

# Weathering the storm\*

In a time of economic turmoil, life sciences venture capital funding continues to favor Massachusetts

While Massachusetts has suffered from the national downturn in venture capital (VC) funding for life sciences enterprises, VC investment within the state has fared significantly better than in the nation as a whole. Massachusetts continues to attract an outsized portion of life sciences VC funding, according to the MoneyTree™ Report from PricewaterhouseCoopers and the National Venture Capital Association based on data from Thomson Reuters.

The MoneyTree data shows that Massachusetts outperformed the nation in both year-over-year and quarter-over-quarter comparisons throughout 2008 and in the first quarter of 2009. Nonetheless, even Massachusetts experienced a steep funding decline in the first quarter that is cause for concern, as life sciences funding for the quarter fell below \$200 million for the first time in more than two years.

Yet, it is important to consider these numbers in the proper national context. The MoneyTree Report shows that the 37 percent year-over-year 2009 Q1 decline in Massachusetts VC funding was less severe than the national 53 percent national decline during the same period.

And Massachusetts funding accounted for nearly 20 percent of all life sciences funding in the US, where total VC investment fell to \$989 million in the first quarter.

The strength of Massachusetts' relative performance may be due to the state's "supercluster" of top private research facilities and public investment, which long ago established the state as a hub of life sciences enterprises.

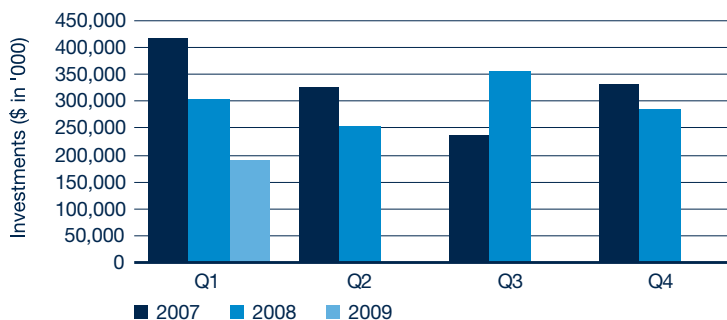
Throughout 2008, VC investors demonstrated their willingness to invest in the power of Massachusetts-based ideas, directing an increasing percentage of capital into early-stage enterprises, even amid harsh economic and credit conditions. The acute decline of the 2009 first quarter halted that momentum, although it is too soon to tell if the drop represents a one-off response to macroeconomic conditions or a more longstanding change.

## General Funding Trends

### Massachusetts funding decline less severe

The MoneyTree report shows that the twin contagions of global recession and rigid credit markets have sapped VC funding in virtually all sectors. Life sciences is no exception, even in Massachusetts, where life sciences VC funding has declined year-over-year in four of the last five quarters.

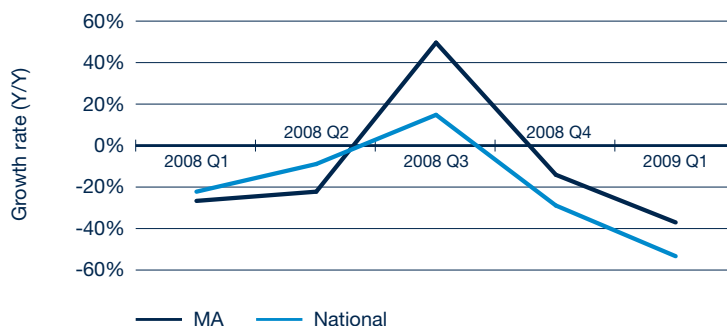
#### Life sciences funding



Funding in first-quarter 2009 dropped below \$200 million, down by 37 percent from the same quarter in 2008 and more than 50 percent from the 2007 first quarter.

However, Massachusetts VC funding for the quarter far outperformed the remainder of the country, which experienced a more acute decline, dropping 53 percent year-over-year in the first quarter of 2009.

#### Life Sciences funding: MA vs. National

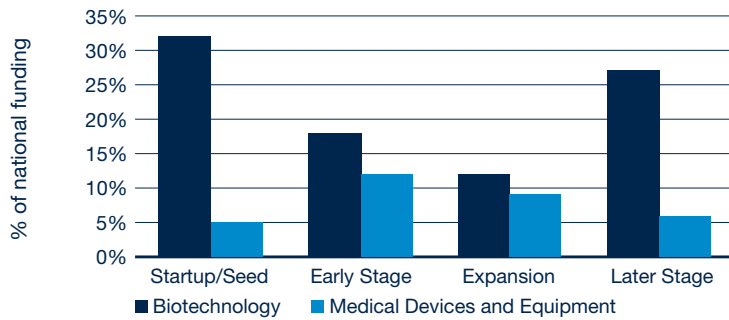


### State retains a disproportionate share of VC investment; Biotech funding outpaces medical device

The MoneyTree report clearly illustrates Massachusetts' leading role in US life sciences entrepreneurship.

Massachusetts organizations received more than 30 percent of venture capital start-up funding invested within the US in 2008. That percentage topped 25 percent for later-stage funding. Massachusetts (6.4 million) accounts for 2.1 percent of overall US population (304 million).<sup>1</sup> In all categories, the funding percentage far exceeded the state's population relative to the country as a whole.

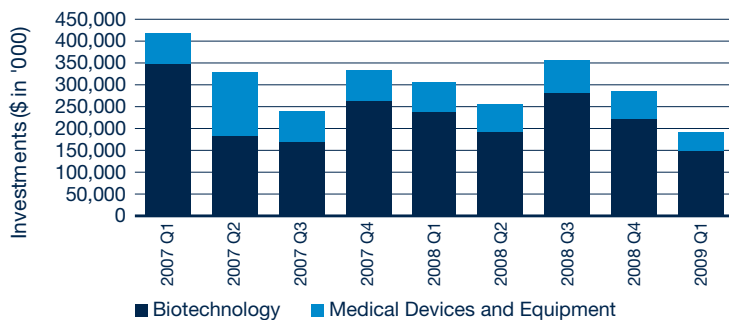
#### MA funding as a percentage of national funding, by stage (2008)



Looking more closely at the trend data, the ratio of funding between the biotechnology and medical device sectors of the industry has mostly held steady over the last seven quarters, with biotechnology accounting for 60 percent to 80 percent of life sciences venture capital investment, even as overall biotech and devices investment has declined.

Within the biotechnology sector, the biotech-human category has consistently received the largest percentage of VC funding. The medical therapeutics category accounts for the largest portion of medical device investment. But medical device funding generally has lagged biotech funding in Massachusetts, both in overall investment and in ratio to overall national funding.

#### Total life sciences funding



The MoneyTree report shows that Massachusetts accounted for 21 percent of total national biotech funding in 2008, while medical device investment in the state made up just 8 percent of national spending.

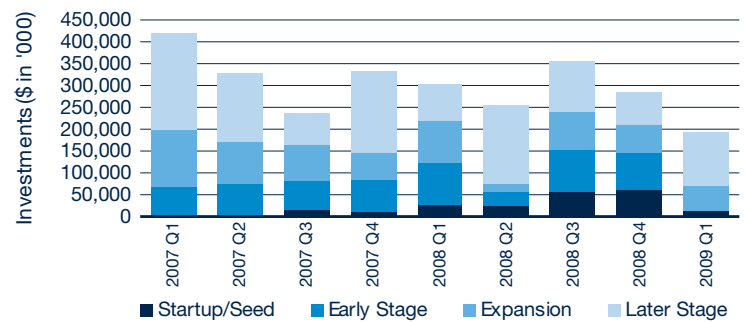
Both categories have experienced less severe declines in VC funding in Massachusetts than in the nation as a whole, further underscoring the strength of the state's ventures.

#### Funding Trends by Stage

##### Early-stage funding grew in 2008; focus on biotech

The past year has seen consistent decline in venture capital funding for companies with established products and growth prospects, known as expansion or later-stage investment. Historically, later-stage funding has attracted most of the funding in biotechnology and medical devices. The recent decline began in the first quarter of 2008.

##### Life sciences funding by stage



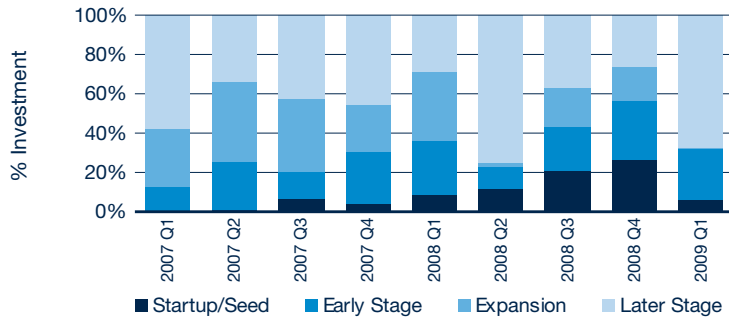
However, while the historic strength of later-stage funding eroded, VC funding for start-up/early-stage opportunities remained strong, growing consistently throughout most of 2008. The start-up portion was even stronger than early stage, growing in the last two quarters of 2008, until declining sharply in the 2009 first quarter as the global economy contracted.

The decline of later-stage funding and rise of earlier stage altered the landscape of life sciences funding priorities in Massachusetts. Where start-up/early-stage constituted only 25 percent of funding in 2007, it had increased to 38.5 percent by the end of 2008.

The biotech portion of life sciences funding has shown the greatest early-stage funding strength, driven by growth in the more specific areas of biotech drugs, pharmaceutical research, biotech research, and pharmaceutical production.

<sup>1</sup> The US Census Bureau, most recent population estimate (2008)

## Biotechnology funding by stage



## Early Stage Retreated in 2009 Q1

The increased risk aversion and lack of liquidity in capital markets in recent quarters, reflected in higher credit spreads, pressured all stages of life sciences funding in the first quarter of 2009. Continued risk aversion could further strain start-up funding, which carries greater inherent risk than later-stage funding.

## Stem Cell Funding

In a development with major funding implications, President Obama in March removed restrictions on federal funding for stem cell research. As a result, the National Institutes of Health (NIH) will allocate an as-yet undetermined amount for stem cell research from the \$10 billion in stimulus funds set aside for medical research.

Removing restrictions on stem cell research is expected to generally encourage early-stage biotech funding, and in some cases, late-stage funding.

## Deal activity and size

### Fewer deals, same size

While the total number of deals within the Massachusetts life sciences industry fell to fewer than 20 in the 2009 first quarter—the fewest in more than two years—average deal size actually grew by nearly 30 percent.

Over the last nine quarters, average deal size has dipped below \$8 million only twice and typically ranges between \$8 million and \$10 million, where it stood during the first quarter of 2009.

## Contacts

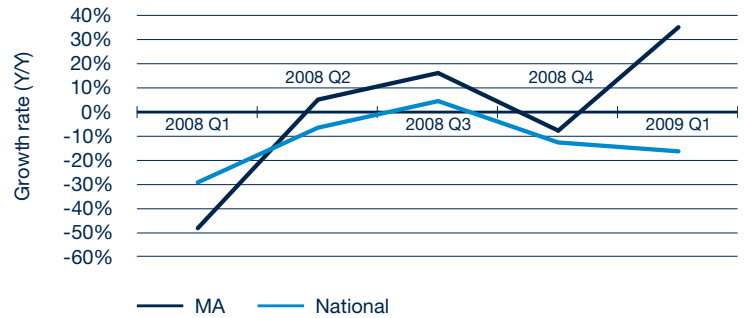
Tracy Lefteroff, Partner  
+1 (408) 817-4176  
tracy.t.lefteroff@us.pwc.com

Gerald McDougal, Principal  
+1 (617) 530-4471  
gerald.j.mcdougall@us.pwc.com

Attila Karacsony, Director  
+1 (973) 236-5640  
attila.karacsony@us.pwc.com

[www.pwc.com/pharma](http://www.pwc.com/pharma)

## Life Sciences avg. deal size: Mass. vs. National



## Biotech pharma and research deal size outperform other segments

The continued strength in average deal size in Massachusetts highlights the maturity of the state's venture capital market, and the strong performance of the biotech pharma and biotech research segments highlight the strong position of Massachusetts-based ventures in these segments.

In the medical devices segment, medical diagnostics funding has held up well in Massachusetts, in contrast to a decline at the national level.

It's too early to know if the significant drop in deal activity will eventually cut into the average size of venture capital deals.

## About PricewaterhouseCoopers' Pharmaceutical and Life Sciences Industry Group

PricewaterhouseCoopers' global Pharmaceutical and Life Sciences Industry Group ([www.pwc.com/pharma](http://www.pwc.com/pharma)) is dedicated to delivering effective solutions to the complex strategic, operational, and financial challenges facing pharmaceutical and life sciences companies. We provide industry-focused assurance, tax, and advisory services to build public trust and enhance value for our clients and their stakeholders. We draw on the knowledge and skills of more than 155,000 people in 153 countries from across our network to share their thinking, experience, and solutions to develop fresh perspectives and practical advice.