# Employee Stock Options

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6 December 2000
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## Who am I?

- Software developer, development manager, consultant
- Long time USENIX Tutorial instructor
- Interest in financial planning
- Expecting Diploma in Financial Planning from Boston University by year end
- May do Financial Planning professionally

## What Is This Talk About?

- Many companies are including equity as part of a compensation package
- What does that mean?
- What are the tax rules?
- How do you know if your offer is any good?
- When should you exercise your options?
- How do you decide to sell/hold your stock?



## What Is This Talk About?

- Knowing the landscape is critical – you **can** understand it if you want to
- Being able to evaluate a potential advisor's knowledge
- Planning early is critical. There are numerous decisions where time makes a big difference
- Basic math skills are very useful – risk, time value of money, diversification, marginal tax brackets
- **BEWARE – THERE ARE FEW EASY ANSWERS!**

## Outline

- Types of stock
- Stock options (qualified and non-qualified)
- Stock purchase plans
- The IPO process
- Taxation
- Risks
- Strategies
- Valuation
- Advanced tax planning



## Securities – Debt

- Obligation to pay
  - Bonds, notes, bills
  - Interest or dividend income
    - Capital gains possible based on credit worthiness and interest rate changes
  - No ownership transfer, but perhaps collateral
  - Bankruptcy: paid first

## Securities – Equity/stock

- Represents a fractional ownership interest in a company
- Shareholders vote on:
  - Board of directors
  - Fundamental changes (mergers, issuance of new shares)
- Profits sometimes paid to the shareholders as dividends
  - Less popular these days since dividends are taxed more than stock sales
- Capital Gain/Appreciation is the risk reward



## All Stock Is Not the Same

- Different classes, different voting rights, different rights to dividends
  - Preferred – maybe fixed cumulative right to dividends, behind debt holders at bankruptcy
  - Common – last in line at bankruptcy
- Articles of incorporation specify
  - Classes of stock
  - Max number that can be issued (authorized)

## Employee Stock Options

- Goals
  - Incentive for key employees – performance, retention
  - Low cost to company – administrative, dilution, no discrimination tests
- The right (but not obligation) to purchase shares
  - Specified price ("strike" or "exercise")
  - Time limit (often 10 years)



## Restrictions

- Vesting
  - Restrictions on transfer of stock acquired (via options or otherwise)
  - Often 4 or 5 year, annual cliff, or 1st year cliff, monthly thereafter

## Taxation (Simple Version)

- Ordinary income (wages, interest, rents, etc.)
  - Marginal tax brackets (15%, 28%, 31%, 36%, 39.6%)
- Capital assets (e.g. stock)
  - Basis = cost paid
  - Gain = sales price - basis
  - Only the gain is taxed

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## Taxation (Capital Gains)

- Short term
  - Holding period <12 months
  - Taxed at ordinary income rates
    - 15%, 28%, 31%, 36%, 39.6% depending on other income & deductions
- Long term
  - Holding period > 12 months
  - Taxed at
    - 10% (if normally in 15% ordinary income bracket)
    - 20% (if in other brackets)

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## Taxation (Capital Gains)

- Super long term, starting in 2001
  - Holding period >= 5 years
  - Purchase date after 12/31/00
  - In 2001, you can elect to pay taxes now on current gain to get lower rate for the future gains?!?
  - 8% (if normally in 15% ordinary income bracket)
  - 18% (if in other brackets)



## Taxation (Another Odd Quirk)

- Small business stock
  - Holding period >= 5 years
  - C corp, with gross assets < $50M at time of issue
  - Stock must be acquired from the company for $ or services
  - Business: not professional services, etc.
  - Can exclude 50% of gain
    - Not more than $10M or 10 times basis
    - Rest taxed at 28% (effective rate 14%)
  - Can rollover tax deferred into a another small business within 60 days

## Alternative Minimum Tax (AMT)

- Get ready for Alice in Wonderland
- Compute your tax the normal way
- Re-compute your tax with rules to prevent "bad" deductions, tax-free income
  - Remove deductions for state tax, 2nd mortgage interest, etc.
  - Add tax free income, **phantom income (ISO FMV - EP, when exercised)**
  - After subtracting special AMT exemption, 26% and 28% AMT brackets
- If AMT > Reg tax, pay AMT instead
- If flipped in future years, credit **may** be available



## Terms

- EP = exercise price
- SP = sales price
- FMV = fair market value
- Bargain element = FMV – EP
- LTCG/STCG – long/short term capital gain
- AMT – alternative minimum tax
- FICA – old term for social security and medicare payroll tax (7.65% x 2)
- IRR – internal rate of return: interest rate received for an investment consisting of payments (negative values) and income (positive values) when Net Present Value = 0

## Stock Options (Non-statutory)

- Right to purchase as specified price (need not be FMV!)
- Usually subject to expiration time and vesting

| **Taxes** | **Grant** | **Exercise** | **Sale** |
| --- | --- | --- | --- |
| Employee | none | Ordinary income = FMV – EP<br>(Basis = FMV) | Short or Long Cap Gain = SP – Basis |
| Company | none | Deduction = FMV – EP | none |

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## Incentive Stock Options (ISO)

- No taxation upon exercise
  - Alternative minimum tax (AMT) possible
- Entire gain can be capital gain not ordinary income. Sale must be
  - 2 years after grant,
  - 1 year after exercise,
  - Otherwise "disqualifying disposition" and all gain ordinary income (W-2 but no FICA)
- Disqualifying disposition includes gifts and many transfers (not pledges)

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## Incentive Stock Options (ISO)

- Restrictions by 26 USC 422(b) (tax code)
- Written plan
- Exercise price must = FMV (110% of FMV for 10% owners), common discounted vs. preferred
- Only $100,000 of option grants per year per employee (rest automatically non-statutory)
- Must be employee (not contractor/director)
- Cannot transfer stock except to spouse or via death
  - Would be disqualifying disposition
- Must exercise within 10 years of grant and 90 days of leaving company

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## ISO Taxation

| Taxes | Grant | Exercise | Sale after 2 yrs of grant & 1 yr after exercise | Disqualifying Disposition |
|---|---|---|---|---|
| Employee Regular | none | none<br><br>Basis = EP | Cap Gain =<br>SP – Basis | Ordinary income = SP - Basis |
| Employee AMT | none | AMT preference item = FMV – EP<br><br>AMT Basis = FMV | AMT<br>Cap Gain =<br>SP – AMT Basis | AMT Short term gain = SP – AMT Basis |
| Company | none | none | none | Deduction = $FMV_{exercise}$ – EP |

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## Employee Stock Purchase Plan

- Must be employee during holding period, < 5% owner
- LTGC if held for 2 yrs from grant, 1 yr from exercise
- All full-time employees must be included except
  - < 2 yrs employment, highly compensated, seasonal
  - Can limit amount purchased, usually 10-15% of salary
- Not more than $25,000 per year per employee
- Option price
  - >= 85% of FMV at grant date **or** exercise
  - Max 27 months
  - Bargain element taxed as ordinary income
- Free money if the stock goes up. (e.g. Lock in 85% of IPO price for over 2 years!). Maybe breakeven if stock goes down (how fast can you sell?)
- Diversification issues if you hold

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## The IPO Process

- Companies raise money
  - Founders, angels, venture capitalists, corporate investors
  - Rounds of financing
    - Seed, mezzanine, public offering
    - Each round issues new shares dilutes previous holder's % of company
    - Value of shares (hopefully) increases
  - Series A, B, C, etc. Preferred stock
  - Forward or reverse splits change # of shares but don't effect overall value
    - Most likely to happen before IPO to make IPO share value $10
    - Be careful, your 1000 shares can easily turn into 500

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## The IPO Process

- Employee option plans
  - ISO/non-qualified – common stock
- Stock must be "registered" with SEC before public sale
  - S-1 for company stock
  - S-8 for employee options
  - Preferred stock converts to common (each series may have a different conversion ratio)
- Lockup period
  - Restricted stock legend
  - Cannot sell your stock
  - Usually 180 days



## The IPO Process

- Rule 144
  - If you're not covered by S1 or S8 (e.g. Founder or angle stock w/o registration rights)
  - SEC exception to registration requirement
  - Requires 90 days availability of public info
  - Limits on # shares (based on volume)
  - Easy to do these days, brokers even file forms
- Other insider restrictions may apply

## Valuation

- What's an option worth?
- Options:
  - Time value: based on expiration date
    - Complex
  - Intrinsic value: FMV – strike

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## Valuation

- Shares
  - Fraction of the value of the company
    - Hard to ascertain for private companies
  - Based on
    - Shares issued (not authorized)
    - Options issued (but not all may vest)
    - Beware that new shares may eventually be issued (to investors, employees via options, or for acquisitions)

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## How to Evaluate Your Package

- Number of shares doesn't matter
- % Of company matters
  - Dilution will happen
- Estimate (guess) at potential market capitalization
  - Similar companies (product/services, revenues, profits(?), margins, prospects)
- Your share value = % x market capitalization



## Strategies

- Exercise as late as possible
  - Pro: if company loses, you don't
  - Con: LTCG clock starts late or is lost
- Exercise early
  - Pro: start the LTCG clock
  - Cons: exercise cost, investment risk, current tax liability for non-qual options (without cash flow), AMT liability for ISO's
  - If not vested: 83b election critical, 30 days

## 83b Election

- What?
  - Ordinary income if price paid < FMV
  - Think of stock for services (price paid = 0)
- When?
  - At purchase date or when not subject to “substantial risk of forfeiture**”** *and* “transferable”**.** Typically this is vesting. Need to include in each year’s tax return. More and more tax due if value increases even if not sold or salable
  - **Therefore FMV recomputed at each vesting point**
  - 83b election taxes all right away, but typically little or no tax due (low FMV or FMV= price paid)
- Company gets deduction when employee pays tax
- Catch: if stock is eventually forfeited, loss is not deductible!



## Math

- Estimate **after tax** cash flows
  - Variables: tax bracket and unrelated tax issues
  - Future selling prices
  - Reinvestment rate
- Use the difference to compute IRR
- Is it worth the investment risk for lower taxes?
  - Very very important to consider
- In general buy & hold makes more sense
  - The higher your marginal tax bracket
  - EP is low compared to FMV
  - More gain
  - You think stock price will increase

## Early Exercise Math ISO (Rough)

| Date | Buy&Hold | Buy&Sell | Difference |
|---|---|---|---|
| DD/YY | - EP | + ($SP_0$ – EP) | - SP |
| 4/15/(YY+1) | - AMT if any | - (SP - EP) * tax bracket | - AMT + reg tax |
| (DD+1)/(YY+1) | + SP | + reinvestment interest | + $SP_1$ - interest |
| 4/15/(YY+2) | - (SP - EP)*20% | + reinvestment interest | - LT Cap Gains Tax - interest |
| 4/15/(YY+3) | + reinvestment interest + AMT credit (maybe) | + reinvestment interest | +AMT (maybe) |



## Risks

- Be prepared to decide to exercise or walk away within 90 days after you leave a company
- Do not lose your “drop dead money” because you can’t bring yourself to sell
  - Diversification is important
  - Let 10% of your net worth ride
  - Don’t let 90% of your net worth ride on one company without hedging
- Lockups are very painful

## Hedging Strategies – Easy

- Regular sales no matter the price
  - Reverse of dollar-cost-averaging (vary # shares, sell same $ amount)
  - Discipline to avoid being greedy



## Hedging Strategies – Advanced

- Be careful, easy to get wrong, consult experts
- Put and call options
  - Expensive (based on volatility)
  - Thinly traded on small stocks (high spreads)
  - Not available usually for 6 months, sometimes never
- Margin loans
  - Max 50% of value, risk of margin calls if stock tanks, exactly wrong time to sell

## Hedging Strategies – Private

- Complex
- Large amounts ($100k to millions required)
- Non-recourse loans
  - If structured correctly not a sale
  - Stock as collateral
  - Money up front, interest due at end of loan period
  - At end, pay back loan, get stock or
  - Walk away, pay capital gains (?) on loan amount + interest not paid back (forgiveness of debt)
  - May not be able to buy other equities
  - If used for investment, interest may be deductible



## Hedging Strategies – Private

- Forward sales
  - Contract to sell in the future
  - # of shares determined based on future price
  - You retain upside
  - Can buy equities
  - Current taxation
- Swap funds
  - People contribute highly appreciated securities
  - In exchange you get shares in the fund and some diversification
  - Illiquid, 7 year time frame
  - Deferred taxation

## Estate Planning (Oversimplification)

- $675,000 estate or lifetime gifts tax free
- $10,000 a year per person gift tax free
- Beyond this, taxed up to 55%
- Strategies
  - Give it away (at a discounted if possible)
    - Especially if “it” will appreciate (e.g. Pre-IPO stock)
  - Retain some control via irrevocable trusts
- Very complex



## Conclusions

- Non-statutory Options
  - Best for large companies:
    - Deduction may be large
    - Option value is significant to employee because exercise price is typically FMV and large (public, large cap company)
    - Employees not likely to buy and hold
  - Upside without cash outlay

## Conclusions

- ISO
  - No deduction for company
  - Significant restrictions
    - Transfers
    - Exercise within 90 days of termination even if public market
  - Great for employee if EP is low
  - Frequently used in startups
  - Upside without cash outlay and chance to buy & hold with minimal tax implications

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## Conclusions

- Value options as % of company future market cap, not number of shares
- Start before stock is worth anything
  - But then risk is large, no easy answers
  - Plan gifts while FMV is low (pre-IPO for sure)
- For startups if total exercise price is small:
  - Try hard to get 83b restricted stock instead and don't forget to file 83b election in time. No tax due since FMV = EP
  - Or exercise as soon as vested (before?) to minimize AMT and maximize holding period (aiming for 2 yrs from grant, 1 yr from purchase)

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## Conclusions

- Risk and diversification
  - Most folks are emotionally attached to the options and don't want to sell
  - If options represent small fraction of net worth let them ride
  - If options represent "drop-dead money" how can you leave it alone? How many Internet companies are down 90% YTD?

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## Conclusions

- Buy & hold may not be best. Really need to do an IRR/time value of money cash flow analysis comparing sell now and buy & hold including:
  - Exercise price
  - AMT due
  - Sales price (?) -- subjective
  - Taxes due
  - Reinvestment rate

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## Conclusions

- Various private banking hedging options if stock > $100,000; public options not available for IPO companies for at least 6 months and then very expensive (high volatility)
- It's not real until it vests and you sell or hedge

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## References

- www.rochlis.com/options
  - Pointers to several books and websites

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