outline

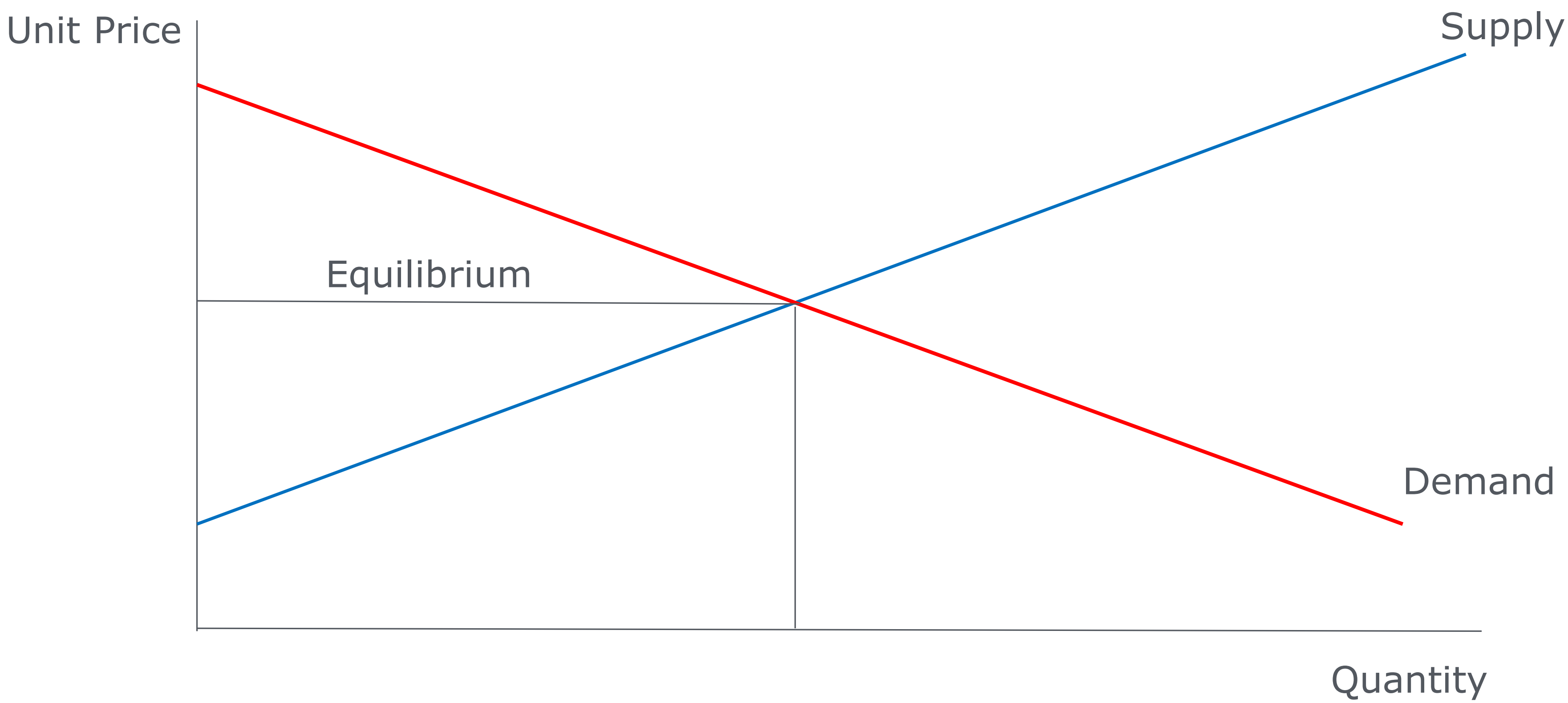
1	about entrepreneurship	20/06	JEF
2	semiconductor industry	27/06	JMM
3	a-to-z of startup creation (1)	04/07	JEF
4	a-to-z of startup creation (2)	11/07	JEF
5	Engaging in business	18/07	JMM
6	let's pitch and discuss	25/07	

outline

5	Engaging in business	18/07	JMM
a	Pricing concepts		
b	Negotiation and decision making		
c	Sales activity, gathering intelligence		
d	How things happen		

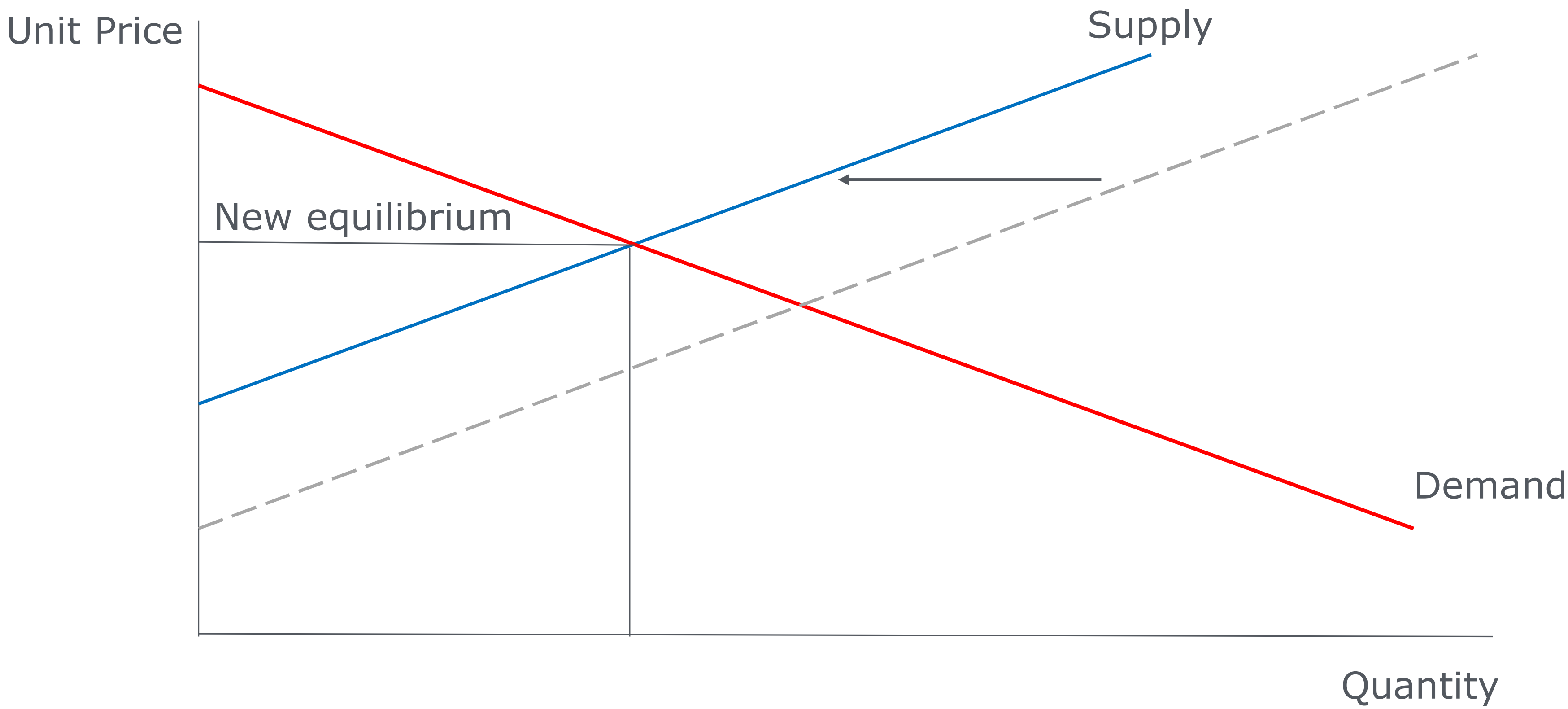
Pricing definition (concepts)

- Supply and demand curves with economic equilibrium of price and quantity sold in market



Pricing definition (concepts)

- If costs go up



Pricing definition (concepts)

- Perfect competition - supply is determined by marginal cost (will make additional output as long as the cost of one extra production is less than the market price)

Pricing definition (concepts)

- Monopoly (share of ≈100%)
- Oligopoly (ex. 3 companies own 80% share)
  - Collusive oligopolies
- Differentiated-product model

Chip Product Pricing

- Cost-based Pricing (Baseline):
  - Manufacturing Cost + Indirect Costs (R&D, design, testing, yield losses) + Overhead
- Market-based Pricing:
  - Competition + Market Demand + Market Segmentation (different customer segments)
- Value-based Pricing:
  - Performance differentiation + Technology Advantage (node advantages, unique IP, or proprietary features) + Customer ROI

Chip Product Pricing

- Lifecycle and Volume :
  - Economies of Scale + Lifecycle Position (Higher prices at initial launch)

- Strategic Considerations:
  - Penetration Pricing
  - Skimming Pricing (High initial prices targeting early adopters or high-end applications)
  - Relationship Pricing
  - Other reasons – see case Apple in China

Possible Chip Pricing Approach

1. Determine your **cost baseline** (manufacturing, overhead, R&D amortization).
2. Understand competitor and **market-based pricing** to define boundaries.
3. Factor in the **value** your chips deliver compared to competitors.
4. Apply **strategic considerations** for penetration, skimming, or lifecycle management.
5. Continuously adjust based on real-time market feedback, competitor moves, and internal performance metrics

Practical example Chip Pricing

1. Cost-based calculation:
   - Manufacturing Cost per unit: $5
   - R&D and Overhead Allocation per unit (**an estimation of volume is used**): $2
   - Total Cost per chip: $7

2. Market Pricing:
   - Competitor Chip price range: $12–$18
   - Value-based Pricing (Performance):
   - Performance advantage allows premium of ~25% over average market price ($15 avg → $18.75).

3. Strategic Adjustment:
   - Penetration strategy suggests introductory pricing at $14.50, adjusting up as market share increases.
   - Final Initial Price Recommendation: $14.50–$16.00 per chip.

4. Continuous Refinement:
   - Defining pricing for analog and mixed-signal (AMS) chips requires a further understanding of market dynamics, product categories, and regional demands.

Design Services Pricing

- Fixed Price (Project-Based)
  - Defined scope and deliverables for a set price (clearly defined, predictable projects)

- Time & Material (Hourly/Daily Rate)
  - Retainer/Subscription Pricing

- Monthly fixed fees
  - Ongoing access to a design team, common for customers who need continuous design support.

- Hybrid Pricing
  - Combination of fixed milestone payments with additional hourly rates for scope changes or incremental services.

Possible approach Pricing D.S.

1. Understand Project Scope
   - Clearly defined deliverables + complexity analysis
2. Identify Resource Requirements:
   - Number of engineers, expertise level, and project timeline
3. Set Base Rates:
   - Establish hourly or daily rates based on market and internal cost structure
4. Estimate Hours/Days per Task:
   - Perform detailed estimation to determine overall cost
5. Add Premium or Discounts:
   - Premium for complexity, advanced nodes, urgency
   - Volume or strategic customer discounts (5–15% discounts are common)
6. Benchmark Competitively:
   - Check market benchmarks to align prices with competitors
7. Provide Transparent Pricing:
   - Clearly outline fees, milestones, and potential extra charges

Factors Influencing Licensing Price and Royalties

1. IP Complexity & Performance
   - Analog/Mixed-Signal IP typically commands higher prices due to complexity and difficulty replicating performance – **in case of customization, use DS pricing to add, but never call it DS**
   - Digital IP pricing varies significantly depending on customization, integration

2. Uniqueness & Market Demand
   - Proprietary or patented IP enabling unique competitive advantages can justify premium pricing
   - Commonly available, standardized IP tends to have lower pricing

3. Market Standard & Competitive Analysis
   - Evaluate pricing benchmarks from other IP companies
   - Align your pricing based on competitive landscape and IP differentiation

4. Volume & Expected Customer Revenue
   - Consider discounting royalty rates for large-volume or strategic partners
   - Define minimum revenue guarantees or upfront payments for small-volume engagements

5. Strategic Value & Customer Relationship
   - Discounts or premium charges can depend on strategic importance
     - Entry into new markets
     - Building relationships with industry leaders

6. Support & Maintenance Costs

Possible approach Pricing IP

1. Evaluate Internal Costs
- Consider IP development costs, validation, and ongoing support

2. Market & Competitor Analysis
- Collect benchmark data from similar IP providers

3. Define Licensing Model
- Choose a licensing structure aligned with market expectations and revenue targets (e.g., Single Use + royalty, subscription)

4. Strategic Positioning
- Position IP pricing relative to perceived value (premium, competitive, discount)

5: Negotiation Flexibility and look for more dimensions than just price
- Prepare tiered pricing to enable flexibility during negotiations.

Typical Pricing Ratios in IP

License Type	Duration	Typical Price Ratio
Single-Use	One-time, specific project	Baseline (1.0×)
Term License	~3 years	~1.5–3.0×
Term License	~5 years	~2.25–5×
Perpetual	Indefinite	~3.5–8×
Support & maintenance fee	1 year	0.15-0.25 x

- These ratios can vary slightly depending on IP complexity, competitiveness, and strategic importance
- IP providers often negotiate terms based on customer relationships, volume commitments, and strategic market positioning
- Royalties, if applicable, can be layered onto these fees separately

outline

5 Engaging in business 18/07 JMM

a Pricing concepts

b Negotiation and decision making

c Sales activity, gathering intelligence

d How things happen

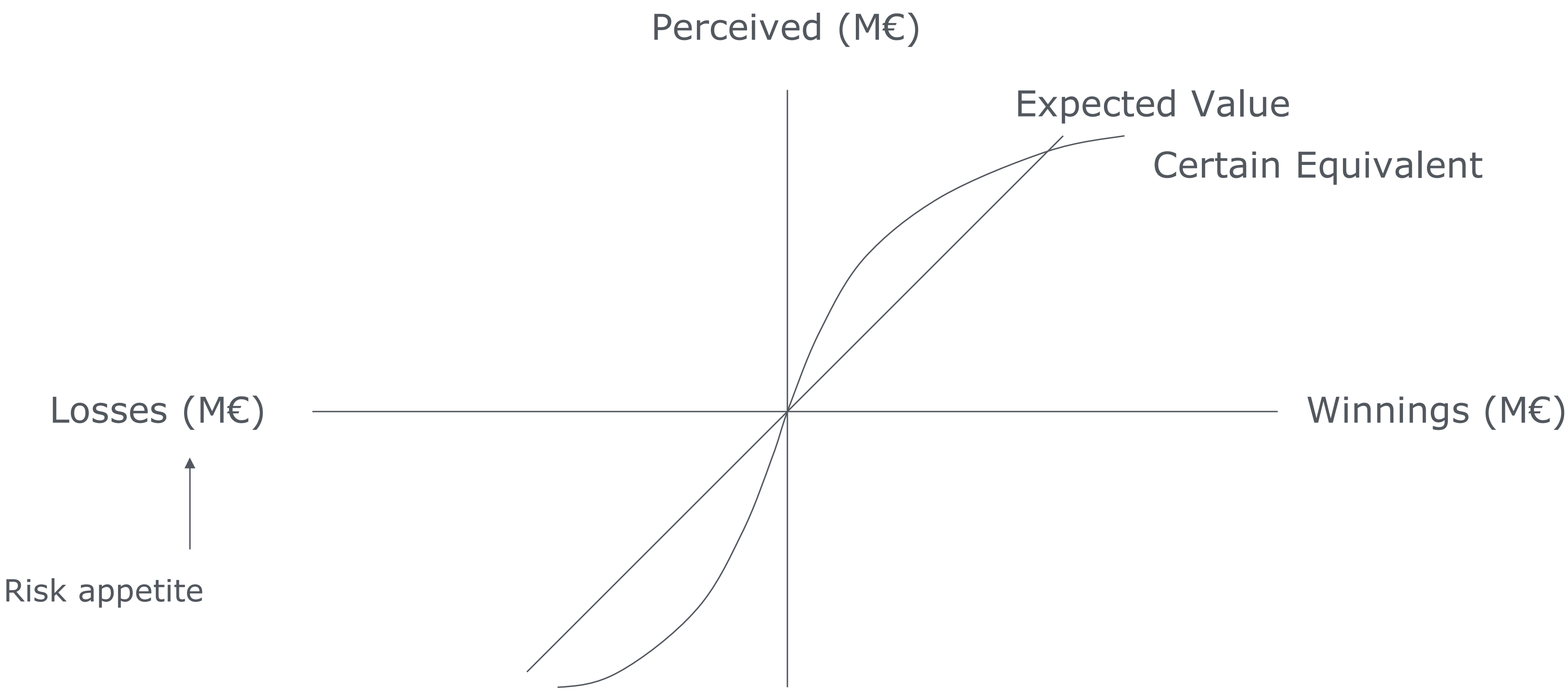
Elements in a decision

- Expected Value*

- Attitude to risk

Attitude to Risk

- Prospect Theory (Kahneman e Tversky, 1979):



Attitude to Risk

- The perceived value is Certain Equivalent, the value at which the decision-maker is indifferent between making or not making a decision –Neutrality:

  Certain Equivalent = Expected Value

  - Risk Averse when faced with potential gains:

    Certain Equivalent < Expected Value

  - Risk-seeking when faced with potential losses

    Certain Equivalent > Expected Value

How to apply?

- Losses are more impactful than equivalent gains, meaning people tend to feel the pain of a loss more strongly than the pleasure of an equivalent gain
- The attitude of the other (aversion or appetite for risk) depends on the point of reference (whether he can win or lose)
- Expected value is useful when you are risk-neutral (low values and situations with repetitions in which deviations cancel each other out)
  - Apart from these cases, there are (in humans) deviations from risk neutrality

Layman Negotiation Process

- The typical information scenario buying land
    - Independent private values (SRP & BRP unknown)

- Common value: the market – 120K

Layman Negotiation Process

- The typical information scenario buying land
  - Independent private values (SRP & BRP unknown)
- The buyer, a neighbor, wants the land for their kids, and has a BRP of 150K

ZOPA - Zone of Possible Agreement

- What should the seller do?

Layman Negotiation Process

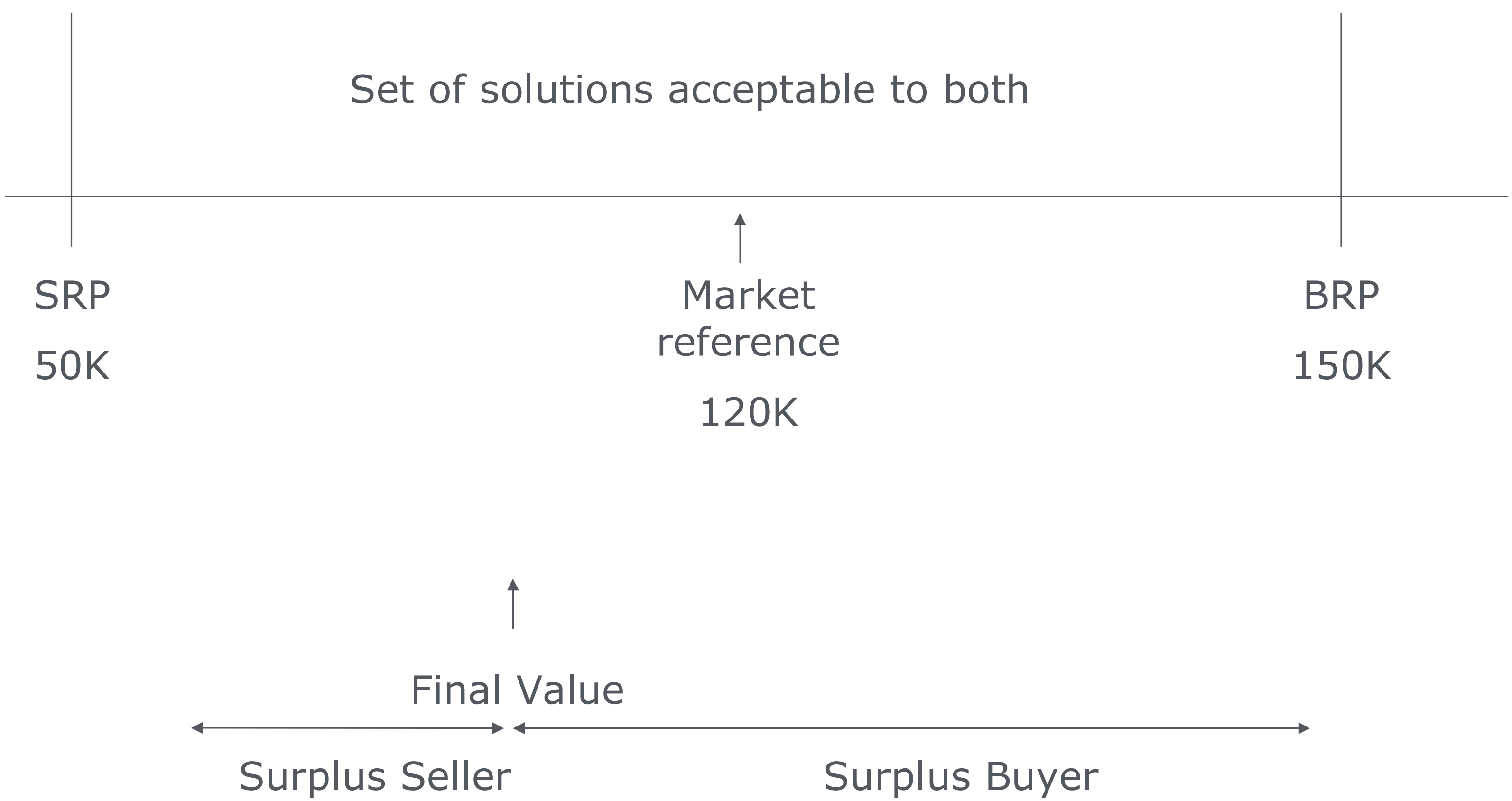
- The market reference: 120K

- The buyer, a neighbour, wants the land for their kids, and has a BRP of 150K

- The seller, almost bankrupt and in prompt need to pay a debt, has a SRP of 50k

ZOPA - Zone of Possible Agreement

ZOPA - Zone of Possible Agreement



QUESTION!

- Critical Ratio:

$$CR = \frac{\#\ \text{Questions}}{\#\ \text{Arguments}}$$

Good negotiator should have ∞ as CR

Negotiation

- People often underestimate the range of possible outcomes due to mistaken market value references
- The strategy is to look for more information... Only then should the first offer be made. Even better, the other can make a first offer
- When people bargain price, each changes price to disclose the other’s reserve price
- *THERE ARE NO GOOD "NEGOTIATORS"! JUST INFORMED PEOPLE!*

How to define Reserve Prices

- RP should be based on BATNA (Best Alternative to a Negotiated Agreement)
- Problems associated with the non-rational determination of RP:
  - A number that “looks good”
  - Tendency to review our limit to close the deal (as we like to close and want to feel good about the other party)
  - Unrealistic optimism in the evaluation of alternatives
  - Uncertainty is taken as a risk

What is to be done?

- Avoid refusing favorable agreements (Stubbornness? Bad definition of the RP?)

- Determine the objective:
  - What is their perception of the problem?
  - What options do you have?

- It should be noted that the objectives may be conditioned by precedents

With unacceptable offers

- Boulwarian (*"take-it-or-leave-it"*)
  - Reinforce the other party's ego
  - Do not counter offer
  - Propose to verify the arguments
- Extreme or Harsh
  - Answer with questions
  - Silence

Concession Standards

- Fewer and fewer
- Increase accuracy as we discover each other’s RP
- Thinking longer between concessions
- Once done, it should not be removed
- Fix the other party's goal by telling him what he cannot get

Credible Commitments

- Increase the cost of concessions:
  - Public statements
  - Precedents, principles, justice, legality, emotions, rules, etc...
- Claim lack of authority
- Cut off communication channels
- Negotiate through a third party

Get deals done

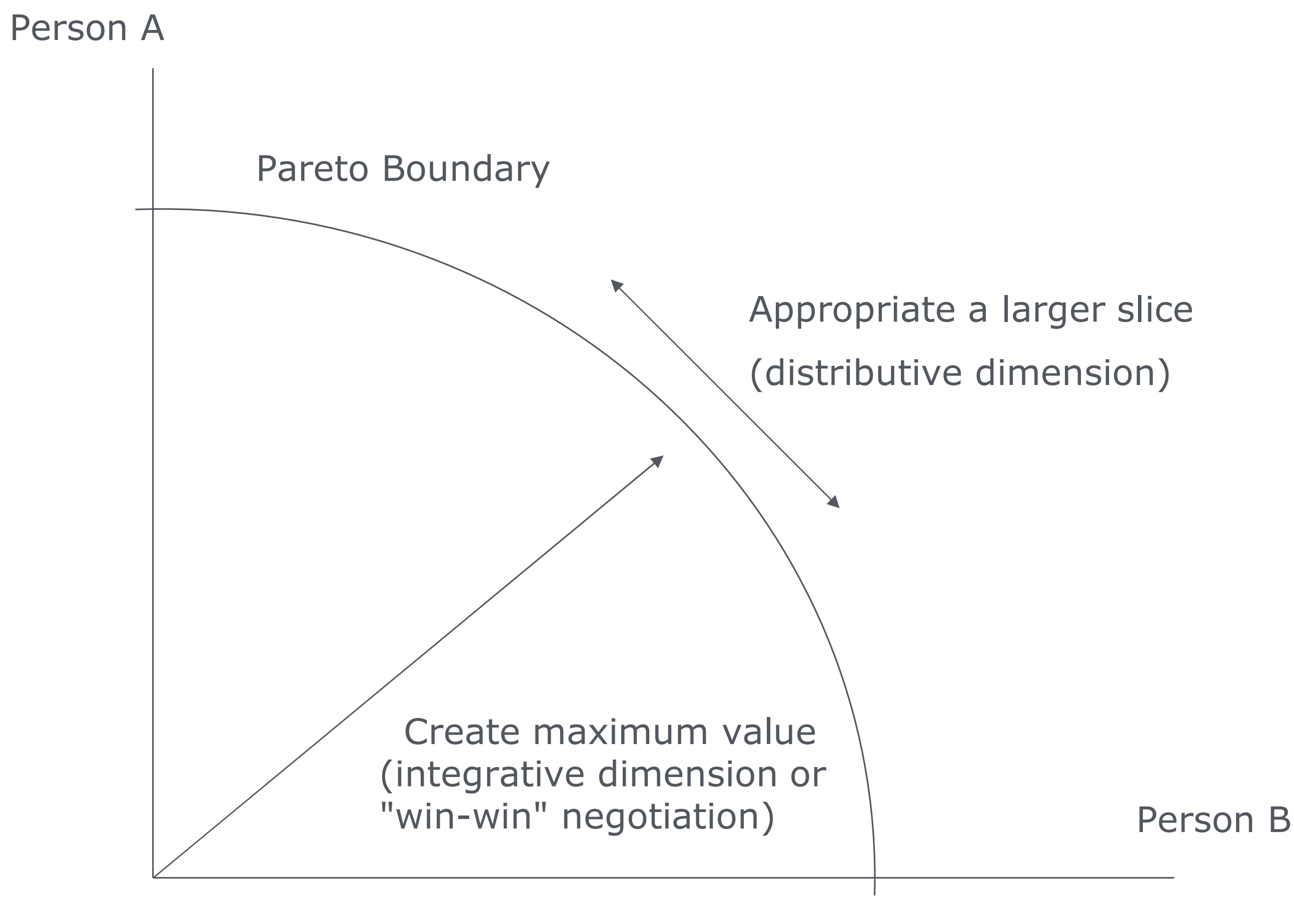
- Get information (!!)
- Set Solid PR
- Managing beliefs (signalling)
- Identify the likely outcomes of the negotiation (focal points)
- Resisting compromise (credible commitments)

Two types of Negotiation

- Principled argumentation (Fisher & Ury) – Arguments annoy, reveal information, do not allow questioning, (only to facilitate concessions)

- Tacit - "The final outcome must be a point from which neither expects the other to retreat" (T. Schelling, The Strategy of Conflict)

Pareto Boundary

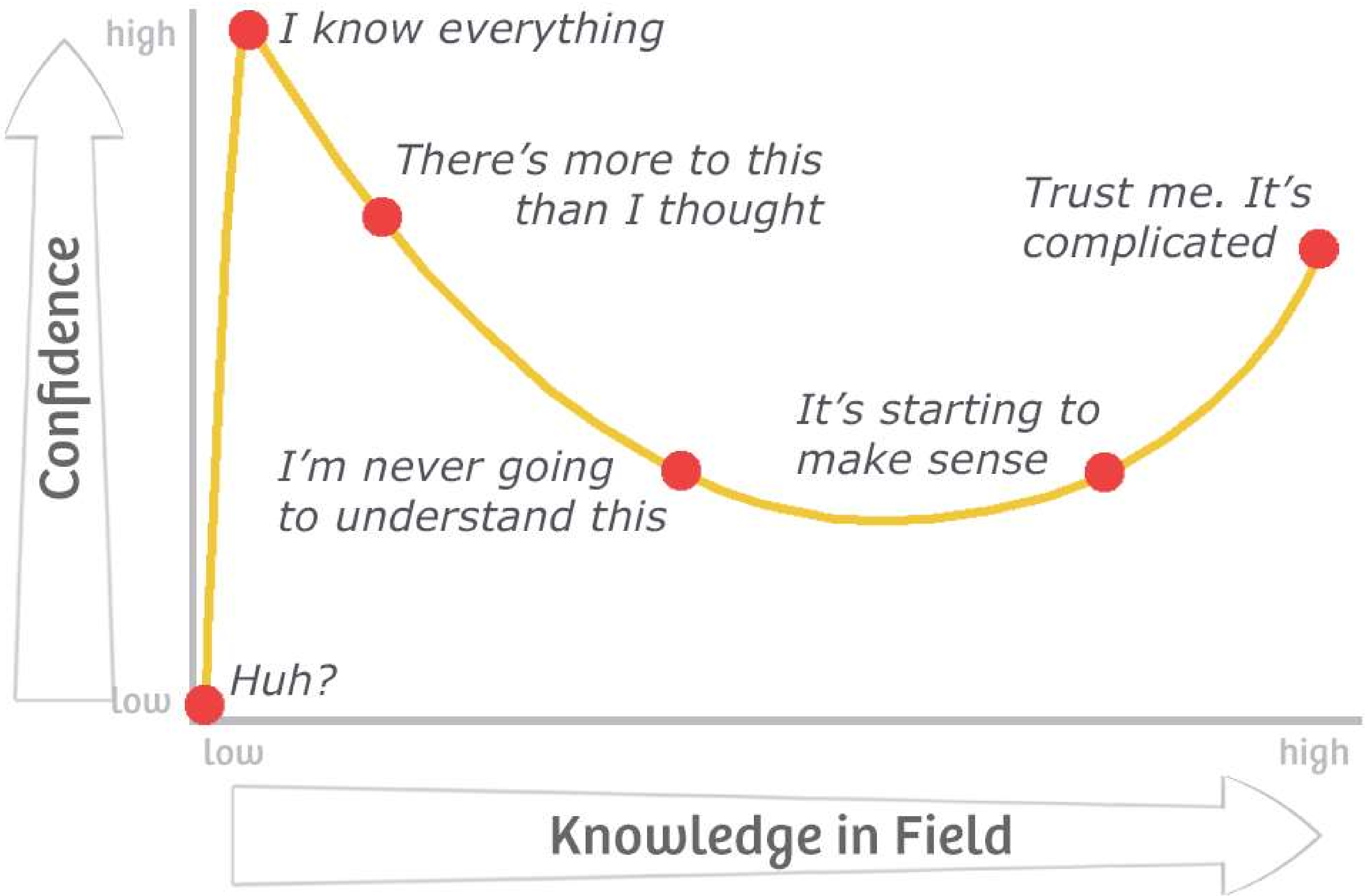


Information Asymmetry

- How the “Energy Industry“ evolved:
  - Sale
  - Sale + Warranty
  - Turn-key project (w/ success fee)
  - BOOT – Build, Own, Operate and Transfer

Prisoner's Dilemma Optimal strategy

- Start collaborating and do not anticipate intentions (only respond to what is observed)
- Answer always and quickly, moderately
- To cooperate again as soon as the other does
- Making unilateral opening of peace when spiraling



The Dunning-Kruger effect

Break

outline

5	Engaging in business	18/07	JMM
a	Pricing concepts		
b	Negotiation and decision making		
c	Sales activity, gathering intelligence		
d	How things happen		

Target adapted sales activity

- **Tactical** responsibilities, more reactive by Sales person, smaller actions and sales 101;

Tactical Responsibilities ("Sales 101")

- Manage accounts in such a manner that deals are optimised, support customers, promote business initiatives and grow business
- Understand complete product portfolio, and work with colleagues to promote solutions to customers
- Formalise actions (proposals, contracts) and work with the relevant internal teams

Tactical Responsibilities (“Sales 101”)

- Manage all issues with the accounts
- Forecast revenue / bookings and make the pipeline visible inside the company
- Manage the flow of information
- Involve internal teams as needed

More strategic sales activity

- **Tactical** responsibilities, more reactive by Sales person, smaller actions and sales 101;
- **Strategic** responsibilities, with strategic level dedication by Sales person, with periodic peaks and continuous thinking;

Proactive Strategic Responsibilities

- Develop the business knowledge and account strategy - need to get the context right (info about the account, their market, their politics, their strategy, their competitors, their options going forward) :
  - Understand and articulate the accounts's business, strengths, and weaknesses (both technical and commercial) as well their customers and their importance (and why);
  - Understand and articulate the customer's strategy, target market and roadmap;
  - Understand and articulate own technology usage and future potential use by the customer;
  - Understand who's who at the customer, understand who the stakeholders are;

Proactive Strategic Responsibilities

- Promoting periodic internal account reviews, as well TRMs and MRMs with these customers
  - Quarterly or semesterly, depending on the accounts

- Periodically, execute and improve the strategy and plan, discussed and aligned with internal colleagues

Example of information to keep on Strategic Accounts

- Summary with brief info on :
  - Active Discussions
  - Account Sensitivities
  - Core Business / Segments
  - Recent news & events
  - Account's Commercial Strategy
  - Revenue Snapshot
  - Significant deals with my company

- Account Target Markets and customers

- Account plans and roadmaps (products and services)

- Account competitors and their customer's pain points

Example of information to keep on Strategic Accounts

- Account Executive Profiles

- Business with account
  - Existing usage of my technology
  - Our competitors at the account
  - Revenue with account

- Objectives and Strategies – area for many internal brainstorms
  - Targeted org chart and network orchestration

- Meeting minutes - Multiple minutes to not lose historic

Full coverage sales activity

- **Tactical** responsibilities, more reactive by Sales person, smaller actions and sales 101;
- **Strategic** responsibilities, with strategic level dedication by Sales person, with periodic peaks and continuous thinking;
- **Intelligence** responsibilities, highly demanding, high and continuous effort by Sales Person or Team into gathering intelligence and understand what the best alternative options are:
  - The same effort can apply to beyond key customers - competitors, “frenemies” and organizations that can strongly affect us (Governments);

Intelligence Responsibilities

In addition to Strategic Responsibilities

- Do everything possible to know what’s going on with the account – actually, we need to know more than the accounts’ employees

- For these accounts, be continuously dedicated, constantly seeking knowledge, promoting immediate updates inside and drive information to help your company make key decisions:

  - The frequency of such account reviews, internal alignment including management, is at least quarterly plus additional necessary meetings

  - Information to be shared in an organized manner

(continues in next slide)

Intelligence Responsibilities

What is expected for each of these accounts

- Improve the information about the context:
  - Map all parties that affect the account, actual and potential, with full set of interests and best no-deal options
  - Detect weak and strong positions
  - Know the sequence and basic process choices

(continues in next slide)

Intelligence Responsibilities

Broadly cultivate assets and relationships at the account and around the account

- Target areas of interest, elect questions to be answered, objectives to be accomplished regarding gathering intelligence:

  - Understand who's who at each area, understand who the applicable stakeholders are, who needs to be covered by the sales person and internal network (and external network)

- Set and run a relationship plan of activities, serving the strategic functions and areas that need information

(continues in next slide)

Intelligence Responsibilities

Manage the information flow

- Together with internal colleagues, decide the questions and areas to better understand and focus, what defines the flow of information – what can be shared as broadcast or selectively inside your company

- Continuously enrich internal teams, in an effective way, with knowledge about the account

- But always protecting your sources

Intelligence Responsibilities

Constantly

- Develop strategy and execution plan for expanding your business with the account:
  - Gather intelligence covering the areas we want to understand
- All the moves should be done before and away of the "negotiation table"
  - Use the context to your advantage and change the game - create maximal value
  - When you seat for a decision or negotiation, you should already know the outcome

Break

outline

5	Engaging in business	18/07	JMM
a	Pricing concepts		
b	Negotiation and decision making		
c	Sales activity, gathering intelligence		
d	How things happen		

EMBRACE FAILURE

A possible chart

- Find a profitable problem to solve or need to address, but with a purpose
- Find good people to work with
- Try to be independent (do not count on subsidies etc)
- Be flexible and in phases, expect the worst, plan for the best
- It is ok to not know it all - trust yourself and that it is ok to fail
- Believe that if change is dangerous, that routine is lethal – “magic” happens out of your comfort zone

What do you have?

- Hopefully, passion and resilience
- Hopefully, technical knowledge that can make a difference
- Hopefully, the will to go out of the comfort zone
  - Including out of preconceived notions / ideas
  - View change as an opportunity

How to go after your business

"people are as smart as the intelligence in the room"

- Be continuously dedicated, constantly seeking knowledge
  - Target areas of interest, potential customers, elect questions to be answered, objectives to be accomplished regarding gathering intelligence
  - Understand who’s who at each area, understand who the applicable stakeholders are:
    - Understand their market, pain points, politics, strategy, competitors, options, strengths, weaknesses (both technical and commercial), their customers and their importance, technology usage and future potential use of what you can do;
  - Set and run a relationship plan of activities

How to go after your business

"people are as smart as the intelligence in the room"

- Bring knowledge to your team
  - Promote a culture where the team can produce better results than you alone
  - Be aware of collective intelligence or group dynamics
  - Trust the process

- Develop a strategy and execution plan for expanding your knowledge

Open discussion

Summer reading (here videos)

- The Innovator's Dilemma, by Clayton M. Christensen
- Mastering the Complex Sale, by Jeff Thull
- Tony Fadell: iPhone, iPod, Nest, Steve Jobs, Design, and Engineering | Lex Fridman Podcast
- Blink: The Power of Thinking Without Thinking, by Malcolm Gladwell
- Crossing the Chasm, by Geoffrey A. Moore
- Turn the ship around!, by L. David Marquet
- Venture Capital
- Silicon Valley (not so much advance, but fun TV series)