Lecture 8

Market Analysis, Cash Flow, Per Customer Economics,

Mustafa Ergen

1. Focus on expenses

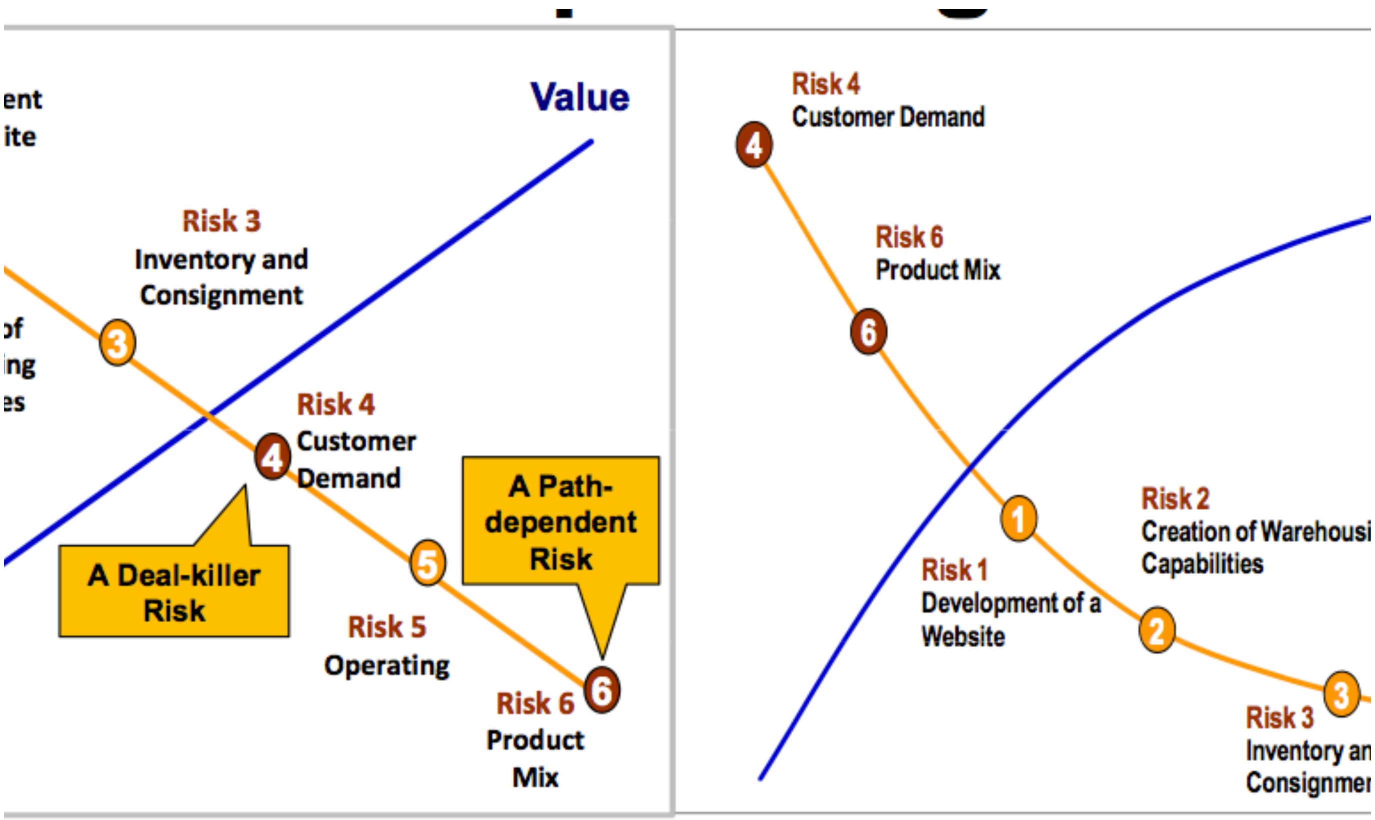
- Start your financial model by estimating your expenses.
- Because people are the foundation of successful startups, start with your hiring plan.
  - Project the types of positions you'll need to hire,
  - when you'll need to hire,
  - and how much you'll have to pay them (salary, benefits and equity).
- Estimate office expenses, rent, insurance, legal, accounting, taxes, equipment, and travel and entertainment costs.
- Create space in your model for your marketing, hosting, sales support and delivery costs to fill in later.

- **Financial Planning**
- A continuous process of allocating financial resources to meet strategic goals
- Allows better decision making
- Start with Strategic Planning
  ● A formal process for establishing goals and objectives
  ● Implemented by developing an Operating or Action Plan
- Next, forecast sales based on strategic plan
- Market research
  ▸ Talk with potential customers
  ▸ Independent market research studies
- ● Comparables
  ● Volume and pricing

Understanding Risk

- "Smart entrepreneurs aren't cowboys—they're methodical managers of risk."
- ● The best entrepreneurs are relentless about managing risks — that's their core competency.
- Finance - a way to think about cash, risk & value ● Creating value is a key responsibility
- Create value by managing & understanding risk ● Market, Management, Technology, Financial, Competition
- Reduce risks before making any significant financial or operational commitments

Risk and Value



Risk & Value are inversely proportional ● Remove risk, increase value

Risk
Development of a Website
Operating
Risk
Product
Risk
Inventory and Consignment
Operating

Sequence matters – not all risks are created equal ● Create disproportionate value quickly

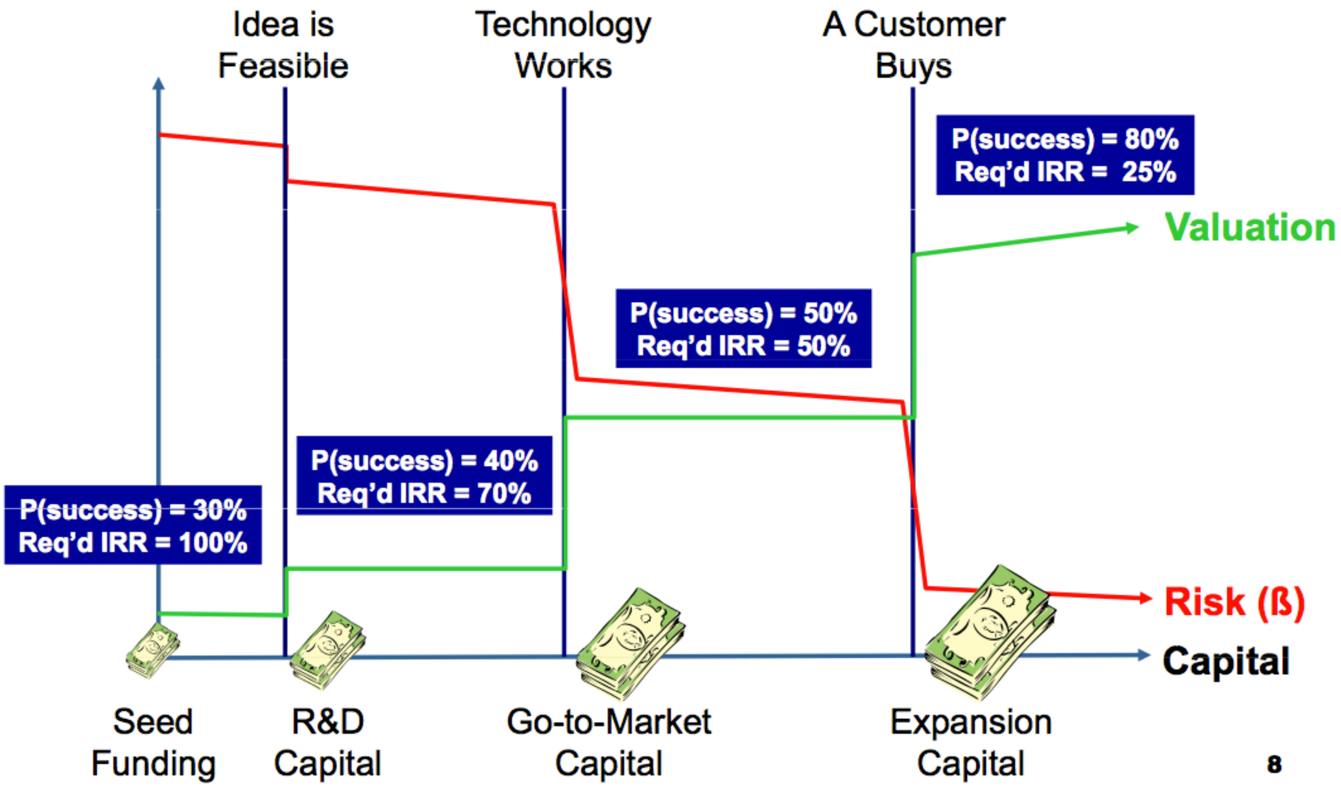
Mix

Look for risks that are quick and cheap to resolve – cost vs. benefits ● Netflix – Testing the postal service

Risk Reduction – Funding to Milestones

- **Risk Reduction - Funding To Milestones** Milestones and expected cost
- ● Shows business understanding and intention to track performance closely against the plan
- Milestone Examples
  ● Completing prototype
  ● Hiring key management
  ● First customer shipment
  ● Achieving $"X" million in revenue ● First profits and positive cash flow

Funding to Milestones



Financial Projections

- **Projections - Overview A reflection of your business plan**
- **quantified**
  ● Consistent with plan strategy
- ▸ Is your strategy financially feasible? **Understand the financial elements of**
- **your business plan**
- ● Not doing so is the fastest way to lose credibility ● Amount of outside financing necessary

Financial Projections

- **Projections - Overview High level figures**
- ● Five-years
  ▸ Monthly for the first two years; quarterly thereafter
- ● Underlying assumptions and detail should be available
  Projections should answer
- ● How will the company perform?
  ● What will the cash position be?
  ● What will the financial position be?
- **P & L**
- **Cash Flow**
- **Balance Sheet**

Financial Projections

- **What's Wrong With Most Financial Plans?**
- Waste too much ink on numbers
  ● Too little focus on what really matters
- ▸ Focus on strategy, execution and risk reduction
  ● No need for detailed, mo. numbers forever
- Typically wildly optimistic
- ● Entrepreneurs underestimate capital & time ●
  Be realistic, but aggressive

Financial Projections

- **Projections - Assumptions**
- Organize in a separate worksheet
  ● Use for "sensitivity" and "what-if" analysis
- Material assumptions
- ● Support with objective, verifiable data
- ● Estimate as best you can
- ▸ Be clear about what you do & don't know ● Individualize
- ▸ e.g., most advertising expenditures are made months before sales result ● Include financial obligations of an evolving, growing company
- ▸ New employees, additional physical space, increases in A/R Support strategy and key drivers of success
- ● Manufacturing yield on a production process

Assumptions – Some to Consider

- **Assumptions – Some to Consider**
- Revenue by distribution channel, geography, # sales people ● Volume, pricing, growth
- Manpower plan – Headcount timing & pay rates
  Cost of Goods Sold *(COGS)* - (labor, material, overhead)
  Operating Expenses - prof. fees, travel, rent, advertising .... Fixed assets and depreciation
  Debt and related collateral support (A/R, inventory, etc.)
  # days in Accounts Receivable & Accounts Payable
  Inventory turnover
  Compare to industry norms

Bottoms Up Projections

- **Bottoms Up Projections**
- Build from low levels of detail ● vs. Tops Down
- ▸ Revenues extrapolated from market size & share ▸ Expenses are forecast as percentages of revenue
- ● Demonstrates understanding of business ● Reflects plan strategy

- nues
- **Revenues Units**
- **Price Amount**
- **Bottoms Up Projections**
- ● Volume and pricing Expen
- Product A - U.S. Direct 100 Pr
  - Europe Partners 50 Service -
- $100 $10,000 $125 $9,375 $75
- Service - Europe
- - -
- **Total Revenues**
- ● Forecast sales at the lowest level of product or service detail (product, customer, channel,

Revenues	Units	Price	Amount
Product A - U.S. Direct	100	$100	$10,000
Product A - Europe Direct	75	$125	$9,375
Product B - U.S. Partners	40	$75	$3,000
Product B - Europe Partners	50	$90	$4,500
Service - U.S.	-	15%	$1,950
Service - Europe	-	17%	$2,359
Total Revenues			**$31,184**

sales person, region)

Sensitivity Analysis

- **Sensitivity Analysis**
- **Revising assumptions for changed strategy or business conditions**
- ● How sensitive the forecast is to changes in certain variables
- ▸ Which assumptions have the biggest impact ● Scenarios A, B & C
- **Examples** ● Pricing
- ● Alternate distribution channels strategy ● Timing issues (sales or development delayed) ● Alternate financing options
- **Use this to run your business!!**

Assumptions Example – Billing Revolution

- **Assumptions Example – Billing Revolution**
- **Revenues**
  ● By customer
- ‣ Existing customers forecast based on history ‣ Zynga
- Monthly no. of users from online research available
  Conversion of users to mobile devices (provided by Zynga)
  Pricing per transaction
  Sequential growth
- ‣ Future customers Pipeline
- Contacts already in process ‣ Citibank – sponsorship
- **Cost of Sales**
  ● Sales commissions ● Servers – step curve

Financial Statement

	Jul-10	Aug-10	Sep-10	Q3 '10	Oct-10	Nov-10	Dec-10	Q4 '10	Total '10
Operating expenses:									
Product Development	56,330	53,739	66,725	176,794	61,484	62,631	58,228	182,343	704,429
Sales & Marketing	4,172	7,417	8,916	20,504	8,503	14,370	4,034	26,907	300,343
General & Admin.	34,312	33,291	32,706	100,309	40,899	31,979	35,906	108,785	459,001
Total Operating Expenses	**94,813**	**94,446**	**108,348**	**297,607**	**110,886**	**108,980**	**98,169**	**318,035**	**1,463,773**

- **Assumptions Example – Billing Revolution Operating Expenses**
- ● Manpower plan **Headcount**
- Product Development Sales & Marketing General & Admin.
- **Total Operating Expenses**
- **Product Development Sales & Marketing Customer Service G&A**
- **Total Headcount**
- travel, taxes)

Headcount	Q1 '11	Q2 '11	Q3 '11	Q4 '11	2011
Product Development	4.00	5.00	5.00	6.00	6.00
Sales & Marketing	0.00	1.00	1.00	2.00	2.00
Customer Service	0.00	0.00	0.00	0.00	0.00
G & A	2.00	2.00	2.00	2.00	2.00
Total Headcount	6.00	8.00	8.00	10.00	10.00

Understanding Cash

- **Understanding Cash**
- **First rule** : Cash is the most important resource Focus on cash flow versus accounting income
- ● Growth absorbs cash
  ▸ Entrepreneurial firms have a very fast cash burn rate
- Need for working capital and fixed investments
  ▸ Today's investments are tomorrow's growth opportunities
- Focus on the dynamic picture of cash flow
  ● Cash cycles (A/R collections, A/P payments); seasonality
- **Last rule**: **DON'T RUN OUT of CASH!!**

2. Product/service is built, marketed, sold & delivered

- Create your revenue plan with a very concrete, tactical, bottoms-up look at the entire chain of events necessary to take your product or service from a plan to the customer.
- How long will it take to develop your product and build the organization
  - Think about your sales staff, website and marketing plan and how your budget for each channel translates to impressions, click-throughs, visitors, trials and sales.
- Your model will vary depending on the type of business and business model. Are you B2B or B2C? Are you pursuing a freemium model?
- Do you have different levels of service at different price points? Are sales one-time or subscription-based? How long will the average customer keep using your product? Consider pricing, discounts, sales, coupons and free trials, when customers pay, and how long it will take to collect invoices.
- Then, consider your partners, commissions, affiliate fees, monthly and per-transaction costs. What kind of hosting and customer support do you need to support your estimated level of sales?
- Then, combine your expenses and revenue estimates to create your first profit and loss statement.

3. Assumptions, market and projections

- How big is the addressable market for your product or service, and is it growing or declining?
- Who are your major competitors and what portion of the market do they currently have?
- What percentage of the market are you estimating you'll be capturing within 3 months, 6 months and a year? Is it reasonable?
- Analyze key metrics and drivers. Which assumptions have the most impact on your projections? Will a small change in price have a big impact on profits?
- Iterate and refine your financial model by testing, analyzing, benchmarking and running your model by people you trust.

4. Create detailed financial statements

- If you're an early-stage company and you're not looking for funding, you probably won't create the detailed statements necessary for late-stage investors.
- Creating a balance sheet, statement of cash flows, financing structure and capitalization table requires a bit of finance and accounting knowledge. Scour the web for template financial models, talk to other entrepreneurs, potential investors and consultants, and you'll have a good idea on how to finish your detailed model.
- Don't hire someone just to build a financial model. Either a) work with a consultant who is gifted at translating strategies into Excel equations while you learn how models work, or b) hire someone in your business who has the skills to build the basic financial models necessary for your stage.
- You won't need a CFO until you've reached significant traction and have the types of opportunities to leverage the skills of a quality startup CFO.

Summary

- If you can answer all these questions, then you've done the analysis necessary to build a strong financial model. It won't be completely right, but that's not the point.

Per customer economics

1. Unit price or revenue per customer

- How much money will you charge one customer for one product?
  - The simpler the answer to this question, the quicker your business will be understood.
  - Whether you charge a price per user, server or download early-stage businesses will need to set a price, or a range of prices for various product packages.
  - If you offer several different packages each with a different price then I would discuss average prices.
  - Nevertheless, simplicity is the objective. In fact, early-stage businesses are most effective in winning those first key supporters when the revenue plan can be calculated in your head with some simple mental arithmetic.

2. Cost to acquire a customer

- How much does it cost you to acquire a new customer?
  - Regardless of whether your sell direct to consumers or to enterprises, winning those customers will have a direct or an indirect cost.
  - If you sell direct, you will need to factor in the costs of attracting customers to use and purchase your product as well as a discussion on how those costs will change over time.
  - Even better, you can discuss how you might influence the acquisition costs to your advantage.
  - If you sell to enterprise customers, you will face the costs of the sales process though the same discussion can be had around the change over time.

3. Cost to serve a customer

- Once a customer has signed on, how much customer care is needed to keep that customer
  - The cost of serving a customer base needs to be added to the cost of acquisition in order to estimate the profitability of each new customer relationship.
  - Internet based business, especially those with a high degree of self-service, have enabled the cost-to-serve to decline dramatically.
  - If you are providing any ongoing service requiring incremental effort, however, that cost may make some levels of revenue per customers unprofitable.
  - For the cost-to-acquire, the most interesting aspects are how it will develop and how it can be influenced over time.

Summary

- Another way to describe this analysis is per-customer economics.
- These three elements sometimes seem too simplistic, though they're often made overly complicated or simply overlooked.
- Their usefulness in explain your business can't be underestimated.
- Breaking down a venture into a few key assumptions will aid you enormously in convincing early supporters of the viability of your business idea.
- Separating out these numbers will strengthen the aggregated business plan and also engage anyone evaluating the business in thoughtful discussion.
- Only when the interplay of these revenues and costs are understood, even if only as assumptions, can an evaluation of the viability of the business model really begin.

1. Unit price
2. Cost to serve
3. Cost to acquire

Business Plan Template

Web

Business Model Template

- comparables on user growth rates, virality, and churn
- customer acquisition / sales methods and costs
- price points and conversion rates for customers, given your business model and sector
- payment processing rates and fraud/chargeback levels
- contractor and salary rates (both “startup discounted” and market) for your hires
- customer support method and costs , and how it scales with customers
- true travel costs (often underestimated)
- expected concurrency rates and visit frequency
- download size per visit if web company
- architecture scaling: owned vs managed hosting vs cloud and how servers and costs scale

Hints to examine

- Are there any variables where a slight variation makes a massive difference?
- Are your fundraising milestones well matched to your product and financial milestones?
- When do you hit monthly breakeven?
- How many users do you need to have acquired / kept to get to breakeven?
- How much money have you spent in total to get to breakeven?
- Are you adequately scaling costs to meet the demands of a large user base in later years?
- Can you believe any of it! cross-check, second-guess, and don't buy too deep into your own assumptions and guesses!

General & Administrative

GENERAL AND ADMINISTRATIVE								
FTE								
Corp	0	0	0	0	0	0	0	0
Contractors								
Corp	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Additional Headcount Costs								
FTE	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
FTE + Contractors	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
IT and Telephony Costs / FTE	700	700	700	700	700	700	700	700
Office Supplies	40	40	40	40	40	40	40	40
Office Space / FTE	0	0	0	0	0	0	0	0
Office Setup	0	0	0	0	0	0	0	0
Travel Costs	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Computer Equipment	0	0	0	0	0	0	0	0
Other 1	0	0	0	0	0	0	0	0
Other 2	0	0	0	0	0	0	0	0
Total	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740
Professional Services								
Legal	0	0	0	0	0	0	0	0
Auditing	0	0	0	0	0	0	0	0
Accounting/Payroll	0	0	0	0	0	0	0	0
Insurance	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Total G&A	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740

Cash

TOTALS								
Registered Users	0	0	0	100	600	1,600	6,600	16,600
Active Users	0	0	0	100	545	1,260	5,655	12,775
Subscribers	0	0	0	0	0	1	5	19
Subscriber Ratio	*NM*	*NM*	*NM*	*0%*	*0%*	*0%*	*0%*	*0%*
Subscription Revenue	0	0	0	0	0	0	0	0
Cost of Revenues	0	0	0	0	0	0	0	0
Gross Profit	0	0	0	0	0	0	0	0
Gross Margin	NM	NM	NM	NM	NM	NM	NM	NM
Technology	0	0	0	0	0	0	0	0
Sales & Marketing	0	0	0	0	0	0	0	0
G&A	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740
Operating Costs	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740
Total Costs	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740
EBITDA	(2,740)	(2,740)	(2,740)	(2,740)	(2,740)	(2,740)	(2,740)	(2,740)
EBITDA Margin	NM	NM	NM	NM	NM	NM	NM	NM
Cumulative P/L	(2,740)	(5,480)	(8,220)	(10,960)	(13,700)	(16,440)	(19,180)	(21,920)
Per Headcount Costs								
FTE	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
FTE + Contractors	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Costs / FTE	685	685	685	685	685	685	685	685
Costs / Entire Team	609	609	609	609	609	609	609	609
CASH								
Name of Round								
Capital Invested	0	0	0	0	0	0	0	0
Cash in Bank	-2,740	-5,480	-8,220	-10,960	-13,700	-16,440	-19,180	-21,920

Staff

Staff

	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10

Markup for benefits/taxes/etc	1.3
Contractor Hours / Month	160

Instructions: edit the salary levels and hourly rates to fit your location and circumstance
Salary phase is set on row 83, which allows you to manually determine when business has reached the point where it can handle more market-competitive salaries

Role	Phase 1 Salary	Phase 2 Salary	Phase 1 Monthly	Phase 2 Monthly	Hourly Rate	Hourly Monthly	Category
CEO	0	0	0	0	0	0	Corp
CFO	0	0	0	0	0	0	Corp
General Counsel	0	0	0	0	0	0	Corp
HR/Finance/Bookkeeping	0	0	0	0	0	0	Corp
Office Manager	0	0	0	0	0	0	Corp
CTO	0	0	0	0	0	0	Technology
VP of Engineering	0	0	0	0	0	0	Technology
Server Dev	0	0	0	0	0	0	Technology
Web / Application Dev	0	0	0	0	0	0	Technology
Sys Admin	0	0	0	0	0	0	Technology
Product Manager	0	0	0	0	0	0	Technology
UI Designer	0	0	0	0	0	0	Technology
VP of Marketing	0	0	0	0	0	0	Sales & Marketing
Marketing Staff	0	0	0	0	0	0	Sales & Marketing
VP of Bizdev	0	0	0	0	0	0	Sales & Marketing
VP of Sales	0	0	0	0	0	0	Sales & Marketing
Inside Sales	0	0	0	0	0	0	Sales & Marketing
Enterprise Sales	0	0	0	0	0	0	Sales & Marketing
VP, Customer Support	0	0	0	0	0	0	Customer Support
Customer Support	0	0	0	0	0	0	Customer Support

EmpCostTable

Users

Model

Milestones	Start				Open Beta			
	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10
	1	2	3	4	5	6	7	8
User Growth Adjustment	100%		<-- this is a simple input to allow you to flex your user growth up and down (100% = expecte					

WEB SERVICE

	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10
New User Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Adj New Registered Users	0	0	0	100	500	1,000	5,000	10,000
Adj Total Registered	0	0	0	100	600	1,600	6,600	16,600
User Churn (by month in)								
1	0	0	0	0	55	275	550	2,750
2	0	0	0	0	0	10	50	100
3	0	0	0	0	0	0	5	25
4	0	0	0	0	0	0	0	5
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0

45	0	0	0	0	0	0	0	0
46	0	0	0	0	0	0	0	0
47	0	0	0	0	0	0	0	0
48	0	0	0	0	0	0	0	0
Total Lost	0	0	0	0	55	285	605	2,880
Total Active Users	0	0	0	100	545	1,260	5,655	12,775
Premium Subscribers								
1	0	0	0	0	0	1	2	11
2	0	0	0	0	0	0	2	4
3	0	0	0	0	0	0	1	3
4	0	0	0	0	0	0	0	1
5	0	0	0	0	0	0	0	0

Revenue

USER BEHAVIOR								
User "visits" per month	0	0	0	0	0	0	0	0
Download per Visit (MB)	0	0	0	0	0	0	0	0
Peak Concurrency	0	0	0	0	0	0	0	0
REVENUE								
Subscription Revenue								
Total Subscription Revenue	0	0	0	0	0	0	0	0
Display Advertising								
Ads Shown (000s)	0	0	0	0	0	0	0	0
Premium CPM Revenue	0	0	0	0	0	0	0	0
Remnant Revenue	0	0	0	0	0	0	0	0
Total Display Ad Revenue	0	0	0	0	0	0	0	0
Integrated Sponsors								
Insert revenue model if any and make sure to add appropriate sales costs below and in staffing tab								
Total Sponsor Revenue	0	0	0	0	0	0	0	0
Total Advertising Revenue	0	0	0	0	0	0	0	0

Cost of Revenues

COST OF REVENUES

Make sure to customize hosting and infrastructure costs to your architecture!								
Hosting & Infrastructure								
Dev/Test Internal Servers	0	0	0	0	0	0	0	0
Purchase Cost	0	0	0	0	0	0	0	0
Users per Server Pair	1000	1000	1000	1000	1000	1000	1000	1000
Production/DB/Staging/Analytics	0	0	0	0	0	0	0	0
Per Server Pair Costs	300	300	300	300	300	300	300	300
Total Production Server Cost	0	0	0	0	0	0	0	0
Total bandwith (TB)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Price Per GB	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Total Bandwidth Cost	0	0	0	0	0	0	0	0
Cloud Fees								
Insert scaling cloud hosting cost structure formulas here, if used								
Total Cloud Fees	0	0	0	0	0	0	0	0
Total Hosting & Infrastructure	0	0	0	0	0	0	0	0
Processing Fees								
Payment Processing	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
PayProc Fees	0	0	0	0	0	0	0	0
Customer Support Team								
FTE								
Customer Support	0	0	0	0	0	0	0	0
Contractors								
Customer Support	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Total Cost of Revenues	0	0	0	0	0	0	0	0

Technology & Marketing

TECHNOLOGY								
FTE								
Technology	0	0	0	0	0	0	0	0
Contractors								
Technology	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
SALES & MARKETING								
FTE								
Sales & Marketing	0	0	0	0	0	0	0	0
Contractors								
Sales & Marketing	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Marketing Budget	0	0	0	0	0	0	0	0
Customer Acquisition	0	0	0	0	0	0	0	0
PR Budget	0	0	0	0	0	0	0	0
Marketing Travel	0	0	0	0	0	0	0	0
Conferences	0	0	0	0	0	0	0	0
Total Sales and Marketing	0	0	0	0	0	0	0	0

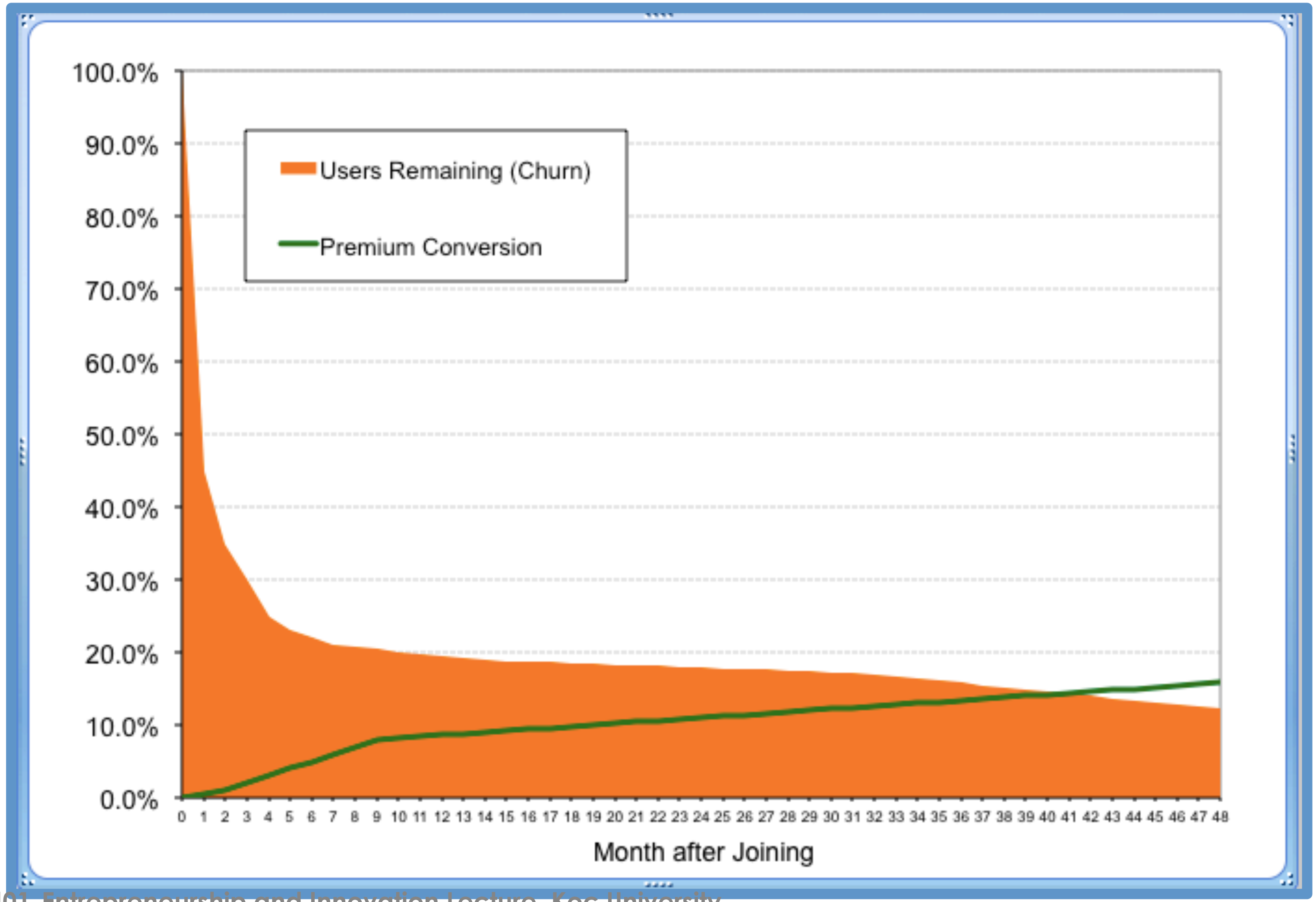
Financial Summary

Financial Summary

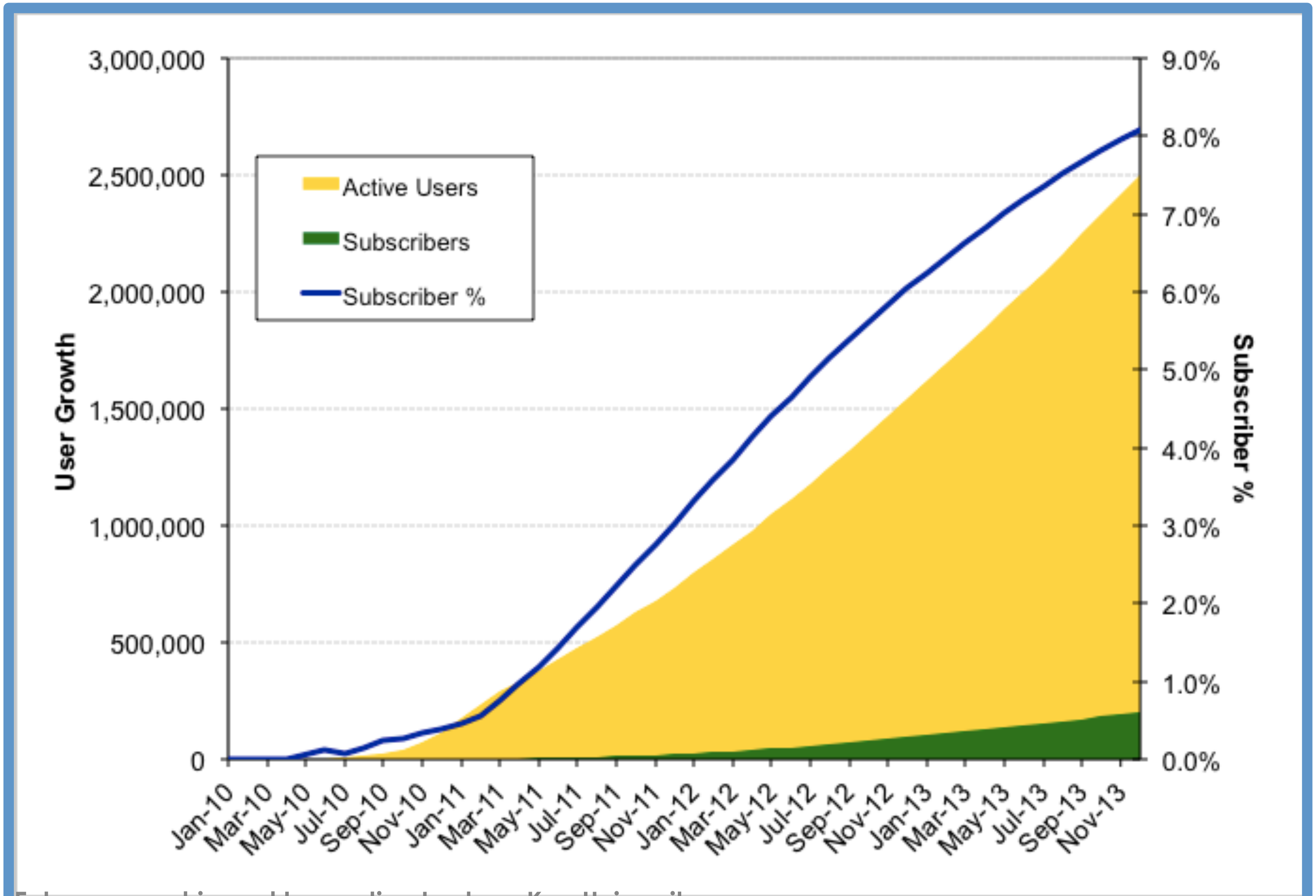
	2010	2011		2012		2013	
Registered Users (FYE)	100	715,188		3,178,669		6,974,996	
Active Users (FYE)	100	334,475		979,648		1,845,493	
Subscribers (FYE)	0	3,197		40,414		126,009	
Subscriber Ratio (FYE)	0%	1%		4%		7%	
Revenue							
Subscriptions	0	0		0		0	
Advertising / Affiliate	0	0		0		0	
Total Revenue	**0**	**0**		**0**		**0**	
Cost of Revenues	0	0		0		0	
Gross Profit	0	0		0		0	
Gross Margin	*0%*	*0%*		*0%*		*0%*	
Technology	0	0	*0%*	0	*0%*	0	*0%*
Sales & Marketing	0	0	*0%*	0	*0%*	0	*0%*
General & Administrative	32,880	72,880	*100%*	132,880	*100%*	152,880	*100%*
Total Operating Costs	32,880	72,880		132,880		152,880	
EBITDA	(32,880)	(72,880)		(132,880)		(152,880)	
EBITDA Margin	*0%*	*0%*		*0%*		*0%*	
FYE Headcount (incl. contractors)	**2010**	**2011**		**2012**		**2013**	
Corp	1.0	1.0		1.0		1.0	
Technology	3.5	3.5		3.5		3.5	
Sales & Marketing	0.0	0.0		0.0		0.0	
Customer Support	0.0	0.0		0.0		0.0	
Total	4.5	4.5		4.5		4.5	

Note: an "active user" is someone who logs in that month
Note: FYE = fiscal year end; numbers represent the last month of the 12 month period
Note: percentages next to operating costs show percent of total costs
Note: headcount show end-of-year numbers, including part-time contractors

Users

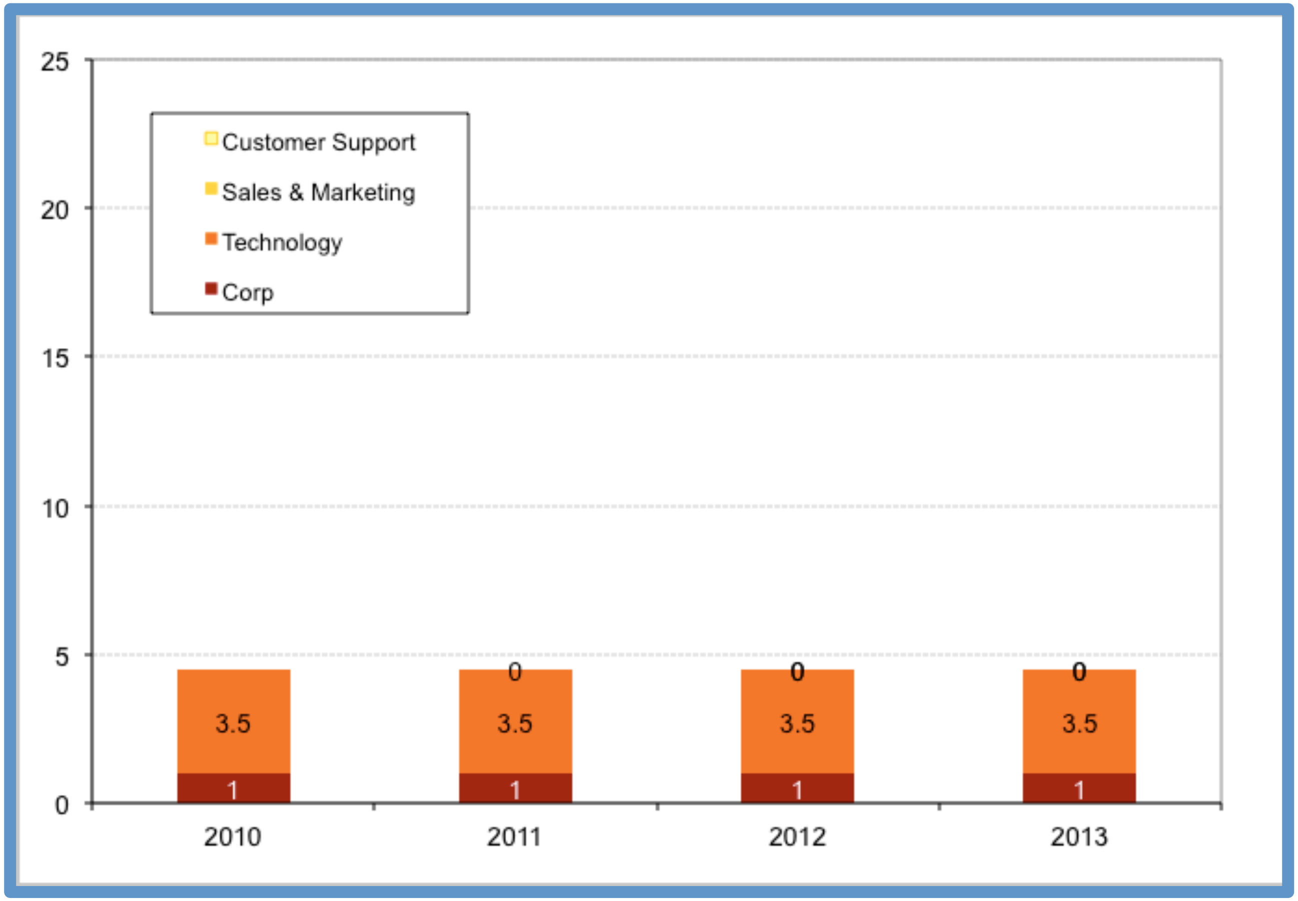

100.0%
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
Users Remaining (Churn)
Premium Conversion
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
Month after Joining

User Growth

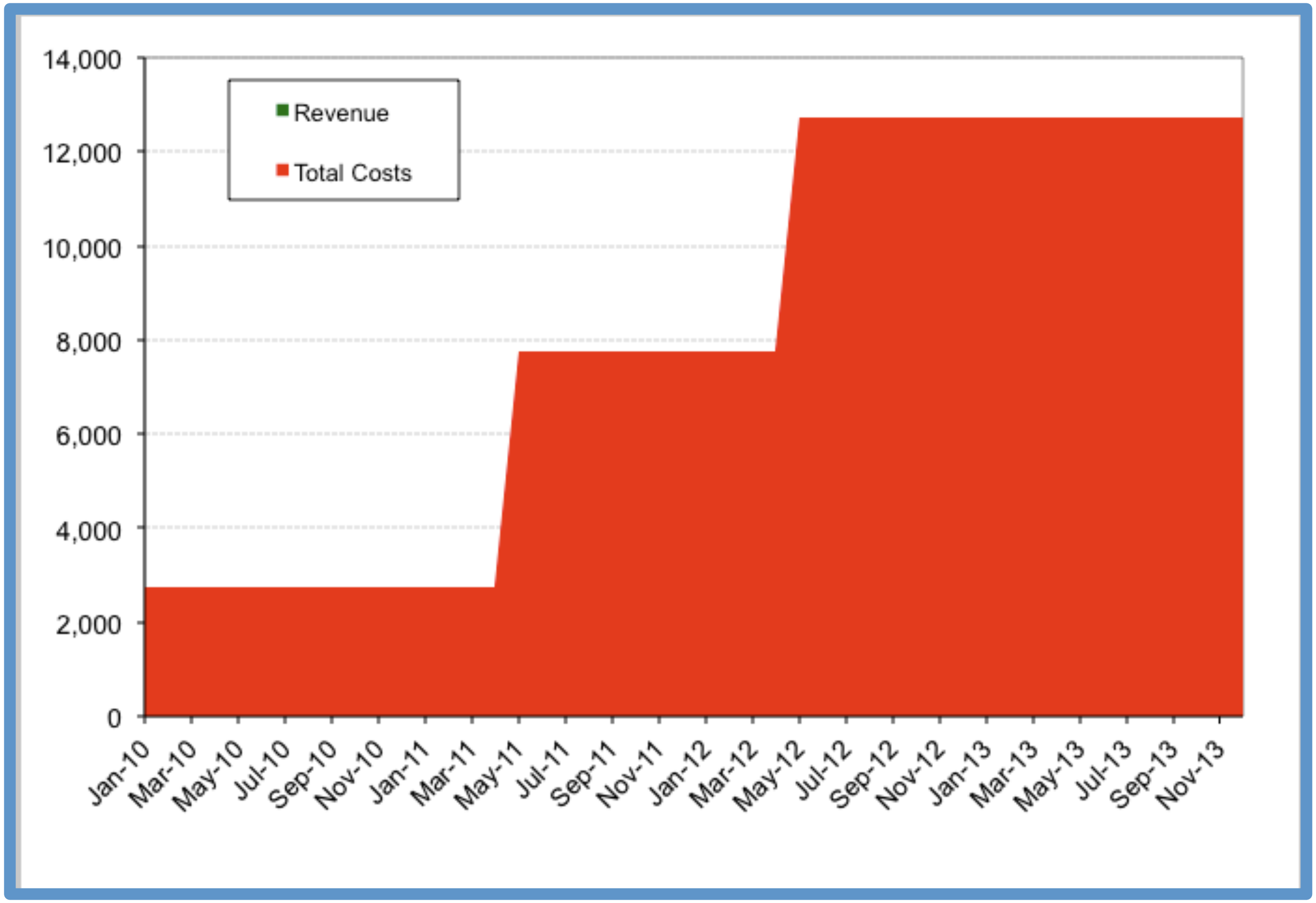


3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
User Growth
9.0%
8.0%
7.0%
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
Subscriber %
Active Users
Subscribers
Subscriber %
Jan-10
Mar-10
May-10
Jul-10
Sep-10
Nov-10
Jan-11
Mar-11
May-11
Jul-11
Sep-11
Nov-11
Jan-12
Mar-12
May-12
Jul-12
Sep-12
Nov-12
Jan-13
Mar-13
May-13
Jul-13
Sep-13
Nov-13

Cost


25
20
15
10
5
0
Customer Support
Sales & Marketing
Technology
Corp
3.5
1
0
3.5
1
0
3.5
1
0
3.5
1
2010
2011
2012
2013

Revenue


14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Revenue
Total Costs
Jan-10
Mar-10
May-10
Jul-10
Sep-10
Nov-10
Jan-11
Mar-11
May-11
Jul-11
Sep-11
Nov-11
Jan-12
Mar-12
May-12
Jul-12
Sep-12
Nov-12
Jan-13
Mar-13
May-13
Jul-13
Sep-13
Nov-13

Financials to Valuation

- Financials are required to estimate the funding needed and one of the indicative of venture valuation in due-diligence.

"**Due diligence**" is a term used for a number of concepts involving either an investigation of a business or person prior to signing a contract, or an act with a certain standard of care. It can be a legal obligation, but the term will more commonly apply to voluntary investigations. A common example of due diligence in various industries is the process through which a potential acquirer evaluates a target company or its assets for acquisition.

Valuation

- What ultimately matters to the investors and private equity practitioners is the cash which has been distributed to the investors during the life of the fund compared with the original money put in.
- However, the life of a typical venture fund is at least 10 years, longer in the life sciences arena. During that period the venture capital fund reports progress to the limited partners.
- In many cases, this means quarterly portfolio updates and a complete audited annual financial statement. For a typical venture fund, very little money is paid out in the first four or five years.

Winner

- Also, while every portfolio company receives funding with high expectations, it can take several years to determine if a particular company is a likely winner.
- Therefore, understanding progress in the portfolio requires some estimate of the success of the investee companies by the venture capital or private equity firm.
- While many investors and fund managers agree that financial measurements mean little for the first three or so years of a fund, after that the fund wants to communicate progress to the investors.
- This is where specific valuation rules and processes become important.
- The agreed valuation procedures for individual portfolio companies become the basis for progress assessment as the fund matures and ultimately distributes cash to the investors.

EBITDA

- So while portfolio company valuations are more of an art than a science, especially for pre-revenue or even pre-EBITDA companies, most limited partner agreements (LPAs) establishing a venture capital fund require the venture firm to provide quarterly and annual financial statements using Generally Accepted Accounting Principles (GAAP).
- GAAP requires fair value measurement for portfolio positions. Therefore, most GPs must issue financial statements using fair value.

The Evolution of Valuation Guidelines: 1989 to 2007

- 1989-1990 – A group of investors, private equity fund managers, and fund-of-fund managers formed a group to develop a set of portfolio company valuation guidelines. Contrary to a very persistent rumor, the NVCA did not endorse, adopt, bless, publish, or otherwise opine on the guidelines.
- Decade of the 1990s – Two noteworthy developments occurred in the 1990s. Despite no endorsement by the NVCA these guidelines became accepted practice by much of the US industry, especially in the venture capital side of private equity. These guidelines were referred to by many as being issued by the NVCA but in fact they were not. The second development is national venture associations creating localized guidelines based heavily on these guidelines. These were created in Europe and other international regions. In fact, by 2005, there had been multiple iterations of the European and British guidelines.
- 2003 – A self-appointed group of private equity practitioners, fund managers, fund-of-fund managers and others formed the Private Equity Industry Guidelines Groups (PEIGG). The overall constitution of this group is not hugely different from the 1989-1990 group. The PEIGG group announced that it was contemplating taking on four initiatives, of which portfolio company valuation guidelines was the first one.
- December 2003 – After an extensive input phase and review by various industry groups, the first version of the PEIGG guidelines were issued. Throughout the process PEIGG had been actively soliciting feedback and input from a number of industry groups including the NVCA.

The timeline below reviews the various efforts to create comprehensive portfolio company valuation guidelines for US private equity.

The Evolution of Valuation Guidelines: 1989 to 2007

- March 2004 – NVCA board issued statement of support, but not endorsement as some pundits had hoped. NVCA position was widely consistent with input provided by members of the NVCA CFO Task Force, members at large, and the NVCA Board of Directors. The text of NVCA's statement is printed below.
- March/April 2004 – The Institutional Limited Partners Association (ILPA) hails NVCA support as welcome support – especially as it relates to the GP and LPs mutually agreeing to the valuation process. PEIGG also hails NVCA support
- July 2004 – After consulting quietly with various industry groups, PEIGG issues guidance on controversial paragraph 30, which allows for and requires non-round write-ups under certain circumstances. This is the most discussed and debated provision in the guidelines.
- September 2004 – Based on input from ILPA and others, PEIGG agrees to minor wording changes in two paragraphs. This becomes PEIGG guidelines version 2. These two wording changes were consistent with, and in part inspired by, language the NVCA board used in its March 2004 statement of support.
- October 2004 – ILPA endorses the PEIGG guidelines.
- December 2004 – As most fund accounting year's end, GPs prepare for their first audits since the effective date of AICPA's SAS 101 rule. Essentially that rule says that if a reporting entity claims to be reporting "fair value" – which is required by GAAP – then the auditors must document and test that this is, in fact, true. It was not clear to what extent this increased scrutiny would affect valuation expectation and practices.

The Evolution of Valuation Guidelines: 1989 to 2007

- March 2005 – NVCA board issues an updated statement, which now refers to the September 2004 version of the PEIGG guidelines. The NVCA also decided to make the PEIGG document widely available to its members. The text of that statement is below.

- April 2006 – Guidelines issued by a consortium of three Europe-based venture capital associations (AFIC, BVCA, EVCA) are released. The authors cite compliance with IASB rules. Informal feedback from US venture capital professionals reviewing this document was that the document was more formulaic than PEIGG counterpart and partially compliant with US GAAP as defined at that time. Subsequently 30 non-US private equity and venture capital associations endorsed this document. Go to http://www.privateequityvaluation.com . The most recent edition is October 2006. These guidelines have gotten little traction in the US.

- September 2006 – Financial Accounting Standards Board (FASB) issues its long-awaited and long-anticipated fair value measurement standard as FAS 157. Only a few of its 145 pages relate directly to typical venture capital and private equity funds. Because FASB maintains that this is a clarification and further definition of fair value which was already required for portfolio accounting, some auditors began requiring selective compliance in advance of the 2008 effective date.

- March 2007 – PEIGG issues a revised portfolio company valuation guidelines document to reflect the Fair Value Measurement standard (FAS 157.

- September 2007 – NVCA board reaffirms its prior position on the PEIGG guidelines to refer to the most recent version.

- March 2008 – the International Private Equity and Venture Capital Valuation (IPEV) Guidelines board reconstitutes and relaunches itself, expanded to include 5 practitioners from the United States. The initial focus of the group is on convergence of US PEIGG and IPEV valuation guidelines. Details at www.privateequityvaluation.com.

- August 2008 – SEC proposes a roadmap toward global accounting standards and publishes for public comment the concept of adoption of International Financial Reporting Standards. Details are at http://www.sec.gov/news/press/2008/2008-184.htm.

Valuation before

Microsoft

IPO Date: 1986

CY 1986 Revenues: $198M

CY 1987 Revenues: $346M

Microsoft

IPO Valuation?

$650M

~1.8X Revenue

CISCO

IPO Date: 1990

CY 1990 Revenues: $69M

CY 1991 Revenues: $183M

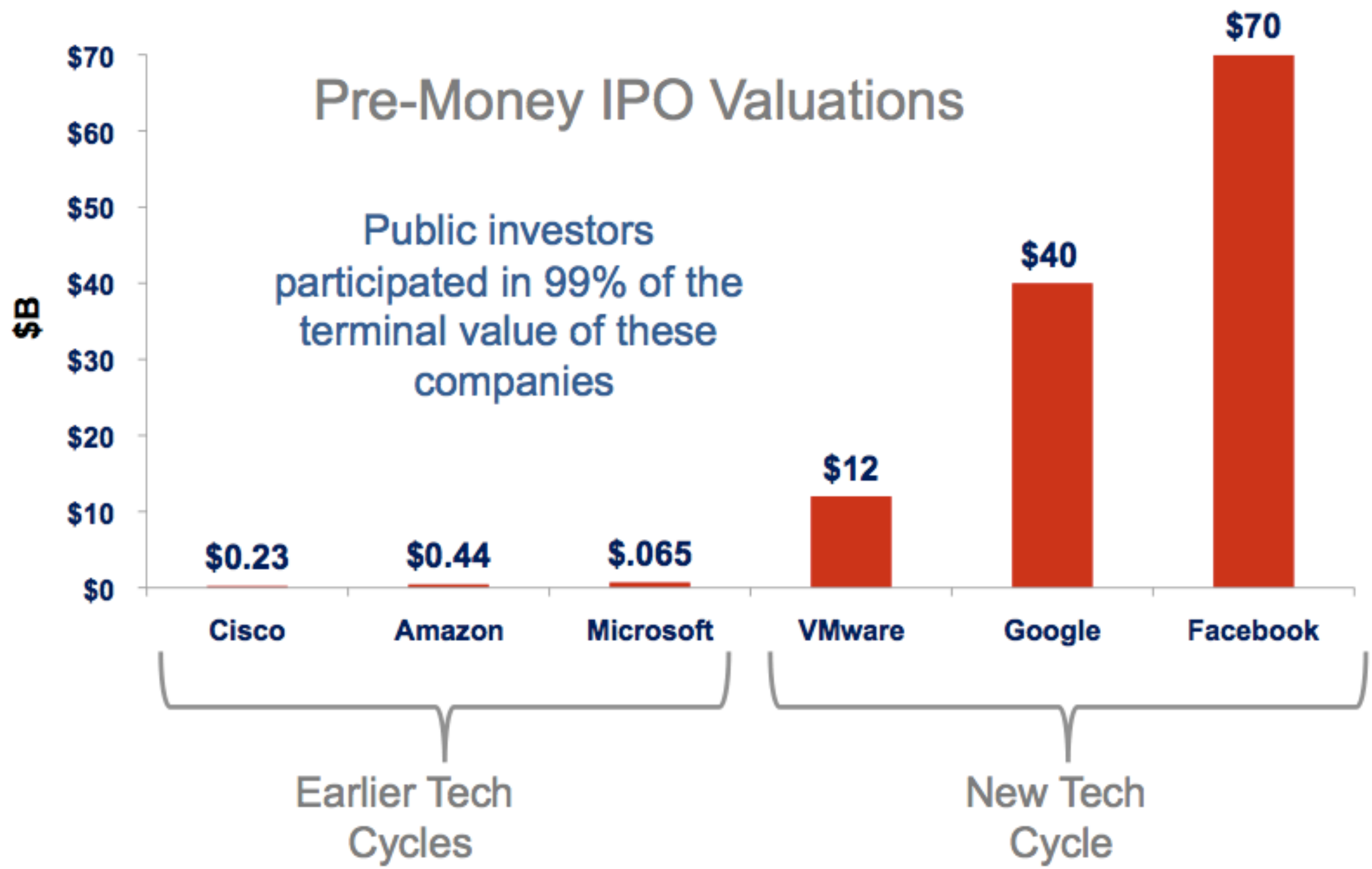
CISCO

IPO Valuation?

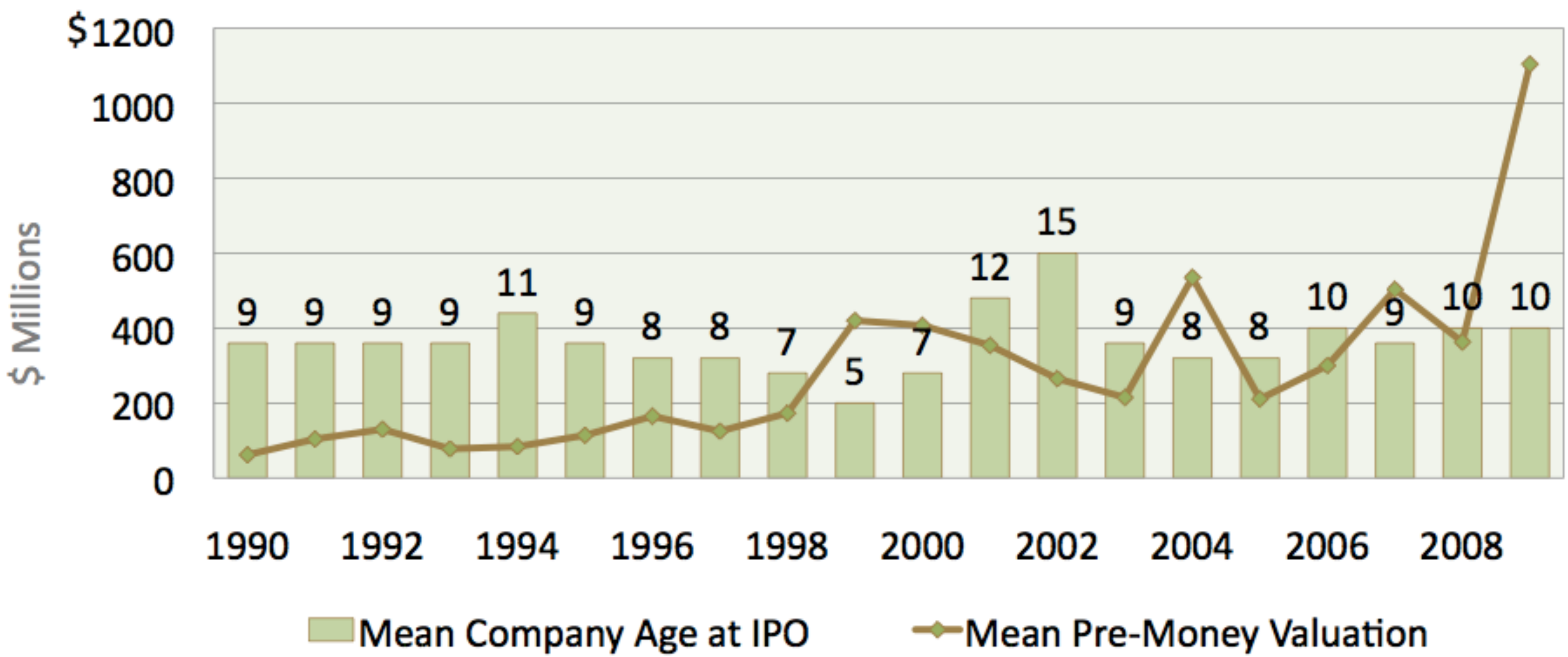
$225M

~1.25X Revenue

Valuation now



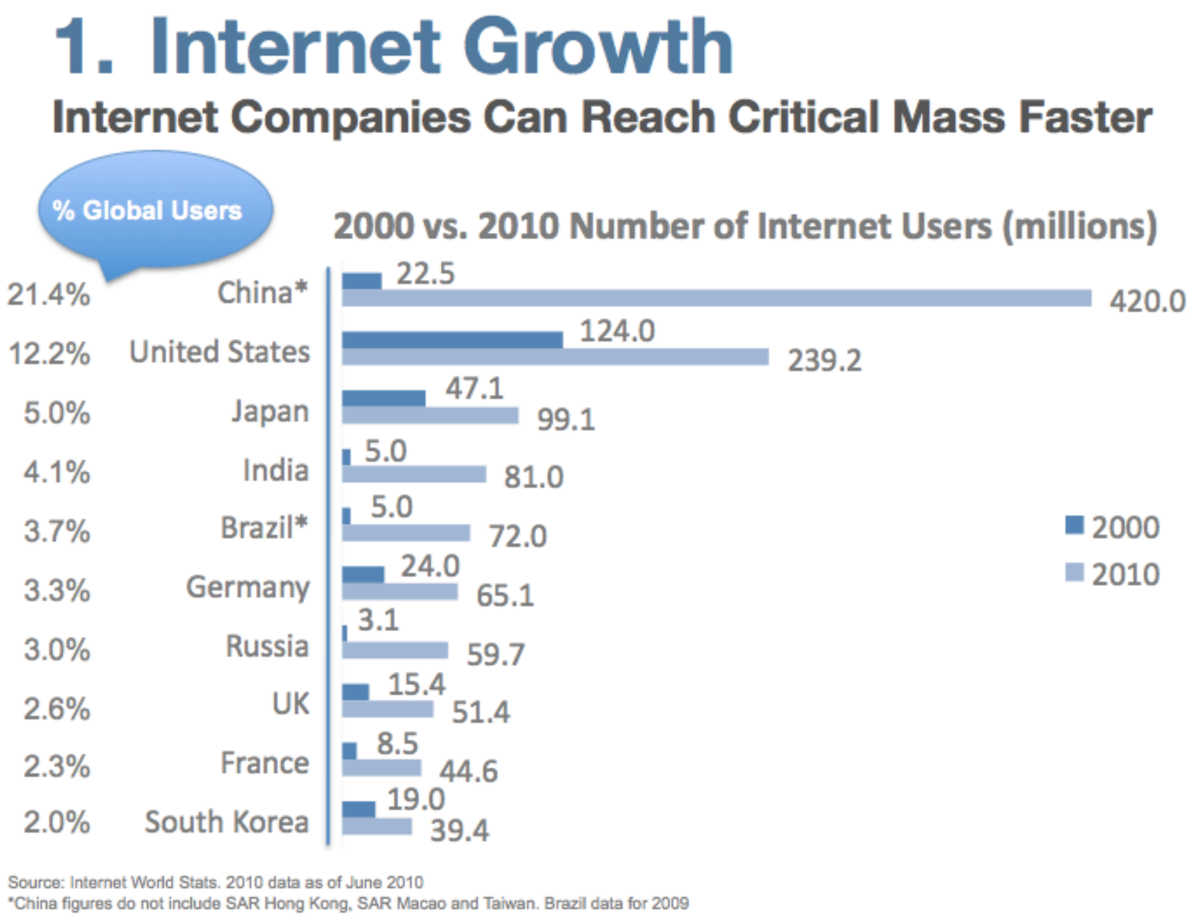
Pre-money valuation



What is the reason for the jump?

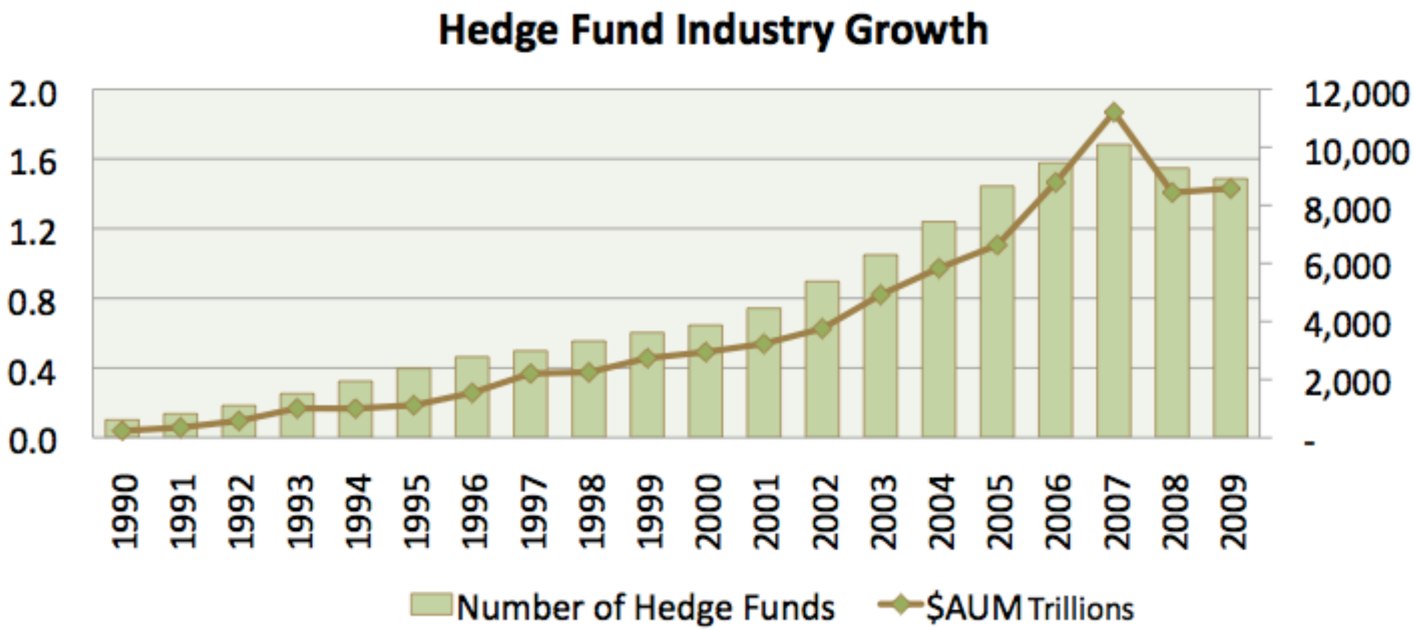
- Three reasons
  - Internet Growth
  - Capital Markets
  - Global

Internet Growth



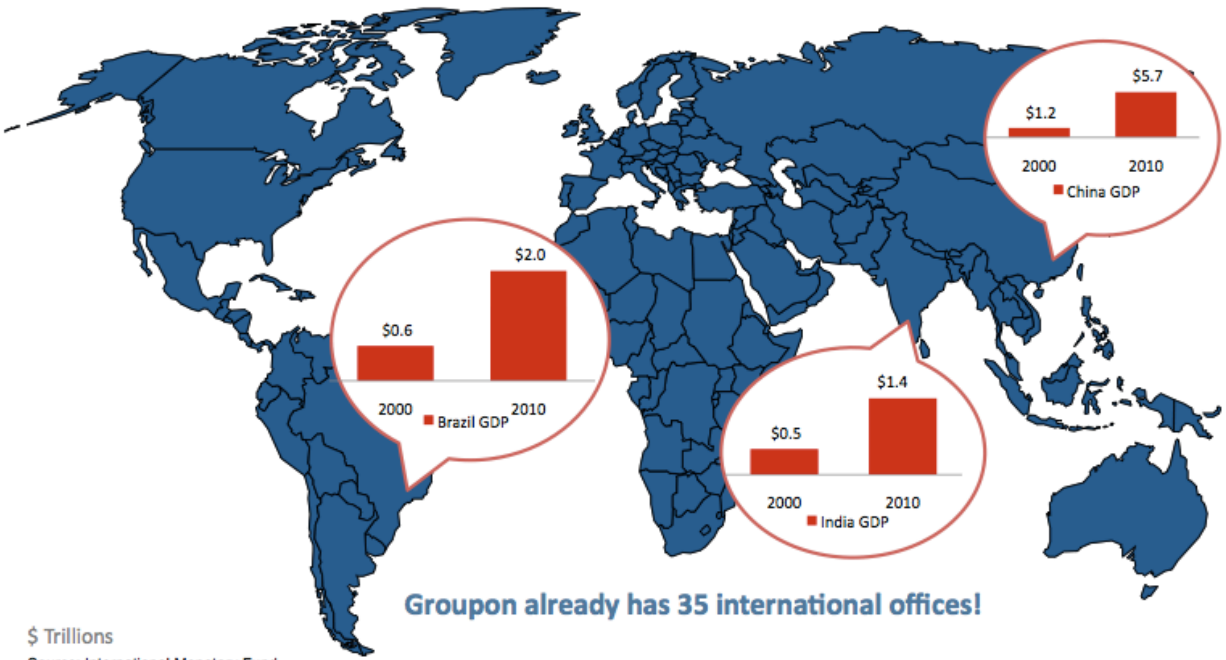
2. Capital Markets Better Informed

Proliferation of technology specialists in the public markets



3. Going Global, Faster

Start-ups Expanding Offshore Earlier in their Lifecycle



Groupon already has 35 international offices!

$ Trillions

Source: International Monetary Fund.

References

- http://24waystostart.com/2010/unit-economics/
- http://24waystostart.com/2010/four-steps-to-building-the-perfect-financial-model/
- http://giffconstable.com/2009/11/freemium-business-model-template/
- A Venture Capital! Revival! Is upon us,, William Quigley, Clearstone