

## H.R. 3 and Reference Pricing: Total Market Impact on California's Innovation Ecosystem

The study, released in March 2021 by the international health economics firm Vital Transformation, assesses the impact of price setting, as proposed by H.R. 3, the Lower Drug Costs Now Act of 2019; legislation considered in the U.S. House of Representatives in 2019. H.R. 3, like other price setting proposals, would tie U.S. prices of innovative medicines to prices in other countries with vastly different healthcare systems.

### ● Impact on the entire U.S. biopharmaceutical economy

H.R. 3 will lower industry revenue by \$102 billion a year (\$565 billion / 5 years), representing a reduction of 56% of earnings before interest and taxes (EBIT) revenue.

One third of all affected companies will see reductions greater than 95% of earnings.

Over the last 10 years, companies affected by H.R. 3 invested a total \$487 billion into venture partnerships and licensing agreements with emerging biotechnology companies, leading to 68 new approved medicines.

The potential reduction of revenue under H.R. 3 (\$102 billion/year) is more than twice the annual amount of partnership investments (\$48.7 billion).

Small biotechnology companies rely on investment and partnership with large companies to bring new products to market. Those drastic revenue reductions mean that large companies will be forced to make fewer investments in proportion to their reduced revenue, which would lead to radical industry consolidation and shrink market entry of new drugs.

If H.R. 3 had been in place over the last 10 years, only seven drugs would have likely come to market, instead of 68 – a 90% reduction.

If enacted, H.R. 3 would lead to direct U.S. job losses of, at a minimum, 190,000 and indirect job losses of a million.

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## ● Impact on California's innovation ecosystem

**California's biopharmaceutical sector is the largest in the U.S.**

California biotechnology companies alone received 25% of all U.S. investment funding from companies affected by H.R. 3.

California biotechnology companies produced 16 of the 68 drugs developed over the last 10 years with venture investments from companies affected by H.R. 3.

**If H.R. 3 had been in place over the last 10 years, only two of the 16 medicines produced in California from venture partnerships would have come to market – an 88% reduction.**

**Medicines with a higher risk profile, including oncology, neurology, pulmonology and rare diseases, will no longer be viable investments**, as investors will be forced to focus on assets with a higher probability of a return on investment, leaving vulnerable populations without hope for new treatments.

**If enacted, H.R. 3 would lead to California job losses of, at a minimum, 32,000.**

Of note, other states will also see large reductions in the number of new drugs coming to market in direct proportion to that seen in California, should H.R. 3 go into effect.

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## Study Methodology

- Current drug prices for included H.R. 3 therapies were obtained with current pricing listed in the WHO National Medicine Price Sources, UK Monthly Index of Medical Specialties, Japan Ministry of Health, Labor and Welfare, Canada Ontario Drug Benefit Formulary, Australia Pharmaceutical Benefits Schemes, Portugal National Authority of Medicines and Health products, France Ministry of Health, Netherlands College voor Zorgverzekeringen, Germany Lauer-Taxe, Denmark MedicinPriser, Sweden Dental and Pharmaceutical Benefits Agency (TLV), and Switzerland Federal Office for Public Health.
- H.R. 3 revenue reductions were modeled at the drug level based upon per dose data obtained from the Medicare Part D & B Drug Spending Dashboard, audited SEC financial statements, and Biomedtracker by Informa.
- GDP, country growth, population/demographic shifts and Purchasing Power Parities were modeled and included within price elasticity calculations to estimate the long-term economic impacts of H.R. 3.
- The investment/partnering activity over the previous 10 years for H.R. 3 impacted companies was measured using the Biocentury IQ Portal, and then statistically reduced based upon the calculated H.R. 3 impact at the firm level.
- The impact of revenue losses caused by H.R. 3 was statistically modeled to determine the revised probability of approved products entering the market from 2009-2019.