



Executive Summary

By Bob Held, CLP and Jack Lu, PhD, CFA

While the 2014 survey had a much smaller sample size of 94 vs. the 2011 survey, it was able to cover major fields within the High Tech Sector (HTS), including aerospace, software, clean technology, communications, medical devices, semiconductors, consumer products and electronics, and computers. The survey also revealed a fairly diversified licensing market, with participants coming from various sizes and types of organizations. The deals included different types of IP, and the licensed products in the deals had different revenue-generating capacities.

Exclusive and nonexclusive deals represented fairly equal percentages among the samples in the 2014 survey. Exclusive deals were more likely to be adopted by academic and governmental licensors to license out early-stage technologies at running royalty rates, while non-exclusive transactions were usually associated with lump sum payment licenses entered into by large operating companies as licensees. Also, about half of the licensors in the 2014 survey entered into the deal for purely monetary gain, and about a quarter for strategic purposes.

As shown in the 2011 and 2014 surveys, NPEs are playing a very active and important role in the IP licensing market, although the 2014 survey seems to reveal that the role of the NPE, as measured by its share in the lump sum payment deals, has been shrinking. The newly added questions about NPE's shed further light on the NPE function and usefulness in the market. Slightly more than half of the non-NPE respondents expressed a negative or neutral opinion toward NPEs, while two thirds to three quarters of them either have used the services of NPEs, or will/may use them in the future.

A wide range of payment methods and structures were implemented by the survey respondents, including flat and tiered running royalty rates expressed as a percentage of sales or profits; flat and tiered unit royalty rates; lump sum payments; upfront payments with significant back-end payments; and running royalty rates plus auxiliary

payments such as upfront payments or research and development funding.

The average and median royalty rates in the 2014 survey samples were 4.88 percent and 5 percent, respectively, as compared with the 2011 survey that had an average rate of 6 percent and median rate of 5 percent. The combined samples of the 2011 and 2014 surveys have an average rate of 5.75 percent and a median rate of 5 percent. The descriptive statistics indicate that the average rate declined across the surveys. Also demonstrated by the descriptive statistics is that non-exclusive deals had higher royalty rates than exclusive deals, which is counterintuitive.

In a stark contrast to the trend seen with running royalty rate deals, the average and median payments per deal for the lump sum payment licenses actually increased from the 2011 to the 2014 survey. The number of assets licensed and the payment amount varied dramatically across the lump sum payment deals in the 2014 survey, with the average payment deal coming in close to \$10 million and the median payment deal at \$3 million.

Finally, the sample size of patent sales and exclusive transfers (i.e., the privateering deals) is very limited and the variances were high with both the number of assets transacted and size of the payments. This said, the descriptive statistics indicate that the average price per patent is \$358,000 and the median price per patent is \$375,000.

The economic and econometric analysis reveals further insights into the issues raised in the descriptive statistics. First, it confirms that the increase in lump sum payments from the 2011 to the 2014 survey is statistically significant, and that the decline in average royalty rates is material, but not statistically significant. Second, after controlling for the effects of all other variables, exclusivity actually carries a statistically significant premium in the regression analyses on both running



royalty rates and lump sum payments. It is also interesting to note that although exclusivity is associated with a discount in the 2014 survey, the discount is statistically significant in neither of the regression models.

Third, certain technology types, such as aerospace and software, command statistically significant premiums, and the licensees in certain industries, such as IT, are likely to pay more than other licensees. Also, the technologies in the production or fully developed stage carry higher payments than the technologies in earlier stages, and the combination of know-how, designs, and drawings actually holds a significant premium in the licensing market.

While tremendous efforts have been made by the team members to process and analyze the data and interpret the results, there are several issues that would require additional data and information, as well as further research, in order to reach a more conclusive interpretation. Issues that warrant further research or explanation include the smaller size of the 2014 survey; the decline of the average royalty rate and the increase of the average lump sum payment per deal from the 2011 to the 2014 survey; the material discount, though not statistically significant, associated with exclusivity in the 2014 survey; and the significant increase in royalty payments to governmental licensors and NPEs in the 2014 survey.