

Dividends from Unrealized Earnings, and Financial Distress

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Unrealized earnings and dividends

- In the era of fair value accounting (IFRS...) firms can recognize in their income statements unrealized earnings arising from changes in the fair values of assets and liabilities
- In many countries the Law that restricts dividends distribution does not distinguish between realized and unrealized earnings
- Neither the financial nor the accounting literatures have dealt thus far with the possible repercussions of the distribution of unrealized earning as dividends for the firm
- In this study, we focus on a hitherto unexamined aspect of the ability to recognize unrealized revaluation earnings: does a distribution of the unrealized earnings as dividends to shareholders increases the firm's default risk?

Research Hypotheses

- in the IFRS era firms are incentivized to distribute unrealized earnings as dividends
 - To maintain a smooth dividend payout ratio in the face of increased earnings due to revaluation gains
 - To transfer value from debtholders to shareholders by substituting cash for revaluations in the firm's balance sheet
 - To signal that the unrealized earnings are reliable, i.e., that they are unlikely to reverse in the future
- Chen and Gavigus (2015) showed that dividend distributions in Israel increased following the adoption of IFRS due to revaluation gains

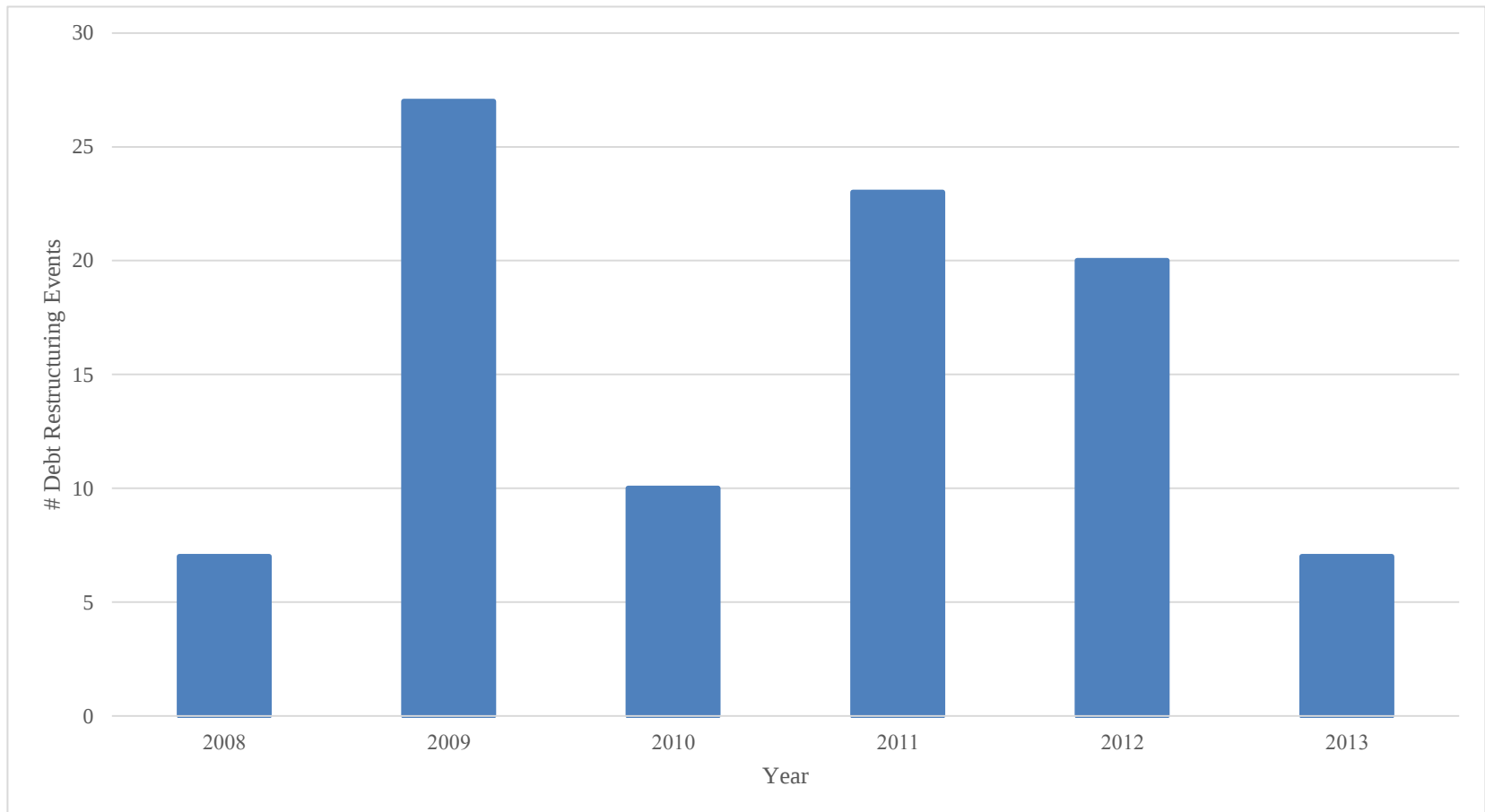
Research Hypotheses

H1: All else being equal, firms that distribute dividends from unrealized earnings will be as prone to encounter financial distress as firms that do not.

H2: All else being equal, the cost of debt does not differ between firms that distribute dividends from unrealized earnings and firms that do not.

Data- firms & Debt restructures

- Final sample of 292 firms during 2008-2013
- 94 of which encountered financial distress at least once during the sample period



Data- Identification of firms that distributed Dividends From Unrealized earnings (DFU firms)

Firms usually do not report the exact source of the dividends they distribute. Instead we...

1. Identify the post-IFRS firm-years in which dividends were distributed
2. Compare the amount of dividends distributed with the firm's undistributed *realized* earnings
3. If the amount of dividends paid is greater than these earnings, but the difference is smaller or equal to the firm's *unrealized* earnings (not distributed thus far), infer that the dividends were distributed from unrealized gains

We define a firm as DFU from the year it firstly paid dividends from unrealized earnings and thereafter.

Financial distress estimation

We examine the association between distributions of unrealized earnings as dividends and the likelihood of encountering financial distress (debt restructure)

$$\begin{aligned} FD_{t+1} = & \alpha_0 + \alpha_1 DFU_t + \alpha_2 DivPayout_t + \alpha_3 Size_t + \alpha_4 ROA_Real_t + \alpha_5 LossReal \\ & + \alpha_6 ROA_Unreal_t + \alpha_7 LossUnreal + \alpha_8 Leverage_t + \alpha_9 InterestCov_t \\ & + \alpha_{10} CurrentRatio_t + \alpha_{11} Tangibility_t + \alpha_{12} Maturity_t + \varepsilon \end{aligned} \quad (1)$$

$$\begin{aligned} FD_{t+1} = & \alpha_0 + \alpha_1 DFU_t + \alpha_2 DivPayout_t + \alpha_3 Size_t + \alpha_5 Zscore_t + \alpha_6 Maturity_t \\ & + \varepsilon \end{aligned} \quad (2)$$

- We conduct Survival analysis using Cox proportional hazard model (Cox, 1972)
 - Dependent variable: time spent by firms without entering debt restructure

Financial distress estimation- Results

- The results show that DFU firms are more likely to enter debt restructure process following a distribution of dividends from unrealized earnings
- In terms of hazard ratio, the coefficients on *DFU* are about 3, implying that the probability of a DFU firm entering a debt restructuring is three times higher than that of a ceteris paribus similar non-DFU firm

Financial distress estimation- Controlling for endogeneity

- There are two possible (and not mutually exclusive) interpretation for the results
 - Firms that distribute dividends from unrealized earnings are more prone to encounter financial distress
 - Firms with a higher likelihood to enter financial distress choose to distribute dividends from unrealized earnings
- The second explanation suggests that a firm with private information about a high likelihood to enter financial distress in the future may distribute its unrealized earnings as dividends before this private information is revealed

Financial distress estimation- Controlling for endogeneity

- To control for this potential endogeneity between the DFU variable and the financial distress variable, we use a propensity score matching procedure
- The idea is to identify a control group of firms with an *ex ante* propensity to pay dividends from unrealized earnings similar to that of our DFU firms, but that did not pay dividends from unrealized earnings throughout the post-IFRS period
 - Estimate a Probit model for predicting dividend distributions from unrealized earnings
 - Match each DFU firm with a non-DFU firm with the closest likelihood to distribute dividends from unrealized earnings
 - Estimate Cox model using the matched sub-sample.

Financial distress estimation- Controlling for endogeneity

- *DFU* is significantly and positively associated with the occurrence of a debt restructuring in the matched sample
- Hence, the increased financial risk documented for DFU firms is over and above *ex ante* differences between firms that distributed dividends from unrealized earnings in the post-IFRS period and those that did not do so
- In terms of hazard ratio, the coefficients on *DFU* are about 4; It implies, in line with the results for the full sample, that the probability of a DFU firm entering a debt restructuring is much higher than that of a ceteris paribus similar non-DFU firm

Cost of debt estimation

- We examine whether DFU firms' increased likelihood of entering financial distress is priced by credit rating agencies and/or debtholders

$$(1) \text{Rating}_{t+1} = \alpha_0 + \alpha_1 \text{DFU}_t + \alpha_2 \text{DivPayout}_t + \alpha_3 \text{Size}_t + \alpha_4 \text{ROA_Real}_t + \alpha_5 \text{LossReal} \\ + \alpha_6 \text{ROA_Unreal}_t + \alpha_7 \text{LossUnreal} + \alpha_8 \text{Leverage}_t + \alpha_9 \text{InterestCov}_t \\ + \alpha_{10} \text{CurrentRatio}_t + \alpha_{11} \text{Tangibility}_t + \alpha_{12} \text{Maturity}_t + \varepsilon$$

$$(2) \text{YieldSpread}_{t+1} = \alpha_0 + \alpha_1 \text{DFU}_t + \alpha_2 \text{DivPayout}_t + \alpha_3 \text{Size}_t + \alpha_4 \text{ROA_Real}_t + \alpha_5 \text{LossReal} \\ + \alpha_6 \text{ROA_Unreal}_t + \alpha_7 \text{LossUnreal} + \alpha_8 \text{Leverage}_t + \alpha_9 \text{InterestCov}_t \\ + \alpha_{10} \text{CurrentRatio}_t + \alpha_{11} \text{Tangibility}_t + \alpha_{12} \text{Maturity}_t + \alpha_{13} \text{InvestGrade}_t \\ + \alpha_{14} \text{SpecGrade}_t + \varepsilon$$

- We control in our regressions for firm and year fixed effects
- We repeat the estimation using Altman et al.'s (1998) Z-score

Cost of debt estimation- Results

- The coefficient on *DFU* is insignificant, indicating that, ceteris paribus, DFU firms do not have neither higher yield spreads nor lower ratings
- It seems that the decision to distribute dividends from unrealized earnings is not adequately priced by the market and the rating agencies, as reflected in an insignificantly higher cost of debt of DFU firms

Robustness

- The results are robust to the exclusion of:
 - The 45 firms in Israel that early adopted the IFRS in 2006 (i.e., prior to the massive adoption in 2007)
 - The years 2008-2009 (the height of the global financial crisis)
- Repeat the analyses separately for more liquid versus less liquid bonds to address the concern that the mispricing of default risk may be driven by few low-liquidity bonds. Using two measure of liquidity (bid-ask spread and quoted size) we show that neither the spreads/ratings on the more liquid bonds nor the spreads/ratings on the less liquid bonds are significantly affected by our *DFU* variable.
- Repeat the analyses separately for real estate and for non-real estate firms. The coefficient on *DFU* is significantly positive in the debt restructuring regressions for real estate as well as for non-real estate firms. In the rating and yield spread regressions the coefficient of *DFU* is insignificant for both groups of firms.
- [Alternative DFU classification schemes...](#)

Summary

- The repercussions of the distribution of unrealized earnings as dividends for the firm are of relevance to many IFRS countries as well as the US
 - This study is the first to provide evidence for this issue
- In Israel, the Israeli Securities Authority and the Ministry of Justice has recently suggested amendments to the Israeli Corporate Law that would, if passed, prevent the distribution of dividends from unrealized earnings
- We document a significant impact of the distribution of unrealized earnings as dividends on a firm's risk of encountering financial distress, as captured by a higher likelihood to enter debt restructuring
- However, this enhanced risk is mispriced by the market
 - Both the yields on the firms' bonds and the credit ratings by rating agencies are insignificantly different for firms that distributed dividends from unrealized earnings, compared to firms that never did so
- Our research empirically supports the need for legislation that limit firms' ability to distribute dividends from unrealized earnings

Thank you!