting on par with developed markets
- However, “investor protection and corporate governance”, “human and social environment” and “business (entrepreneurial culture and deal) opportunities” are still poorly developed in all of these

Note: chart using scores for each driver; Asia average is weighted average of individual country data (Armenia, Azerbaijan, Bangladesh, Cambodia, China, Hong Kong, India, Indonesia, Japan, Kazakhstan, South Korea, Kyrgyzstan, Malaysia, Mongolia, Pakistan, Philippines, Russia, Singapore, Sri Lanka, Taiwan, Thailand and Vietnam) by GDP or population
Source: IESE Business School, University of Navarra, Venture Capital and Private Equity Country Attractiveness Index (2016)
Both macro-economic and societal factors as well as sector specific indicators contribute to measuring VC-PE attractiveness

### Six key drivers for VC-PE attractiveness index

<table>
<thead>
<tr>
<th>Drivers</th>
<th>Proxy</th>
<th>Sub-category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Economy</td>
<td>Total economy size (GDP), expected real GDP growth and unemployment</td>
<td></td>
</tr>
<tr>
<td>2. Depth of capital market*</td>
<td>Size of stock market</td>
<td>Market cap of listed companies and number of listed domestic companies</td>
</tr>
<tr>
<td></td>
<td>IPOs and public issuing activity</td>
<td>Market volume and number of issues</td>
</tr>
<tr>
<td></td>
<td>M&amp;A market activity</td>
<td>Market volume and number of deals</td>
</tr>
<tr>
<td></td>
<td>Debt and credit market</td>
<td>Ease of access to loans, credit information index and lending rate</td>
</tr>
<tr>
<td></td>
<td>SM liquidity (trading and volume), bank non-performance loans and financial market sophistication</td>
<td></td>
</tr>
<tr>
<td>3. Taxation</td>
<td>Tax and administrative burdens</td>
<td>Entrepreneurship incentive, number of tax payments and time spent on tax issue</td>
</tr>
<tr>
<td>4. Investor protection and corporate governance</td>
<td>Quality of corporate governance</td>
<td>Disclosure index, director liability index, shareholder suits index, legal rights index and efficacy of corporate boards</td>
</tr>
<tr>
<td></td>
<td>Security of property rights</td>
<td>Legal enforcement of contracts, property rights and intellectual property protocols</td>
</tr>
<tr>
<td></td>
<td>Quality of legal enforcement</td>
<td>Judicial independence, impartial courts, integrity of the legal system, rule of law and regulatory quality</td>
</tr>
<tr>
<td>5. Human and social environment</td>
<td>Education and human capital</td>
<td>Quality of educational system and quality of science research institutes</td>
</tr>
<tr>
<td></td>
<td>Labor market rigidities</td>
<td>Difficulty of hiring index, rigidity of hours index, difficulty of firing index and firing costs</td>
</tr>
<tr>
<td></td>
<td>Bribing and corruption</td>
<td>Bribing and corruption index, control of corruption and extra payments and bribes</td>
</tr>
<tr>
<td>6. Entrepreneurial culture and deal opportunities</td>
<td>Innovation</td>
<td>Innovativeness index and capacity for innovation</td>
</tr>
<tr>
<td></td>
<td>Science and technology journal articles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ease of starting and running a business</td>
<td>Number of procedures to start a business, time needed to start a business and costs of business start-up</td>
</tr>
<tr>
<td></td>
<td>Simplicity of closing a business</td>
<td>Time for closing a business and costs for closing a business</td>
</tr>
<tr>
<td></td>
<td>Recovery rate</td>
<td>Corporate R&amp;D and R&amp;D spending and utility patents</td>
</tr>
</tbody>
</table>

Source: IESE Business School, University of Navarra, *Venture Capital and Private Equity Country Attractiveness Index* (2016)
Korea pursued substitution, while Malaysia, Taiwan and Vietnam pursued complementary strategy, with effects on SME landscape

Comparison on national growth models

Korea (also Japan, China) (substitution strategy)
- State
  - Industrial policy
- Banks
  - Promotion
- Chaebols
  - Loan guarantees, mutual assistance
- SMEs
- MNCs

Singapore and Malaysia (compl. strat. – int’l model)
- Government
  - Local banks
- GLCs
- SWF
- MNCs
  - Foreign banks
- SMEs

Taiwan and Vietnam (compl. strat. – semi-int’l model)
- Government
- Banks
  - JVs
- Public enterprises
  - guangxiqiye
- MNCs
- SMEs

Note: MNC = multinational company, SME = small and medium sized enterprise, GLC = government linked company, SWF = sovereign wealth fund, SOE = 100% state owned enterprise
Source: Shin, Chang, *Restructuring Korea Inc.*, pp. 11-22; Ha Thanh, Nguyen & Klaus Meyer (2004); Van Chung, Vu (2015); Reddal analysis

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Vietnam pursues a semi-international complementary strategy with emergence of local conglomerates and weak links to SMEs

Comparison on national growth models

Vietnam (compl. strat. – semi-int’l model)

- The Vietnam model is closer to Taiwan, with JV between SOEs and MNCs accounting for 25% of FDI capital (2013), driven by government equity/license requirements in sensitive sectors and unique access to local knowledge and natural resources
- Vietnamese SOEs are not only owned but also managed by respective line industries/local governments with strong political patronage
- Recent privatization and restructuring efforts of SOEs are slowly turning them to GLCs, which are closer to the Singapore model
- Recent reforms since 1986 "Doi moi" and influx of overseas remittances from Vietnamese expatriates have also encouraged the emergence of a few local conglomerates
- Linkages with SMEs are weak as their capabilities are not strong enough to participate in the value chains

Note: MNC = multinational company, SME = small and medium sized enterprise, GLC = government linked company, SWF = sovereign wealth fund, SOE = state owned enterprise, ODA = official development assistance
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Finnish PE industry is characterized by high public sector participation and is now improving effectiveness

Overview of PE sector in Finland

- Large public sector participation
  - Finnish PE firms gathered increasing amounts of funds until the 2007 crisis, but after that the flows have stagnated
  - Government participation in the Finnish PE markets is among the highest in the world
  - R&D grants and loans, and public sector PE investments, make up a significant part of financing for Finnish growth companies

- Public sector network of players still too complex
  - Finnish policy for financing innovative enterprises has become more streamlined over time
  - Despite streamlining, Finland still has a complex public support structure for the venture ecosystem
  - In addition to organizations directly under MEE or otherwise parliamentary governance, many NGOs support startups

- Regulative changes needed for a functioning VC ecosystem
  - A weak point continues to be the lack of a functioning ecosystem between early and later-stage VC
  - Finnish Ministry of Employment and Economy aims to focus more on strengthening the VC ecosystem going forward
  - Process to improve the public sector contribution to growth company financing has been complicated and slow
  - Along the way, there has been clear input from both research and independent audits, but these have not been acted on fully
  - To increase venture capital attractiveness for foreign and domestic investors MEE is now pushing for legislative/regulatory changes

- Starting to learn what public policy is effective
  - Although Finnish public policy perhaps started in the wrong end, actions are now starting to hit the right areas
  - There has been good progress but some criticism still remains
  - Copying the YOZMA model to Finland may not be straightforward – there are several important differences
  - The YOZMA experience may provide some insight for how to set future Finnish public policy

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Finnish PE firms gathered increasing amounts of funds until the 2007 crisis, but after that the flows have stagnated.

Cash inflows, outflows and capital under management of Finnish PE firms, 1991-2013

Source: FVCA; figures are best estimates aggregated from Finnish PE investors and other VC associations and complemented with other sources of data.
Government participation in the Finnish PE markets is among the highest in the world

Government share of private equity markets – Finland versus peers

Direct government investments of public fund commitments 2008-2012
Percent

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>44%</td>
</tr>
<tr>
<td>Finland</td>
<td>38%</td>
</tr>
<tr>
<td>UK</td>
<td>33%</td>
</tr>
<tr>
<td>Norway</td>
<td>26%</td>
</tr>
<tr>
<td>Germany</td>
<td>24%</td>
</tr>
<tr>
<td>Sweden</td>
<td>15%</td>
</tr>
<tr>
<td>France</td>
<td>10%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>0%</td>
</tr>
</tbody>
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Direct government investments, 2008-2012
EUR/capita

<table>
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<tr>
<th>Country</th>
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</thead>
<tbody>
<tr>
<td>Finland</td>
<td>41</td>
</tr>
<tr>
<td>Norway</td>
<td>32</td>
</tr>
<tr>
<td>Sweden</td>
<td>24</td>
</tr>
<tr>
<td>Denmark</td>
<td>13</td>
</tr>
<tr>
<td>UK</td>
<td>6</td>
</tr>
<tr>
<td>France</td>
<td>5</td>
</tr>
<tr>
<td>Germany</td>
<td>1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0</td>
</tr>
<tr>
<td>Switzerland</td>
<td>0</td>
</tr>
</tbody>
</table>

Public participation totaled over 920MEUR or 27% of total fundraising in 2008-2012 while investments in Finnish portfolio companies were 3,4BEUR. EU peer average of public to total fundraising was 13%.

EU average was 14%
EU average was 3,4

R&D grants and loans, and public sector PE investments, make up a significant part of financing for Finnish growth companies

Financing of young (under 6 year of age) enterprises, 2007 – 2013

MEUR

Source: Tekes, Finnvera, FIBAN (gathered by FVCA)
During 2007 – 2012 the private share of funding steadily decreased, but in 2013 there was a clear increase.

Financing of young (under 6 year of age) enterprises, 2007 – 2013

Percent of total

- Other private (FVCA’s estimate)
- Business angels
- Finnish private PE firm
- Foreign private PE firm
- Public sector PE firm
- NIY (Tekes Innovative Young Growth Companies program)
- NII and VIGO
- R&D grants
- R&D loans

Private share slightly over 40% in 2013

Globally recognized success stories are important – uptick coincides with Supercell and Rovio (Angry Birds) success
Finnish policy for financing innovative enterprises has become more streamlined over time

Financing of innovative enterprises – policy mix and changes

Strategy for financing of innovative enterprises (according to MEE, 2013)

Sources of innovations
- Universities
- VTT
- Corporations
- Technology programs
- Investors, entrepreneurs
  - (Venture Cup)

Improving investment readiness
- Foreign investors
- Startups

Early stage VC funds
- Tekes and private investors
- Business angels
- Family offices

Growth funds
- Finnish Industry Investment (FII)

Venture capital funds

Grants to young innovative companies by Tekes and seed investments by Finnvera

Government investments of 500 MEUR during 10 years period through Tekes and FII

Tax incentives for business angels and for companies investing in R&D

Evolution of the policy mix

- Bringing continuity to the market with a fund of 1BEUR (over next 10 years, 60% FII, 40% TEKES) on top of earlier commitment of 100MEUR to FII and 40MEUR to TEKES
- Streamlining the seed and early stage government financing by clarifying roles of TEKES, FII, Finnvera
- Withdrawing from regional venture capital
- Changing priority from grants to equity investments
- Moving from direct investments to fund investments (fund-of-fund)
- Starting asymmetric profit sharing to attract private investors (TEKES)
- VIGO bringing capital and advice (from serial entrepreneurs)
- Privatising business angels’ networking operations (task taken over by FIBAN, Finnish Business Angels Network, independent organization)

Source: Counsellor Pertti Valtonen, MEE, Int'l conference on entrepreneurship and innovation, Dubrovnik, May 23-24, 2013; interviews

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Despite streamlining, Finland still has a complex public support structure for the venture ecosystem

Overview of main governmental funding organizations

<table>
<thead>
<tr>
<th>English name</th>
<th>Description</th>
</tr>
</thead>
</table>
| Tekes - The Finnish Funding Agency for Innovation | Most important publicly funded expert organization for financing R&D and innovation in Finland  
Mainly invests in smaller startups through NIY (Young Innovative Companies program) and VIGO programs  
Employs approximately 400 people in Finland and abroad, of whom 90 in regional Centres for Economic Development, Transport and the Environment (ELY Centres)  
In the future, Tekes seed fund investments will extend its role from technology grants towards seed and early-stage venture fund investments, taking leading role through fund-of-fund operations |
| Finnvera - specialized financing company owned by the State of Finland | Government run organization providing export financing (similar to KIEK) and financing in the SME sector (similar to KDB), operates mostly by granting or backing loans for companies  
Direct venture investments through Aloitusrahasto Vera Ltd (Avera) – investments are managed by Veraventure Ltd which also makes investments in regional investment companies  
Also makes PE investments through Matkailunkehitys Nordea Ltd investing in regional funds  
Has decided to give up direct and fund-of-fund type operations, funds and investments being divested now |
| Finnish Industry Investment (FII) | A fully government owned special purpose investment company, the biggest PE investor within public sector in Finland; assets under management 0.6B€, recently raised second growth fund (150MEUR)  
Has made PE investments directly, during A and B rounds, and through funds focusing on Finnish VC and small buyout funds (no seed investing); however, going forward will focus on fund-of-fund investments only  
In the old model, FII took a minimum of 10% stake in a company when investing, but never a majority share, and typically holds board seat (albeit rarely an active owner, more of an observer) |
| Finpro | Works to attract foreign direct investment into Finnish companies (similar to KOTRA)  
Also provides consulting in different phases of internationalization for Finnish companies (being privatized now)  
Going forward, public sector support via Finpro will focus on SME sector globalization |
| Sitra, The Finnish Innovation Fund | An independent public foundation which operates directly under the supervision of the Finnish Parliament  
Has been involved in various investment models, but now only fund-of-fund (direct investments have been formally ended); focuses on programs more going forward |
| Finn Fund, Finnish Fund for Industrial Cooperation | Finnish development finance company providing long-term risk capital for private projects in developing countries  
 Owned by the State of Finland (92,1%), Finnvera (7,8%) and Confederation of Finnish Industries EK (0,1%)  
Focuses on promising projects in challenging markets, where commercial financing is hard to obtain |

Source: Various, gathered from materials from above organizations (websites, reports, articles, interviews)
In addition to organizations under MEE or government, many NGOs support startups

Non-governmental players in startup ecosystem

Finnish Venture Capital Association
FVCA develops private equity and venture capital as an industry and promotes the interests of its members in Finland. FVCA is a member of the European Private Equity & Venture Capital Association (EVCA).

Aalto University, Helsinki area
Aalto University finances AaltoES (Entrepreneurship Society) and Startup Sauna directly, and it also offers premises to them (other leading universities are following this example also)

Startup-säätiö (Startup Foundation)
- The foundation supports entrepreneurship financing Startup Life, Startup Sauna and Slush as well as other ecosystem activities that help foundation achieve its goal (e.g. convertible loans to some Startup Sauna startups)
- Its equity upon starting was about one million euros of which €57 000 come from individual donors
- Sitra, the Finnish Innovation Fund, donated €300 000 and the rest of the money came from the Finnish Ministry of Economy and Employment, Tekes and Confederation of Finnish Industries

FIBAN
FIBAN is a Finnish, national, non-profit association of private investors that aims to improve the possibilities for private persons to invest in unlisted potential growth companies.

See separate presentation on Startup Sauna, where serial entrepreneur mentors help companies pro bono (while looking for investment opportunities).
In addition, Arctic Startup, a private local venturing newsletter covering Finland and surrounding countries plays a key role in information dissemination and community building (see arcticstartup.com)

Source: Various, gathered from materials from above organizations (websites, reports, articles, interviews)
A weak point continues to be the lack of a functioning ecosystem between early and later-stage VC

Finnish PE landscape

The market lacks venture capital funds with the ability to invest in 1MEUR+ financing rounds

“The key bottlenecks are lack of commercialization know-how, small investment sizes, large share of public sector and illiquidity of exit market. The underlying problems cannot be solved with additional liquidity alone as many are also qualitative in nature”

- Excerpt from the Ministry of Employment and Economy report, January 2014

*To be discontinued by 2017

Finnish Ministry of Employment and Economy aims to focus more on strengthening the VC ecosystem going forward

Illustration of public sector’s role in future in PE market development

Ministry of Employment and Economy has early stage ecosystem development in its joint effort’s focus

External and MEE internal assessments acknowledge that public sector organizations are still fragmented and lack integration, even though the overlap has been reduced.

Furthermore, some key market bottlenecks are out of the influence of these organizations (for example, taxation issues).

The process to improve the public sector contribution to growth company financing has been complicated and slow

Key steps in Finnish public sector evolution in the venture capital space

<table>
<thead>
<tr>
<th>Player</th>
<th>&quot;Clear roles&quot;</th>
<th>&quot;All under one roof&quot;</th>
<th>&quot;Streamline and avoid direct investments&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>FII</td>
<td>• FII to lead – failed, government did not have strong enough leadership</td>
<td>• Failed – government lacked muscle and funding</td>
<td>• Fund-of-fund (VC, PE)</td>
</tr>
<tr>
<td>TEKES</td>
<td>• TEKES: Mainly grants and loans</td>
<td>• No change in investment policies</td>
<td>• Grants, fund-of-fund (seed, very early stage), leverage VIGO; introducing asymmetric profit sharing</td>
</tr>
<tr>
<td>Finnvera</td>
<td>• Finnvera: Loans, investments</td>
<td></td>
<td>• Decided to phase out investments (both direct and fund-of-fund), focus on SME debt instruments</td>
</tr>
<tr>
<td>Sitra</td>
<td>• Sitra: Investments</td>
<td></td>
<td>• Phase out of direct investments, focus on programs, some fund-of-fund</td>
</tr>
<tr>
<td>Result:</td>
<td>• All players investing in overlapping manner, many programs that confused entrepreneurs, inefficiencies</td>
<td>• Overlap and lack of coordination continued</td>
<td>• In progress</td>
</tr>
</tbody>
</table>

MEE now focusing on ecosystem development and legislation

However, current situation still unclear and roles less than optimal – risk that big picture is lost (due to strong dependence on external parties) and loss of skills (due to transfer of task)

Source: Interviews, Reddal analysis
Along the way, there has been clear input from both research and independent audits, but these have not been acted on fully

Results from external research and independent audits of Finnish public sector

- Government should not be involved in direct investments

- Two audits (2009, international group of experts; 2010, Prof. Puttonen) suggested that all operations should be combined to one unit, and that all market term based investments should cease

- Josh Lerner also commented with similar views in his book

- Legislation (in particular tax) drives most market decisions, programs and funding are less effective

- Unfortunately, most of this advice has not been acted on with sufficient decisiveness

Source: Interviews; Lerner, Boulevard of Broken Dreams (2009)
To increase venture capital attractiveness for foreign and domestic investors MEE is now pushing legislative/regulatory changes

### Main legislative/regulatory bottlenecks for venture financing identified by MEE

<table>
<thead>
<tr>
<th>Action</th>
<th>Current situation</th>
<th>Probable estimated impact</th>
</tr>
</thead>
</table>
| Removing obstacles for foreign investments into funds in Finland | • Currently, investors from countries that do not have a tax treaty with Finland suffer double taxation and hence do not invest in funds in Finland  
• An easy solution would be to extend non-double taxation to include countries with which Finland has an information sharing agreement  
• While foreign direct investments do not suffer from similar double taxation, investing through funds would be less risky and a leaner approach | • Inflows on the order of 100MEUR+ in investments into funds in Finland both from foreigners and Finns living abroad  
• Would also reduce existing administration (currently some fund managers establish their fund outside the Finnish borders to avoid double taxation) |
| Making investments by foundations into PE funds tax exempt (similar to their investments into stock listed companies and mutual funds) | • Foundations and not-for-profit organizations can invest into stock listed companies and mutual funds tax-free profits, while their investments into PE funds are not; as a result, these investors with over 10B€ in assets do not participate in venture capital  
• The change would imply treating investments into PE funds under the same principles as investments into stock and mutual funds | • Given that this investor class has assets in excess of 10B€, even a small percentage reallocation would imply 100M€+ inflow into private equity/venture capital |
| Making private investments into PE funds taxation by capital gain tax (currently income tax) | • Investments by private individuals into PE funds are largely taxed by the high income tax rate; as a result, wealthy individuals choose not to invest directly because of the unfavorable taxation  
• Taxing private investments into PE funds by capital gains tax would make these investments more attractive | • Inflows on the order of 10M€+, and increased venture capital participation of wealthy individuals  
• Reduced administration and risk, as some direct investments would be replaced by fund investments |
| Making losses from loans to venture companies deductible in taxation | • Private individuals can deduct losses from direct investments during the following five years  
• Extending this to equity loans would simplify the investment process (since a formal valuation could be avoided) | • Inflows on the order of several M€  
• Increased participation of private individuals in venture capital |

Some changes are also proposed to improve the efficiency of the financial eco-system

Main legislative/regulatory bottlenecks for venture financing identified by MEE (cont’d)

<table>
<thead>
<tr>
<th>Action</th>
<th>Current situation</th>
<th>Expected impact</th>
</tr>
</thead>
</table>
| Extending intra-EU equity swap tax provisions (used in mergers) to cover also tax treaty countries | • Currently, in a merger or acquisition that is done via equity swap, the gains made (on paper) are immediately taxable if one of the companies is from outside EU, although no cash is exchanged in the transaction; this effectively stops this type of transactions  
• For transactions inside the EU, this is not the case; extending the same policy to companies outside EU would make this type of transactions feasible | • More effective M&A market, better opportunities for Finnish companies to enter into corporate transactions with foreign firms  
• More dynamic venture ecosystem, with improved connectedness to foreign markets                                                                                                                                                                                                                                                                                     |
| Removing double taxation from investments into listed investment companies | • While investments into stocks or mutual funds do not suffer from double taxation, investments into listed investment companies do; as a result, it is more difficult for listed investment companies to attract funds  
• Investments into listed investment companies should be treated similarly to investments into stocks or mutual funds (as in Sweden)                                                                                                                                                                                                                      | • Inflows on the order of 10M€+, and increased venture capital participation of private individuals  
• Improved liquidity of venture capital investment category                                                                                                                                                                                                                                                                                                  |
| Removing classification driven limitations of Finnish pension funds to invest in unlisted Finnish firms | • Unlisted companies are classified into the most risky class (“other investments”) when assessing solvency requirements of Finnish pension funds; this prevents larger allocation to this investment category (currently 3-5%, depending on pension fund)  
• Allowing some recategorization is reasonable since company data is readily available, monitoring occurs by both pension and PE/VC fund managers, and the risk is diversified (fund investments) | • An allocation increase of 1% corresponds to 1-2B€ inflow  
• The reallocation would not materially affect the solvency of pension funds                                                                                                                                                                                                                                                                                 |
| Implementing the government’s program to improve bond market and simplifying IPO | • The government has a structural policy program to improve the bond markets (including Finnvera) and to make IPOs easier (through First North)                                                                                                                                  | • Several 100M€ in bonds to SMEs  
• Sweden has 150 First North listings (Finland currently less than 10); could expect tens of listings more, and several 100M€ capital raised                                                                                                                                                                                                                     |

Although Finnish public policy perhaps started in the wrong end, actions are now starting to hit the right areas

Main categories of public initiatives to stimulate new venture activity by Lerner

Increase demand 1: Enhance entrepreneurial climate
- Getting laws right (to allow the type of complex contracts required between firms, employees, financiers and partners)
- Ensuring access to cutting edge technology
- Creating tax incentives or removing barriers (to attract more entrepreneurs)
- Training potential entrepreneurs

Increase demand 2: Increase venture market attractiveness
- Allowing true partnerships (limited liability, tax flow-through) to attract investors (especially global investors)
- Creating well-functioning local markets (IPO, bonds)
- Accessing human capital abroad

Increase supply: Direct interventions to supply capital
- Defining the parties providing the capital
- Defining the amount and structure of funding available
- Potential "strings" attached, and follow-up/monitoring

Recommended order

…unfortunately the order has been reversed, perhaps causing lost time and money

…however, increasingly recent actions are starting to focus on the underlying drivers…

Like many countries, Finnish politicians and public sector has made the mistake of focusing excessively on increasing supply…

Source: Lerner, Boulevard of Broken Dreams (2009); interviews, Reddal analysis
There has been good progress but some criticism still remains

The good and the bad, based on comments from ecosystem participants

- The government continues to be active, and has been countercyclical

- Finland has had some world class success stories (Supercell, MySQL, Blancco, Linux; in 2014 facebook has acquired Moves and Pryte, and Google just announced acquiring drawElements; prior Google has acquired for example Jaiku) and has built solid technology competence areas (gaming and graphics, core IT, some hardware technology areas); increasingly an active venturing environment is being built up (especially Helsinki)

- Mid-cap buy-out PE is working well with good returns and experienced teams; in venture capital, several promising venture capital fund management teams

- Have not been able to hit root causes (such as tax/legislative barriers to create demand through increasing attractiveness to become an entrepreneur, attracting foreign and domestic private investors, and to leverage local academic and corporate science, research and technology so that cutting edge technology is made accessible to ventures)

- Failure to recognize the importance of global interconnections and adherence to global standards, as well as limited or no collaboration with key neighboring markets (such as Sweden, Russia, Germany). Let alone US, Israel or UK (Note! There has been several "study visits" and knowledge exchange, but not true operative collaboration which is critical for success)

- Still confusing and complex public sector network of players after 2 decades, funds spread too thin

- Weak owner, lack of leadership – the government has let the organizations under it act and decide on their own; at times, quite non-transparent and haphazard decisionmaking

- Feedback in the form of research results and audit results have not been acted on decisively, and evaluation of programs and actions has not been fully transparent; no public scrutiny or benchmarking of domestic fund performance where public sector has been a key investor

- Few venture backed companies have risen to the Helsinki stock exchange (in US 13%, Finland about 8%)

Source: Lerner, Boulevard of Broken Dreams (2009); interviews; Reddal analysis

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If we look at the Finnish public efforts using Lerner’s criteria, the results are mediocre but with some improvements expected.

### Evaluation of Finnish public efforts based on Lerner’s framework

<table>
<thead>
<tr>
<th>Category</th>
<th>Key elements</th>
<th>Current status</th>
<th>Expected developments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Things to emphasize</td>
<td>Build the environment for ventures first</td>
<td>Good</td>
<td>Increased focus on legal/regulative</td>
</tr>
<tr>
<td></td>
<td>Leverage local research effectively</td>
<td>Mediocre/poor</td>
<td>Aalto ES/Startup factory</td>
</tr>
<tr>
<td></td>
<td>Conform to global standards</td>
<td>Mediocre/poor</td>
<td>Increased focus on legal/regulative</td>
</tr>
<tr>
<td></td>
<td>Let market provide directions</td>
<td>Mediocre</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Avoid &quot;overengineering&quot; of programs</td>
<td>Good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recognize the long lead times</td>
<td>Poor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Avoid programs that are too small or too big</td>
<td>Mediocre</td>
<td>Expect better coordination</td>
</tr>
<tr>
<td></td>
<td>Understand the need to connect with entrepreneurs and investors overseas</td>
<td>Poor</td>
<td>Private sector partially covers this</td>
</tr>
<tr>
<td></td>
<td>Institutionalize careful evaluations</td>
<td>Mediocre</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adapt programs flexibly (refine/kill)</td>
<td>Mediocre</td>
<td>Taking some steps now</td>
</tr>
<tr>
<td></td>
<td>Seek to actively minimize &quot;agency problems&quot;</td>
<td>Mediocre</td>
<td>Increased market participation</td>
</tr>
<tr>
<td></td>
<td>Make education part of the initiative (overseas investors, local entrepreneurs, public sector)</td>
<td>Mediocre</td>
<td>Private sector partially covers this</td>
</tr>
<tr>
<td>Things to avoid</td>
<td>Unqualified mandates to local institutional investors to make larger allocations to VC</td>
<td>Poor</td>
<td>No improvement in near term</td>
</tr>
<tr>
<td></td>
<td>Substantial up-front tax incentives</td>
<td>Potential issue</td>
<td>Some tax incentives planned</td>
</tr>
<tr>
<td></td>
<td>Reliance on intermediaries to manage programs</td>
<td>Issue in some cases</td>
<td>Expect increased scrutiny</td>
</tr>
<tr>
<td></td>
<td>Matching ill considered incentives offered by other governments</td>
<td>(VIGO)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No issue</td>
<td></td>
</tr>
</tbody>
</table>

Source: Lerner, Boulevard of Broken Dreams (2009); interviews, Reddal analysis

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The weakness of Finnish public efforts stem mainly from excessive domestic focus, and inability to renew efforts actively

Evaluation of Finnish public efforts based on Lerner’s framework

<table>
<thead>
<tr>
<th>Key elements (weak areas)</th>
<th>Current status/commentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Leverage local research effectively</td>
<td>• Mediocre/poor; some universities and professors are more active, but the role of technology transfer offices has been weak (in most cases licensing has been cumbersome and focused on short-run returns)</td>
</tr>
<tr>
<td>• Conform to global standards</td>
<td>• Mediocre/poor; legislative barriers for foreign investment still significant</td>
</tr>
<tr>
<td>• Let market provide directions</td>
<td>• Mediocre; in practice FII participates in all local VC funds with a significant stake, and is considered a gatekeeper; MEE attempts to introduce asymmetric profit sharing has not succeeded; a broader approach to attract a range of specialized funds has not been taken</td>
</tr>
<tr>
<td>• Avoid “overengineering” of programs</td>
<td>• Mediocre; especially TEKES programs have been seen as bureaucratic</td>
</tr>
<tr>
<td>• Avoid programs that are too small or too big</td>
<td>• Poor; especially in the past efforts were split into small local fragments, and although this is starting to improve it is still an issue</td>
</tr>
<tr>
<td>• Understand the need to connect with entrepreneurs and investors overseas</td>
<td>• Poor; the public efforts in connecting internationally to drive the development of the entrepreneurial ecosystem have been ineffective (more recently &quot;Slush&quot; has started to change this in a massive way)</td>
</tr>
<tr>
<td>• Institutionalize careful evaluations</td>
<td>• Poor; while there has been evaluations, they have not been acted on and in other cases the evaluations have been overly positive; performance data not actively publicized, nor is comparative data on program effectiveness</td>
</tr>
<tr>
<td>• Adapt programs flexibly (refine/kill)</td>
<td>• Mediocre; adjustments have been slow despite explicit recommendations</td>
</tr>
<tr>
<td>• Seek to actively minimize “agency problems”</td>
<td>• Mediocre; there is little turnover of staff, essentially creating a stale network of key decisionmakers</td>
</tr>
<tr>
<td>• Make education part of the initiative (overseas investors, local entrepreneurs, public sector)</td>
<td>• Mediocre; while there is considerable educational programs towards entrepreneurs, few are effective; at the same time, inadequate efforts have been made to educate overseas investors and the public sector</td>
</tr>
<tr>
<td>• Unqualified mandates to local institutional investors to make larger allocations to VC</td>
<td>• Poor; due to inwardly focused programs with mainly domestic participants, it seems fair to say that market have been flooded by capital to some degree (with resulting poor returns among all government entities investing directly)</td>
</tr>
</tbody>
</table>

Source: Lerner, Boulevard of Broken Dreams (2009); interviews, Reddal analysis
Copying the YOZMA model to Finland may not be straightforward – there are several important differences

Views on applying YOZMA model in Finland

• While asymmetric profit sharing could be implemented (FII has not used it, but TEKES will apply it going forward) it is believed that another key element – strong networks* – is missing (US-Israel networks in the venture capital ecosystem much stronger than those of US-Finland)

• Israel may benefit both from the high technology activity (partly driven by military activity) as well as higher isolation than the European countries (leading VCs have mainly located their office only in London, and instead staffers travel to most European cities, including hot spots like Berlin and Stockholm)

• Currently obtaining funds is not the key issue – the best Finnish companies can receive funding globally, and from top tier venture funds; the key bottleneck is having enough strong companies lead by strong founder-CEOs; thus focusing on funding mechanisms and funding availability might not have as much impact as it did in Israel

• (FII apparently has tried to impose some limitations in its fund investments, requiring investments into Finnish target companies, but this approach only works with B-tier and lower funds; for top notch funds FII is both too small and without negotiation power)

*In discussions with YOZMA the importance of the “Jewish network” was downplayed – asymmetric profit sharing had a bigger role according to YOZMA

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Some recent interviews and articles also highlight the need for professional leadership and building an international community.

**Perspectives on building a venture ecosystem in a city or region**

We are already the number-one start-up city in Germany. But that’s not enough. We want to be Europe’s leading start-up hub. To achieve this, we all have to pull together: politicians, established companies, organizations that support businesses, chambers of commerce and professional associations, and—of course—entrepreneurs. For a long time, key market players were completely unaware of start-ups. Happily, that is now all in the past. To take the next step, we need to continue improving our welcoming culture—that means offering additional multilingual support and making visits to government offices more customer friendly. We need to better deploy our excellent resources in research and academia to generate spin-off businesses, and for that we need universities to develop a more pronounced entrepreneurial spirit.

Additionally, we need to improve coordination among individual players: who offers what, who possesses what expertise, and who is the right person to contact.

-Klaus Wowereit, Mayor of Berlin

...the most successful share several important characteristics: an outstanding leader with a track record of delivering outcomes, direct access to top leadership, talented staff with excellent communication and problem-solving skills, and the ability to use soft power to influence ministries.

Based on the problem definitions and the identified root causes, delivery labs can also be used to assess whether existing solutions are still adequate. Some employ “premortem analysis,” a managerial tool used in the private sector to identify implementation obstacles (exhibit). In step one of such an analysis, all initiatives to be implemented are outlined. Then, delivery-lab participants are asked to imagine a worst-case scenario for each initiative and predict why it might fail. Next, responses to each potential failure are designed. To track the progress of initiatives, some start-up delivery units publish an annual report after a delivery lab.

Other countries can leverage the lessons learned from the Finnish public sector actions

Recommendations for public policy supporting venturing

1. Approach the process in the right order – before flooding market with funds (supply side), make sure to address issues on demand side (good entrepreneurial climate that attracts top notch founder-CEOs, and an attractive venture capital market that pulls in both foreign and domestic capital); while politicians like to "throw money at the problem", real impact requires fundamental adjustments (including both demanding legislative/regulatory changes, as well as cultural/mind-set change!)

2. Leverage the local academic scientific and industrial research base – make sure university technology finds a way into an effective commercialization process (connect all sources of technology into a well working entrepreneurial and venture finance ecosystem, ensure there are working mechanisms in place for fast practical and effective technology transfer, where rewards are shared based on success; avoid high upfront licensing fees)

3. Understand and respect the need for conformity to global standards, and the importance of global interconnections, nurture and build a true global community

4. Watch out for agency problems, fragmentation of efforts, overcomplicated public sector network of players, and institutionalize transparent and careful evaluations of initiatives (including broad based benchmarking)
Agenda

Iran is entering a new phase, where private equity can help drive growth especially in the SME and technology startup sectors.

Finland, South Korea, Malaysia and Vietnam have all gone – or are going – through a similar process and represent different stages of maturity.

Finland has built its private equity ecosystem step by step, but some gaps still remain.

Korean private equity is expanding rapidly, but is polarized and suffers from unclear and ever changing regulation.

Malaysian private equity is still early on, but can play a key role in building up SME capabilities, and has a strong SWF element.

Taiwanese private equity faces both challenges and opportunities, but seems to be in a political gridlock.

In Vietnam foreign capital is starting the private equity sector, but the legislative framework is still missing.

Iran can benefit from the experiences of these countries, but must also address fundamental issues in its economy.
Korean private equity market has some unique characteristics less seen in developed markets

Overview of PE sector in Korea

- **Fragmented capital allocation**
  - LPs place high importance on PE houses’ brand name; newly founded PE houses often need to work with major PE houses in order to raise funding
  - Registration requirement for PEF GP is 100MKRW capital; further, Financial Supervisory Service disqualifies those that lack track record; new PE houses often collaborate with incumbent PE houses to build track record
  - Some GPs collaborate with each other primarily to raise more funding (rather than to create real synergy)

- **LP controlled market**
  - Due to lack of track record among GPs when PEFs were introduced in 2004, LPs (most being government linked) had more control in deciding terms and conditions of limited partnership agreement (LPA)¹
  - Management fee rate of Korean GPs is comparatively lower than that of the U.S., at 1.12% and 2% respectively (as of 2012)

- **PE houses in corporate legal entity form**
  - GP/fund manager of PEFs are not categorized to belong to financial investment sector; many PE houses, or financial sponsors, when acting as GPs, use the form of a regular corporation rather than partnership or LLC (for example MBK, Han & Company, VIG)
  - Capital requirement of 1BKRW for VC firm to be certified by SMBA² limit individuals from founding VC firms as partnerships
  - For corporate PE and VC firms, developing a good bonus scheme is critical to incentivize employees; LPs pay close attention to bonus schemes when selecting GPs

- **Regulation of both fund managers and funds**
  - In the U.S. only fund managers with AUM over 150MUSD are subject to registration with SEC and there is no oversight of funds
  - In Korea, fund managers and their funds are subject to oversight by Financial Supervisory Service
  - PEF managers need to be "registered" while all other public and private fund managers need to be "certified"

Note: ¹“Hapja-hoesa” is the only legal form defined for domestic PEF; articles of PEF incorporation serves the same role as LPA; ²Small and Medium Business Administration

Source: Jipyung, PEF의 이해 (2016) pp.5 – 6; The Bell (www.thebell.co.kr); interview with a managing director of Korean VC firm
Korean PE industry development continues to be affected by policy; deregulation and tax breaks affect fund behavior

Korean PE industry history and key milestones

<table>
<thead>
<tr>
<th>Phase 1: Global player-led market</th>
<th>Phase 2: Local players enter</th>
<th>Phase 3: Growth and maturation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998 ...</td>
<td>2004</td>
<td>2016</td>
</tr>
</tbody>
</table>

**Introduction of general private funds**

**Description**
- General private fund
  - Relaxation of regulations applied to public fund introduced private fund
  - Funds that are privately offered

**Applicable law**
- FSCMA* 249

**Regulation**
- Exempt from diversification (less than 10% allowed within an industry), reporting and other requirements of public funds
- Must be registered as collective investment vehicle

**PE Fund**
- Introduced with an intent to encourage PE funds to engage in business model or corporate governance improvements via investment in equity interests
- FSCMA 268 ~ 278
- Must acquire more than 10% of equity shares
- Must invest (in total) more than 50% of fund into equity
- GPs do not have to be registered as collective investment vehicles

**PE for accredited investors** (hedge funds)
- Relaxation of regulations applied to PEF
- Only for accredited investors
- Introduced with an intent to facilitate corporate restructuring
- FSCMA 249 - 2
- Higher leverage of up to 300% of fund
- Must invest more than 50% of fund into company selected as restructuring target by government

**Implication**
Korean investment firms and the overall Korean private equity industry may have been distracted by all the regulatory changes – in some cases falling for “regulative optimization” rather than true performance development and capability building


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Starting with VCs early 2000, PE firms were soon introduced to counter foreign dominance of sector (post IMF). With deregulation opening the market, some players seem to have sought to optimize their operations based on regulative opportunities (typically leading to a multifaceted investment strategy). Due to complex and restrictive regulatory environment and government involvement, Korean PE firms have still less room to maneuver than their Western counterparts.

The effort to vitalizing PE market by relaxed regulations is ongoing, but has so far failed to fully foster value creation-based investment.

During the 2000s, the Korean private equity legal framework has developed a lot, and left its mark on the industry structure.

### Regulatory framework in Korea

**U.S. and European framework**

- Private equity
  - Venture capital fund
  - Buyout fund
  - Mezzanine fund
  - Vulture fund

- Hedge fund

**Korean framework**

- VC investment fund (2001)
- Korea Fund-of-Funds* (2005)
- New technology financing fund
- PEFs (2004)
- PEFs for corporate financial stability (2010 – 2016)
- PEFs for corporate restructuring (2009)
- PEFs for overseas resource development (2006)
- General private funds (1998)
- PEFs for accredited investors (2011)
- Specialized Investment Type Private Collective Investment Vehicle (2015)

**Remarks and implications**

- Starting with VCs early 2000, PE firms were soon introduced to counter foreign dominance of sector (post IMF).
- With deregulation opening the market, some players seem to have sought to optimize their operations based on regulative opportunities (typically leading to a multifaceted investment strategy).
- Due to complex and restrictive regulatory environment and government involvement, Korean PE firms have still less room to maneuver than their Western counterparts.
- The effort to vitalizing PE market by relaxed regulations is ongoing, but has so far failed to fully foster value creation-based investment.

*In Korea, PE fund-of-funds are only allowed under special cases to promote venture businesses.

Source: Han, Sangjin (2015); Financial Services Commission; Lee and Han (2013)

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The Korean PE industry has grown rapidly, with some recent build up of capital overhang

Korean PE industry capital allocation and number of funds

*1TKW is approximately 0.838BUSD using currency rate on 5/24/2016; **Financial Investment Services and Capital Markets Act (FSCMA); ***Figures adjusted based on modeling and Korean Capital Market Institute report

In particular small and medium funds have grown fast, creating a long tail of smaller players.

Number of PE funds by size, average fund size

Post 2011 data follows similar trend; In 2013, funds were comprised of 47 large, 76 medium and 114 small PEFS, with total average fund size around 1.7BKRW.

Source: Financial Supervisory Service (2011)
Top 5 PE houses out of 162 GPs accounted for more than 30% of total 51.2TKRW committed funds

Top 9 PE houses by fund size (committed, as of end of August 2015)

MBK Partners focus on large buyout deals in northeastern Asia, focusing on industrial manufacturing, consumer products and information, communication and entertainment sectors**

IMM targets mid to large deals (0.5 – 3BKRW) in growth companies; IMM have focused on bio and pharmaceutical industry historically, but is now diversifying its portfolio**

KDB has been focusing on corporate restructuring deals and has been operating as both LP and GP after merger with Korea Finance Corporation

Source: Jipyung, PEF의 이해 (2016)
Amendment to Capital Markets Act in 2015 introduced registration requirement for GPs’ of PE firms

### PE firm GP registration

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Registration requirement (249-15-1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital</td>
<td>Equal or more than 100MKRW* capital as of most recent fiscal year end</td>
</tr>
<tr>
<td>Executive</td>
<td>Needs to be appropriate as per “law on financial company’s governance structure”</td>
</tr>
<tr>
<td>Operating employees</td>
<td>Equal or more than 2 full time employees</td>
</tr>
<tr>
<td>Internal control system</td>
<td>Have appropriate internal control systems to estimate, evaluate and manage potential conflict of interest</td>
</tr>
<tr>
<td>Financial soundness</td>
<td>Need to meet financial requirements (only applicable to financial companies)</td>
</tr>
</tbody>
</table>
| Social reliability      | • No case of criminal violation of financial, monopoly and fair trade and tax related laws in past 3 years  
                          | • Has not been identified as distressed financial institute or had business registration or license revoked |

*100MKRW is approximately 100KUSD

Source: Financial Supervisory Service (www.fss.or.kr), Registration manual for management participation type PEF GP (2016)
PE firms in developed markets typically create a separate limited partnership or corporation to serve as GP for each fund they manage.

Typical PE firm structure in the U.S.

- **Investors (LP)**
- **Investment manager**
- **Management fee income**
- **Carried interest**
- **Salary**

**Partnership**

- Partners A, B and C in PE firm

**Corporation**

- Investors can receive capital gain treatment on their profits by using partnership structure for fund
- Executives are the carried interest holders, entitled to a share (typically 20%) of returns of fund after fund reaches certain return levels
- By being partners of GP1, partners are able to receive capital gains tax rate on the carried interests
- There can be separate entity to act as investment manager (investment management firm)
  - The investment management firm is usually related to (subsidiary of) PE firm
  - The general partner can be a partnership or corporation
  - Sometimes the GP and investment management firm are the same thing, with partners holding equity in the firm

Source: Duane Morris, *General structure for private equity funds; Feeder funds, parallel funds, AIVs and carry vehicles* (2014); Gilligan and Wright (2014)
Private equity firms use multiple layers of subsidiaries and set up separate paper companies to serve as GP for each fund.

**Private equity house structure: Carlyle Group**

- **Carlyle Holdings Limited Partners**
  - Limited partner interest in Carlyle Holdings partnership units*
  - 84%

- **Senior Carlyle professionals**
  - 100%

- **TCG Carlyle Global Partners L.L.C. (Delaware L.L.C.)**
  - Limited partner interest (84% of LP voting power) with no economic rights

- **Carlyle Group Management L.L.C. (Delaware L.L.C.)**
  - General partner and BOD with no economic rights

- **Common Unitholders***
  - Limited partner with 100% of economic rights and 16% of LP voting power

- **Exemplary**
  - Fee or carried interest generating entities are in essence GP or Investment Manager

---

*Unit refers piece of ownership in limited partnership and gives stake in income generated by partnership company; common units are partnership units where units are publicly traded on NYSE (Class A) or owned by GPs (Class B)

Source: Carlyle Group 10-K SEC filing (FY2015)
Unlike U.S. or U.K., Korean PE firm itself must act as general partner of its fund directly, rather than through a separate entity. 

Typical PE firm structure in Korea

- **Private equity firm (GP)**
  - Shareholders (usually one controlling owner)
  - Management fee income and carried interest
  - Capital and capital gains

- **Investors (LP)**
  - Capital gains, dividends, and interest

- **Executive A (LP)**
  - Capital and capital gains

- **Executive B (LP)**
  - Capital and capital gains

- **PEF 1**
  - Capital gains, dividends, and interest

- **PEF 2**
  - Capital gains, dividends, and interest

Source: Duane Morris, *General structure for private equity funds; Feeder funds, parallel funds, AIVs and carry vehicles* (2014); Gilligan and Wright (2014)

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Korean legislation puts undue burden on local PE players compared to players in mature markets

**Legislative challenges – comparison**

<table>
<thead>
<tr>
<th>Major regulations</th>
<th>U.S.</th>
<th>EU (UK)</th>
<th>Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Investment Advisers Act of 1949 section 203(b) exemption to registration requirement as adviser applies (if less than 15 funds in past 12 months)</td>
<td>• Investment Advisers Act of 1949 section 203(b) exemption to registration requirement as adviser applies (if less than 15 funds in past 12 months)</td>
<td>• Alternative Investment Fund Managers Directive (EU)</td>
<td>• Financial Investment Services and Capital market Act governs PEF and hedge funds</td>
</tr>
<tr>
<td>• Investment Company Act of 1940 allowed exemption of registration to private funds to SEC if meeting minority investor and</td>
<td>• Investment Company Act of 1940 allowed exemption of registration to private funds to SEC if meeting minority investor and</td>
<td>• Financial Services and Market Act of 2000 (UK) created FSA as a regulatory body for insurance, investment and backing</td>
<td>• Support for SME Establishment Act governs VC</td>
</tr>
<tr>
<td>• Title IV of Dodd-Frank Act of 2010 introduced registration and reporting requirement to private fund advisers with exemption option to advisers that advise solely VC funds, and private funds with AUM under 150MUSD and foreign private advisers</td>
<td>• Title IV of Dodd-Frank Act of 2010 introduced registration and reporting requirement to private fund advisers with exemption option to advisers that advise solely VC funds, and private funds with AUM under 150MUSD and foreign private advisers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary regulatory target</th>
<th>U.S.</th>
<th>EU (UK)</th>
<th>Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large private funds</td>
<td>Large private funds</td>
<td>Large private funds</td>
<td>All funds</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objective</th>
<th>U.S.</th>
<th>EU (UK)</th>
<th>Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>To manage systemic risk</td>
<td>To manage systemic risk</td>
<td>To manage systemic risk</td>
<td>To encourage funds to fit policy intents</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Restriction on fund type (VC, buyout or hedge)</th>
<th>U.S.</th>
<th>EU (UK)</th>
<th>Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Restriction on investment</th>
<th>U.S.</th>
<th>EU (UK)</th>
<th>Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

Source: Korea Capital Market Institute (2016)
Korean law limits scope of investments and thus returns PE firms can make

### Major types of private equity fund in Korea

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GP qualification</td>
<td>Registered asset management</td>
<td>Registered asset management</td>
<td>No restriction</td>
<td>Registered as private collective investment adviser</td>
<td>Registered as GP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fund registration</th>
<th>Prior to fund establishment</th>
<th>Post fund establishment</th>
<th>Prior to fund establishment</th>
<th>Post fund establishment</th>
<th>Post fund establishment</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Investor</th>
<th>No restriction</th>
<th>Government, financial institutions, listed companies</th>
<th>Individual with investment above 1BKRW</th>
<th>Government, financial institutions, listed companies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Individual with investment above 2BKRW</td>
<td>Corporation with investment above 500MKRW</td>
<td>Individual with investment above 500MKRW</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Real estate</th>
<th>Yes (minimum holding period of general property 3 years and other 1 year)</th>
<th>Yes (minimum holding period of general property 3 years and other 1 year)</th>
<th>Not allowed</th>
<th>Yes (minimum holding period of general property 2 years and no restriction for other)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity investment (with no intention to control)</td>
<td>Yes</td>
<td>Yes</td>
<td>Not allowed (only up to 5% of capital allowed)</td>
<td>Yes</td>
</tr>
<tr>
<td>Derivative investment</td>
<td>Yes</td>
<td>Yes</td>
<td>Not allowed</td>
<td>Yes</td>
</tr>
<tr>
<td>Guarantee for debt</td>
<td>Not allowed</td>
<td>Up to 50%</td>
<td>Not allowed</td>
<td>Yes</td>
</tr>
<tr>
<td>Leverage</td>
<td>Only within 10% of total capital</td>
<td>Up to 400% of capital allowed</td>
<td>Within 10% of capital (up to 300% via SPC*)**</td>
<td>Up to 400% of net capital</td>
</tr>
</tbody>
</table>

*Updated classification

**Previous classification

Needs to make equity investment above 10% of voting shares of the target or show intention to participate in management via other means recognized by law

Source: Financial Supervisory Service (2015); KPMG Issue Monitor (2014)

*Only one layer of SPC was allowed prior to amendment in 2015

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**Government controlled/semi-government pension funds currently hold a large share of Korean private equity capital commitments**

**Korean PE source of funds**

<table>
<thead>
<tr>
<th>Korean* PEF committed capital by type of LPs</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Pension fund and benefit association**</td>
<td>• A majority of contribution to Korean PE funds comes from (semi-)government organizations such as pension funds and benefit associations influenced strongly by public sector officials (in addition, many SMEs also depend on government funding and support)</td>
</tr>
<tr>
<td>- General corporations</td>
<td>• As semi-government organizations are risk-averse in nature, some GPs in Korea may have difficulties in developing their investment portfolio optimally</td>
</tr>
<tr>
<td>- Financial firms***</td>
<td>• However, financial firms and general corporations typically lead the investment due to strategic imperative to explore new value creation opportunities</td>
</tr>
<tr>
<td>- Individuals</td>
<td>• The market is still young; there is further capital growth potential with contribution from wealthy individuals, universities and foundations*</td>
</tr>
<tr>
<td>100% = 51.2TKRW</td>
<td></td>
</tr>
</tbody>
</table>

*Research by Korea Capital Market institute found that average contributions for foreign PEFs were 32% pension funds, 16% individuals, 15% institutions, and 9% universities, foundations and other (2014)

**National Pension, Teacher’s Pension, Government Employees Pension, Korea Post Insurance, and Military Mutual Aid Association, Korean Teacher’s Credit Union, Korean Finance Corporation, and others

***Financial firms refers to, but not limited to, commercial banks, insurance company, securities company, credit card company and savings bank

Source: Financial Supervisory Service, Preqin
Korean VC industry is driven by a government fund-of-fund as its major capital source

**Role of Korea Fund of Fund in Korean VC**

<table>
<thead>
<tr>
<th>Korea Fund of Fund structure</th>
<th>GP selection process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investors (Government LPs):</strong> SBC, MCST, KIPO, KOFIC, KCC, MOEL, MHW and KSPO</td>
<td>• Decide guidelines and criteria for KFoF asset allocation and GP selection</td>
</tr>
<tr>
<td><strong>Korea Fund of Fund (KFoF)</strong></td>
<td>• Announce fund scale, investment focus, main purpose, qualifications for application, selection criteria and schedule through KVIC home page</td>
</tr>
<tr>
<td><strong>Partnership funds:</strong> Venture Capital Fund (VCF) Korea Venture Fund (KVF)</td>
<td>• Quantitative evaluation on fund management company/team/plan</td>
</tr>
<tr>
<td><strong>SME and venture companies</strong></td>
<td>• On-site due diligence</td>
</tr>
<tr>
<td><strong>Korea Venture Investment Corporation (KVIC)</strong></td>
<td>• Compliance evaluation</td>
</tr>
<tr>
<td><strong>SMBA</strong></td>
<td>• Investment committee held</td>
</tr>
<tr>
<td>Establish and amend KFoF management plans</td>
<td>• Select an appropriate GP</td>
</tr>
<tr>
<td>Overseas KFoF management</td>
<td>• Contribute to a selected Partnership Fund</td>
</tr>
</tbody>
</table>

Source: Korea Venture Investment Corporation (www.K-vic.co.kr)
Leverage and operational contribution (revenue growth and operational efficiency) are primary value creation levers for global PE funds

Value creation in PE (realized buyout deals, worldwide)

- Financial leverage accounts for 31%
- Market multiple accounted for 18% of total value added
- Operational contribution (revenue growth and operational improvement) accounts for 51% of the total value added by PE firms

*Multiple effect due to an uplift in public market valuation; ** Multiple effect due to deal-specific multiple expansion, attributable to GP multiple expansion skills linked with qualitative operational improvements

Source: Analysis of 701 exits completed between 1990-2013 in North America, Europe and Asia-Pacific, Value Creation in Private Equity, Capital Dynamics and the Technische Universität München (June 2014)
There are several bottlenecks that need to be overcome to leverage the full value creation potential of Korean PE

Key issues in Korean PE market

**Fragmented capital allocation**
- Due to short history, majority of local GPs lack concrete track record and reference cases, which may have limited their ability to raise anything more than fairly small project funds
- Majority of contribution to Korean PE comes from semi-government organizations such as pension services and benefit associations which are risk averse by nature and may be reluctant to allocate large investment amounts to a single fund
- PE firms with small project funds may have difficulties in allocating enough capital to an individual deal to gain control

**Lack of attractive targets with growth potential**
- Many SMEs are suffering from low profitability and growth due to being “captured” by domestic markets and customers (often large conglomerates with large purchasing power)
- Cultural tendency to not differentiate clearly between ownership and management; control held in the hands of few individuals, in some cases with limited capabilities to lead company to international growth (this, together with highly compartmentalized management culture also makes it difficult for PE firms to make organizational changes for improved revenue and operational efficiency)
- Some early attempts at creating value through taking operative control were not very successful, some PE firms lack staff members with in-depth operative experience (including global expansion)

**Limited exit paths**
- Domestic M&A market (which has played a key role) getting more challenging due to economic situation
- There are only a limited number of domestic buyers with enough capital to purchase portfolio companies through trade sale (especially larger deals)
- Secondary market is starting to develop recently but still is not as active as it is in mature markets
- Albeit this is changing, there is still some negative public sentiment when Korean companies are sold off to foreign entities; an addition, acquiring Korean companies can be difficult for foreign companies lacking the language skills and cultural insight

Source: Korea Development Institute Journal of Economic Policy (2016); Interview with market experts
Small fund size coupled with fairly low leverage affect investment strategies, with some players doing mainly minority share investments

Fund size and leverage comparison

Average committed capital per PE fund (2015)

<table>
<thead>
<tr>
<th></th>
<th>Korean* (BKRW)</th>
<th>Global** (BKRW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>185</td>
<td>1,012</td>
</tr>
</tbody>
</table>

In Korea, up to 300% leverage is allowed for PEs through use of SPC (special purpose company)

PE fund investment leverage***

- With an exception of a few funds by leading GPs, many PE funds are small-sized project funds, where LPs have a visibility in investment targets prior to committing capital (and can put strict requirements on which deals are made)
- Small fund size and restrictions on leverage may drive investment strategies to minority share investments, which does not give GPs sufficient control (there are also regulatory and cultural factors affecting this)

“In Korea, up to 300% leverage is allowed for PEs through use of SPC (special purpose company)"

“Most well-performing SMEs have strong owner-dependency; their performance drops if owner leaves.”

“There is a cultural tendency not to differentiate between ownership and management.”

M&A has accounted for primary exit strategy for Korean PE funds, but the economic downturn is putting brakes on this path

Exit strategies overview

<table>
<thead>
<tr>
<th>PEF exit strategies (share of aggregate exit value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M&amp;A (trade sale)</td>
</tr>
<tr>
<td>Korean PEF (2005-2014)</td>
</tr>
<tr>
<td>U.S. PEF (2008)</td>
</tr>
<tr>
<td>European PEF (2008)</td>
</tr>
</tbody>
</table>

Remarks

- M&A market has been driven by largely by Korean conglomerates buying up targets
- IPO of companies with PE fund as largest shareholder has been limited by KRX (main exchange)
- Secondary market is still in an early stage compared to matured markets
- Leveraged recapitalization has been increasing as a partial exit method due to difficulties to find a proper exit

Leveraged recapitalization substitutes some of the company’s equity with additional debt, usually done by the company raising money by borrowing from a bank or issuing bonds, which amount is then used to repurchase the company’s own shares from the investor

Korean conglomerates are seeing lower growth and profit; this will trickle down the value chain to the SMEs supplying them.

Growth and profitability of Korean SMEs and conglomerates compared to GDP

*Source: World Bank*
SMEs in Korea are highly dependent on domestic conglomerates

Korean SMEs’ (domestic) customer breakdown

- Diversification of the customer base is key to successfully move to a virtuous cycle for SMEs, but often SMEs feel a sense of loyalty to the local conglomerates and do not actively pursue other customers.
- Although a cultural barrier exists, the attitudes are changing; some conglomerates view positively an SME that can sell its products also to Western competitors (in the hopes that this would develop their offering further, and thus in turn help the Korean conglomerate).

*Including conglomerates and mid-to-large sized firms
Source: Kbiz Korea Federation of SME report, 2014
Dependence on (local) conglomerates drives weak bargaining power of SMEs

**Korean SME bargaining power**

SMEs cost and final price change (2012 – 2014)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Profit</th>
<th>SG&amp;A</th>
<th>Labor cost</th>
<th>Raw material cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>100%</td>
<td>5%</td>
<td>70%</td>
<td>5%</td>
</tr>
<tr>
<td>2014</td>
<td>3%</td>
<td>5%</td>
<td>22%</td>
<td>74%</td>
</tr>
</tbody>
</table>

Reasons for weak end price**

- Some costs not reflected (11%)
- Weak bargaining power (51%)
- Competition (37%)

Cost increase during 2012 – 2014 is about 7% whereas price increase during the same period is about 4%, resulting in lower SME profits.

*Proportion of cost items are arbitrarily set for better understanding **Weak bargaining power includes ‘customer refused to increase price’, ‘only partial increase agreed’, ‘price reduced uniformly without proper reason’

Source: Kbiz Korea Federation of SME report, 2014
On an overall level Korean SMEs do not seem to actively drive global expansion

**SMEs contribution to export**

Compared to countries with similar population size (35-75M), Korea shows the second lowest share of SME exports.

Compared to local conglomerates, only a small ratio of Korean SMEs are exporting, and the ratio is decreasing.

Source: Entrepreneurship at a Glance 2015, OECD, 2015; SMBA
The hidden issue of Korean economy is that the SME sector is extremely inefficient yet it employs a large share of the population

SMEs contribution to overall economy by country

SMEs share of total employment in 2012

* Used 2013 number of labor forces and 2016 GDP for Iran and 2014 data for Korea and the U.S.; **Used 2013 data for Korea

Source: 1OECD, Compendium of Productivity Indicators (2016); 2OECD, Entrepreneurship at a Glance (2015); 3Ministry of economic affairs of the R.O.C and The conference board total economy database; 4General Statistics Office of Vietnam; 5Statistical Center of Iran (www.amar.org.ir)
Even in global terms, Korean SMEs poor productivity and role in employment stands out

SMEs contribution to overall economy by country (full list of countries)

SMEs share of total employment\textsuperscript{2} in 2012\textsuperscript{**}

\[\text{SMEs share of total employment\textsuperscript{2} in 2012\textsuperscript{**}}\]

\[\text{GDP per hour worked\textsuperscript{1} in 2015\textsuperscript{*}}\]

\textsuperscript{*Used 2013 number of labor forces and 2016 GDP for Iran and 2014 data for Korea and the U.S.; **Used 2013 data for Korea.

Source: \textsuperscript{1}OECD, Compendium of Productivity Indicators (2016); \textsuperscript{2}OECD, Entrepreneurship at a Glance (2015); \textsuperscript{3}Ministry of economic affairs of the R.O.C and The conference board total economy database; \textsuperscript{4}General Statistics Office of Vietnam; \textsuperscript{5}Statistical Center of Iran (\url{www.amar.org.ir})
High dependence on local conglomerates can trap SMEs into vicious cycle, but this can be broken by customer diversification

Korean SME vicious vs. virtuous cycle

**Vicious cycle**
- Focus on serving local conglomerates
- Bargaining power falls
- Price squeeze
- Profit falls
- Inability to invest in development and attract new talent, morale falls
- Loss of competitiveness
- SME’s dependence on (Korean) conglomerates

**Virtuous cycle**
- Focus on internationally competitive technology and products, and expansion abroad
- Acquire new customers, expand further
- Ability to command price premium and maintain profit
- Bargaining power increases
- Increased product/service differentiation
- Optimized resource allocation
- Operations based on market/competition

Moving to virtuous cycle can be realized by providing SMEs with global-minded management capability, competitive talents pool, and network and insights in international market

"Price squeeze is inevitable and comes by direct price-cut request or increased vendor competition”
- Head of gov. agency

"Working with chaebols often provides SMEs with solid skills”
- Manager of consulting firm

"As local market is limited, diversifying the customer base globally is key for growth”
- CEO of local IT SME

"As local market is limited, diversifying the customer base globally is key for growth”

Source: Interviews

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Bio-/medical technology, AR/VR and digital media are some of the sectors where strong Korean SMEs can emerge

Potential emerging technology sectors

- The bio-/medical technologies of Korean SMEs have the least technology gap compared to most developed countries
- About 22% of Korean bio-/medical SMEs believe their technologies outrun US tech.
- Most developed technological abilities in Korea are manufacturing, operations and maintenance, reaching about 79% vs. world top class

<table>
<thead>
<tr>
<th>Bio/medical technology</th>
<th>AR/VR</th>
<th>Digital media</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Korean SMEs’ technology gap compared to other countries</strong>&lt;br&gt;Years ahead (- means years behind)&lt;br&gt;USA -0.7 -1.3&lt;br&gt;Japan -0.9 -1.1&lt;br&gt;Germany -0.6 -0.9</td>
<td><strong>Korean VR market size estimates</strong>&lt;br&gt;TKRW&lt;br&gt;2016 1.4&lt;br&gt;2020 5.7</td>
<td><strong>Revenue of Korean TV broadcast by type</strong>&lt;br&gt;TKRW&lt;br&gt;2010 10&lt;br&gt;2011 12&lt;br&gt;2012 13&lt;br&gt;2013 14&lt;br&gt;2014 15</td>
</tr>
</tbody>
</table>

- *The market size continues growing*
- Opportunity to diversified offering and revenue model
- Also, new trend around transmedia is emerging; Korea is well positioned utilizing widespread mobile and broadband adoption, broad application base and high media consumption rate of Korea

- Revenue from sales of devices as well as contents is expected to grow to 5.7TKRW by 2020
- Korean companies have both H/W (Samsung’s Gear VR) and S/W (plenty of game developers) competency
- This year, Korean government vowed to invest 41BKRW in the VR industry through 2016, totalling 185BKRW by 2018

*Traditional includes satellite, cable, ground wave TV broadcast. **Others include home shopping and diverse composition channels

Benchmarking Japanese market, businesses promoting sharing economy may present attractive investment opportunities in Korea

Potential attractive SME sectors

### Car sharing

- Global car sharing market
- Number of cars

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2008</th>
<th>2010</th>
<th>2012</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>11,500</td>
<td>19,400</td>
<td>32,000</td>
<td>55,400</td>
<td>92,200</td>
<td></td>
</tr>
</tbody>
</table>

+30% growth from 2006 to 2014

- Car sharing market is growing fast globally
- Japanese market has shown even more rapid growth at 100% CAGR during 2002-2016

### Second hand trading

- Market size in revenue
- BKRW

<table>
<thead>
<tr>
<th>Country</th>
<th>2012</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>4,700</td>
<td>564</td>
</tr>
<tr>
<td>Korea</td>
<td>+733%</td>
<td>+30%</td>
</tr>
</tbody>
</table>

- Korean second hand trading market is still at initial stage with relatively small revenue
- Second hand trading market in Japan has grown at 12% CAGR during 1997-2012

Korea may see similar growth as Japan in sharing industries as both countries experience similar social and economic trends (including long-term recession/low employment rate, increased polarization, deregulation, and increasing environmental concerns)

Source: Investor market report by leading financial institution
There are also other special segments that have shown strong growth in Japanese market which could expand in Korea

Potential growth sectors in Korea based on evolution in Japan

<table>
<thead>
<tr>
<th>Industry</th>
<th>Growth rate in Japan</th>
<th>Korean market size estimate</th>
<th>Growth driver</th>
<th>Key players (Korea)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition supplement</td>
<td>6%</td>
<td>1.5TKRW (2014)</td>
<td>• Aging population</td>
<td>• KT&amp;G</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Interest growth for health/diet</td>
<td>• Natural EndoTech</td>
</tr>
<tr>
<td>Funeral prepayment</td>
<td>4%</td>
<td>3.7TKRW (2015)</td>
<td>• Low birth rate/super aging society</td>
<td>• PreedLife</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Growth of death rate</td>
<td>• Boram Sangjo</td>
</tr>
<tr>
<td>Car tuning</td>
<td>12%</td>
<td>500BKRW (2013)</td>
<td>• Deregulation</td>
<td>• Tuix</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Car market mature</td>
<td>• Tuon</td>
</tr>
<tr>
<td>Frozen food</td>
<td>5%</td>
<td>1.6TKRW (2014)</td>
<td>• 1-2 persons’ family</td>
<td>• CJ Cheil Jedang</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Aged family</td>
<td>• Dongwon F&amp;B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Convenience/storage</td>
<td>• Haetai food</td>
</tr>
<tr>
<td>DIY</td>
<td>7%</td>
<td>80BKRW (2010)</td>
<td>• Baby boomer retirement</td>
<td>• KCC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Increased leisure time</td>
<td>• Hanhwa L&amp;C</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>• Permanent low growth of economy</td>
<td>• Hansaem</td>
</tr>
<tr>
<td>Pet care</td>
<td>4%</td>
<td>1.8TKRW (2015)</td>
<td>• Baby boomer retirement</td>
<td>• Daehan pet food</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Urbanization/nuclear family increase</td>
<td>• Daeju</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• “Pet as a family member” concept</td>
<td>• Cheonhajaeil pet food</td>
</tr>
<tr>
<td>Parking lot management</td>
<td>8%</td>
<td>1.1TKRW (2015)</td>
<td>• Increased charge parking areas</td>
<td>• Hi Inno Service</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Strict regulation/fee</td>
<td>• GS Park 24</td>
</tr>
</tbody>
</table>

Source: Investor market report by leading financial institution
Iran is entering a new phase, where private equity can help drive growth especially in the SME and technology startup sectors

Finland, South Korea, Malaysia and Vietnam have all gone – or are going – through a similar process and represent different stages of maturity

Finland has built its private equity ecosystem step by step, but some gaps still remain

Korean private equity is expanding rapidly, but is polarized and suffers from unclear and ever changing regulation

Malaysian private equity is still early on, but can play a key role in building up SME capabilities, and has a strong SWF element

Taiwanese private equity faces both challenges and opportunities, but seems to be in a political gridlock

In Vietnam foreign capital is starting the private equity sector, but the legislative framework is still missing

Iran can benefit from the experiences of these countries, but must also address fundamental issues in its economy
PE is still in an early stage in Malaysia, although it is gaining popularity among investors and companies

Overview of PE sector in Malaysia

Current PE landscape still young in Malaysia

- The private equity industry in Malaysia is still at a nascent stage; however, the government expects this sector to become more prominent and crucial as the country adapts to new realities in the market
- Foreign investors are still leery of funnelling capital into Malaysia as risk is perceived to be too high; deals are expected to come largely from domestic institutional investors and Malaysian government-owned private equity company, as long as the political uncertainty remains

Many government initiatives to develop the PE/VC landscape

- The Malaysian Government wants to build a new economic model that is more dependent on innovation and productivity; it actively encourages the development of Private Equity (PE) and Venture Capital (VC), aiming it to become the next engine of economic growth that will take Malaysia into the ranks of high income nations
- The Securities Commissions’ (SC) regulatory framework, has been tailored to allow progressive development taking into consideration the distinct needs and nuances of Malaysia’s VC/PE landscape; where appropriate, the SC has liberalised certain requirements to accord greater flexibility and better accommodate VC/PE activitie
- At present, most of these initiatives are focused on attracting companies in certain growth sectors such as information and communication, multimedia and bio-technology and renewable energy

Future outlook of the PE landscape in Malaysia is positive

- Deal outlook for the next 2 – 3 years vs 2015 is likely to improve, with GP networks building up, and South East Asia being a more attractive alternative to China
- Malaysia currently ranks 11th out of 125 countries assessed in the Venture Capital & Private Equity Country Attractiveness Index, garnering international recognition which reflects the growth prospects of Malaysia’s VC/PE sector

Private equity funds in Malaysia are presently lightly regulated, with taxation laws governing its structure

Malaysian PE industry history and key milestones

**Venture Capital Tax Incentives**
Guidelines introduced

**Malaysian venture capital industry established**

**Type**
Venture Capital and Private Equity

**Description**
- These guidelines set out the types of incentives available for the venture capital industry and the qualifying criteria or requirements which must be fulfilled before a certification can be granted

**Guidelines**
Section 377, CMSA* 2007

**Regulation**
- Financing provided by the applicant for the venture companies must be utilised at seed, start-up or early stage
- Where the applicant is a company, the investment made by the applicant should not be in a venture company which is a related company at the point of first investment

**Venture Capital and Private Equity**

**Implication of a lightly regulated regulatory oversight**
A rise in the risk of fraud, insider trading, market manipulation and conflicts of interest. The adequacy of risk management procedures and asset valuation mechanisms has also been called into question.

*Capital Markets and Services Act
Source: Securities Commission Malaysia

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Malaysia’s regulatory framework is at a nascent stage, with a lightly regulated PE and hedge fund ecosystem

Regulatory framework in Malaysia

U.S. and European framework
- Private equity
  - Venture capital fund
  - Buyout fund
  - Mezzanine fund
  - Vulture fund
- Hedge fund

Malaysian framework*
- Section 377 of the Capital Markets and Services Act 2007
- Section 76 of the Capital Markets and Services Act 2007
- No guidelines exist, but the closest regulations would be “Guidelines on Unit Trust Funds (2008)” and “Guidelines on Wholesale Funds (2009)"
- Income Tax (Exemption)(Amendment) (No. 2) Order 2006
- Income Tax (Exemption)(Amendment) Order 2009
- Income Tax (Deduction for Investment in a Venture Company) Rules 2005

Remarks and implications
- The Securities Commission’s (SC) regulatory framework has been tailored to allow progressive development of Malaysia’s VC/PE landscape.
- The SC has liberalised certain requirements to accord greater flexibility and better accommodate VC/PE activities, ensuring firms are well-managed with adequate capital and personnel of sufficient experience and expertise.
- The SC has taken a pragmatic and proportionate approach in regulating the VC/PE sectors, which is consistent with that taken by other comparable jurisdictions globally, such as Singapore, Hong Kong, and the US.

Source: Securities Commission Malaysia
*Verbally confirmed over a phone call with Securities Commission Malaysia
Sovereign wealth funds and government investment companies contribute to 50% of PE investment flows in Malaysia for the year 2015

PE by source of funds in Malaysia

- Sovereign wealth funds and government investment companies: 50%
- Government agencies: 38%
- Foreign investors: 2%
- Corporate investors: 6%
- Others: 4%

Remarks

- The government, which aims to reduce the domestic economy’s dependence on state-owned companies, is encouraging private-equity financing to help small businesses expand, and the country’s largest state-run pension fund is leading the way by allocating more funds to private-equity investments.
- In the recent 2017 Budget Announcement, the Malaysian government allocated 3BMYR from government investment companies to provide financing to potential companies, which in turn will boost trading activities of the SMEs and help rejuvenate liquidity and sentiment on the local bourse.

Source: SME Annual Report 2015/16, SME Corp Malaysia; "Malaysia Attempts to Spur Private Equity", Wall Street Journal; 2017 Budget, Ministry of Finance Malaysia
Intrinsically Malaysia should be a competitive investment target for private equity

Malaysia against peers’ attractiveness for PE and VC

<table>
<thead>
<tr>
<th>Rank</th>
<th>Economic Activity</th>
<th>Depth of capital market</th>
<th>Taxation</th>
<th>Investor protection and corporate governance</th>
<th>Human and social environment</th>
<th>Entrepreneurial culture and deal opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Singapore</td>
<td>91.7</td>
<td>85.1</td>
<td>105.8</td>
<td>111.7</td>
<td>102.4</td>
</tr>
<tr>
<td>5</td>
<td>Hong Kong</td>
<td>92.0</td>
<td>90.7</td>
<td>104.8</td>
<td>107.9</td>
<td>96.4</td>
</tr>
<tr>
<td>7</td>
<td>Japan</td>
<td>95.1</td>
<td>87.4</td>
<td>105.5</td>
<td>93.5</td>
<td>88.4</td>
</tr>
<tr>
<td>11</td>
<td>Malaysia</td>
<td>95.7</td>
<td>83.7</td>
<td>99.6</td>
<td>90.6</td>
<td>70.9</td>
</tr>
<tr>
<td>20</td>
<td>South Korea</td>
<td>96.0</td>
<td>76.1</td>
<td>106.9</td>
<td>77.9</td>
<td>62.0</td>
</tr>
<tr>
<td>22</td>
<td>Taiwan</td>
<td>89.9</td>
<td>80.8</td>
<td>113.8</td>
<td>82.3</td>
<td>56.1</td>
</tr>
<tr>
<td>24</td>
<td>China</td>
<td>108.4</td>
<td>86.7</td>
<td>110.6</td>
<td>57.8</td>
<td>50.9</td>
</tr>
</tbody>
</table>

Source: The Venture Capital & Private Equity Country Attractiveness Index, IESE Business School, University of Navarra
Telecom and ICT/Internet dominate fund flows

Sector focus of the PE investments in Malaysia

Focus on deals in Malaysia is a reflection of the TMT trend in Southeast Asia

- Most PE firms in Southeast Asia follow a straightforward growth thesis, with current focus on deals in technology, media and telecommunications (TMT)
- There are approximately 102 million households in the region that were projected to achieve middle class status in 2015, which in turn creates investment opportunities in TMT

Malaysia’s initiative to finance high technology companies

- The Government set up the Malaysian Technology Development Corporation (MTDC) to grow the PE/VC industry, especially in the field of technology
- More than 90% of technology entrepreneurs finance their ventures through informal sources ("friends and family"), about 60% source their early capital from venture capitalists
- Equity financing remain the best form of development capital for technology based firms

Investments from large corporations and SWF into the TMT sector

- Malaysia Venture Capital Management Berhad (MAVCAP) invests in a portfolio of at least 50 technology startups in Malaysia - KFIT, Offpeak.my and Supahands, to name a few
- Khazanah, Malaysia’s sovereign wealth fund invests in innovation and technology companies, as well as a few of the largest and growing telecommunication service providers in Malaysia

Some industry experts still feel most Malaysian (and Singapore) startups in TMT are “soft tech” rather than hard/deep tech (meaning their tech is still simple to copy)

In addition, there seems to be opportunities for consolidation of efficiency improvement in the manufacturing SME sector

Opportunities in the traditional manufacturing and services sectors

- Malaysia has a high number of small and medium enterprises, in excess of 645,000 at last count, which make up 97.3% of all corporations in Malaysia.
- Most of these companies originally built their operations on the premise of cheap labor, and thus have very low productivity.
- As market-based financing is expected to intensify in prominence given developments in the financial industry, it is anticipated that the PE sector will constitute a progressively substantial component of the capital-raising pipeline for early and growth stage companies.
- With its operational expertise, network of contacts, and commercial knowhow, as well as its investment horizon that incentivizes decision-making for the longer-term, PE is well-placed to address the financing and growth needs of this relatively underserved segment.
- Services and manufacturing sector are the largest contributors to overall GDP in the SME sector in 2015, based on the pie chart.
Positive outlook for the Malaysian PE market, and Southeast Asia as a whole

Outlook of the Malaysian PE market

Government attempts to spur PE

• The Government is encouraging private-equity financing to help small businesses expand, and the country’s largest state-run pension fund is leading the way by allocating more funds to private-equity investments
• Government-linked investment corporations’ (GLICs) move to increase its asset allocation into both domestic and global private equity investments are supported by the Government.

Indications of a positive market outlook in Southeast Asia

• Investor sentiment across the Southeast Asian region is as strong as it has ever been; this is evident in fund-raising that have twice smashed the record for the largest funds being raised by an Asian-backed PE firm in 2015
• The drop in regional currencies presents an opportunity to PE houses, the majority of which being US-dollar denominated. Shareholders will realize the need to raise capital and will be more flexible on deal terms

Investment opportunities for investors

• Malaysia presents many investment opportunities for foreign investors including private equity houses – Creador, Navis Capital and Ekuinas, to name a few
• The Malaysian PE market has been buoyant in the retail, technology and consumer sectors
• Efforts will be intensified to target and attract industries in which Malaysia has strong foundations for new growth areas, such as the financial services and ICT sector

Source: "Malaysia attempts to spur private equity", Wall Street Journal; "Private equity a growing asset class in Malaysia" The Star; "EY Private equity briefing, southeast asia", EY; "Around Asia Pacific - Malaysia", Skrine; "Services Sector", Malaysian Investment Development Authority
Iran is entering a new phase, where private equity can help drive growth especially in the SME and technology startup sectors.

Finland, South Korea, Malaysia and Vietnam have all gone – or are going – through a similar process and represent different stages of maturity.

Finland has built its private equity ecosystem step by step, but some gaps still remain.

Korean private equity is expanding rapidly, but is polarized and suffers from unclear and ever changing regulation.

Malaysian private equity is still early on, but can play a key role in building up SME capabilities, and has a strong SWF element.

Taiwanese private equity faces both challenges and opportunities, but seems to be in a political gridlock.

In Vietnam foreign capital is starting the private equity sector, but the legislative framework is still missing.

Iran can benefit from the experiences of these countries, but must also address fundamental issues in its economy.
The private equity industry in Taiwan is still in an early stage; the industry suffered the impact of financial crisis shortly after being introduced in Taiwan and had difficulties recovering due to legal and political reasons.

The major local funds focus more on China and are registered as limited company.

Foreign private equity investment has been slow for the past few years because of significant scrutiny, failed cases, and regulatory restraints.

Taiwan government has been criticized for a lack of transparency and predictability in the investment approvals process and a VC/PE unfriendly legal environment.

Current guidelines on foreign investment state that private equity investors seeking to acquire companies in important industries must provide, for example, a detailed description of the investor’s long term operational commitment and the investment’s impact on sector competition.

Investors have experienced lengthy review periods for private equity transactions; in response, government started reviewing the legislative framework.

China is an unavoidable topic in cases of both inbound and outbound investment; most local funds have established funds in China and have been investing heavily in China.

The new administration is planning to encourage investment in Southeast Asia to diversify the risk from further investments in China.

Taiwan is a main investment destination for Chinese private equity firms despite low success rate caused by tight control of China-sourced funds and investors.

Source: Ministry of Economic Affairs Investment Commission; Taiwan: a growth agenda; BBC News
Taiwanese PE industry is affected heavily by regulation, with local funds focusing heavily on China

Taiwanese PE industry history, key milestones, and major funds

The CID Group, founded in 1998, focuses on emerging Greater China companies and has offices in Shanghai, Beijing, Chongqing, Taipei and the U.S. Today, it manages 3 LP funds with over 1BUSD capital.

IIH Asset Management Co. LTD, founded in 2006, focuses on Internet, healthcare, and consumer products sectors in the Greater China area. Today, it manages over 300MUSD capital.

MagiCapital Group Limited is a private equity firm with a focus on growth capital investments in the Greater China region.

China development industry bank is the leader in venture capital business in Taiwan with a market share of over 30%. It focuses on medical, healthcare, and consumer goods sectors. It has two funds established in China with total capital of 3BCNY and one fund, CDIB CME Fund, Ltd, in Taiwan with capital of 1.5BNTD.

Source: Laws & Regulations Database of the Republic of China, companies’ websites
Slow regulation development and bureaucratic review process is slowing down the development of VC and PE industry in Taiwan

### Legislative framework of Taiwan PE sector

<table>
<thead>
<tr>
<th>U.S. and European framework</th>
<th>Taiwanese framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private equity</td>
<td>Business Mergers And Acquisitions Act (2002), amended in 2015</td>
</tr>
<tr>
<td>Venture capital fund</td>
<td>Securities and Exchange Act (1968), amended in 2015</td>
</tr>
<tr>
<td>Buyout fund</td>
<td>Fair Trade Act (1991), amended in 2015</td>
</tr>
<tr>
<td>Mezzanine fund</td>
<td>Company Act (1929), amended in 2015</td>
</tr>
<tr>
<td>Hedge fund</td>
<td>The Limited Partnership Act (2015)</td>
</tr>
<tr>
<td></td>
<td>Statute For Investment By Foreign Nationals (1954), amended in 1997</td>
</tr>
</tbody>
</table>

Remarks and implications:

- Current lack of separate legal framework and relevant incentives deters potential investors
- Taiwan’s regulators have demonstrated keen interest in examining sources of capital. They have been selectively blocking investments which are clearly supported by investors that the regulators view as a threat
- All private companies except closely-held company are not allowed to issue shares below par value as well as to include restrictions on share transfer in articles of incorporation
- The Limited Partnership Act introduced partnership as a legal entity. However, the pass-through tax system does not apply to partnerships in Taiwan. So far, no company has transferred to partnership

Source: Laws & Regulations Database of the Republic of China
Taiwanese PE industry has been struggling after the financial crisis in 2007

Reasons for poor recovery after the financial crisis:
- Regulatory restrictions and bureaucracy; reviews of deal applications usually take several years
- KKR’s acquisition of shares in Yageo via a tender offer denied in 2011
- MBK’s withdrawal of its investment in Taiwan’s largest cable television operator has not been approved for six years (2011 to now)
- Carlyle’s application in 2008 of withdrawal its investment in a television broadcasting channel is still pending
- Political tension with China; Taiwan government restrict investments with China-source capital; PEs also have restrictions on selling acquired equities to China

Source: Thomson Reuters
Taiwanese private funds* have been declining in recent years, with a rebound in 2016 after new ruling party took office.

Taiwanese private fund total capital and number of funds

*Private funds include private equity funds and other private-sourced funds
**1BTWD is approximately 31MUSD using currency rate on 10/23/2016
*** As of September of 2016
Source: Securities investment trust & consulting association of the R.O.C.

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The year 2016 has been a year of challenges and changes for VC and PE industry in Taiwan

Key issues in Taiwanese PE market and outlook

- Inbound investment from China is restricted; Chinese investors can only invest in businesses listed on a so-called positive list, subject to the approval of the Investment Commission (IC)

- The new administration has proposed numerous new plans to improve economic performance; one of the proposals is to boost cross-border investments by attracting investment from local and foreign venture capital and private equity firms
- Private equity regulation development is high in the agenda of new administration; Taiwan’s government encourages foreign private equity, provided it is not controlled by Chinese funds or investors

Source: Taiwan Investment commission; United Daily News; 2016 Investment Climate Statements of Taiwan; Taiwan: a growth agenda
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Iran can benefit from the experiences of these countries, but must also address fundamental issues in its economy.
Vietnamese PE market is still small with opportunities from privatization, reforms and start-ups

Overview of Vietnamese private equity market

- Most of investment activities are small deals led by a few locally based PE firms which raised funds from overseas investors; a few large deals (more than 30MUSD) in recent years were led by global PE funds
- Currently, there is no PE fund for local investors because of the lack of large institutional investors and preferences of individual investors for short-term investments in the local market
- Many funds in Vietnam apply the term "private equity" also to real estate and OTC market
- Only a few funds, for example Mekong Capital, VI Group and PENM, actually focus on classic private equity deals with comprehensive plan for adding value, legal agreements with investor protection/rights and board representation
- More high-value deals are to be expected from large-scale privatization of state-owned enterprises (SOEs) and opportunities to add value by transforming governance structure and financial planning capabilities
- Vietnamese government is determined to transform the country into a start-up nation by 2020, hoping to attract more investments from international VCs
- As consumer spending, driven by a young population and growing middle-class, continues to increase, consumer-driven sectors (retail, food and beverage, education, healthcare, hospitality and leisure) continue to attract significant investments
Due to lack of incentive and uncertain regulatory environment, Vietnamese PE industry is still in a very early stage of development

**Vietnamese PE industry history and key milestones**

<table>
<thead>
<tr>
<th>Phase 1: Real-estate focused</th>
<th>Phase 2: More classic PE deals and profitable exits</th>
<th>Phase 3: Re-attracting global PE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Global PE started investing</strong></td>
<td><strong>First PEF established (Mekong Capital)</strong></td>
<td><strong>Warburg Pincus invested 200MUSD</strong></td>
</tr>
<tr>
<td><strong>PENM and VIGroup established</strong></td>
<td><strong>Peak year of secondary sales</strong></td>
<td><strong>Drafting VC specific circular</strong></td>
</tr>
<tr>
<td><strong>KKR invested 159MUSD</strong></td>
<td><strong>Warburg Pincus invested 200MUSD</strong></td>
<td></td>
</tr>
</tbody>
</table>

- Private equity activities from foreign investors began before the launch of the Vietnam’s stock market in 2000 investors with very limited exit paths
- During the beginning stage of the Vietnam’s stock market from 2000 to 2005, stocks were thinly traded
- Similarly, PE market activities were quiet
- PE funds mainly attracted capital from foreign investors to invest in real estates
- World Bank’s IFC made a seed investment in Mekong Capital, the first PEF in Vietnam

- During 2005-2011, more PE-focused funds raising funds from foreign investors started to be established locally in this period, making secondary sales a more viable exit choice
- Transactions were most vibrant in 2007-2008; the peak year was 2007; most of transactions were secondary sales (PE funds exited by selling investments to other PE funds)
- Government started to pay attention to SMEs financing initiatives but all plans still focused on providing loans with ODA fundings

- The market attracted more large global PE firms, such as Warburg Pincus, KRR, and Navis Capital
- Most locally present funds are in the exit stage of their investments from previous booming period, making some notably profitable exit; KKR divested 52% of Masan in 2015, Mekong Capital sold shares in Golden Gate to SCPE in 2014 with 45% IRR
- Government started to recognize the importance of equity based financing in supporting Vietnam nascent start-up scene especially in the ICT sector, which resulted in the drafting of VC specific regulation

The slow development of PE market in Vietnam despite 20 years of impressive economic growth can be attributed to both external and internal factors (*):

- External: foreign aid donors’ influence through funding and technical assistance, especially from Japan, had mainly advised the Vietnamese government on credit-based financing schemes
- Internal: weak policy making capabilities to handle complex areas such as PE regulation and lack of lobbying from local incumbents who seem to be enjoying competitive advantage as early movers with strong political ties in an opaque regulatory environment

*Klinger-Vidra (2014), "Building a venture capital market in Vietnam: diffusion of a neoliberal market strategy to a socialist state"
There is currently no separate legal framework for venture capital and private equity in Vietnam, but first steps are taken for VC legislation.

Regulatory framework in Vietnam

U.S. and European framework
- Private equity
  - Venture capital fund
  - Buyout fund
  - Mezzanine fund
  - Vulture fund
- Hedge fund

Vietnamese framework
- Circular to regulate VCs activities for innovation
- Law on Securities (2006), updated in 2010
- Law on Enterprise (2014)
- Law on Investment (2014)
- Circular to regulate fund activities (2012)
- VC fund licenses have been separately arranged with government on special terms
- Loosely regulated under the same umbrella of private funds and foreign investments

Remarks and implications
- Current lack of separate legal framework and relevant incentives deters potential investors, especially from overseas, due to uncertainty.
- Driven by political will to transform Vietnam into a start-up nation, a draft is being developed to regulate VC activities to fuel start-up activities; however, there is no pipeline yet to improve regulation for PE activities in general.
- New updates in the Investment Law and the Enterprise Law in 2014 aim to create more favorable conditions for investment and M&A activities, facilitating private equity activities in Vietnam.
- In 2015, Decree No. 60/2015/ND-CP lifts the 49% cap on foreign ownership in Vietnam’s listed companies in sectors not specially regulated, which suggests more probable exit paths for PE investments.

Source: [http://uk.practicallaw.com/3-620-8120?q=private+equity](http://uk.practicallaw.com/3-620-8120?q=private+equity), press articles, Reddal analysis

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PE activities were vibrant prior to the global financial crisis and are slowly recovering, driven by high value deals from global PEs

**Vietnamese PE market development**

**Vietnam PE deal flow**

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of deals</th>
<th>Value (MUSD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>N/A</td>
<td>360</td>
</tr>
<tr>
<td>2007</td>
<td>902</td>
<td>902</td>
</tr>
<tr>
<td>2008</td>
<td>N/A</td>
<td>330</td>
</tr>
<tr>
<td>2009</td>
<td>100</td>
<td>N/A</td>
</tr>
<tr>
<td>2010</td>
<td>290</td>
<td>N/A</td>
</tr>
<tr>
<td>2011</td>
<td>695</td>
<td>N/A</td>
</tr>
<tr>
<td>2012</td>
<td>497</td>
<td>N/A</td>
</tr>
<tr>
<td>2013</td>
<td>304</td>
<td>N/A</td>
</tr>
<tr>
<td>2014</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2015</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

- **Notable deals**
  - In 2014, SCPE invested 35MUSD in Golden Gate, a well managed Vietnamese restaurant operator.
  - In 2013, Warburg Pincus invested 200MUSD in Vincom Retail in 2013 and additional 100MUSD in 2015.
  - In 2011 and 2013, KRR invested in Masan Consumer with the total value of 359MUSD, putting Vietnam on the regional PE radar. In 2015, KKR sold 50% of its stake in Masan Consumer.
  - Roughly 170 large SOEs have been identified for stake sales over the next 5 years; some popular names investors have been anticipating are: Vietnam Airlines, Vinaphone and Mobifone (telecom), Ben Thanh and Sabeco (F&B), Vinare (reinsurance).

The market is led by a few foreign raised, locally-based funds with no PE firm with local investors yet.

PE houses by fund size (committed, as of end of September 2016)

<table>
<thead>
<tr>
<th>Fund</th>
<th>PE only funds</th>
<th>General funds</th>
<th>Venture capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>VI Group</td>
<td>400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PENM Partners</td>
<td>400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mekong Capital</td>
<td>226</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IDGVV</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>VinaCapital</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dream Incubator</td>
<td>50</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>SSIAM</td>
<td>40</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

Source: funds’ websites, press articles

- VI Group’s strategy is to take significant minority stake where they have industry expertise
- PENM Partners’ focuses on minority investments ranging from 10 – 30MUSD for 10 – 40% stake
- Current portfolio includes agriculture, chemical, oil and gas, natural resources, industrial goods, and insurance
- Mekong Capital focuses on investments in consumer-driven businesses, such as retail, restaurant, consumer goods, and consumer services
- First tech-focused VC fund in Vietnam since 2004
- 40 investments in technology, media, telecom and consumer sectors
- As of Sept 2016, PE accounts for 12.3% in VOF, investing in F&B, healthcare
- In Sept 2016, announced the plan to raise 200MUSD for a new fund to invest in private equity in Vietnam
- A Japanese JV with investment focus in restaurant chains, consumer goods, healthcare and education
- Planning to raise a new fund with double size
- DAIWA-SSIAM II successfully raised fund in September 2016
- The fund focuses on agriculture, services, and manufacturing
Similar to Korean market, PE firms in Vietnam act as general partner of its fund directly, rather than through a separate entity.

**Typical PE firm structure in Vietnam**

1. Usually 2-3 partners who are returning Vietnamese expatriates or foreign investment professionals with extensive exposure to and experience in the Vietnam market.

2. Most PE firms with presence in Vietnam operate under partnership model. There are cases (for example: Mekong Capital) which were originally incorporated as a corporation type, which then later transformed into the partnership model.

3. Some directors/investment officers are offered co-invest opportunities.

Source: company websites

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Trade sale is viewed as an attractive exit strategy for PE investors, followed by IPOs

View of major fund managers in Vietnam regarding most achievable exit strategy

Preferred exit strategy over last two years, % of respondents

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IPO</td>
<td>16%</td>
<td>13%</td>
<td>31%</td>
<td>32%</td>
<td>23%</td>
</tr>
<tr>
<td>Trade sale</td>
<td>32%</td>
<td>53%</td>
<td>43%</td>
<td>34%</td>
<td>40%</td>
</tr>
<tr>
<td>Secondary sale</td>
<td>38%</td>
<td>24%</td>
<td>19%</td>
<td>22%</td>
<td>29%</td>
</tr>
<tr>
<td>Management buyout</td>
<td>14%</td>
<td>5%</td>
<td>3%</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Refinancing</td>
<td>5%</td>
<td>2%</td>
<td>2%</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
<td>3%</td>
<td>2%</td>
<td>6%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Remarks

- In recent years, trade sale has been a common exit routes for major PE firms
- In many cases, trade buyers are the foreign companies operating in the same industry as the target company (M&A); in 2011 Mekong capital and PENM Partners sold stakes of ICP to Mario Ltd – an Indian consumer-good company
- M&A activities are predicted to increase significantly as Vietnam joins TPP (if it materializes)
- IPO is another possible exit route, yet IPO is generally tough for some sectors, for example tech companies as the tech market is not very mature in Vietnam
- Secondary sale has been increasing in popularity recently; usually buyers are foreign venture capital funds which just started investing in Vietnam, in 2013 Mekong capital sold stakes of MWG to CDH Electric Bee – a VC registered in British Virgin Islands; in 2014, Mekong Capital sold stakes of Golden Gate to Standard Charter Private Equity (SCPE)

Source: Grant Thornton’s survey: Look out for investment growth (2016)
There are several bottlenecks that need to be overcome to realize the full value creation potential

Current challenges affecting Vietnamese private equity performance

**Corruption, bureaucracy and regulatory limitation**

- Foreign investment in many businesses is constrained by sector-specific laws regarding foreign ownership threshold, minimum investment requirement, market access, restrictions on land ownership, and conflicting regulations on land use.
- Weak legal framework regulating PE investments creates uncertainty and bureaucracy in regulating funds for foreign indirect investment, which creates higher risks, including foreign exchange risks, for foreign investors.
- Tax treatment is currently more favorable for listed stock transactions.

**Weak management and differences in expectations**

- There has been a shortage of well-trained high-level managers in local companies, where they are still reluctant to hire overseas experts as managers.
- Lack of information transparency and differences in valuation expectations (especially in SOE assets to avoid being charged with “destroyed state wealth”, a criminal offense, are the most critical issues in making deals.
- Corporate governance and financial planning capabilities are two areas where PE investors can add value.

**Lack of targets with right scope and size**

- With a few exceptions, majority of local companies are too small in both size and scope to make them attractive targets for PE investors, especially from overseas.
- Equity investment is not well aware as a formal source of financing to majority of local companies.
- Despite high interest rates, Vietnamese entrepreneurs are more willing to take loans than giving up equity to finance their businesses, which might be driven by a cultural preference to hold on equity ownership and decision making rights.
Vietnamese SMEs account for 98% of total companies but only contribute about 40% to total economic value creation

**Distribution and contribution of Vietnamese SMEs**

**Number and share of companies by size and sector, 2014**

<table>
<thead>
<tr>
<th>Size</th>
<th>SMEs</th>
<th>Non-SMEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>402,326</td>
<td>3,048</td>
</tr>
<tr>
<td>SOE</td>
<td>3,048</td>
<td>99%</td>
</tr>
<tr>
<td>Private</td>
<td>388,232</td>
<td>40%</td>
</tr>
<tr>
<td>FDI</td>
<td>11,046</td>
<td>76%</td>
</tr>
</tbody>
</table>

98% of SMEs are in the local private sector

**Contribution of SMEs in different economic indicators, %**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SME</th>
<th>Non-SME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>51%</td>
<td>49%</td>
</tr>
<tr>
<td>Export</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Investment</td>
<td>35%</td>
<td>65%</td>
</tr>
<tr>
<td>GDP</td>
<td>40%</td>
<td>60%</td>
</tr>
</tbody>
</table>

FDI sector accounts for more than 70% of annual exports; only 30% of local SMEs participate in supply chain for the FDI exporting sector

*SMEs are categorized as followed: small and micro (below 50 persons), medium (50 – 199 persons) and large (above 200 persons)

Source: General statistics office of Vietnam
Vietnamese SMEs face layers of difficulties from both internal and external factors but there have been some positive developments

Factors affecting Vietnamese SME performance

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Positive developments</th>
</tr>
</thead>
</table>
| **Institutional drivers** | • Government focus in the past 20 years has been on attracting FDIs while neglecting the SME sector  
• Corruption and red-tape continue to be a burden for SMEs tight budget | • SME Development Fund was finally launched in 2016  
• A new Law on supporting SMEs is being drafted and sponsored by Ministry of Planning and Investment (2016) |
| **Market drivers** | • Less than 30% SMEs can access bank loans to finance their growth as banks prefer to lend to big corp. or SOEs  
• Increasingly aggressive competition from MNCs in local market | • Expanding middle class segments with higher purchasing power of a 90 million population  
• Increasing urbanization spread throughout the country making access to market easier |
| **Internal drivers** | • Small size limits SMEs ability to invest in technology and innovation  
• SMEs are trapped in contract manufacturing with low value added content or serving niche local segments  
• Traditional business owners have limited capability to build partnerships, actively seek new markets and build strong brands | • Increasing influx of returning Vietnamese expats and diaspora helps fill in the managerial gap  
• Professional education and online learning are flourishing  
• More active PE investment and ecosystem building are slowly transferring knowledge to local business community |
Driven by economic and consumption growth, food and beverage, retail, and healthcare are considered the most attractive sectors to invest.

### Attractiveness of Vietnam consumer driven sectors

<table>
<thead>
<tr>
<th>Sector</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and beverage</td>
<td>50% 26% 11% 6% 7%</td>
</tr>
<tr>
<td>Retail</td>
<td>41% 26% 15% 9% 9%</td>
</tr>
<tr>
<td>Healthcare and Pharma</td>
<td>37% 24% 24% 11% 4%</td>
</tr>
<tr>
<td>Education</td>
<td>35% 26% 11% 19% 9%</td>
</tr>
<tr>
<td>Transport and logistics</td>
<td>31% 31% 26% 6% 6%</td>
</tr>
<tr>
<td>Software and IT</td>
<td>24% 17% 43% 9% 7%</td>
</tr>
<tr>
<td>Hospitality and Leisure</td>
<td>22% 35% 24% 13% 6%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>22% 35% 24% 13% 6%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>19% 33% 17% 19% 12%</td>
</tr>
<tr>
<td>Financial Services</td>
<td>19% 22% 39% 9% 11%</td>
</tr>
<tr>
<td>Software and IT</td>
<td>19% 24% 26% 20% 11%</td>
</tr>
<tr>
<td>Natural resources</td>
<td>15% 13% 20% 24% 28%</td>
</tr>
<tr>
<td>Clean-tech</td>
<td>9% 9% 44% 17% 21%</td>
</tr>
</tbody>
</table>

**Source:** World Bank (2016), BCG (2013), Grant Thornton survey (2016)
ICT, education technology and green agriculture are among emerging sectors where rising start-ups can grow into strong SMEs

### Potential emerging sectors

<table>
<thead>
<tr>
<th>Development</th>
<th>Game and app development</th>
<th>Alternative education / “edtech”</th>
<th>Green agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Gaining traction with recent VC funding: Goldman Sachs and SCPE in e-wallet Momo (28MUSD), 500 Startups VC with its new 10 MUSD Vietnam-focused fund; Lozi, food-finder and order app, and a 7-figure investment from DesignOne Japan and Singapore’s Golden Gate Ventures</td>
<td>• In the last five years, there have been a plethora of new learning models in a variety of areas from test preparation, English to soft skills, music and arts</td>
<td>• Exports of agricultural, especially fruits and vegetables, products have reached 2,2BUSD in 2015 with an impressive 50% growth</td>
<td></td>
</tr>
<tr>
<td>• The start-up ecosystem is getting stronger, endowed with young students with high IT skills and committed support from both government and tech giants</td>
<td>• Topica Edtech Group is a pioneer in e-learning not only in Vietnam but also in neighboring markets such as Philippines and Thailand</td>
<td>• Current areas for organic farming (23,000ha), is only 0.2% of total agricultural land but it is growing</td>
<td></td>
</tr>
<tr>
<td>• The government is showing strong signals to support ICT growth including initiating partnership with foreign donors for ecosystem building and funding, passing favourable legislation such as tax breaks for IT professionals</td>
<td>• Middle-class consumer segment is growing, who is more able and more willing to pay for higher quality education services beyond formal channels</td>
<td>• Locally, consumers are increasingly aware of food safety, concurrently pushing for higher standard in agriculture practices</td>
<td></td>
</tr>
<tr>
<td>• Regulatory restriction for education sector is expected to be loosened in the next year, which makes it easier to attract foreign investment</td>
<td>• Current infrastructure is significantly lagging behind demands, calling for innovation to solve the capacity gap</td>
<td>• Vietnam’s participation in comprehensive FTAs such as TPP presents opportunities for exports but also pose challenges to improve production standards to meet stringent technical barriers of export markets</td>
<td></td>
</tr>
</tbody>
</table>
Family owned businesses in consumer driven sectors are gathering attention while SOE privitization remains attractive in the long run

Outlook of Vietnamese private equity market

Steady growth with sector specific opportunities

- Two key fundamental drivers are robust economic growth (above 6% GDP growth expected for 2016) and expanding consumption power, coupled with slowly improving regulation reforms starting from VC specific regulation
- Retail and F&B sector will continue to be the most attractive sectors for PE in the short term driven by expanding and young middle-class consumers while education sector is increasingly attracting investors with quality targets
- Game/app development, alternative education, education technologies and green agriculture are segments where promising SMEs can emerge

Family owned companies as a main deal source

- Although high-value SOE privatization deals are still expected, delays in the implementation falling short of plan in 2015 have dampened investors’ interest recently
- In the latest survey in mid 2016, private/family-owned businesses with controlling stakes owned by management, with strong performance dependency on management/owner, have become the first choice of deal sources in Vietnam

SOEs privatization remains key driver in the long term

- A large share of Vietnam capital is still trapped in the inefficient SOE sector, occupying very strategic sectors such as agriculture, infrastructure, transportation and natural resources
- In the long run, to unleash this potential, privatization of SOEs is inevitable and remains an attractive opportunity for PE investors to capture values by restructuring their operations
- However, its attractiveness depends on the speed and transparency with which the government is implementing this initiative

Source: Grant Thornton survey (2016), Reddal analysis

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Agenda

Iran is entering a new phase, where private equity can help drive growth especially in the SME and technology startup sectors.

Finland, South Korea, Malaysia and Vietnam have all gone – or are going – through a similar process and represent different stages of maturity.

Finland has built its private equity ecosystem step by step, but some gaps still remain.

Korean private equity is expanding rapidly, but is polarized and suffers from unclear and ever changing regulation.

Malaysian private equity is still early on, but can play a key role in building up SME capabilities, and has a strong SWF element.

Taiwanese private equity faces both challenges and opportunities, but seems to be in a political gridlock.

In Vietnam foreign capital is starting the private equity sector, but the legislative framework is still missing.

**Iran can benefit from the experiences of these countries, but must also address fundamental issues in its economy.**
For Middle Eastern countries development of entrepreneurial culture and capital market is priority

Middle East country VC-PE attractiveness

VC-PE attractiveness landscape by region

<table>
<thead>
<tr>
<th>Key improvement area</th>
<th>Proxy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth of capital market</td>
<td>Size of stock market</td>
</tr>
<tr>
<td></td>
<td>IPOs and public issuing activity</td>
</tr>
<tr>
<td></td>
<td>M&amp;A market activity</td>
</tr>
<tr>
<td></td>
<td>Debt and credit market</td>
</tr>
<tr>
<td></td>
<td>Stock market liquidity (trading and volume), bank non-performance loans and financial market sophistication</td>
</tr>
<tr>
<td>Entrepreneurial culture and deal opportunities</td>
<td>Innovation</td>
</tr>
<tr>
<td></td>
<td>Science and technology journal articles</td>
</tr>
<tr>
<td></td>
<td>Ease of starting and running a business</td>
</tr>
<tr>
<td></td>
<td>Simplicity of closing a business</td>
</tr>
<tr>
<td></td>
<td>Recovery rate</td>
</tr>
</tbody>
</table>

1Armenia, Azerbaijan, Bangladesh, Cambodia, China, Hong Kong, India, Indonesia, Japan, Kazakhstan, South Korea, Kyrgyzstan, Malaysia, Mongolia, Pakistan, Philippines, Russia, Singapore, Sri Lanka, Taiwan, Thailand and Vietnam were covered to calculated Asia average; 2Bahrain, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria and United Arab Emirates were covered to calculate Middle East average

Note: chart using scores for each driver; Asia and Middle East average is weighted average of individual country data by GDP or population

Source: IESE Business School, University of Navarra, *Venture Capital and Private Equity Country Attractiveness Index* (2016)
Despite recent improvement, access to financing is still the main barrier against starting a business in Iran

**Ease of starting a business in Iran**

**Global competitive index – Iran (score*)**

**The most problematic factors to do business in Iran (score*)**

- Access to financing: 19,6
- Policy instability: 12,9
- Inefficient government regulation: 12
- Inflation: 11,7
- Inadequate currency regulations: 7,5
- Corruption: 6
- Restrictive labor regulations: 4,4
- Tax rates: 3
- Complexity of tax regulations: 2,9
- Inadequately educated workforce: 2,8
- Poor work ethic in labor force: 2,7
- Insufficient capacity to innovate: 2,3
- Government instability/coups: 0,4
- Crime and theft: 0,2
- Poor public health: 0


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Iran still ranks low on regulatory quality and rule of law compared to similar economies

### Political risk – regional benchmark

<table>
<thead>
<tr>
<th>Country</th>
<th>Control of corruption</th>
<th>Government effectiveness</th>
<th>Regulatory quality</th>
<th>Rule of law</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-20%</td>
<td>20-40%</td>
<td>40-60%</td>
<td>60-80%</td>
</tr>
<tr>
<td>Turkey</td>
<td>54.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>59.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>44.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iran</td>
<td>31.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pakistan</td>
<td>23.6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. In percentile ranks – the higher the score, the better the situation
2. Control of Corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption
3. Government Effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures
4. Regulatory Quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development
5. Rule of Law captures perceptions of the extent to which agents have confidence in and abide by the rules of society (e.g. quality of contract enforcement, property rights, the police, etc.)

Source: The World Bank (October, 2016)
Private equity sector in Iran is slowly taking off with some activities witnessed in deal-by-deal manner and venture capital funds

Overview of PE sector in Iran

- In the past 4-5 years there have been attempts at starting PE funds in Iran, but most attempts have failed
- Foreign investors are still not ready to invest in PE funds at this stage – when there is so much risk and uncertainty
- However, investors are willing to invest in funds that seek to buy a specific company (deal-by-deal investment)

PE in a deal by deal manner is emerging

- Sarava started with around 7MUSD and invested in successful startups such as Digikala
- Rocket Internet and MTN have a JV
- Pomegranate is also a foreign fund that invested into Sarava
- Irateal is another new player in the space
- Avatech is one of the main accelerators (owned by Sarava)

Investment in technology focused VCs, accelerators and incubators increasing

Source: Interview with industry expert at major financial institution in Iran
VC-PE companies are opening in Iran, some headquartered abroad, many with sector-specific approaches

Main players in Iran market

Griffon Capital is a private equity firm focused on Iran, aiming to capture institutional funds

• Turquoise Partners is in the process of launching the first Iran-focused private equity fund with a Swiss-based banking partner
• The fund will mainly invest in Iranian FMCG, food and beverage retail, fashion retail, mining, hospitality and technology start-up sectors

The Swedish tech investor, Pomegranate investment, has raised 60 million Euro in Digikala (Iran’s Amazon)

Digikala, Café Bazar, Sheypoor, and Divar are among the most famous Iranian startups and they all benefit from Sarava VC’s investment

Shenasa is the first VC, according to Western standards, which established in 2012 and is still among the main players in the market.

PSIG VC seeks out people with great ideas in a range of technology sectors from e-commerce to mobile and financial technology applications and services. PSIG have been investing in famous Iranian startups Buyex and ZarinPal

Iranian startup Snapp scooped up 22.3 million Euro investment from SA-based MTN to boost ride-sharing in Iran

Iratel Ventures, which is the investing arm of Iranian telecom company Pars Iratel, is raising a US$10 million to invest US$50,000 to US$100,000 in startups in or related to Iran, especially in the mobile arena
Despite a bold vision, the market reality is harsh – concrete practical actions are needed

Disconnect between vision and reality

According to Iran’s 2025 vision, 20 percent of the country’s revenue streams should be provided from the knowledge-based activities and SMEs

- Despite the recent movements, the VC industry is still taking its very first steps in Iran

- Lack of VC-PE specific laws and regulations is one of the most important obstacles for this industry in Iran

- Although the technical aspects are quite strong in Iran’s VCs (especially local ones), most of these companies are suffering from the lack of critical expertise required in this industry
  - Startup valuation expertise
  - International experience
  - Strategic view
  - Business management mentoring facilities
Analysis of evolution of private equity market in these countries present key policy recommendations for Iranian PE market development

Initial recommendations to foster PE development in Iran

- Assess current tax and commercial regulations to eliminate unnecessary complexity and administrative burden to PE industry
- Review capital gains tax rates and wealth taxes which can deter investment
- Evaluate legal framework related to intellectual property protection to ensure sufficient incentives for innovative technology firms to emerge

- Regulatory framework must address numerous challenges specific to SMEs and FOEs
- Consider encouraging VC and PE investment in SMEs/FOEs through government guarantee schemes and related policy measures to increase investor confidence

- Developed capital market is key precondition for buyout activities, where IPO is one of means to exit
- Although trade sales are usually much larger than IPO exits, IPOs are crucial for companies to establish valuation
- To extent domestic stock exchange cannot accommodate listing of high growth companies, means to facilitate Iranian companies’ listing on overseas market should be considered

- In most markets, institutional investors and banks constitute primary source of capital; yet, most institutional investors in developing markets have limited capital available
- Policy makers need to assess possible measures to encourage individual or corporate, as well as foreign equity, participation in the PE industry through tax or other incentives

Source: Reddal analysis; MENA-OECD Competitiveness Programme, MENA Investment Policy Brief
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