

Reversing course?*

Life sciences venture capital investments
rise in second quarter, sector captures
highest share in MoneyTree™ history

During the venture capital liquidity drought that began in the first quarter of 2008 and extended into 2009, many biotechnology companies closed their doors. After reaching a low point in the first quarter of 2009, the downward slide in venture capital investment showed its first signs of potential reversal in the second quarter—particularly for the life sciences sector.

General funding trends up for quarter, down year over year

Venture capital investment for all sectors, including life sciences, increased in terms of dollars but remained flat in number of deals during the second quarter of 2009, according to the MoneyTree™ Report from PricewaterhouseCoopers LLP (PwC) and the National Venture Capital Association based on data from Thomson Reuters.

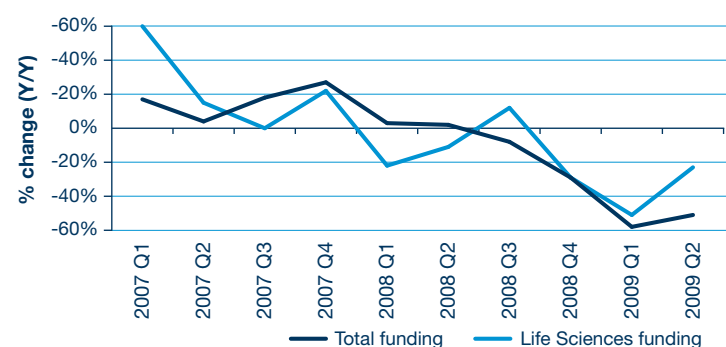
The \$6.9 billion invested during the first half of the year could foreshadow a return to the lowest levels since 1996-97, when the annual totals ranged from \$11 billion to \$14 billion. These lows preceded the Internet-inspired bubble of 1999-2000, which raised annual investment to an unprecedented and as yet unmatched high of almost \$102 billion.

Despite low overall investment during the second quarter of 2009, the life sciences sector¹, which includes the biotechnology and medical device industries, sprouted notable green shoots in the venture capital landscape.

“Investments in life sciences companies represented the highest percentage of total venture capital investments since the inception of the MoneyTree Report,” noted Tracy Lefteroff, global managing partner of the PwC Venture Capital practice. “And, while the largest deal of the quarter [\$146.3 million] was a biotechnology company, even if we exclude it, the biotech sector is still the largest single industry category for the quarter.”

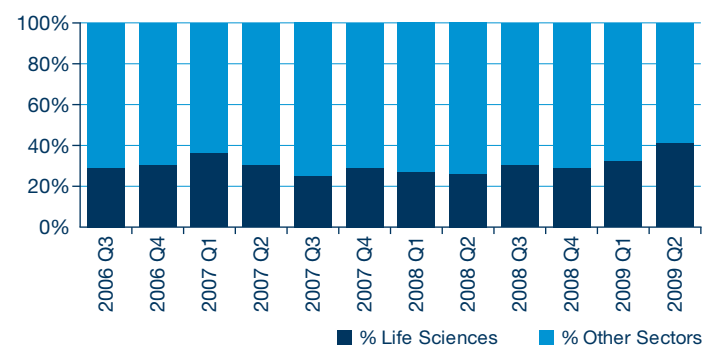
Life sciences funding declined at a less dramatic 23 percent year over year, compared with 51 percent for all industries. The relative resilience of life sciences funding during the economic downturn affirms the long-term potential of investment opportunities in this sector.

Life sciences funding compared with total funding



Life sciences companies captured 41 percent of all investment dollars and 26 percent of all deals in the second quarter. The share of investment dollars was high compared with historical norms; in 2006-2007, for instance, it was 30 percent. The increase in the sector might be attributed, in part, to a number of large deals completed in the quarter, including four of the top 10, as well as to the sector’s attractive growth potential.

Life sciences funding as a percent of total funding



¹ The MoneyTree life sciences sector includes the biotechnology and medical device and equipment industries. *Biotechnology* is defined as “developers of technology promoting drug development, disease treatment, and a deeper understanding of living organisms; includes human, animal, and industrial biotechnology products and services. Also included are biosensors, biotechnology equipment, and pharmaceuticals.”

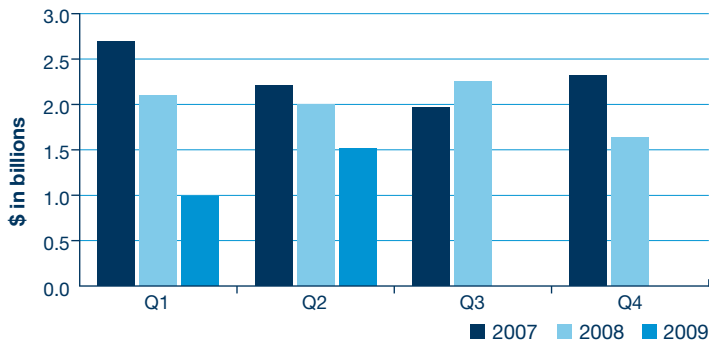
Medical devices and equipment industries are defined as those that “manufacture and/or sell medical instruments and devices including medical diagnostic equipment (X-ray, CAT scan, MRI), medical therapeutic devices (drug delivery, surgical instruments, pacemakers, artificial organs), and other health-related products such as medical monitoring equipment, handicap aids, reading glasses, and contact lenses.”

Life sciences funding increased for quarter but fell from 2007 and 2008 levels

Even though life sciences captured the largest share of second-quarter funding, the 2009 dollar amount for the sector decreased significantly from 2008 and 2007 levels. Year-to-date 2009 funding amounted to approximately \$2.5 billion versus \$4.1 billion in 2008 and \$4.9 billion in 2007.

Investment in the sector jumped nearly 50 percent, however, during the most recent quarter, rising from approximately \$1 billion in the first quarter to approximately \$1.5 billion in the second.

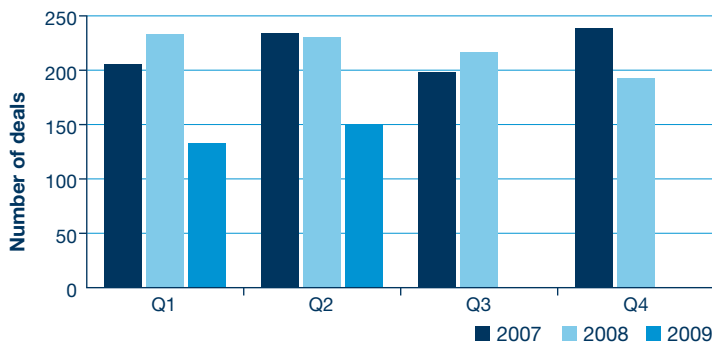
Life sciences funding trends



Number of transactions also increased for quarter but decreased from 2007 and 2008

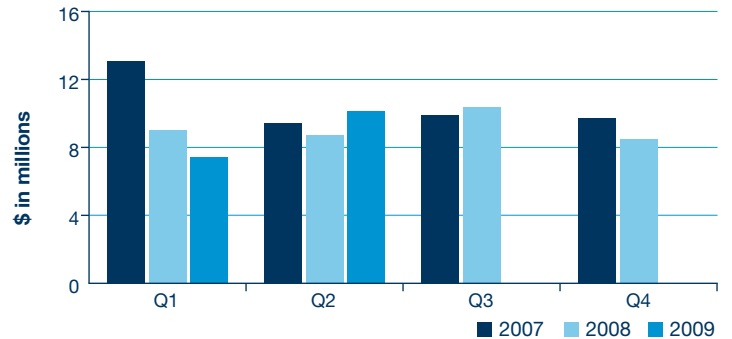
The number of transactions decreased from approximately 450 in each of the first halves of 2007 and 2008 to 280 in the first half of 2009. However, deal activity increased slightly from 133 during the first quarter of 2009 to 150 during the second quarter.

Life sciences deal volume



The average transaction size, which had remained relatively consistent from the second quarter of 2007 through the fourth quarter of 2008, declined to approximately \$7.5 million in the first quarter of 2009. The average transaction size rebounded to \$10 million in the second quarter of 2009.

Life sciences average deal size



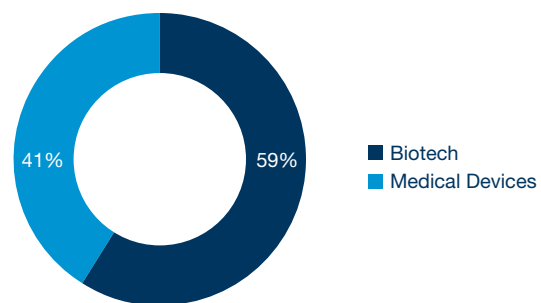
Recession and credit crisis curbed funding

The decline in national life sciences funding in recent quarters can be attributed to the global economic recession that accelerated in the third quarter of 2008. As the credit crisis began to ease during the second quarter of 2009, deal activity increased, driven by startup (seed), early-stage, and expansion funding.

Funding for biotech and medical device industries rises

During the second quarter of 2009, life sciences funding was split between biotechnology at 59 percent and medical devices and equipment at 41 percent. The proportions have generally stayed the same over the past two years, with biotech taking the larger share at 56 percent to 60 percent.

Life sciences investment split for second quarter 2009

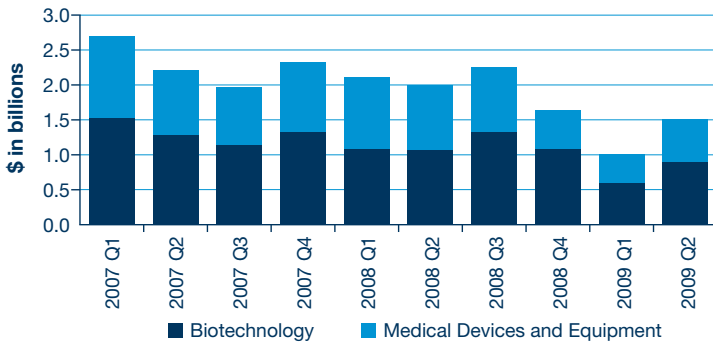


Funding for biotech and medical devices up from first quarter, down from 2008 levels

The biotechnology industry received the highest level of funding among all industries in the second quarter of 2009, jumping 54 percent over the first quarter with approximately \$888 million going into 85 deals. Medical device investments also increased for the quarter, rising 38 percent in terms of dollars and 32 percent in deals, with \$628 million going into 75 deals.

The outlook coming out of the second quarter of 2009 was brighter for both industries, which had experienced a significant venture capital decline in recent quarters. Biotech funding decreased during the first quarter of 2009 compared with the same period of 2008 by approximately 17 percent. Funding for medical devices decreased by approximately 32 percent.

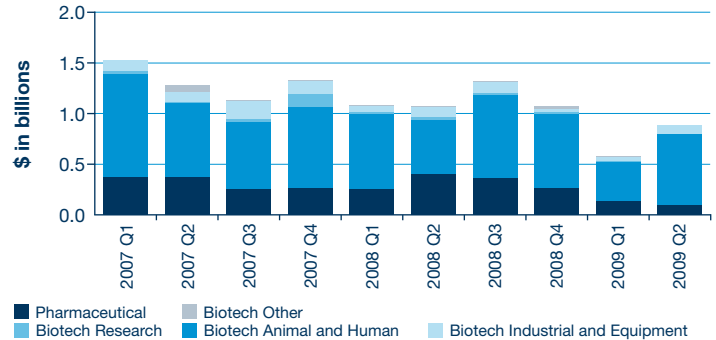
Biotech and medical devices funding trends



Biotech-human received the largest amount of biotech funding for the quarter

Consistent with historical trends, the biotech-human subsegment received the most biotech venture capital funding at approximately \$692 million. In comparison, biotech industrial and equipment received a much lower amount of approximately \$84.2 million. Biotech pharmaceuticals, which received \$2.5 billion from 2007 through 2008, received only \$98 million in the second quarter of 2009. Of that, \$75 million was invested in production, with the remainder invested in research.

Biotech funding by subsegment

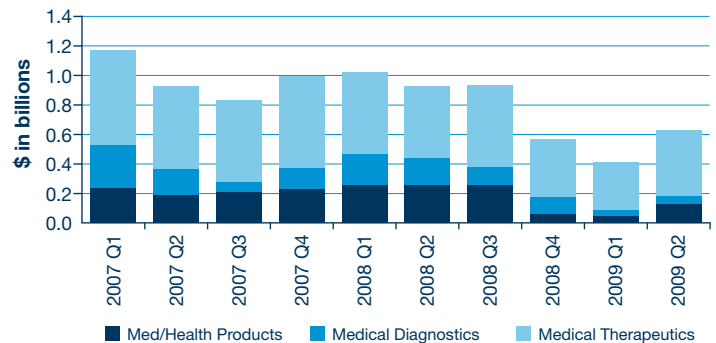


Medical therapeutics' second-quarter funding increased by 37 percent

Consistent with historical trends, the medical therapeutics subsegment of the medical device industry received the largest share of venture capital funding—approximately \$446 million—in the second quarter of 2009, increasing from \$326 million in the first quarter.

Of the \$446 million invested in medical therapeutics, \$140 million went for pacemakers and artificial organs, \$142 million for surgical equipment, and \$68 million for drug delivery equipment.

Medical devices funding by subsegment

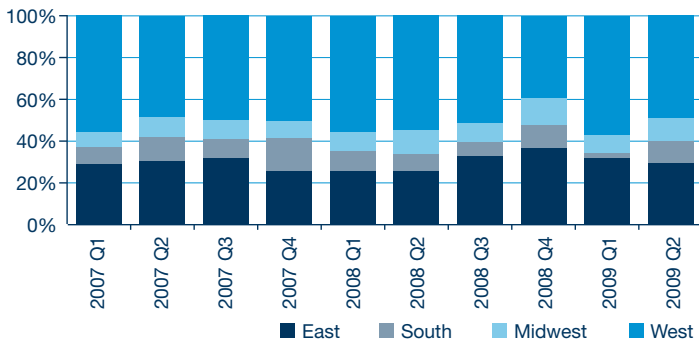


Geographical distribution follows expected trend

West leads in life sciences funding for quarter

Geographical funding trends for the quarter remained consistent with the past, with the West—primarily California—taking the lead at \$742 million (49% of funding). The East, primarily New England, took the next largest share at \$444 million (29% of funding). The chart below illustrates the distribution of investment in all four geographic regions.

Funding by geography



Late-stage funding lags, while early-stage rises

The increase in funding from the first to the second quarter of 2009 was driven primarily by increases in startup (seed) funding, early-stage funding, and expansion. Late-stage funding decreased.

With the improvement over the past few months in the capital markets and a small opening in the initial public offering (IPO) window during the second quarter, venture capitalists turned their focus to new investments, as the 67 percent increase in second-quarter seed and early-stage funding for all industries suggests. The largest transaction of the second quarter was a seed-stage deal, which drove a significant percentage of the increase.

Looking at all industries, the decline that began in the first quarter of 2008 in expansion or later-stage venture capital funding for companies with established products and growth prospects continued into the second quarter of 2009.

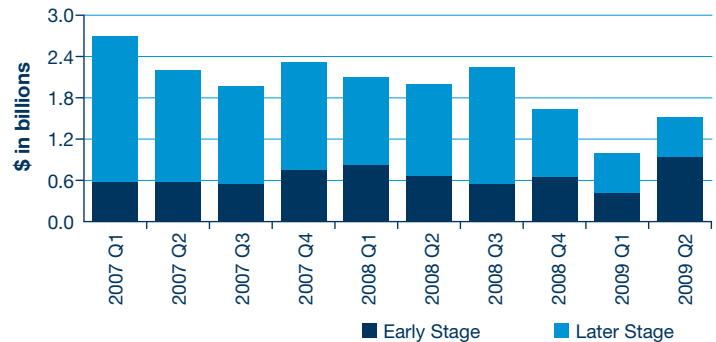
Majority of second-quarter funding for life sciences sector also went to early-stage opportunities

Approximately 62 percent of funding for the life sciences sector during the second quarter supported early-stage investment, which increased significantly from \$418 million during the first quarter to its highest level in three years at \$940 million. This increase in early-stage funding primarily resulted from the focus on seed funding, which historically has been comparatively insignificant.

Late-stage expansion funding has been declining since the third quarter of 2008, from \$1.7 billion, to the second quarter of 2009, at \$576 million. Historically, late-stage attracted most of the funding in biotechnology and medical devices. However, the trend has recently begun to shift, with early-stage funding increasing at the expense of late-stage.

This shift indicates that investors see significant growth opportunity in the sector over the next five to 10 years. They are choosing to place more money in seed, start-up, and early-stage products to take advantage of that opportunity.

Life sciences funding by stage



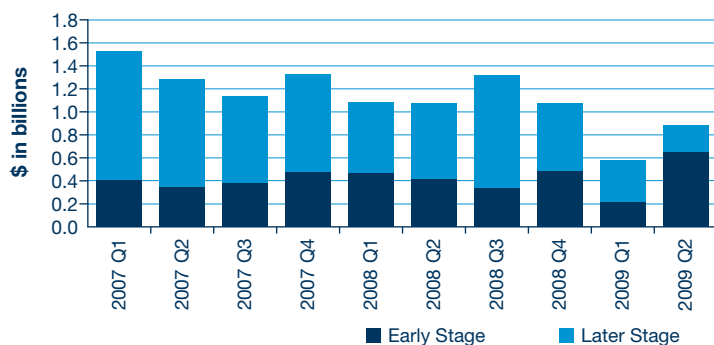
Early-stage funding drives investments in biotech

In biotech, early-stage funding tripled from first-quarter levels to \$649 million during the second quarter of 2009. Biotech drugs, pharmaceutical research, biotech research, and pharmaceutical production drove growth in early-stage funding.

Seed funding has played an increasing role in early-stage biotech funding, steadily rising from \$45 million in the first quarter of 2007 to \$154 million in the third quarter of 2008. A decline to \$84 million in the first quarter of 2009 reversed to \$188 million in the second quarter. Approximately 81 percent of early-stage biotech funding in the second quarter of 2009 went to biotech-human drug development and biotech equipment.

The second-quarter increase in early-stage funding was offset by a decrease in late-stage funding, from \$361 million in the first quarter to \$240 million in the second quarter. Late-stage funding suffered from declining expansion-stage funding, which dropped from an average quarterly funding of \$300 to \$500 million during 2007 and 2008 to \$57 million and \$83 million in the first two quarters of 2009.

Biotech funding by stage



Biologics and personalized medicine continue to attract investment

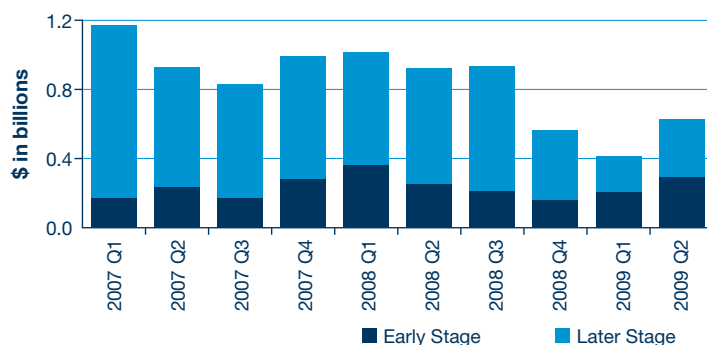
Significant investments in the quarter included:

- \$216 million in medical diagnostics biotechnology (personalized medicine)
- \$135 million in therapeutics
- \$75 million for protein therapeutics
- \$46 million for immune response drugs
- \$43 million related to monoclonal antibodies (biologics or mAbs)

Early-stage funding remains strong in medical devices

Following a trend similar to biotech, early-stage funding of medical devices moved upward, from \$171 million in the first quarter of 2007 to \$292 million in the second quarter of 2009.

Medical device funding by stage



Approximately 78 percent of early-stage funding in the medical device industry in the second quarter specifically targeted medical therapeutics equipment. Investments in this subsegment included:

- \$109 million relating to surgical equipment
- \$62 million in drug delivery equipment
- \$38 million for other therapeutic equipment, including defibrillators

Pacemakers and artificial organs lead late-stage funding

Of medical device late-stage funding, 75 percent was invested in medical therapeutics and the remainder in medical health products. Significant investments in the medical therapeutics subsegment included:

- \$121 million relating to pacemakers and artificial organs
- \$52 million for surgical lasers
- \$32 million for surgical instrumentation equipment

Investment in the medical health products subsegment was primarily attributable to health-related optics, including glasses and lenses:

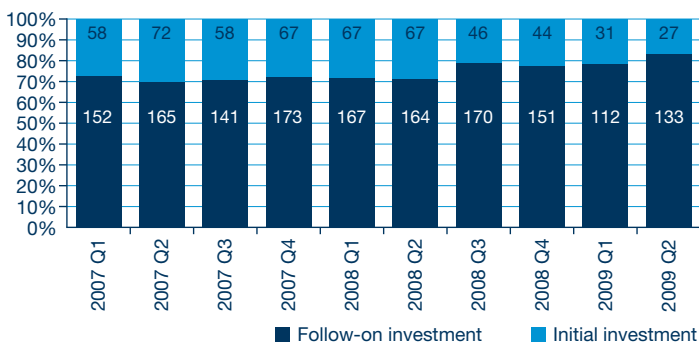
- \$47 million for health-related optics
- \$10 million for medical monitoring equipment
- \$8 million for disposable medical products

Follow-on investments favored over first-time funding

During the economic downturn, venture capitalists chose to take additional positions in existing investees rather than supporting new companies. For the life sciences sector, follow-on investment transactions as a percentage of total venture capital investment activity increased from 73 percent for 2007 and 2008 to 83 percent for the second quarter of 2009.

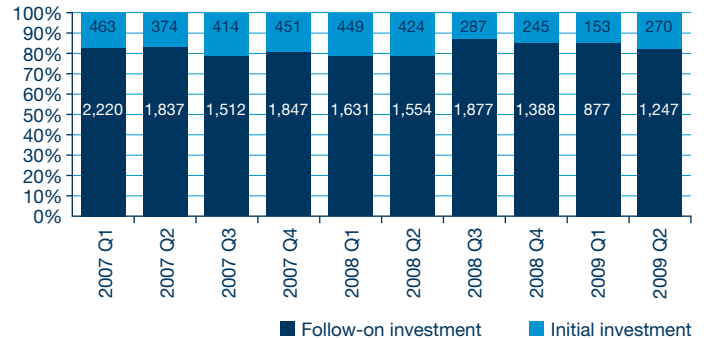
The number of first-time deals was the lowest since 1994. While the number of first-time deals declined by 5 percent, the level of funding went up by 9 percent. The average first-time deal across all industries was \$4.8 million in the second quarter, compared to \$4.2 million during the first quarter. Biotechnology, medical device, and software industries received the highest levels of first-time dollars for the quarter.

Deal volume of follow-on vs. initial investments



Follow-on investments for the sector amounted to approximately \$1.2 billion, compared with \$270 million for initial investments. The dollar amount invested in follow-on deals, as a percentage of total investments, has stayed consistent for life sciences.

Dollars invested in follow-on vs. initial investments



Venture capital funding remains low, but outlook brightens for life sciences

Though the second-quarter 2009 MoneyTree data portends a brighter outlook for investment in the life sciences sector, the overall venture capital forecast remains dim. The National Venture Capital Association (NVCA) recently reported that just 25 venture capital funds raised money in the second quarter, based on Thomson Reuters data. The NVCA noted that this level represents the smallest number of venture funds raising money in a single quarter since the third quarter of 1996 (21 funds) and the lowest amount, \$1.7 billion, committed since the first quarter of 2003, when \$938.1 million was raised.²

“Many venture firms are waiting until 2010 and beyond to go out to their limited partners who, in an improved market, will look more favorably upon the asset class vis-a-vis other alternatives,” Mark Heesen, president of the association, commented. “That said, there will be firms that will not be able to raise a follow-on fund, and our industry is positioned to contract over the next five years through this type of attrition.”³

² Thomson Reuters and National Venture Capital Association News Release, “Venture Capital Fundraising Activity Contracts in the Second Quarter of 2009,” July 13, 2009.

³ Ibid.

During the second quarter of 2009, five IPOs brought to market, valued at \$720.7 million, marked some improvement in exit activity. That was the highest number since the first quarter of 2008 and the highest volume since the first quarter of 2007, but still fell short of historical norms. The quarter's 59 M&A exits totaling \$2.6 billion tracked the two prior quarters but rose considerably higher in average disclosed value. Of those 59 exits, seven deals totaling \$1.4 billion were in the life sciences sector.⁴

"The fact that several venture-backed companies successfully entered the public markets and performed well is encouraging," said Heesen. "However, we remain concerned about the extremely thin pipeline of companies in registration as it indicates that it will be some time before we can even be in a position to return to healthy IPO activity levels."⁵

Despite the still-depressed level of venture capital activity, the life sciences sector seems well-positioned to attract a large share of funding from venture capital and other sources. Further economic recovery should create a positive environment for life sciences innovation and investment over the next few quarters, assuming federal stimulus money boosts local spending and employment as intended and the credit markets continue to loosen.

The stimulus package allocated \$10.4 billion for the National Institutes of Health—with the largest part going to scientific research—and \$1.1 billion for research to compare the effectiveness of alternative treatments for diseases. An additional \$19 billion was designated to help advance the adoption of electronic health records (EHRs). Widespread use of EHRs would create a bioinformatics infrastructure that could reduce the costs of clinical trials and benefit scientific research.

The package also removed restrictions on stem cell research, which should help attract more capital for biotech companies ready to forge ahead in early- and late-stage investigations in this field.

With government support and increased investor confidence, the third quarter could see additional upward movement in funding for the sector. While life sciences companies have endured unprecedented economic turmoil during the past several quarters, the second quarter 2009 might have marked a turning point in their funding outlook.

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⁴ Thomson Reuters and National Venture Capital Association News Release, "Venture-Backed Exit Market Shows Signs of Life for the First Time Since First Quarter 2008," July 1, 2009.

⁵ Ibid.

www.pwc.com/pharma

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