

Human Capital and Finance

The Financial Markets Research Center sponsored a conference, "Human Capital and Finance," which took place on October 9th, 2010. Professor **Miguel Palacios** organized the one-day event, which included 9 presentations on topics linking corporate finance and asset-pricing to human capital. Presenters addressed a wide variety of issues, such as the aggregate value and risk of human capital, the individual value and risk of human capital, the effect that human capital's riskiness may have on a firm's riskiness and its leverage decisions, and the impact that human capital has on strategic issues, such as mergers and spinoffs. The conference was the second sponsored by the FMRC intentionally aimed at a specific research area and held in a workshop atmosphere. Another focused conference is planned for the fall of 2011.

After a brief introduction by **Hans Stoll**, **Paolo Fulghieri**, from the University of North Carolina's Kenan Flager School, kicked-off the event with a keynote address and the presentation of his paper, "Mergers, spinoffs, and employee incentives." Professor Fulghieri emphasized that human capital has become increasingly important in a knowledge society. The knowledge generated by an employee can benefit the employer, the employer's competition, or the employee himself. Understanding who benefits under different circumstances leads to predictions about firms merging, spinning off ventures, and providing incentives to employees.

Ashwini Agrawal, from New York University's Leonard N. Stern School of Business, presented empirical evidence that firms take into account the unemployment risk faced by employees when choosing the firm's capital structure. Agrawal reports in his paper, "Labor unemployment risk and corporate financing decisions," that firms increase their leverage when unemployment compensation increases. His result provides evidence that human capital risk affects firms' financial policy.

The second session of the day focused on asset-pricing. **Adrien Verdelhan**, from MIT's Sloan School of Management, presented a novel methodology for calculating the value of total wealth, of which human capital is the largest component. Professor Verdelhan finds that human capital accounts for 90% of total wealth, and shows that its risk characteristics are closely associated with that of bonds, instead of stocks. Verdelhan's work suggests that commentators give too much coverage to the stock market since its impact on total wealth is rather small. Much more important, as far as "wealth destruction" goes, are movements in interest rates. The second session ended with **Nikolai Roussanov's** presentation of "Composition of Wealth, Conditioning Information, and

Cross-Section of Stock Returns." Professor Roussanov, who is on the faculty of the Wharton School, showed that accounting for the relative size of human capital in the economy does not explain why some apparently low-risk portfolios deliver high returns. His work means that researchers are still challenged to explain empirical facts that seem to contradict basic theoretical predictions about risk and return.

The third session was also devoted to asset pricing. Professor **Lu Zhang**, from the Fisher College of Business at Ohio State University, presented "An equilibrium asset-pricing model with labor market search." His theoretical paper emphasizes that, given the cost of finding employees, fluctuations in unemployment induce economy-wide swings in consumption which make assets much more risky. Immediately after Zhang, **Francois Gourio**, from Boston University's economics department, presented evidence that labor intensity affects operational leverage. His paper, "Labor Leverage, Firms Heterogeneous Sensitivities to the Business Cycle, and the Cross-Section of Stock Returns," provides evidence that labor intensive firms have pro-cyclical earnings volatility, which in turn translates into higher average returns.

The final session of the day focused solely on the value and the risk of human capital. **Paul Willen** presented "Insuring Consumption Using Income-Linked Assets." Willen, who does research at the Federal Reserve Bank of Boston, takes the position that the value from insuring consumption using income-linked assets is not very high. His view is based on a theoretical model in which he calculates the welfare gains from taking away uncertainty in income fluctuations. **Gregory Kaplan**, who is in the economics department at the University of Pennsylvania, introduced a method to estimate the highest and lowest possible valuation and expected returns on human capital, consistent with the behavior of other assets in the economy. His conclusion is that these bounds are very wide, justifying the practice of making additional assumptions typically found in the literature.

The conference ended with presentation of "Human Capital as an Asset Class" by Owen's **Miguel Palacios**. Palacios' paper introduces a theoretical framework for estimating the value and return of human capital. He concludes that, to a first order approximation, human capital represents 88% of total wealth (a result consistent with Verdelhan's earlier empirical calculations) and that human capital should be considered a less-risky asset than equity. These results contradict common assumptions that consider human capital to be only 60 or 70% of wealth and highlight that human capital is, by far, the largest component of total wealth. ■