2.1 Convertible bonds as an asset class

- Conversion and call features in convertible bonds
- Issuance from the perspectives of corporate treasurers
- Conversion strategies
- Investors’ perspectives on convertibles
- Other features of convertible bonds
- Busted convertibles
Combination of bonds and equities – bond plus a conversion option

* bondholder has the right to convert the bond into common shares at some contractual price (conversion number may change over time)

**Holder’s perspective:** take advantage of the future potential growth of issuer’s company

**Issuer’s perspective:** raise capital at a lower cost by the provision of conversion privilege to bond holders
Equity perspective on convertibles

- To take advantage of the upside potential growth of the underlying stock (participation into equity).
- Swapping the variable stock dividends in return for fixed coupon payments until the earlier of the maturity date and the conversion date.

Fixed income perspective on convertibles

- Provides the “bond floor” value.
- Conversion option that allows the investor to exchange the straight bond for fixed number of shares.
Call terms

Issuer has the right to call back the bond at a pre-specified call price prior to final maturity, usually with a notice period requirement. Upon call, the holder can either convert the bond or redeem at the call price.

Issuer’s perspective on the call right

• To have the flexibility to call if they think they can refinance the debt more cheaply.

• To force bondholders to convert debt into equity, which can reduce debt levels and result a beneficial effect on the balance sheet. The issuer has the flexibility to shift debt into equity to reduce the leverage of the firm. In summary, it is used as a tool by issuer for possible future equity financing – managing the debt / equity balance.
Call protection

**Hard** (or absolute):
To protect the bond from being called for a certain period of time.

**Soft** (or provisional):
The issuer is allowed to call only when certain conditions are satisfied.

For example, the closing price of stock has been in excess of 150% of the conversion price on any 20 trading days within 30 consecutive days.

**Role of call protection**
To preserve the value of the equity option for the bondholders. While waiting for the stock price to increase, convertibles typically provide more income than the stock. Without the call protection, this income stream could be called away at any time. Hard call protection with the longest possible duration is the most desirable for the investors.
Put feature

Allows the holder to sell back the bond to the issuer in return for a fixed sum. Usually, the put right lasts for a much shorter time period than the maturity date of the bond.

- The holder is compensated for the lesser amount of coupons received in case the equity portion of the convertible has low value.

- It protects the holder against rising interest rates by effectively reducing the year to maturity. The convertible’s price then becomes less sensitive to interest rate.

The put feature may shorten the maturity of the bond and thus effectively raises its investment value and lower the sensitivity to interest rate fluctuation.
Put above par value or premium redemption at maturity

Renong Berhad (a Malaysian company) issued a 5-year bond with a 2.5 percent coupon with yield-to-put at 7.5 percent and a put price of 129.7. This is above the par of 100 used in the calculation of conversion into stock. Also, this results in increased downside protection in case the equity portion has low value.

Investors’ perspective
Even if the conversion turns out to be unprofitable, they are guaranteed a 7.5 percent return to the time of the put.
Convertible bond issued by the Bank of East Asia

US$250,000,000
2.00 percent Convertible Bonds due 2003

Issue date July 19, 1996

Issue price 100 percent of the principal amount of the Bonds, plus accrued interest, if any, from July 19, 1996 (in denominations of US$1,000 each)

Conversion period From and including September 19, 1996 up to and including July 7, 2003
Conversion feature

Conversion price  HK$31.40 per Share and with a fixed rate of exchange on conversion of HK$7.7405 = US$1.00.

Dilution protection  The Conversion Price will be subject to adjustment clause for, among other things, subdivision or consolidation of the Shares, bonus issues, right issues and other dilutive events.
Put feature

Redemption at the option of the bondholders

On July 19, 2001, the Bonds may be redeemed at the option of the Bondholders in US dollars at the redemption price equal to 127.25 percent of the principal amount of the Bonds, together with accrued interest.

*The investors are protected to have 27.25% returns on the bond investment upon early redemption by the issuer.*
<table>
<thead>
<tr>
<th>Call feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redemption at the option of the bondholders</td>
</tr>
<tr>
<td>On or after July 19, 1998, the Issuer may redeem the Bonds at any time in whole or in part at the principal amount of each Bond, together with accrued interest, if for each of 30 consecutive Trading Days, the last of which Trading Days is not less than five nor more than 30 days prior to the day upon which the notice of redemption is first published, the closing price of the Shares as quoted on the Hong Kong Stock Exchange shall have at least 130 percent of the Conversion Price in effect on such Trading Day.</td>
</tr>
</tbody>
</table>
**Soft call protection**

Parisian feature
The closing price has to be above 130 percent of the conversion price on consecutive 30 trading days.

- On the date of issuance of the notice of redemption (treated as day 0), the Issuer looks back 5 to 30 days (corresponds to \([-30,-5]\) time interval) to check whether the history of the stock price path satisfies the Parisian constraint. That is, the last of the 30 trading days falls in \([-30,-5]\) time interval.

- From Issuer’s perspective, when the Parisian constraint has been satisfied, the Issuer has 5 to 30 days to make the decision on redemption or not.
Case study of market manipulation on conversion

China Travel (a red chip company in Hong Kong) issued a convertible bond with coupon rate 4.25% per annum in Nov., 1993, near the peak of 1993 bull market, with maturity date in Nov., 1998. The conversion price is HK$3.66.

- Market background

Stock price jumped from HK$1.24 at the beginning of 1996 to HK$6.1 on 11 Aug., 1997 (historical high). Since the share price was overvalued, so the management had a strong incentive to convert the debt into equity.
• **Possible market manipulation**

China Travel owned more than 30% of its company’s total shares, and the red chip stocks were widely held by other red chip companies. Therefore, it was relatively easy to push up the share prices in bull market situation.

• **Constraint on calling**

The daily closing stock price had to stay over HK$5.49 (call price = 150% x conversion price) for more than 20 of the 30 consecutive trading days. This provision makes market manipulation more difficult and easily detectable.
Failed attempt of conversion

- On 6 Aug., 1997, the share price went above the call price for the first time and managed to stay above for 17 trading days.

- In Sept., 1997, the share price stayed above the call price for two more days (only one day short of the call requirement).

- Unfortunately, the share price went down under the general market’s big drop.

- Within two months after the failed attempt, the share price dropped below HK$3.66, and within one year, it fell below HK$1.0.

- The share price of China Travel fell much faster than the general stock market, suggesting a strongly inflated price before the market crash.
Casino operator brings ringgit convertible

- Malaysia's only casino operator, Resorts World, has raised M$1.1 billion ($300 million) from a convertible bond that was well received despite offering a negative yield.

- Desire to see bonds convert prompts Resorts World to use rare negative yield structure.

- Demand was likely underpinned by the scarcity of equity-linked issuance out of Malaysia, especially ringgit-denominated offerings.
**Bond indenture**

- The negative yield was achieved by issuing the zero-coupon bonds at par and setting the redemption price at 99%, which results in a yield to maturity of -0.5%. The bonds were marketed to investors with a yield range of -0.5% to -1.1% before being fixed at the generous end.

- The conversion premium was fixed at launch at 10% over yesterday's (September 7) volume weighted average price of M$11.593, giving an initial conversion price of M$12.75.
• There is an issuer call after one year, subject to a 120% hurdle, to force conversion in case investors drag their feet.

• The reset mechanism has a floor at 90.9% of the original conversion price, which is high compared with the typical reset floor at 80-85%. The floor is equal to yesterday's volume weighted average price.

• The bonds were priced assuming a credit spread of 40 basis points over the Malaysian interest rate curve, a dividend yield of 2.2% or 120% of the previous year's, and a stock borrow cost of 5%.
Issuer’s perspectives

• While common a few years back when interest rates were much lower, negative yields are rarely seen on CBs nowadays but highlights the issuer's desire to have the bonds convert in order to get equity on its balance sheet.

• The bonds have a short maturity of only two years, a conversion premium of only 10% and two conversion price resets - after the first year and 60 days before maturity - making it all but inevitable that the bonds will convert.

• The issuer is essentially saying that it is happy to sell equity at today's market price, but not lower. The expected appreciation of the ringgit makes the bonds a reasonable proposition.
Investor’s perspectives

- The bond floor was set at 90.7%, which one observer says is "reasonably attractive" given the strong focus on conversion and the implied volatility is 24%. The share price is up a modest 4.5% this year to Thursday's closing price of M$11.70, which compares with a 6.2% gain in the Kuala Lumpur Composite Index.

- Analysts are, however, optimistic that the company's casino operations will drive earnings growth, and of the 19 analysts that cover the company, according to Bloomberg data, 16 have a "buy" or "overweight" recommendation.
• There is no stock lending available at the moment, although Resorts World, which is a subsidiary of conglomerate Genting, is among a group of stocks that is qualified for short-selling once this becomes available.

• Between them the bookrunners were said to have provided asset swaps at the 40 basis points level. Only a small portion was taken up as investors likely felt there was little need to hedge the credit.
Considerations for corporate treasurers

- What are the costs associated with issuing equity, debt, or convertibles. Quantify them using a weighted cost of capital for debt and equity.

- What is the probability of financial distress or embarrassment caused by a given capital structure?

- Consider the design of the corporate structure as a marketing problem. What types of investors will be attracted to the various pieces of the corporate pie?
Financing strategies

Advantage of equity as a source of financing – excellent insurance properties against financial distress.

- Equity will be issued by the more pessimistic firms.
- Straight debt will be issued by the more optimistic firms.
- Convertible debt will be issued by medium-quality firms.
Convertibles as a means of cheap financing

Sweeten debt
- Allow firms to borrow cheaply relative to straight debts.
- Convertibles protect companies with high and indeterminate risk from a prohibitive cost of straight debt.

Remark Should not ignore the costs associated with the convertibility feature.
Small, fast growing companies

Such companies have comparative advantage in the convertible market versus the fixed income market.

- They lack a long-term track record and have volatile capital structures – high coupon must be offered.

- They can transform the high volatility into a benefit since the warrant is more expensive.

- When the company grows, they may call the bonds. This in turn will strengthen the company’s equity base at the moment when it is most needed.
Convertibles as backdoor equity financing

Delayed equity
• Convertibles provide a way of selling common stock at a price above the existing market.
• They are employed as deferred common stock financing.

The call feature is important since it gives the company the means to shift debt to equity.

Convertibles offer a means to control the debt/equity ratio.
Reaction of share prices to external financing

*Empirical evidence documents*
- Average abnormal returns (ARR) of –2.07% when firms announce issues of *convertible*.
- ARR of –3.14% for issuance of *equity*.
- Firms that announce *straight debt* issues have a statistically insignificant ARR of –0.26%.

*Advantage of convertibles*
Alleviates the negative impact of adding a large, additional supply of common stock to the market at one time. Distributing stock slowly over time is most beneficial to small to mid-size companies.
Why issuing convertibles when the issuer has an upside view on the stock price movement

- The stock price must move above the conversion price of the convertible to ensure a conversion to common stock. This results in the company issuing equity at a cost that is less than that of a straight equity offering.

- The amount of savings is a function of
  - cost of debt
  - the time that the convertible remains outstanding
  - dividend on the stock
  - conversion premium on the convertible at issue.
Attraction to venture capitalists

“I will provide funds for your venture. I expect to be paid interest, and principal when it comes due, and if your venture is successful, I expect to participate through conversion to stock.”

Convertibles align the interests of both management and bondholders. The holders benefit by sharing in the high returns that riskier projects might provide.
Making convertibles work to the company’s advantages

- The conversion price and the price above the current stock price should be determined in relationship to the fixed income characteristics of the offering.

- The conversion price can be either higher or lower depending on yield, year to maturity and credit quality.

- Higher yield can compensate for a higher conversion premium.
## Findings from questionnaires

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Delayed equity</td>
<td>82%</td>
<td>68%</td>
<td>40%</td>
</tr>
<tr>
<td>Sweeten debt</td>
<td>9%</td>
<td>27%</td>
<td>37%</td>
</tr>
<tr>
<td>Others</td>
<td>9%</td>
<td>5%</td>
<td>23%</td>
</tr>
</tbody>
</table>
**Reason(s) for Offering**

My firm chose convertible as its financing source …

<table>
<thead>
<tr>
<th>Reason</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree Nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>4.7%</td>
<td>47%</td>
<td>4.7%</td>
<td>50.6%</td>
<td>35.5%</td>
</tr>
<tr>
<td>b.</td>
<td>16.9%</td>
<td>14.5%</td>
<td>4.7%</td>
<td>24.1%</td>
<td>25.3%</td>
</tr>
<tr>
<td>c.</td>
<td>42.7%</td>
<td>19.5%</td>
<td>4.7%</td>
<td>31.7%</td>
<td>3.7%</td>
</tr>
<tr>
<td>d.</td>
<td>7.0%</td>
<td>3.5%</td>
<td>4.7%</td>
<td>5.8%</td>
<td>46.5%</td>
</tr>
<tr>
<td>e.</td>
<td>45.1%</td>
<td>20.7%</td>
<td>4.7%</td>
<td>28.0%</td>
<td>6.1%</td>
</tr>
<tr>
<td>f.</td>
<td>10.7%</td>
<td>8.3%</td>
<td>4.7%</td>
<td>45.2%</td>
<td>29.8%</td>
</tr>
<tr>
<td>g.</td>
<td>10.8%</td>
<td>10.8%</td>
<td>4.7%</td>
<td>33.7%</td>
<td>42.2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.4%</td>
<td></td>
</tr>
</tbody>
</table>
Reasons for Offering (cont’d)

By order of importance, please rank the following factors on a scale of 1 to 6 on the extent to which it influenced your firm’s decision to issue convertible; 1 = most influential, 2 = next most influential, etc.)

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower coupon versus straight debt</td>
<td>48.3%</td>
<td>25.0%</td>
<td>13.3%</td>
<td>5.6%</td>
<td>5.6%</td>
<td>1.2%</td>
</tr>
<tr>
<td>stock was undervalued, so we couldn't issue equity</td>
<td>15.7%</td>
<td>22.6%</td>
<td>7.8%</td>
<td>11.3%</td>
<td>7.0%</td>
<td>28.0%</td>
</tr>
<tr>
<td>Stock was overvalued, so we took the opportunity</td>
<td>3.4%</td>
<td>4.8%</td>
<td>2.2%</td>
<td>7.0%</td>
<td>26.8%</td>
<td>52.4%</td>
</tr>
<tr>
<td>to lock in a favorable conversion premium</td>
<td>22.5%</td>
<td>31.0%</td>
<td>20.0%</td>
<td>12.7%</td>
<td>14.1%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Firm wished to issue &quot;delayed equity&quot;</td>
<td>7.9%</td>
<td>4.8%</td>
<td>27.8%</td>
<td>38.0%</td>
<td>18.3%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Investment banker recommended it</td>
<td>2.20%</td>
<td>11.90%</td>
<td>28.90%</td>
<td>25.40%</td>
<td>28.20%</td>
<td>8.50%</td>
</tr>
</tbody>
</table>
Environment in which issuance occurred

1. In retrospect, my firm’s stock was ______ valued around the time of the convertible debt offering.

<table>
<thead>
<tr>
<th></th>
<th>under</th>
<th>correctly</th>
<th>over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>46.4%</td>
<td>41.6%</td>
<td>12.0%</td>
</tr>
<tr>
<td>Median</td>
<td>1.66</td>
<td>2.00</td>
<td></td>
</tr>
</tbody>
</table>

2. Around the time of the convertible debt offering, my firm’s management expected future earning to be ______ the market was expecting.

<table>
<thead>
<tr>
<th></th>
<th>about the same as</th>
<th>much higher than</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.6%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Median</td>
<td>3.55</td>
<td>3.00</td>
</tr>
</tbody>
</table>

3. At the time of the convertible debt offering, prospects for my firm’s short-term (1-2 years) performance relative to its industry were:

<table>
<thead>
<tr>
<th></th>
<th>poor</th>
<th>fair</th>
<th>good</th>
<th>very good</th>
<th>excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.4%</td>
<td>5.9%</td>
<td>34.1%</td>
<td>47.1%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Median</td>
<td>4.00</td>
<td>4.00</td>
<td>5.00</td>
<td>4.00</td>
<td>4.00</td>
</tr>
</tbody>
</table>
Conversion strategy

• The holder will always find it optimal to convert if the value of the bond falls below its conversion value.

• At optimal conversion, the value of the bond is equal to its conversion value.

• Since the bond value itself depends on the optimal conversion strategy, the bond value and the optimal conversion strategy must be determined simultaneously.
Some facts about conversion

- Only about 25% of all convertibles issued are actually redeemed.
- Even though the average maturity of a convertible bond is about 12 years, the average life of a convertible is about 4.5 years.
- On average, a stock’s price needs only to raise by about 5% a year to insure conversion.

Over 50% of the US convertible market is comprised of high-growth companies in the technology, telecommunications, media and health care sectors.
Capture of accrued interest upon conversion

- Upon conversion to stock, any accrued interest will be lost. This is the infamous screw clause.

- Trick - sell an equivalent amount of stock short against the convertible bond, hold the short sale until the interest payment date; then convert the bond and deliver the stock against the short sale.
**Call strategy**

- The issuer should pursue a call strategy that minimizes the value of the convertible. Hence, the issuer cannot tolerate the bond value to exceed the call price.

- On the other hand, it will not be optimal to call the convertible when its value is less than the call price.

- Combining, the convertible will be called when the bond value is equal to the call price.
Delayed call phenomena

• Firms wait until the value of the bond value is much higher that the call price times the conversion number before issuing the call. In Ingersoll’s study of 179 convertibles, the percentage amount exceeded had a median of 43.9%.

• How to explain such delayed call phenomena?

• Several possible theories are proposed for the rationales of delayed call.
**Safety premium**

- Since convertible bond covenants typically require 30-day notice before the bonds are redeemed, and during that period, the stock price may fall (likely to fall given the normal negative reaction to the call announcement), forcing the firm to redeem for cash.

- There would be a higher cost to raise funds shortly so that the calling firms require a safety premium on the risk that the stock price may drop significantly over the notice period causing the bond to become out-of-the-money.
Signaling

• Calling may send a signal that management expects the firm’s equity to decline in value (making payment of dividend rather than coupon is more preferable to the firm). Management is reluctant to send such a signal.

• If “sleeping” investors are not optimally converting their bonds, it is in management’s best interest not to awaken them by issuing a call.
Tax advantage

• Some firms enjoy an advantage of paying less in after-tax interest than they would pay in dividends were the bond converted.

• Therefore, firms have the incentive to keep the bond alive even if the net present value of coupons to be paid somewhat exceeds the net present value of the dividends that would be paid to the former bondholder following conversion.
Two main types of investors for convertibles

Money managers
e.g. convertible fund managers, fixed income managers, risk averse equity managers, income oriented equity managers, etc.

Purchase the corresponding convertible if holding a bullish view on the equity.

Arbitrage specialists
They attempt to lock in profits due to misalignment between the equity market and the convertibles. They are less concerned with the positive outlook of the equity.
Investors who are restricted in their equity holdings

Example Florida Department of Labor prohibits self-insurance funds from investing in any equities.

- Convertibles, despite their equity component, are typically classified as fixed-income instruments.

- These restricted investors will profit from the equity like payoffs available with convertibles and increase their diversification.
Equity-like returns with less risk

Convertible securities are an appropriate investment vehicle for long-term investors seeking a high rate of total return but with less risk than common stock.

- Convertible investors hope to earn two-thirds of the upside return with only one-third of the downside risk.
  - In bull markets, convertibles have trailed global equity markets by only a few percentage point.
  - In bear markets convertibles offer considerably more downside support.
Convexity ratio

- Classic “two-thirds upside, one-third downside”

- Convexity ratio is the ratio of upside and downside participation.

For example, suppose the convertible provides 64% of the upside participation with only 34% of the downside movement, then the convexity ratio is 1.85. That is, the convertible provides 85% more upside participation than downside risk.
Risk-reward relationship

Performance of various asset classes, 1973-1995

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Compound annual return</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convertible bonds</td>
<td>11.70%</td>
<td>12.47%</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>11.84%</td>
<td>17.27%</td>
</tr>
<tr>
<td>Long-term corporate bonds</td>
<td>9.66%</td>
<td>12.44%</td>
</tr>
<tr>
<td>Intermediate-term corporate bonds</td>
<td>9.91%</td>
<td>8.93%</td>
</tr>
</tbody>
</table>

Source: Goldman Sachs Global Convertible Research (1996) “Convertibles as an Asset Class.”
## Insulation from volatility

The price movements of convertibles are generally far less volatile.

<table>
<thead>
<tr>
<th>Company</th>
<th>Common Stock Closing Price</th>
<th>Convertible Closing Price</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8/24/01</td>
<td>9/21/01</td>
<td>Change</td>
</tr>
<tr>
<td>Avon Products</td>
<td>45.89</td>
<td>44.04</td>
<td>4.03</td>
</tr>
<tr>
<td>Bell Atlantic/ New Zealand Tel</td>
<td>17.85</td>
<td>14.15</td>
<td>-20.73</td>
</tr>
<tr>
<td>Diamond Offshore</td>
<td>27.90</td>
<td>26.35</td>
<td>-5.56</td>
</tr>
<tr>
<td>INCO</td>
<td>17.55</td>
<td>12.45</td>
<td>-29.06</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td></td>
<td><strong>-14.15</strong></td>
</tr>
<tr>
<td>DJIA</td>
<td>10423.20</td>
<td>8235.81</td>
<td>-20.99</td>
</tr>
<tr>
<td>S&amp; P 500</td>
<td>1916.80</td>
<td>1423.19</td>
<td>-25.75</td>
</tr>
<tr>
<td>NASDAQ</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• Adding convertibles to either bonds or stocks moves the efficient frontier lower in terms of risk and higher in terms of reward.49
Long term convertible performance

• Over the period for which reliable long-run data are available (since early 1970s), the total return performance of US convertibles has virtually replicated that of the S & P 500, but with significantly lower risk.

• Over the same period, convertibles have significantly outperformed long-term corporate bonds while demonstrating comparable risk.

• Total return for convertible bonds has demonstrated a much higher correlation with the S & P 500 than with the corporate bond market.

• Convertibles can help maximize performance in both equity and fixed-income portfolios.
Possible reasons for the better performance

Inefficient company timing in calling convertible issues
If a deep-in-the-money convertible enjoys a significant yield advantage over the common stock but it is not called, it is likely to outperform the underlying stock. Companies may delay conversion for a number of reasons including balance sheet and rating agency considerations.

Attractive convertible pricing at issue
Typically, convertible securities are initially priced several percentage points cheap to their theoretical value in order to insure a successful launch. These securities after trade higher in the immediate after-market. Apparently, companies are prepared to offer attractive terms in order to assure entry to the capital markets and to enjoy the tax benefits offered by convertibles.
What is a busted convertible?

The underlying stock is far out-of-the-money – the convertible trades on its fixed income characteristics.

Busted convertibles are characterized by low equity price sensitivity (low delta), large conversion premium and high yield to maturity.

• delta < 4%
• conversion premium > 75%
• yield more than 10%

Average credit quality of the busted convertibles is BB- versus BB+ for the entire domestic universe.
Secondary Market Behavior: Busted Convertibles
Advantages

• In contrast to junk bonds, the upside potential is not capped – may enjoy unlimited upside potential if the stock price recovers.

• With busted convertibles, the equity warrant (deep out-of-the-money) is often mispriced. Investors are effectively buying high yield debt with a free equity kicker.

• Busted convertibles are more attractive investment than high-yield debts in a modern economy that has shifted from slow growth, cyclical companies to more volatile growth companies.
Disadvantages

- Busted convertibles are often more illiquid. Traditional convertible investors become sellers as equity sensitivity diminishes.

- Convertible securities are generally subordinate to other creditors in the event of a liquidation or bankruptcy.

- The biggest risk is continued credit deterioration. Analyzing busted convertibles is a research intensive process involving both equity and credit analysis.
Reset feature in convertible bonds

In most cases, the reset on conversion price is downward and this makes the bond more valuable. For example, the conversion number is reset by dividing the par by the prevailing stick price.

Floor limit
The extent of downward reset cannot be below a certain multiplier of the first conversion price.
Examples of reset convertibles

• United Artists Communications (1987) issued convertibles that after a fixed period of time, the bonds were evaluated by an independent investment banker. This is to determine the coupon rate that would allow the bonds to trade at 101 plus accrued interest.

• Mitsubishi Bank issued (Oct., 1995) $2 billion of 7-year bond with annual reset of the conversion ratio. It offers investors more shares if the stock price declines, with the goal of keeping the bond’s equity value at par.
Why the reset convertible bonds are popular in Japan in mid-1990’s?

- Japanese banks were considered quite risky as they had large Real estates exposures.

- To raise capital
  a. equity issuance was out of the question since the stock markets were depressed;
  b. straight bond issues would have required a high coupon yield.

Reset feature was included in convertible bonds to give investors some sort of insurance against bank’s stock decline.
Pricing difficulties
There are many possible conversion prices since they depend on the past history of the stock price.

Impact on bond price
At high stock price (not likely to reset) or low stock price (low equity value) regions, the reset premium is low. The reset premium is significant only at intermediate stock price level.

Nightmare for the issuers
The feature is too sweet for the investors and harmful to the issuer.
• When the stock price drops, the investors are compensated.
• When the stock price rises, the conversion premium becomes more expensive.

These structures have fallen from popularity in recent years.
Takeover clauses

An unexpected takeover bid can have the effect of eliminating any conversion premium if the takeover price is below the conversion price.

*Poison put* is added as protection in the change-of-control clause:

- triggered as a result of a hostile takeover and would allow the bondholder to put the bonds back to the company at par.

Alternatively, the issuer can prevent the conversion premium from evaporating by increasing the conversion ratio to restore the premium to the average level seen before the takeover announcement.
Sleeping investor clause

If the conversion value at maturity is above the par, a rational investor will exchange the convertible into stock. Investors should be notified, but they may fail to submit their conversion notice to the trustee.

Sleeping investor provision

The trustee is allowed to convert the securities on behalf of the investor if the conversion value exceeds the redemption value by a specified margin, usually 5%.
Premium protection

The holder who converts the security after a specified date and before the call protection expires can receive half of the coupon payments still remaining.

- Provides protection for the initial conversion premium paid at issuance.

- Most likely to be used by relatively small companies that need to offer investors additional incentive to provide capital.
Dilution protection
(extraordinary dividends)

Convertible investors are not compensated for normal dividend payment. However, if a company makes an extraordinary payment, resembling a return of capital, convertible holders want to be compensated.

* Dilution protection clause* may be added:
If the dividend payment yields more than a specified amount, any amount over the threshold will be compensated.