

Venture financing

IBICT 2019

Reasoning on sustainable growth



A macro-economics' question:



direct or indirect relation between country welfare and companies' growth?



Corporations



Fortune	Global 500 2014: 20 first corporations in the ICT domain	
13	Samsung Electronics	
15	Apple	
32	Hon Hai Precision Industry	
34	AT&T	
42	Verizon Communications	
50	Hewlett-Packard	
53	Nippon Telegraph & Telephone	
55	China Mobile Communications	4_
58	Siemens	
71	International Business Machines	
78	Hitachi	
99	Deutsche Telekom	
104	Microsoft	
105	Sony	
106	Panasonic	
109	Telefonica	
112	Amazon.com	
135	Softbank	
141	Vodafone Group	
145	Toshiba	

	Fortune Global 2012		Fortune Global 2013		Fortune Global 2014	
20	Samsung Electronics Co., Ltd.	14	Samsung Electronics Co., Ltd.	_13	Samsung Electronics	
- 00	Nippon Telegraph & Telephone Corporation	19	Apple, Inc.	(13)	Apple	AS 登AT
(31)	Hewlett-Packard Company		Hon Hai Precision Industry Co., Ltd.	<u></u>	Hon Hai Precision Industry	
32	AT&T Inc.	32	Nippon Telegraph & Telephone Corporation	34	AT&T	
38	Hitadhi, Ltd.	34	AT&T Inc.	42	Verizon Communications	1 2 3 3 5 1 5
					Verizon Communications Hewlett-Packard	
43	Hon Hai Precision Industry Co., Ltd.	4	Hewlett-Packard Company	١		ZIM S SS SS
47	Siemens Aktiengesellschaft		Verizon Communications Inc.		Nippon Telegraph & Telephone	
	Verizon Communications Inc.	53	Siemens Aktiengesellschaft	55	China Mobile Communications	VOVOICE
(")	Apple, Inc.	34	Hitachi, Ltd.	58	Siemens	11801
37	International Business Machines Corporation	62	International Business Machines Corporation	71	International Business Machines	
66	Penesonic Corporation	71	China Mobile Communications Corporation	78	Hitachi	
77	China Construction Bank Corporation	83	Panasonic Corporation	~~	Deutsche Telekom	
81	China Mobile Communications Corporation	94	Sony Corporation	104	Microsoft	
87	Sony Corporation	97	Telefónica	105	Sony	
89	Deutsche Telekom AG	105	Deutsche Telekom AG	105	Panasonic	
97	Toshiba Corporation	110	Microsoft Corporation	209	Telefonica	
105	Vodafone Group Pic	124	Vodafone Group Pic	112	Amazon.com	
119	Microsoft Corporation	126	Toshiba Corporation	135	Softbank	
255	PepsiCo, Inc.	145	Comcast Corporation	141	Vodefone Group	
147	Dell Inc.	(149	Amazon.com, Inc.	145	Toshiba	
166	Fujitsu Limited	158	América Móvil	146	Comcast	
167	Comcast Corporation	165	Dell Inc.	154	China Telecommunications	
475	Intel Corporation	170	France Télécom SA	156	America Movil	
(174)	Nokis Corporation	182	China Telecommunications Corporation	(162)	Google	
196	LG Electronics Inc.	183	Intel Corporation	189	Orange	
206	Amezon.com, Inc.	185	Fujitsu Limited	194	LG Electronics	
214	Mitsubishi Electric Corporation	(189	Google Inc.	195	Intel	
220	KDDI Corporation	220	Cisco Systems, Inc.	210	China United Network Communications	
221	China Telecommunications Corporation	225	LG Electronics Inc.	214	Cisco Systems	
224	Canon Inc.	233	KDDI Corporation	222	Fujitsu	
237	Cisco Systems, Inc.	236	Canon Inc.	249	KDDI	
244	Telecom Italia S.p.A.	244	Mitsubishi Electric Corporation	273	Mitsubishi Electric	
253	Softbank Corporation	257	Softbank Corporation	283	Honeywell International	
257	Vivendi		China United Network Communications Ltd.	285	Huewei Investment & Holding	
271	NEC Corporation	274	Nokia Corporation	285	Lenovo Group	
277	Google Inc.	281	Telecom Italia S.p.A.	292	Canon	
(")	Quenta Computer, Inc.	289	Vivendi	292	Amer International Group	
300	Quanta Computer, Inc. Oracle Corporation	294	Oracle Corporation	306	Amer international group Oracle	
307	Royal Philips Electronics N.V.	295	NEC Corporation	319	Telecom Italia	
309	Telefonaktiebolaget LM Ericsson	310	Sprint Nextel Corporation	325	Vivendi	
328	Sprint Nextel Corporation	315	Huawei Investment and Holding Co., Ltd.	335	L.M. Ericsson	
333	Chine United Network Communications Ltd.	321	Quanta Computer, Inc.	370	Royal Philips	
351	Huawei Investment and Holding Co., Ltd.	329	Lenovo Group Limited	375	Pegatron	
353	Schneider Electric SA	333	Telefonaktiebolaget LM Ericsson	379	DirecTV	
354	Sharp Corporation	347	Royal Philips	382	China Electronics	
358	BT Group pic	372	Schneider Electric SA	387	Schneider Electric	
370	Lenovo Group Limited	383	Sharp Corporation	(392)	Nokia	
372	Flextronics International, Ltd.	384	Pegatron Corporation		Accenture	
408	Lancations Pile	***	Constitute Pile	108	ure.	

World top 5 historical data



Тор	2001 US\$1,527bn	2006 US\$1,670bn	2011 US\$1,519bn	2016 US\$2,407bn	2017 US\$3,328bn
1	US\$372bn	E≪onMobil US\$447bn	ExonMobil US\$406bn	Ú US\$609bn	ઇ US\$861bn
2	Microsoft US\$327bn	US\$383bn	Ú US\$377bn	Google US\$539bn	Google US\$730bn
3	ExonMobil US\$300bn	Microsoft US\$294bn	PetroChina US\$275bn	Microsoft US\$483bn	Microsoft US\$660bn
4	Walmart >¦< US\$273bn	CÎTÎ US\$274bn	US\$234bn	Berkshire Hathaway de. US\$402bn	amazon US\$564bn
5	CÎTÎ US\$255bn	GAZPROM US\$272bn	ICBC (ES) US\$227bn	ExonMobil US\$374bn	f US\$513bn

Source: Intesa Sanpaolo

Start-up (Nov 2017)

	Company	Latest Valuation	Total Equity Funding	Last Valuation
1	Uber	\$68.0 billion	\$12.9 billion	June 2016
2	Didi Chuxing	\$50.0 billion	\$15.1 billion	April 2017
3	Xiaomi	\$46.0 billion	\$1.4 billion	December 2014
4	Airbnb	\$31.0 billion	\$3.3 billion	March 2017
5	SpaceX	\$21.0 billion	\$1.5 billion	July 2017
6	WeWork	\$20.2 billion	\$4.4 billion	July 2017
7	Palantir	\$20.0 billion	\$1.9 billion	October 2015
8	Lufax	\$18.5 billion	\$1.7 billion	December 2015
9	Meituan-Dianping	\$18.3 billion	\$4.4 billion	January 2016
10	Pinterest	\$12.3 billion	\$1.5 billion	June 2017
11	Flipkart	\$11.6 billion	\$5.9 billion	August 2017
12	Lyft	\$11.0 billion	\$3.6 billion	October 2017
13	Dropbox	\$10.0 billion	\$607 million	January 2014
14	DJI	\$10.0 billion	\$576 million	September 2016
15	Stripe	\$9.2 billion	\$460 million	November 2016
16	Theranos	\$9.0 billion	\$750 million	February 2014
17	Spotify	\$8.5 billion	\$1.0 billion	April 2015

Start-up (Sept 2018)



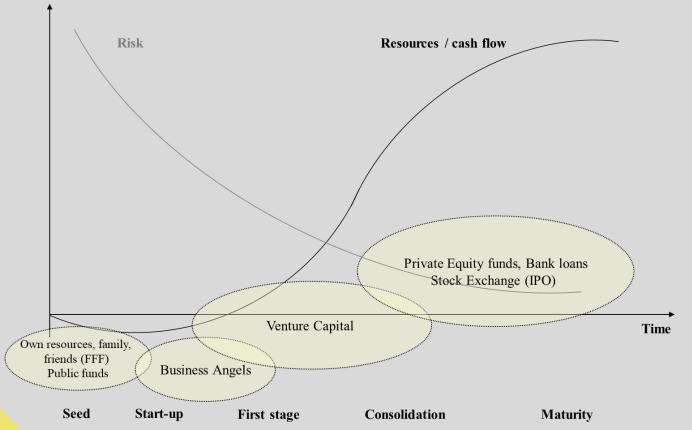
	Company	Latest Valuation	Total Equity Funding	Last Valuation
1	Uber	\$72.0 billion	\$14.9 billion	August 2018
2	Didi Chuxing	\$56.0 billion	\$19.2 billion	December 2017
3	Airbnb	\$31.0 billion	\$3.3 billion	March 2017
4	Meituan-Dianping	\$30.0 billion	\$8.4 billion	October 2017
5	SpaceX	\$21.0 billion	\$1.5 billion	July 2017
6	WeWork	\$20.2 billion	\$4.4 billion	July 2017
7	Palantir	\$20.0 billion	\$1.9 billion	October 2015
8	Lufax	\$18.5 billion	\$1.7 billion	December 2015
9	Lyft	\$15.1 billion	\$4.7 billion	June 2018
10	Pinterest	\$12.3 billion	\$1.5 billion	June 2017
11	Flipkart	\$11.6 billion	\$5.9 billion	August 2017
12	DJI	\$10.0 billion	\$576 million	September 2016
13	Stripe	\$9.2 billion	\$460 million	November 2016
14	Grabtaxi	\$9.0 billion	\$4.1 billion	March 2018
15	Slack	\$7.1 billion	\$1.2 billion	August 2018
16				



FINANCING CYCLE: FROM A START-UP TO A PUBLIC COMPANY

Venture financing cycle





Investment needs in early stage



	Investment focus	Investment type and nature	Investment extent	Risk level	Interested investors
"Seed"	Seed" Idea / project fine tuning, MVP Intangible assets		Restrained	Very high	"FFF", Incubator, Accelerator, Business Angel
Start-up phase	Prototype, service or product launch	* 1		High	Accelerator, Business Angel, Venture Capitalist
First stage	Market expansion, further development Working capital / structural costs Tangible / intangible assets		High	Medium-high	Venture Capitalist, banks

Venture life cycle

BA

BA / VC



Finance

	Ea	arly stage ("expa	nsion")	Late	r stage ("consol	lidation")
	seed	start-up	first stage	second stage	third stage	bridge loans
	Research / MVP	Prototype, product development	Production, commercialisation	Increase working capital	Growth	Specific needs / IPO
	Pre- business plan	Testing, approaching market	Income, but no profits	Income & profits (break-even)	Consolidation, profits	"Cash cow"
E)	< 0,25	0,25 – 1	1 – 3	2 – 5	5 – 10+	10+

VC / Banks

VC / Banks

Scope

Status

Financial dimension (M€)

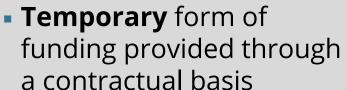
Investors

PE / Banks /

Finance

Debt Capital







- It foresees a specific debt remuneration plus the capital reimbursement
- Credit provider (lender) does not have any operational power or status in the enterprise governance

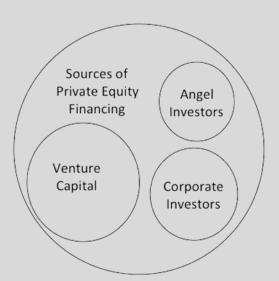
Risk Capital



- Stable form of funding provided through a company governance agreement (unlimited duration)
- It does not foreseen contractual remuneration but only dividends (profits distribution among shareholders)
- Capital provider (co-owner)
 has the right to participate
 and have an active role in
 the enterprise governance



Private Equity



Business Angel

- Private investor with limited financial capabilities, a strong business network, solid management capability, long-standing experience in a certain domain (i.e., former entrepreneurs, managers, commercial experts, ...)
- Objective: support the economic growth of an enterprise, the innovation cycle and the job creation in his pertinent or relevant sector

Venture Capitalist

- Financial operator (physical or legal person) who invests in the Risk Capital of start-up or relatively new companies, especially SMEs.
 - Private Equity funds are special operators who collects savings into large deposit siloes to be used in Risk Capital investments
- Objective: promote the market, dimensional and economic growth in the medium-long term, in order to favor the company listing

Business Angels



- Physical person(s) or specialised company who privately intervene in a start-up Capital
- They help start-ups to growth (management expertise, market knowledge, technology)
- They allocate a fraction of their financial capability, in order to invest in more ventures and diversify the risk
- Usually they know the start-up technological domain and especially the reference market
- Typical investment is from 50 kEuro up to 250 kEuro
- Typical expected return on investment is above 20% per year
- All of them, none excluded, do this job because they believe in entrepreneurship and in young talents, apart from economic interest

Venture Capital



- Financial entities, but also physical person(s), specialised in Risk Capital investments in innovative or promising companies not yet listed
- STAS A A A STAN A STAN
- Based on investment amount, they receive a certain equity on total shares based on enterprise estimated value, and one or more seats in the Board of Directors
- They put money in highly risk companies but aim at earning big profits (capital gains) at disinvestment time
- They work closely with the management and provide their professional expertise for diminishing the default risk
- They are usually competent in the enterprise industrial domain and reference market
- Medium to long term period strategy
- Quite a difference between Europe and US, where VCs are more oriented towards high-tech companies

© Copyright Andrea Guarise and UNITN I&E Basics team, unauthorized copy not allowed

History



- Venture capital originated in medieval age from Islamic culture where the partnership between investor and entrepreneur ("mudarabah") was preferred to loans
- The first modern VC is Georges Doriot, cofounder in 1946 of the "American Research and Development Corporation" (ARDC)
- ARDC first venture was Digital Equipment Corporation (DEC)
- Investment of \$70,000 in 1957
- Valued over \$355 million after the company's Initial Public Offering in 1968
- Representing a return of over 5,000 times on investment and an annualized rate of return of 101% (ROI)
- Other examples of VC investments: HP, Apple, Sun Microsystems, Intel, Microsoft, Google, Facebook, ...

VC criteria to select ideas



Market opportunity

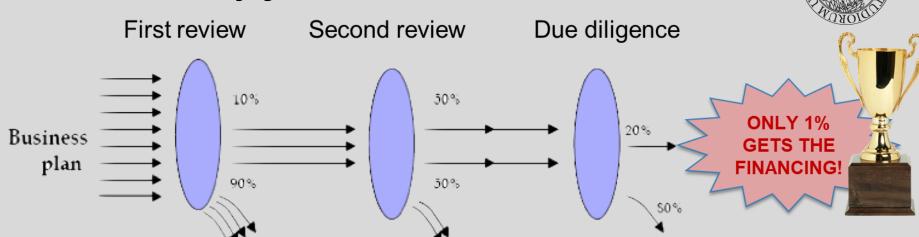
Value proposition

Management team

Financials

- How big, open, expanding is the market?
- What market segment/size could be achieved/retained?
- Who are the competitors?
- Does the company have a unique and sustainable value proposition which is well-defined, easy to communicate and that can be protected?
- Does the management team have the necessary skills and experience to fulfil the development plan?
- Does the business idea (Business Plan) have a potentially attractive, measurable and realistic return?

Not an easy job!



- Deals not satisfying selection criteria (for example, relevant industrial sector)
- Not promising deals
- Critical verification of BP information and business assumptions
- Company visit
- Interview with key people, customers, supplier, banks, ..
- Consultancy from lawyer, auditor

BA success stories

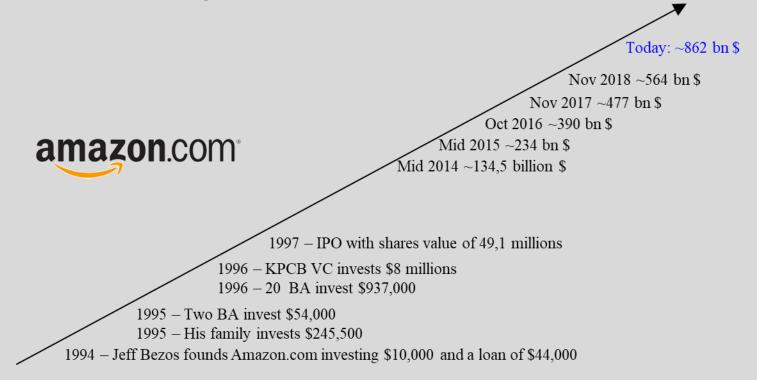


Company Name	Angel Investor	Business	Investment	Value at exit
Amazon.com	Tom Alberg	Online bookshop	\$ 100.000	26 mil
Apple computer	Mike Markkula	Hardware	\$ 91.000	154 mil
Body Shop	Ian McGLinn	Beauty products	£ 4.000	42 mil
ML Laboratories	Kevin Leech	Pharma	£ 50.000	71 mil

Source: V. RAMADANI

The Amazon.com example: market capitalisation growth

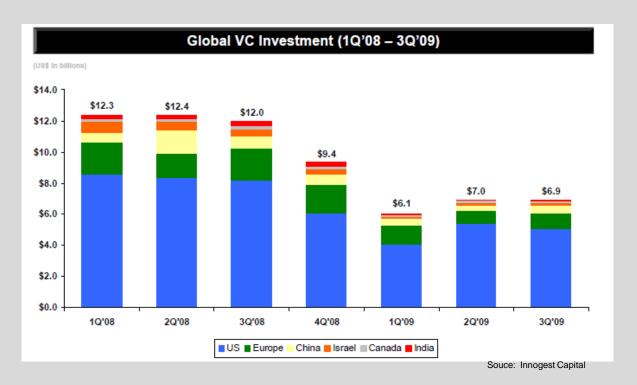




Elaboration from Munck, C. and Saublens, C.

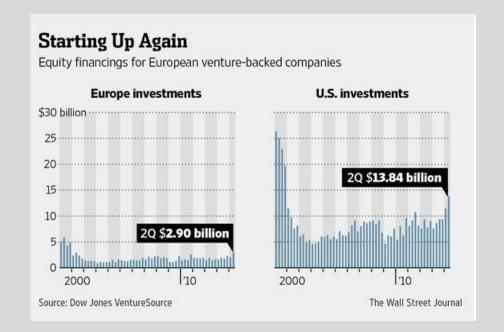
VC investment geography





Equity financing: EU vs. US







HOMEWORK: SUCCESSFUL START-UP STORIES

The Airbnb example ("sharing economy")

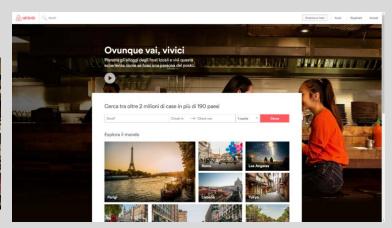


Believers..





"Do things that don't scale," Chesky says, a sentiment that would be considered blasphemy at Google or Facebook. "We start with the perfect experience and then work backward. That's how we're going to continue to be successful."



..and not

Not everyone was as impressed with Airbnb's business model, however, and the young start-up was also notoriously rejected by Fred Wilson and Union Square Ventures - a decision Wilson now admits wasn't a good one.





Thanks!

What next?



- Next class → Battle 3 on Wednesday 20th of November, 14:30 @
 A205
- Next next class, shared with IEB students → Monday 25th of November, 14:30 @ A205
- IBICT group 6 Battle preparation → Wednesday 27th of November, 16:30 @ A205 (participants shall have received mail)

Contacts



Milena: milena.stoycheva@unitn.it

Andrea: andrea.guarise@trentinoinnovation.eu

Francesca: <a href="mailto:francesca

Lorenzo: lorenzo: lorenzo.angeli@unitn.it

Chiara: chiara:chiara.grossi@studenti.unitn.it

All in one (and more!): <u>i-and-e-team@list.disi.unitn.it</u>