
Defining Iran's path for growth – venture capital and private equity lessons from growth markets

REDDAL

Keynote presentation at IRAMOT 2016

Teheran, December 8, 2016

Agenda

Iran has the opportunity to open the door to a new future – decisions made now have a direct impact on what that future will be (consider case Turkey)

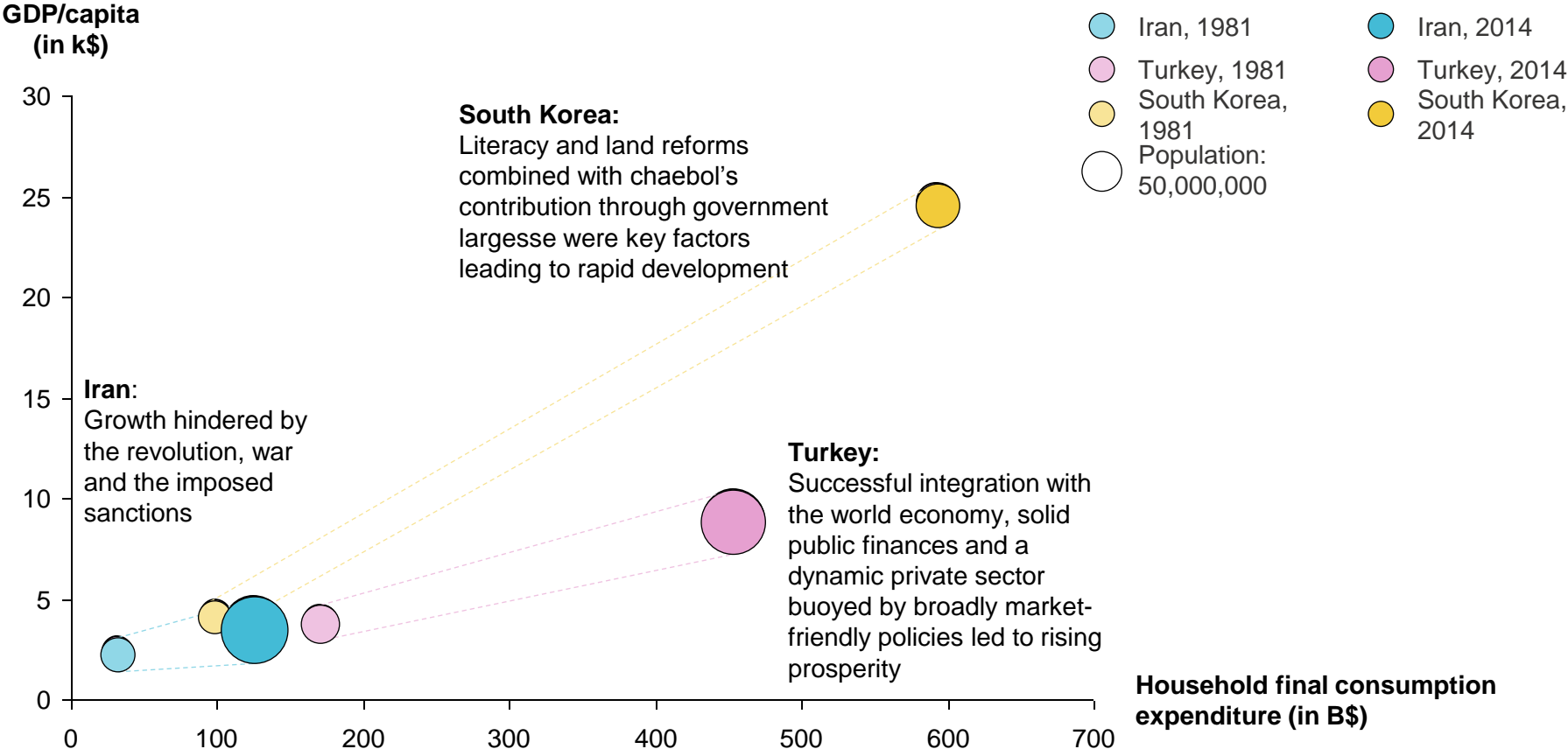
National industrial strategy is critical, but only to a certain degree – by itself it is not enough as South Korea illustrates

Market driven innovation implies freeing the market – and ensuring market driven financing – sadly most governments fail

The recipe for Iran's growth is simple, but requires addressing the real barriers openly and decisively

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

Iran and similar economies in 1981 and their position today



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.



Turkey can in many ways provide a helpful proxy for Iran

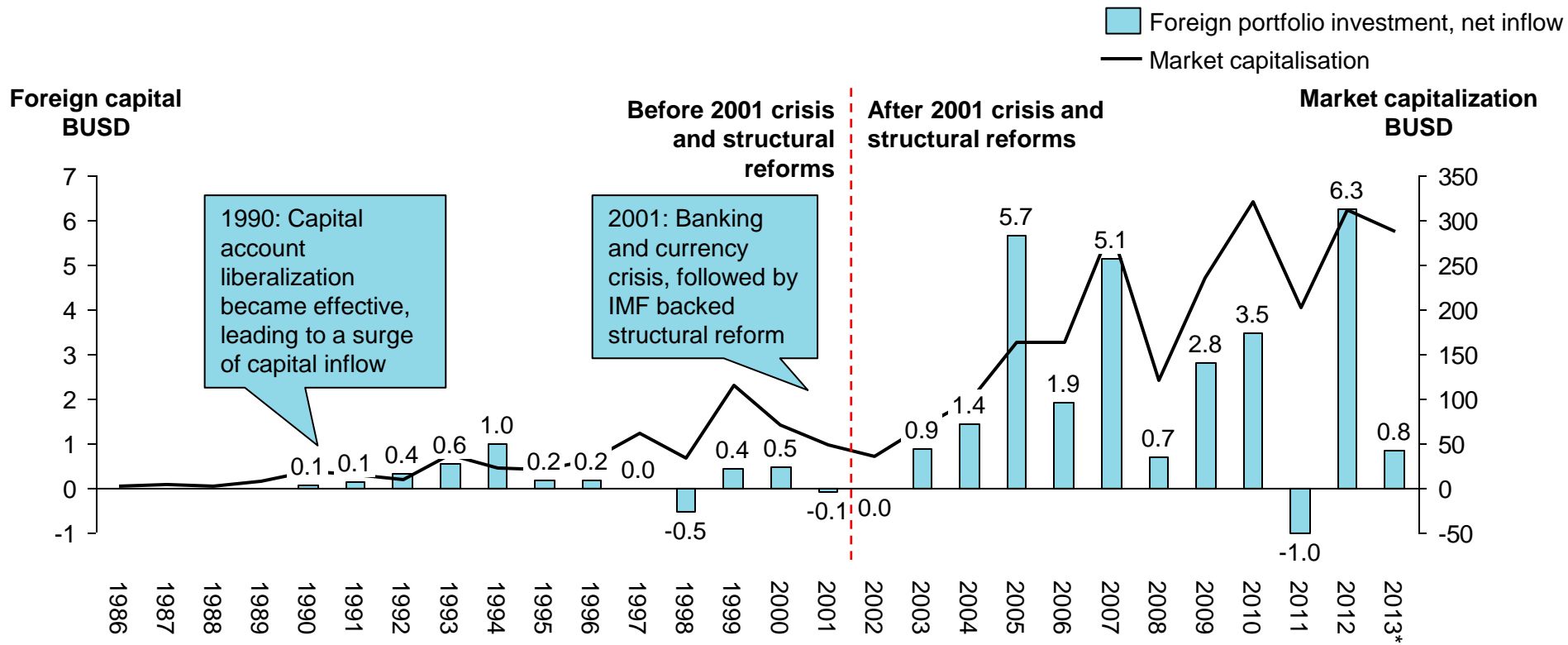
Similarities of the Iranian and Turkish economies

Indicator	Iran	Turkey
Geographic and demographic		
Location	Middle East	Middle East
Population	81 million (2014)	82 million (2014)
Population growth rate	1.2% (2014 est.)	1.1% (2014 est.)
Major Religion	Muslim: 99.4% (2011)	Muslim 99.8%
Economy		
GDP (PPP)	US\$1.0 trillion (2013)	US\$1.2 trillion (2013)
GDP – per capita (PPP)	US\$13 000 (2013)	US\$15 300 (2013)
GDP – composition	Agriculture: 10% Industry: 45% Services: 45% (2013)	Agriculture: 9% Industry: 27% Services: 64% (2013)
Household income by % share	Lowest 10%: 2.6% Highest 10%: 29.6% (2005)	Lowest 10%: 2.1% Highest 10%: 30.3% (2008)
Labor force	27.72 million	27.91 million

Source: CIA factbook

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

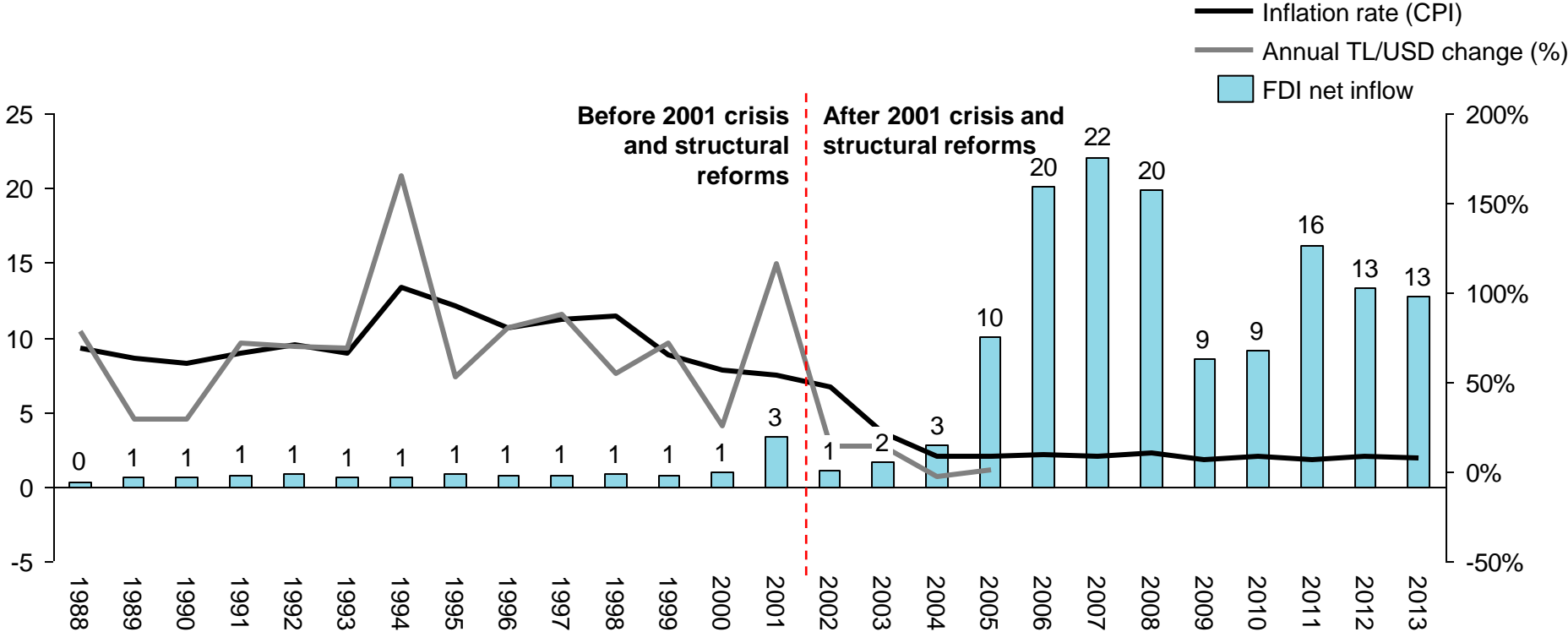


Note: Market capitalization in 2013 is measured as market capitalization at June 2013.

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



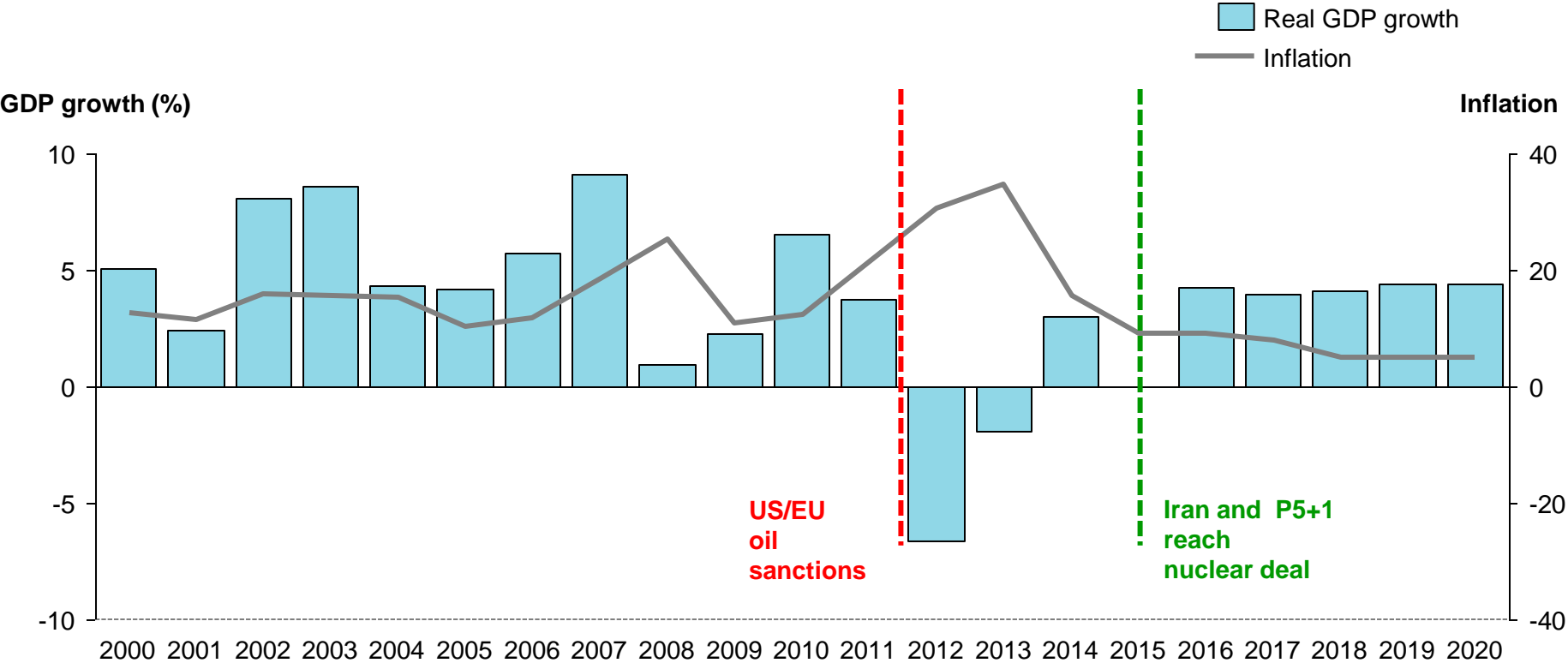
Note: FDI are the net inflows of investment to acquire a lasting management interest (10% of voting stock)

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

Source: Foreign direct investment net inflow from World Bank; inflation.eu;

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

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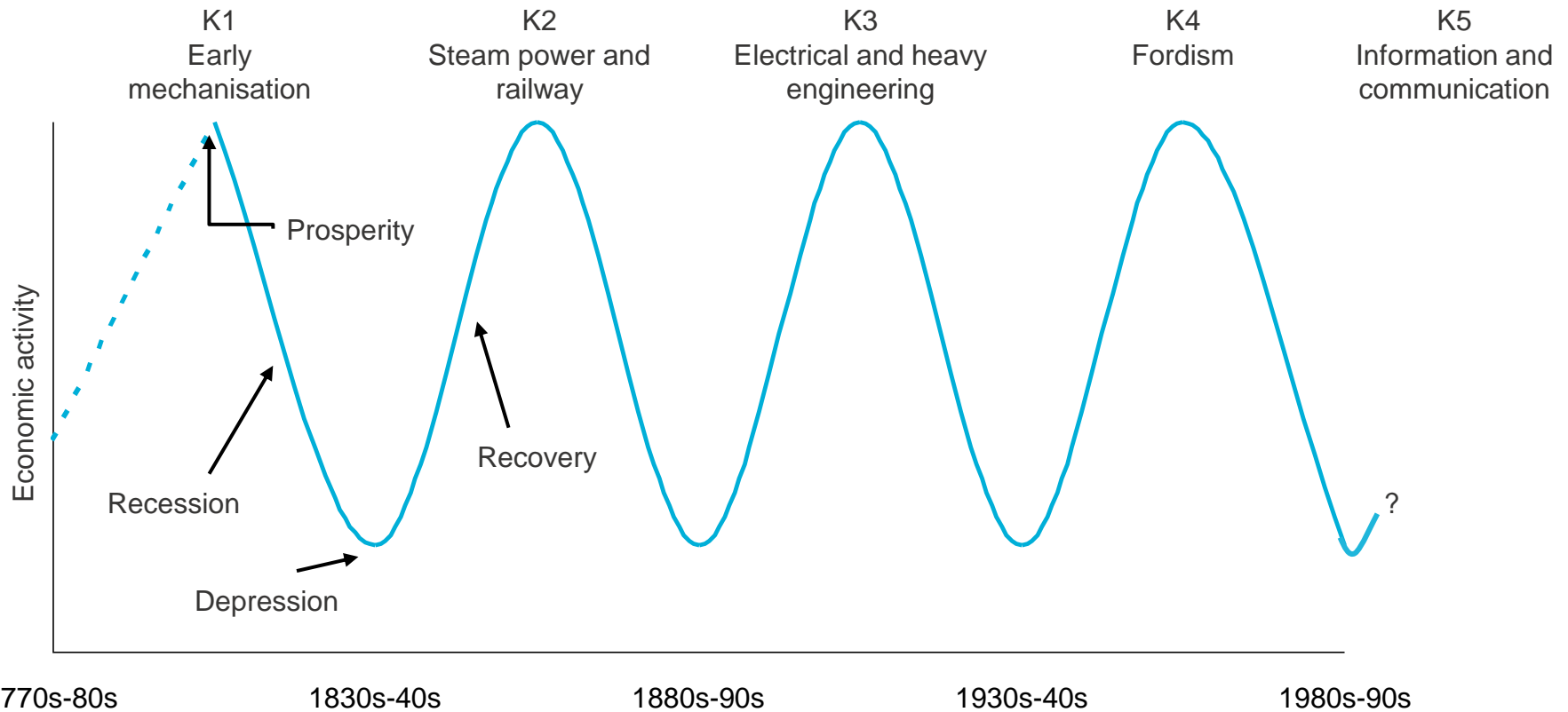
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Market driven innovation implies freeing the market – and ensuring market driven financing – sadly most governments fail

The recipe for Iran's growth is simple, but requires addressing the real barriers openly and decisively

To understand Korean economy, consider Kondratieff's notion of long-term waves in global economy and Schumpeter's "creative destruction"

Kondratieff waves of growth and their main features



Source: Trott, *Innovation Management and New Product Development*, 5th ed., pp. 6-8, 54-55; see also Shin, *The Global Financial Crisis and the Korean Economy*

Gerschenkron's pattern of industrialisation sheds light on how nations catch up and applies also to post-war Japan and Korea

Gerschenkron's patterns of industrialisation – substitution strategy

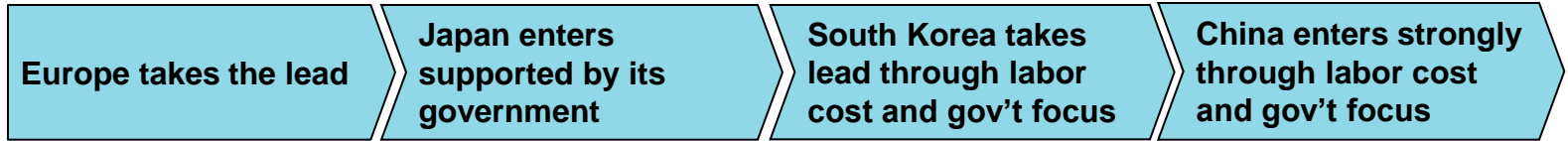
Elements of strategy	Britain	Germany	Russia
Timing of entry	<ul style="list-style-type: none"> • Late 18th century • Forerunner 	<ul style="list-style-type: none"> • Mid 19th century • Moderately back-ward 	<ul style="list-style-type: none"> • Late 19th century • Extremely back-ward
Spearheading institutions	<ul style="list-style-type: none"> • Individual entrepreneurs • Banks providing operating capital 	<ul style="list-style-type: none"> • Universal banks (combining investment and commercial banking) 	<ul style="list-style-type: none"> • State (could not rely on private sector due to low standards of honesty; state took over task of devising catch-up strategy and implementing it)
Functional patterns	<ul style="list-style-type: none"> • Gradual accumulation of capital • Less organized 	<ul style="list-style-type: none"> • Mobilising resources through banking system and concentrate them on heavy industries • "Bigger and bigger" plants 	<ul style="list-style-type: none"> • Coercive mobilisation of resources and focus on heavy industries • Still "bigger and bigger" plants

Key driver was competition among these nations for military and industrial might

Source: Shin, Chang, *Restructuring Korea Inc.*, pp. 9-10

Government support and (temporary) labor cost advantage has played a key role in the evolution of many industries, such as shipbuilding

Development of the world's shipbuilding industry



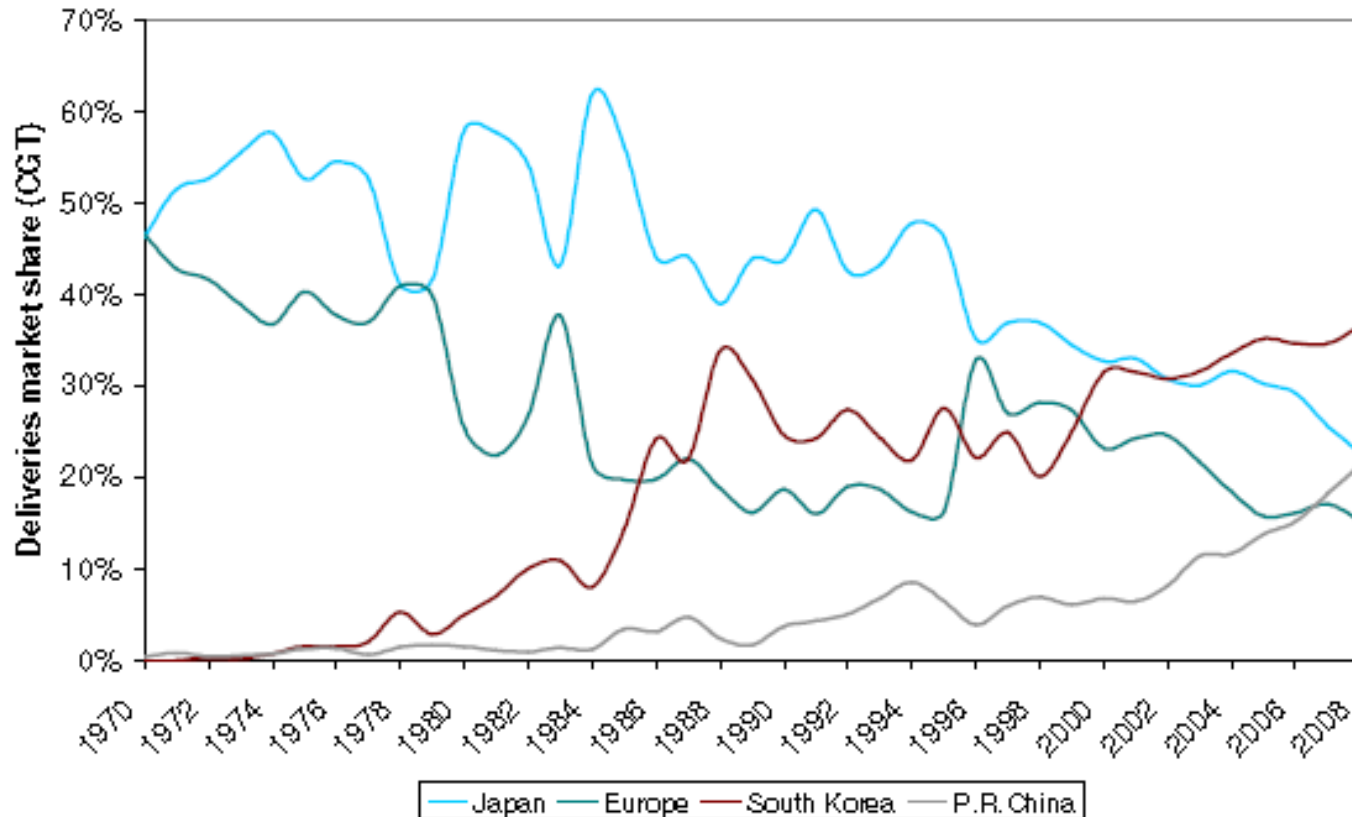
Years	1950s – 1960s	1970s – 1980s	1990s -2005	2006 –
Key events	<ul style="list-style-type: none"> • After World War 2, post-war trade boom starts, driving demand • Highly advanced ship component industries in Europe • European shipbuilding technology enabled lower manuf. cost than other countries 	<ul style="list-style-type: none"> • Rapid growth of Japanese economy • Government support for low cost leadership • Parallel shipbuilding • Energy crisis forced companies to move towards lower operating cost structures 	<ul style="list-style-type: none"> • Lower wages • Covered more sophisticated vessels as segmentation strategy • Gov't full support of shipbuilding as a strategic industry • World trade growth and yard expansion 	<ul style="list-style-type: none"> • Economic boom of China • Strategic choice by gov't to develop heavy industry • Significant increase of world fleet (trade growth) created more opportunities to Chinese shipbuilders
Implications	<ul style="list-style-type: none"> • 80% of world shipbuilding in Europe • Strategy later changed to global specialization and advanced technology, as Europe was challenged by Japan that had lower cost 	<ul style="list-style-type: none"> • Japan and Europe dominated the industry with combined 90% of overall market share in the early 1970s • However, emerging countries such as Korea and China due to shifting trend 	<ul style="list-style-type: none"> • Global market changed rapidly following the strategy of Korea • Korea captured a world market share of 25% by the mid-1990s • Reached the world number one position by 2005 	<ul style="list-style-type: none"> • China captured over 20% of global ship deliveries in 2008 • Currently the low cost leader in the world • Having largest avg. size of shipbuilding companies in the world

Source: http://ec.europa.eu/enterprise/sectors/maritime/files/fn97616_ecorys_final_report_on_shipbuilding_competitiveness_en.pdf

After 2002 China has been rapidly growing its market share, showing the results of catching up in real life

Market shares of major shipbuilding regions, 1970-2008

CGT completed and delivered

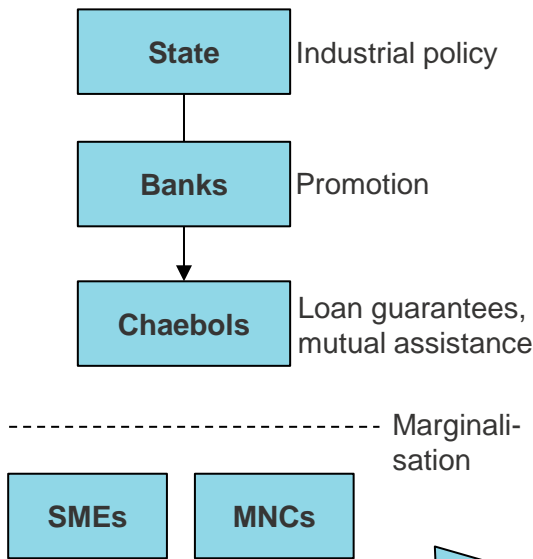


Source: http://ec.europa.eu/enterprise/sectors/maritime/files/fn97616_ecorys_final_report_on_shipbuilding_competitiveness_en.pdf

Korea pursued substitution, while Malaysia, Taiwan and Vietnam pursued complementary strategy, with effects on SME landscape

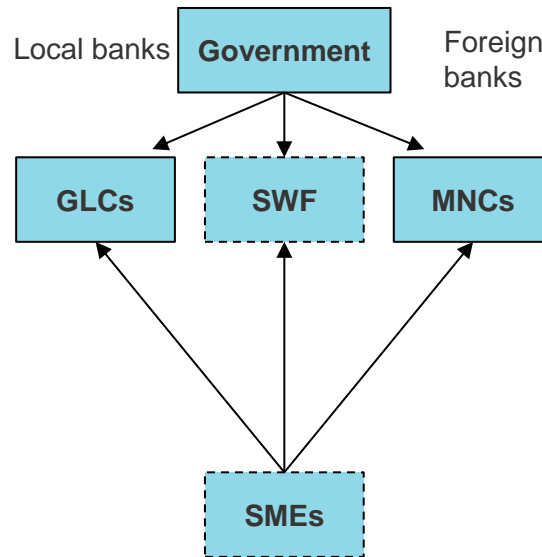
Comparison on national growth models

Korea (also Japan, China)
(substitution strategy)

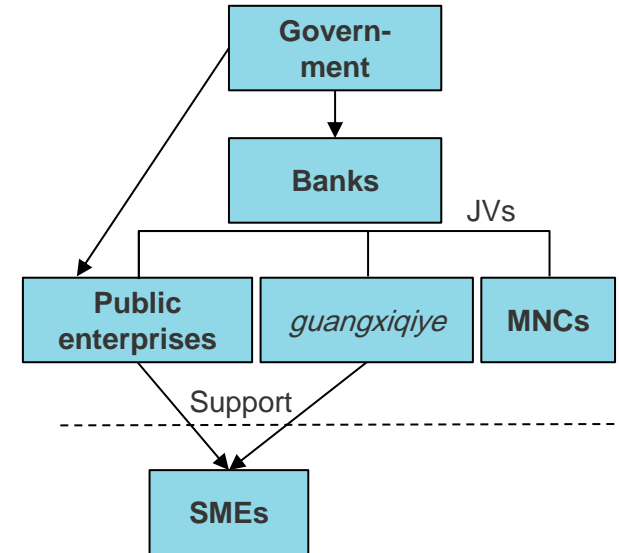


Unlike Japan, Taiwan and Singapore, Korean model required large outside financing (debt)

Singapore and Malaysia
(compl. strat. – int'l model)



Taiwan and Vietnam
(compl. strat. – semi-int'l model)



Vietnam pursues a semi-international complementary strategy similar to Taiwan model, yet with emergence of local conglomerates and weaker links to SMEs

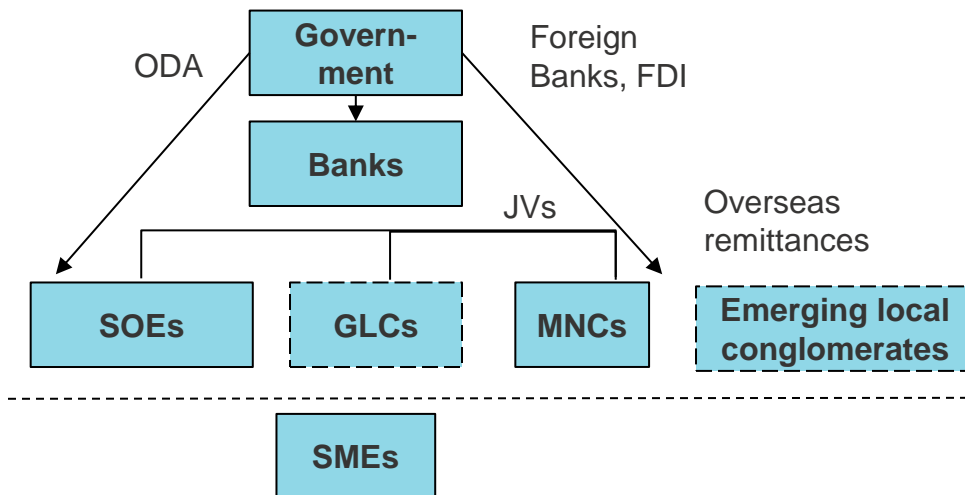
Note: MNC = multinational company, SME = small and medium sized enterprise, GLC = government linked company, SWF = sovereign wealth fund, SOE = 100% state owned enterprise

Source: Shin, Chang, *Restructuring Korea Inc.*, pp. 11-22; Ha Thanh, Nguyen & Klaus Meyer (2004); Van Chung, Vu (2015); Reddal analysis

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)



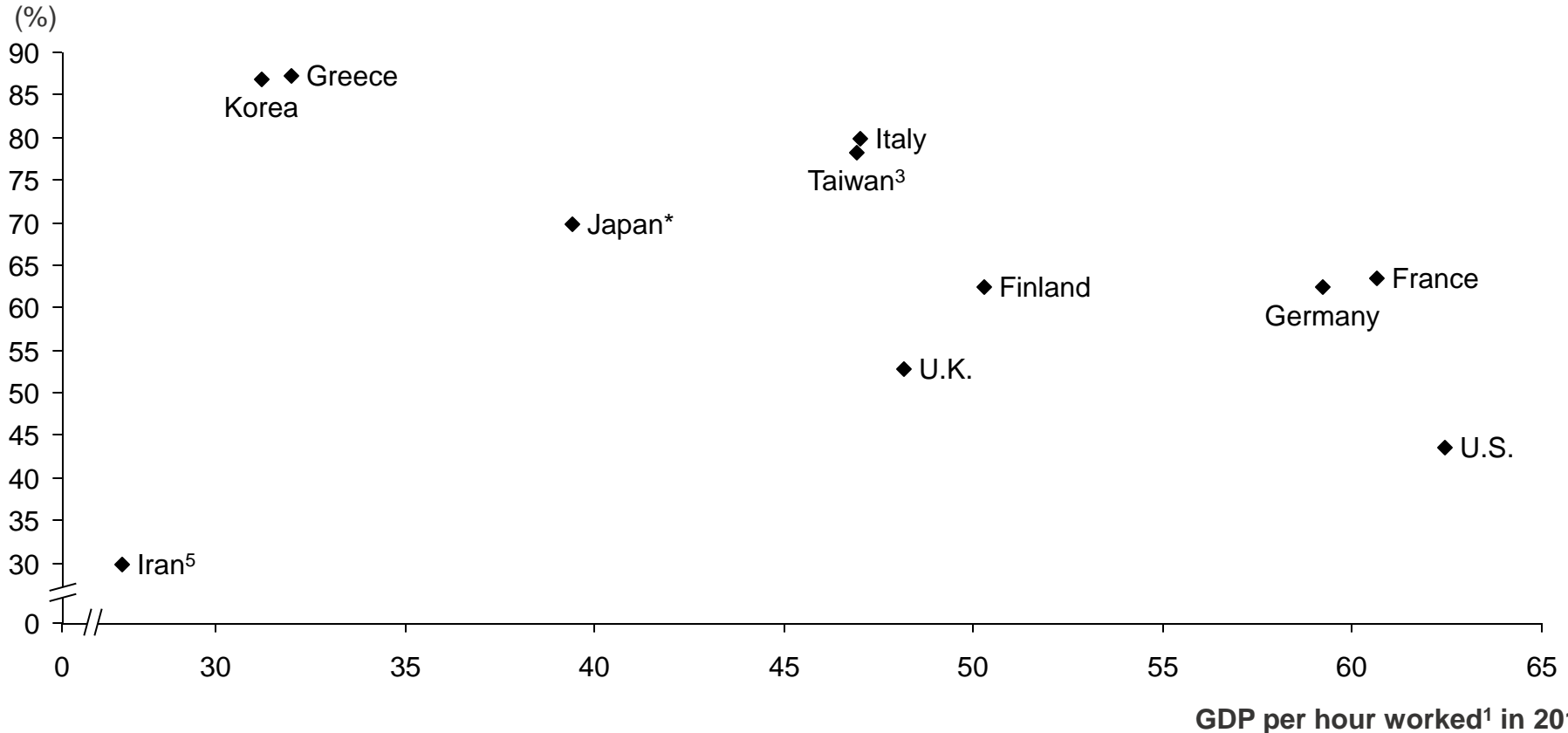
- The Vietnam model is closer to Taiwan, with JV between SOEs and MNCs accounting for 25% of FDI capital (2013), driven by government equity/license requirements in sensitive sectors and unique access to local knowledge and natural resources
- Vietnamese SOEs are not only owned but also managed by respective 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 remittance 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

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 employment² in 2012**

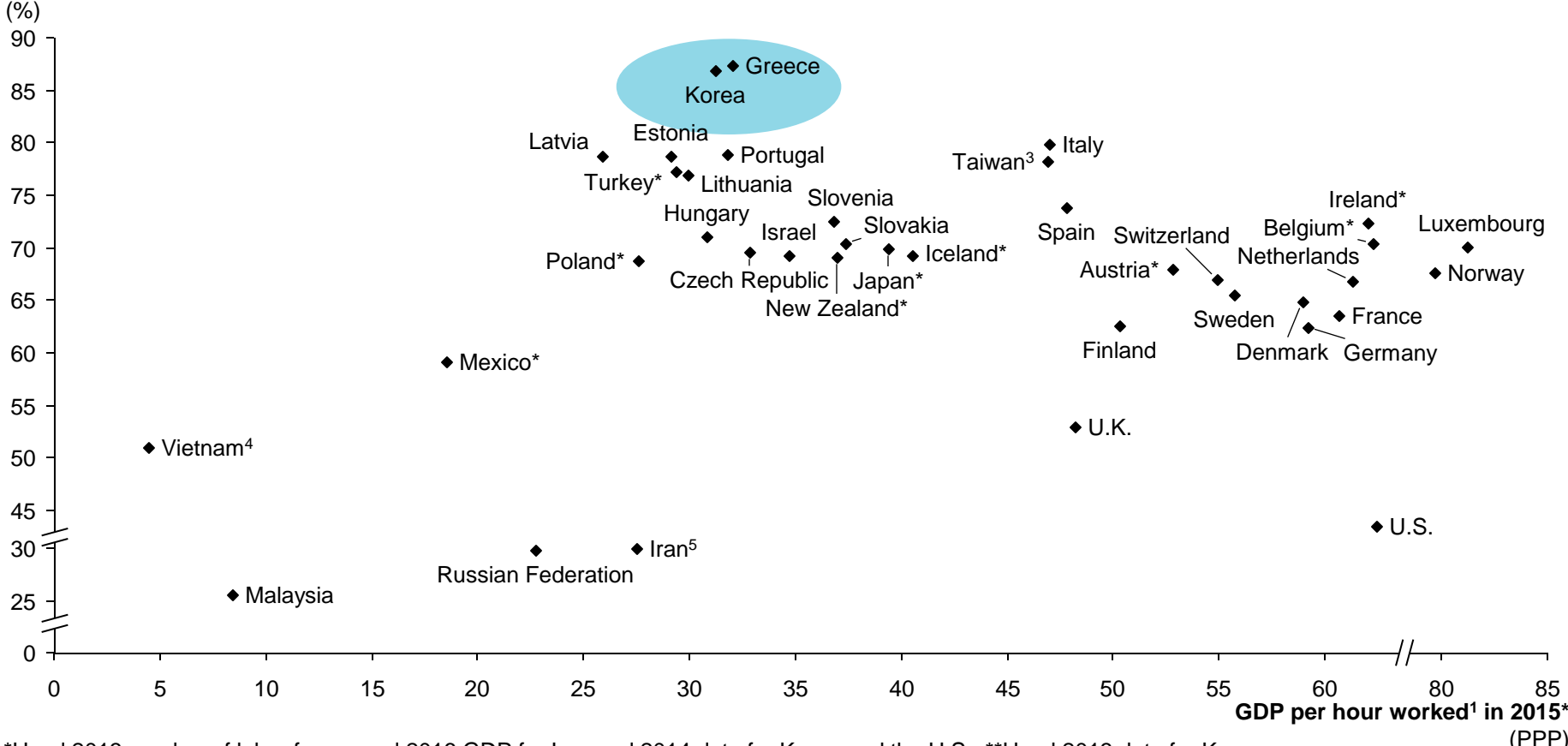


* Used 2013 number of labor forces and 2016 GDP for Iran and 2014 data for Korea and the U.S.; **Used 2013 data for Korea (PPP)
Source: ¹OECD, *Compendium of Productivity Indicators* (2016); ²OECD, *Entrepreneurship at a Glance* (2015); ³Ministry of economic affairs of the R.O.C and The conference board total economy database; ⁴General Statistics Office of Vietnam; ⁵ Statistical 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 employment² in 2012**

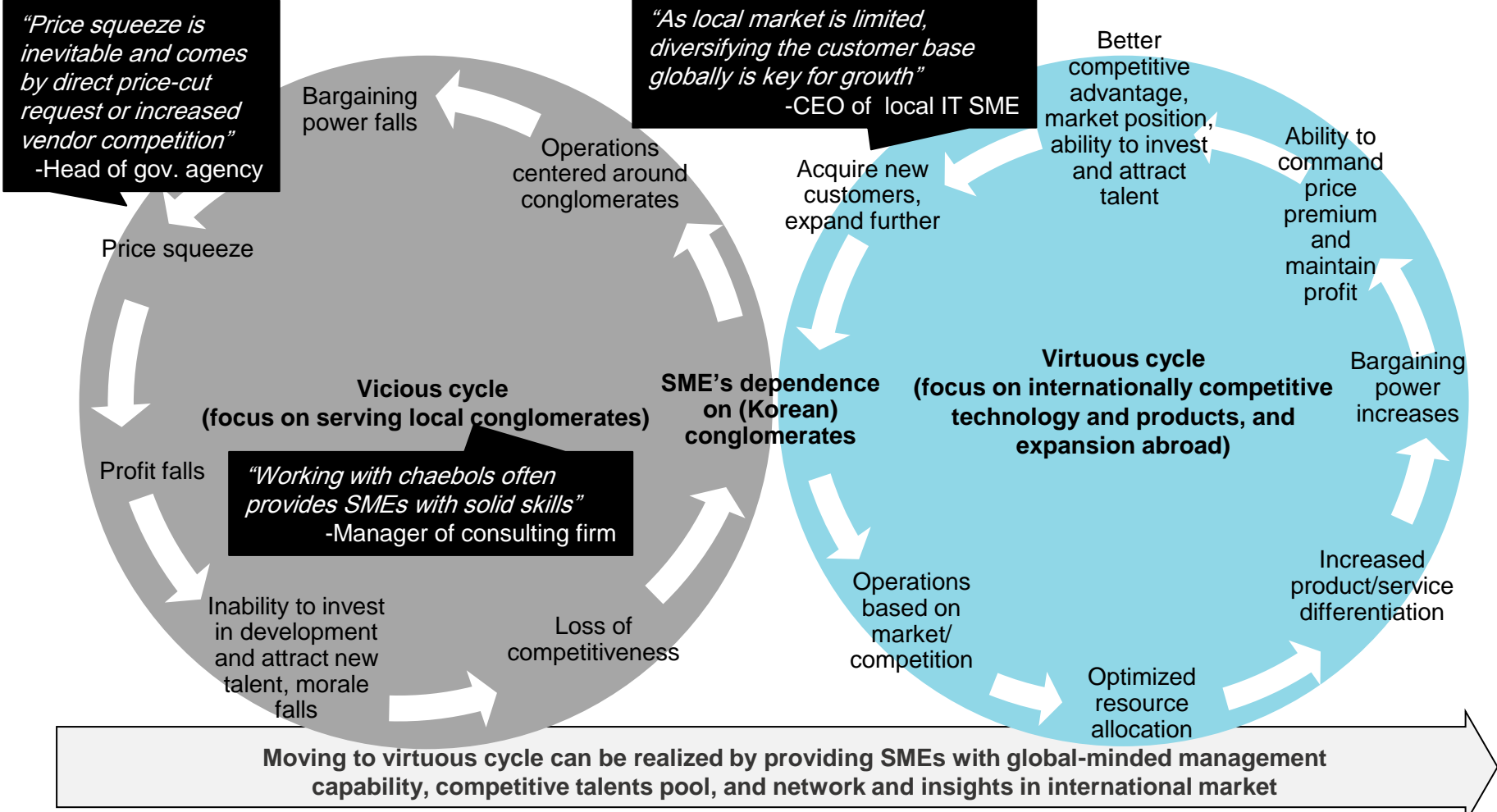


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High dependence on local conglomerates can trap SMEs into vicious cycle, but this can be broken by customer diversification

Korean SME vicious vs. virtuous cycle



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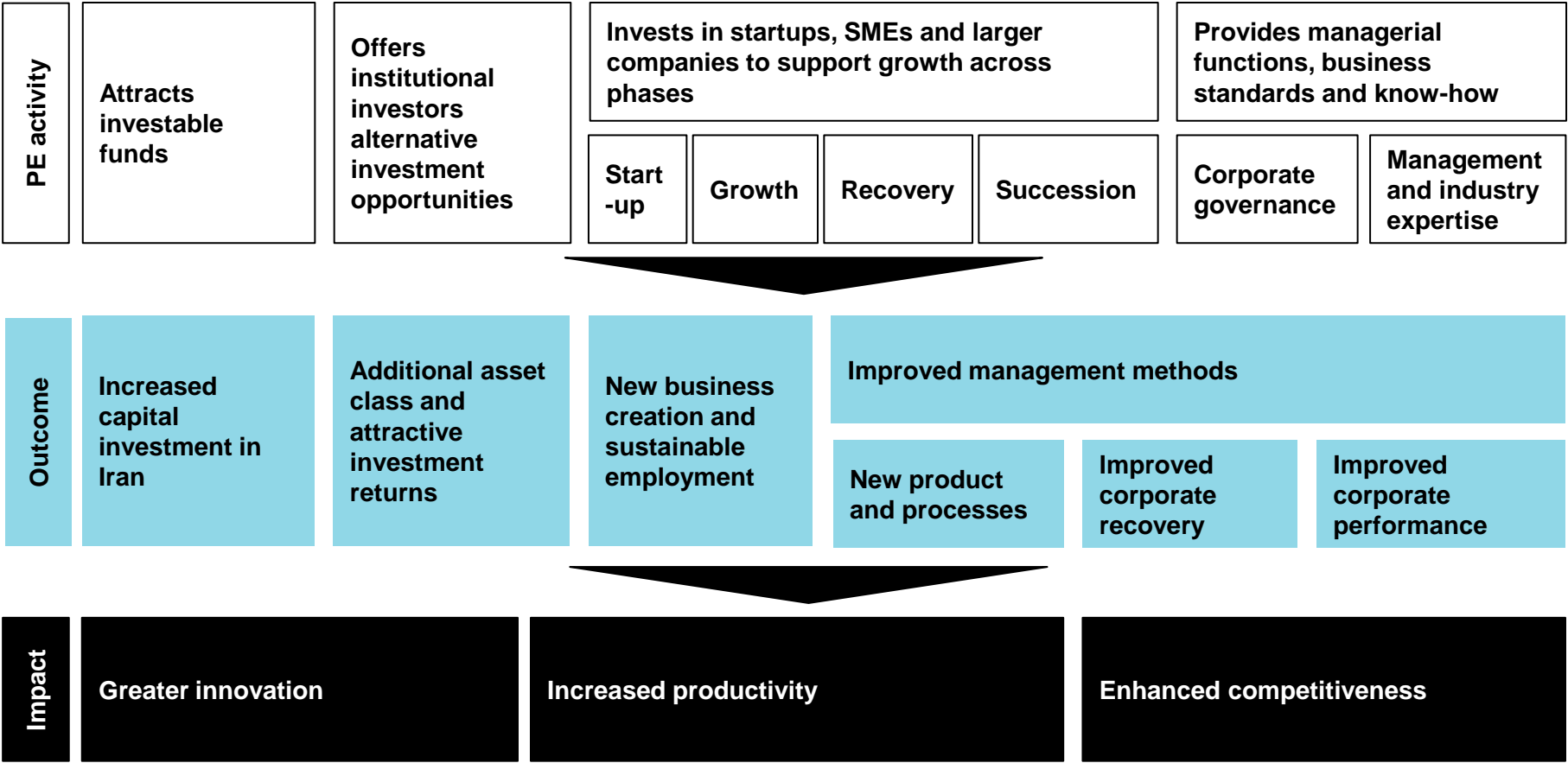
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Private equity can accelerate growth via activities to foster innovation, increase productivity and competitiveness of businesses

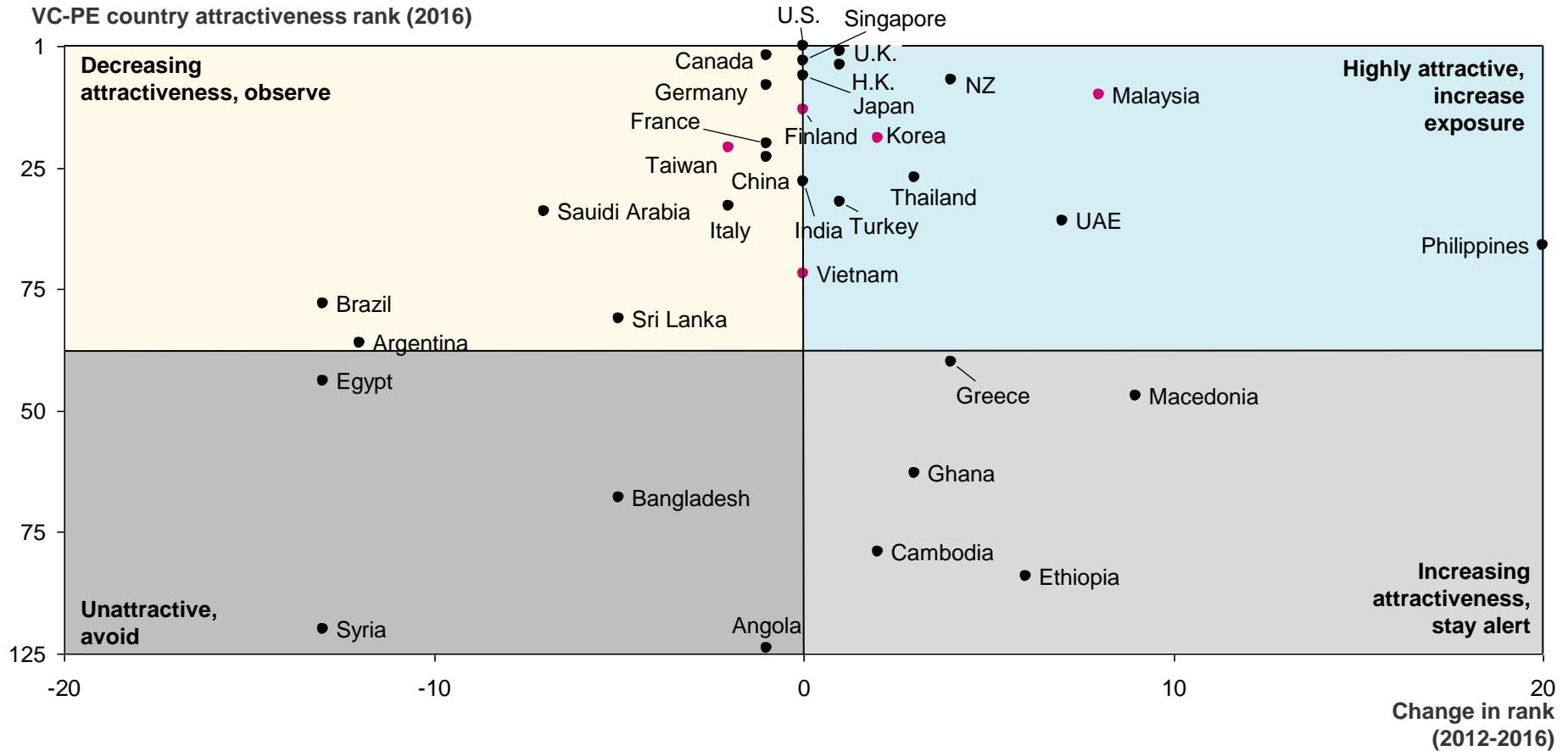
Role of private equity to foster economic growth



Source: Frontier Economics (2013)

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

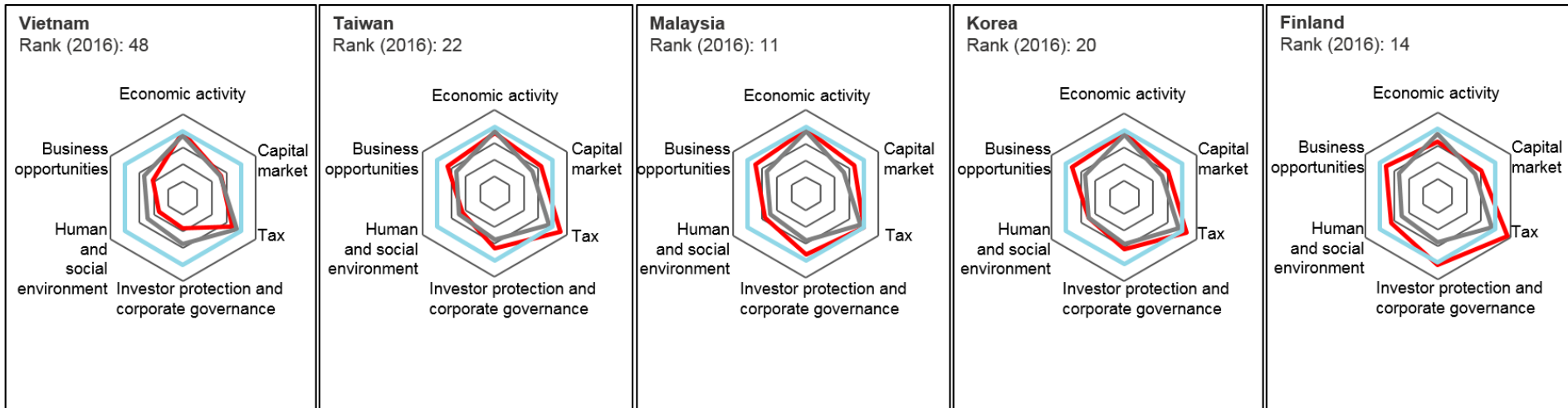


Source: IESE Business School, University of Navarra, *Venture Capital and Private Equity Country Attractiveness Index* (2016)

Finland, Korea, Malaysia and Taiwan exhibit different strength and weakness areas

IESE VC-PE country attractiveness index

— Asian average
 — Country specific
 — U.S.



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

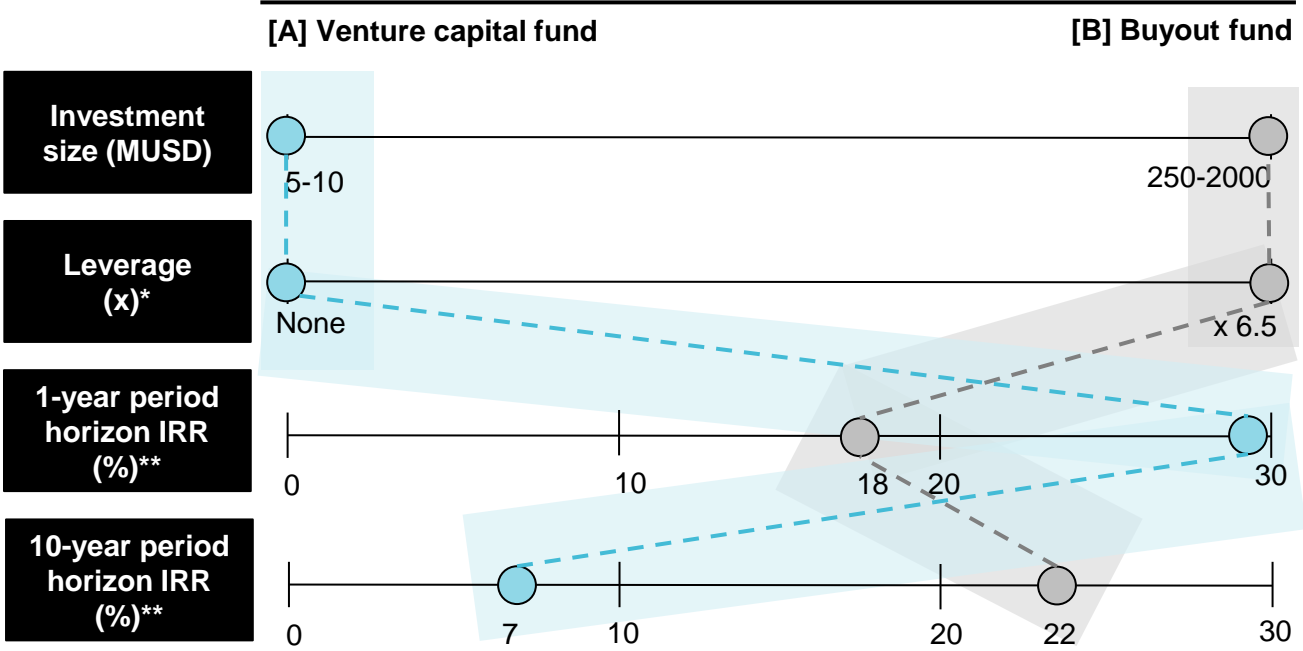
Note: chart using scores for each driver; Asia average is weighted average of individual country data (Armenia, Azerbaijan, Bangladesh, Cambodia, China, Hong Kong, India, Indonesia, Japan, Kazakhstan, South Korea, Kyrgyzstan, Malaysia, Mongolia, Pakistan, Philippines, Russia, Singapore, Sri Lanka, Taiwan, Thailand and Vietnam) by GDP or population

Source: IESE Business School, University of Navarra, *Venture Capital and Private Equity Country Attractiveness Index* (2016)

VC is most challenging of PE asset classes due to difficulty to scale and shows long-term underperformance over other strategies

Major private equity asset classes

Typical venture capital vs. buyout fund comparison



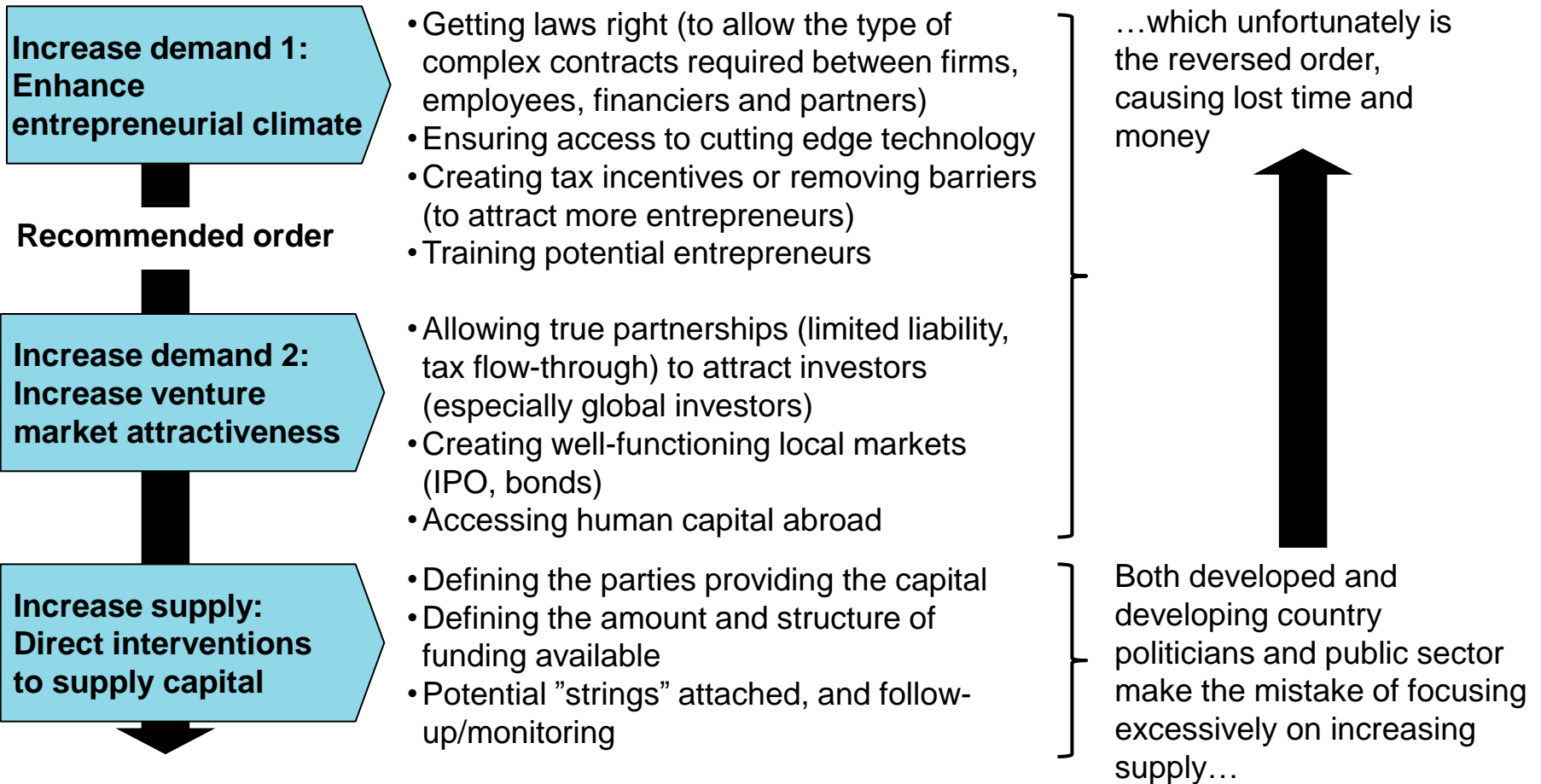
- Venture capital does not scale very well unlike buyouts; it is hard to invest more than 5-10MUSD in a typical startup
- VC relies principally on equity only; VC backed startups generally do not have any tangible assets or stable revenue stream that could allow them to get loans
- Despite recent high IRR over 1-year period to 2014, over last 10 years, VC has shown clear underperformance over other PE investment strategies including buyout

*Debt/EBITDA ratio approximated based on source; Note that for mid-market buyouts, leverage ratio may be lower; **Horizon IRRs are calculated using the fund's net asset value as negative outflow at the beginning of the period with any cash paid or received during the period and the fund's residual value as a positive cash inflow at the end of the period at March 31, 2014

Source: Private Equity 4.0, pp132-158; Preqin, *Special report venture capital November (2014)*; The Wall Street Journal, *Debt rises in LBOs despite warnings (2014)*

Lessons learned from these countries imply that developing basic infrastructure should precede direct government investment into VC

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



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

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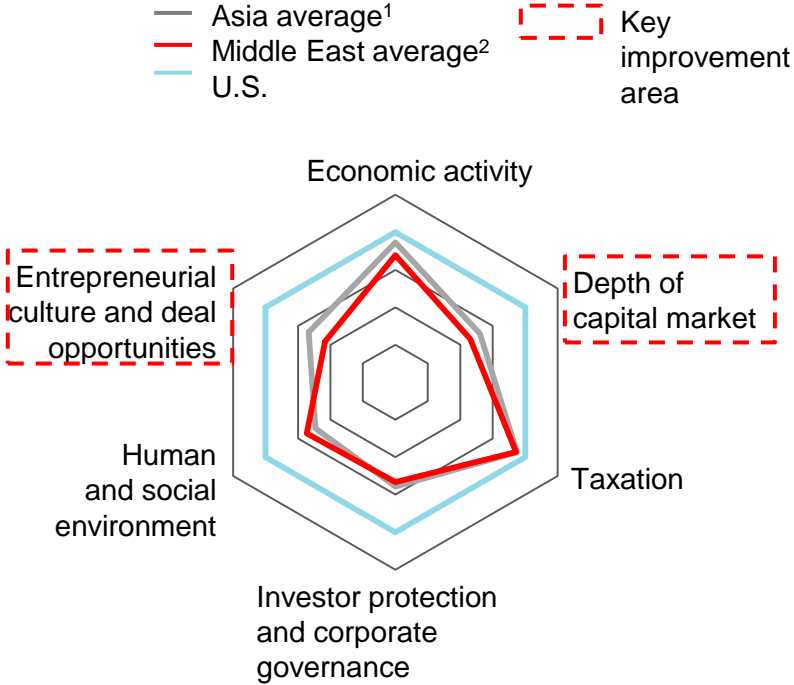
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For Middle Eastern countries development of entrepreneurial culture and capital market is priority

Middle East country VC-PE attractiveness

VC-PE attractiveness landscape by region



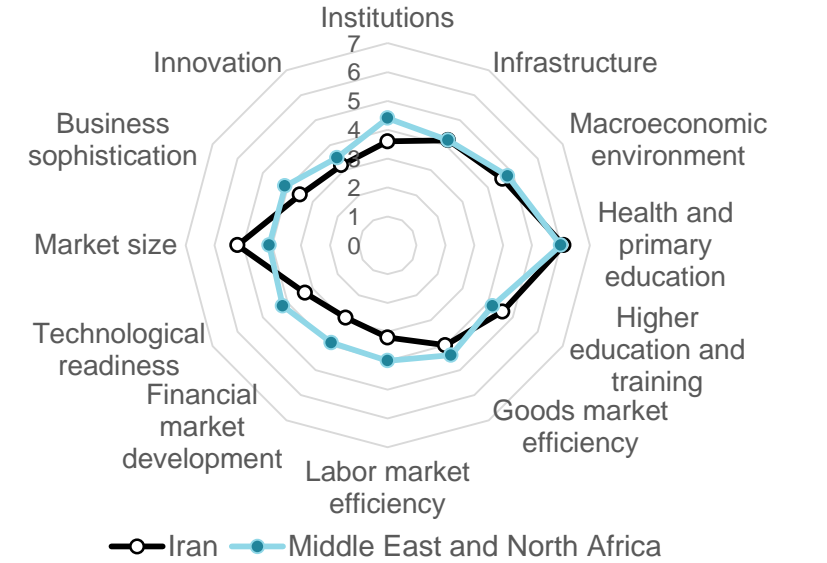
Key improvement area	Proxy
Depth of capital market	Size of stock market
	IPOs and public issuing activity
	M&A market activity
	Debt and credit market
	Stock market liquidity (trading and volume), bank non-performance loans and financial market sophistication
Entrepreneurial culture and deal opportunities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

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 calculate 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)

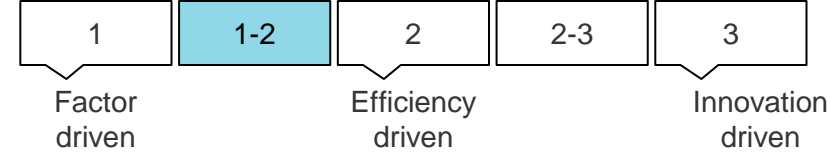
Despite recent improvement, access to financing is still the main barrier against starting a business in Iran

Ease of starting a business in Iran

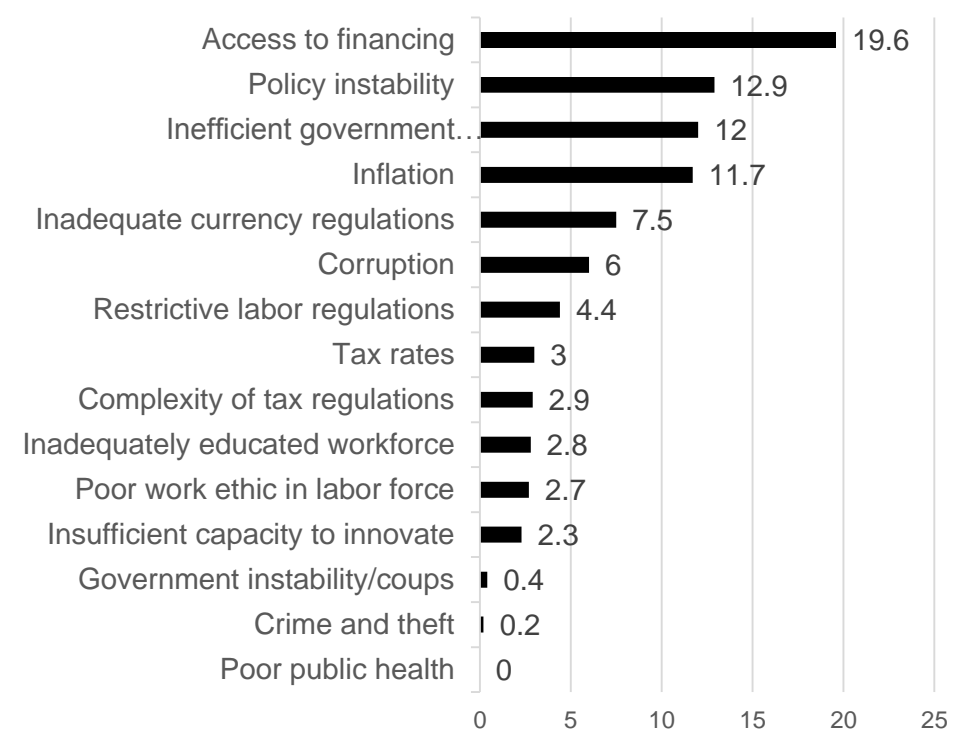
Global competitive index – Iran (score*)



Stage of development



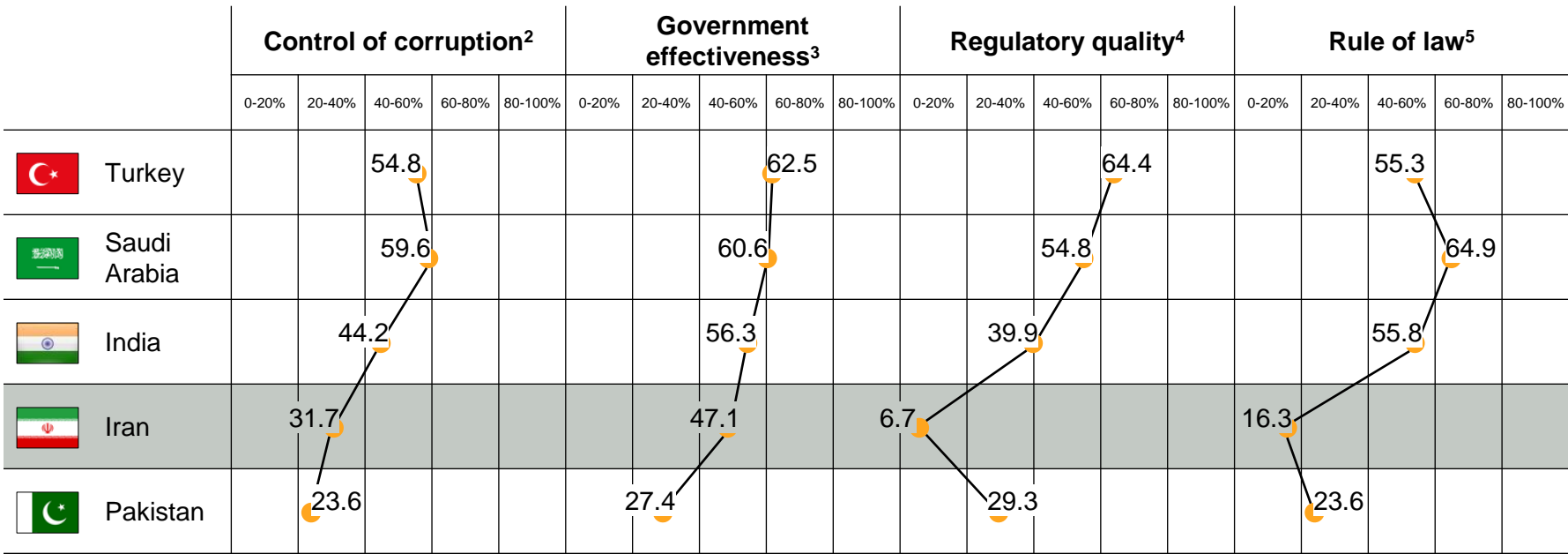
The most problematic factors to do business in Iran (score*)



Source: World Economic Forum – 2016

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

Political risk – regional benchmark¹



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

PE in a deal by deal manner is emerging

- 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)

Investment in technology focused VCs, accelerators and incubators increasing

- 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
- Iratel is another new player in the space
- Avatech is one of the main accelerators (owned by Sarava)

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



GriffonCapital

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



SARAVA

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



TURQUOISE
PARTNERS

- 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



SHENASA

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



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



- 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 ZA-based MTN to boost ride-sharing in Iran



- Iratel Ventures, which is the investing arm of Iranian telecom company Pars Iratel, is raising a \$10 million to invest \$50,000 to \$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

Address deficiencies in the regulatory environment

- 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

Encourage investment in SMEs and Family Owned Enterprises (FOE)

- 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

Ensure there is a path to IPOs

- 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

Substitute role of institutional investors and large banks

- 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

A large, dark, 3D letter 'J' sculpture stands on a rooftop covered in gravel. The background shows a cityscape with buildings and cranes under a cloudy sky. The text 'Working together for successful growth!' is overlaid in white.

Working together for
successful growth!