



IPOs: Evaluating failure risk

To what extent can we predict whether a new stock exchange listing or initial public offering (IPO) is going to fail? This is a question of major significance for investors and the firm’s employees alike as the rate of delistings has increased dramatically over the years, with the probability of a new listing surviving in its first ten years falling sharply to 37 per cent by the 90s from 61 per cent in the early 70s.

According to a study by INSEAD Assistant Professor of Accounting and Control Liz Demers and co-author Philip Joos of Tilburg University, the risk of failure may not be fully priced into new listings as of the offering date. “I think our study is possibly of greatest interest to potential investors, but also to anybody that would be affiliated with the firm – an auditor, an underwriter, the lawyers who consult with the firm, employees or executives who might consider joining that firm ... So I think there are many constituents with a vested interest in the firm that would have a heightened sense of interest in the company’s failure risk.”



The authors say financial

accounting plays an important role in assessing IPO failure risk, and basing their study on this approach, they developed failure prediction models for high-tech and ‘old economy’ or non-tech IPOs.

Predicting failure

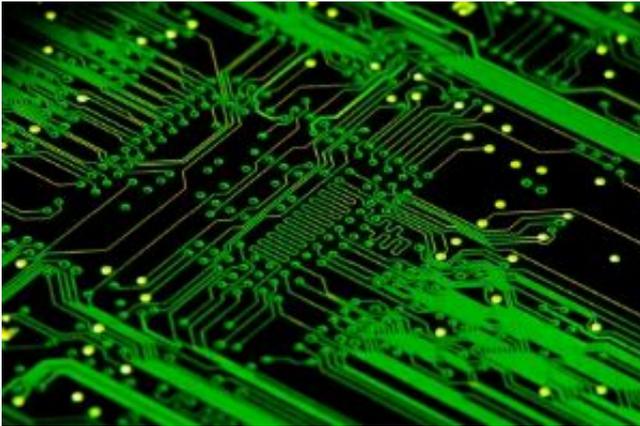
Demers says that in the study they try to predict failure rather than success of new listings. She says, under their definition of failure, a company delists, is removed from the stock exchange or declares bankruptcy within five years of its listing. “It’s unrealistic to expect that we can predict beyond five years of the date that the company goes public, so looking longer than that does not really make sense. And not a lot of companies frankly fail within just a few years of going public because it’s such a high hurdle to pass, just to go through the public offering process, that they’re not that weak that they’re going to fail within just a few years.”

Success, she says, is not exactly the inverse of failure, “because the definition of success is not as evident.” A company may remain listed but that does not necessarily mean it has been ‘successful’ in terms of above average returns or will remain listed beyond the five-year horizon the authors examined.

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Greater risks nowadays

“Firms are going public now that are riskier than they used to be in the past. They are exhibiting lower levels of profitability and often negative profitability when they go public and that was much less common in past decades. Much of their value resides in future growth prospects rather than past realisations of success, so the characteristics of the firms that are going to public markets and the willingness of shareholders in the public markets to fund those types of firms have really changed over the decades,” Demers says.



For the purpose of the study, the authors did not include internet firms as they may have distorted the results, especially given the internet bubble of the late 90s which burst so dramatically in March 2000. “Technically we define high-tech firms to be any firm that has R&D expenses that are greater than five per cent of sales or total assets,” Demers says. Some internet companies, on the other hand, are “essentially media or retail firms that happen to do their business over the internet and so they might not have met that (five per cent R&D) threshold to be considered high-technology firms.” She adds: “Some either shot to the moon in the Yahoo!, Google scenario or they crashed very quickly – and to have that negative spiral in a relatively few short years after going public would ... accentuate the down or up returns depending upon which way you traded on them.”

Demers says that the IPO failure risk of internet firms has been looked at in a separate study: “We actually use a high tech-based model to predict the failure of internet firms, and what we find is that that model is very successful ... Although it doesn’t fit the internet firms at an extremely high level relative to some of the other models that we examine, because the internet returns are so extreme, if we implement the model in a trading situation, we still end up with very significant hedge returns.”

Hedging strategy

Hedge funds and portfolio managers have shown

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interest in their failure prediction model, she says: “What we did was devise a hedge strategy of going long in firms with low failure risk and short in firms that had high failure risk and we document we could have earned significant abnormal returns from such a hedged trading strategy based on our model.”

So what are the signs to watch out for when you try to spot the IPO with a higher failure risk? Among the factors to look for: whether or not the firm has selected a high prestige underwriter and accounting firm, as these do not want to be associated with low quality offerings; at a time of ‘hot’ stock markets, there may be a higher risk of failure as listing requirements may have been lowered to meet excess demand from investors; non-tech firms with high selling, general, and admin costs would be more likely to fail; while companies with high gross margins which can charge premium prices are relatively lower risk, as are companies with relatively high sales volumes at the time they go public. “Also we find that if a firm goes public with a low offering price, that’s an indication of a higher failure risk firm, and if a firm is more mature when it goes public that’s an indication of a lower failure risk firm because they have the history behind them and knowledge of operations. If they’re heavily leveraged financially speaking, they’re much higher risk, more likely to fail. If they have spent very heavily on R&D before going public, if they’re a high tech firm, they have a lower risk of failure.”

Other models for other markets?

The study focused on IPOs in the US markets – namely the Nasdaq, New York and American stock exchanges – but Demers says she would like to examine IPO failure risk in other countries. “It would be with hesitation ... that I would take the model that we’ve come up with and apply it to the Taiwanese stock exchange or even the LSE (London Stock Exchange), which is probably the most similar to the US markets, without making some appropriate adjustments ... Our model is very useful but it’s particularly useful for the US markets because that’s the basis on which it has been estimated and calibrated. If one wanted to implement a similar trading approach on LSE-listed firms ... then I would simply reestimate the model on UK data, Taiwan data or whatever your target stock exchange is, rather than take our parameters and apply them directly.”

Trading price levels are “much lower in the UK than they would be in the US and so one of the indicators of failure is your initial offering price. Firms with a very low offering price in the States, that’s an indicator of low quality and that same price threshold is much different in the UK just because the norms are different and that may be true across many other exchanges as well, depending upon

their local norms for a typical price range. (There are) other institutional factors, such as who are the key underwriters in London versus New York, versus Taiwan. These things are going to differ and so one would need to calibrate the underwriter variable, for example, in the model to accommodate large players in other markets that are not picked up in the US.”

'Use the model but follow up with company analysis'

Some may be surprised that this kind of study was not carried out decades ago, but Demers says that, in the past, research focused on the failure of mature firms rather than newly-listed companies. “What is distinct about the IPO firms ... is that IPO firms by definition don't have market-related variables about them until they go public. So we found a setting where we think there is very much a heightened role for accounting information and furthermore these firms are ... much more commonly high-tech based, intangible asset-based, rather than debt financed with bonds and so forth, because they don't have mortgageable assets in the old economy sense of that word – buildings and equipment against which they can borrow.”

Demers believes the prediction model could be used by potential investors to screen the large numbers of companies that go public. However, there is a caveat: “My recommendation to them in all cases is: go ahead and use the mechanical model that we derive as a screening tool, but always then follow up with a fundamental analysis of the firm itself before making a trading decision.”

'IPO Failure Risk' is to be published in a forthcoming edition of the Journal of Accounting Research.

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