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Pharmaceuticals: Understanding an Evolving Industry

Steven Voorhis: I'm Steven Voorhis, this is Karim Fakhry, and we're the pharmaceutical analysts at Dodge & Cox. The firm has a significant overweight position in the pharmaceutical industry, almost 15% of total assets across our different equity funds, and notably more than the benchmarks for each fund. Karim, do you want to share what our thinking is behind that?

Karim Fakhry: Sure. We establish our overweight position after doing a lot of research. The research process began with the observation that valuations were historically cheap. The market appeared to be questioning the viability of the large pharma business model. You had patent expiration on the old discoveries, on the old drugs, and R&D organizations weren't able to come up with new drugs, with new discoveries, and so the combination of those two led to extreme pessimism about the future profits of these companies. The market appeared to look at these companies and say, "You're going to harvest all the old discoveries and you're going to take those proceeds and invest them in money-losing science experiments, thereby converting a dollar into 50 cents." So that was the concern. Now we invested in the pharma companies because we believed that the industry was going through a very difficult cycle as opposed to a terminal decline. What's happened more recently is that a lot of those concerns have been addressed and valuations have come off their historic lows. But we remain significant shareholders in this space and we're enthusiastic about our holdings across the funds.

Steven Voorhis: And so I'd say there are three pillars to our investment thesis on the pharmaceutical industry. The first pillar is that R&D productivity is improving based on the advances in science and medicine and better understanding of the underlying disease biology. Quantitatively, we can observe that R&D pipelines have gotten bigger, starting first with the early stage, Phase 1 R&D assets and more recently, the later Phase 3 pipeline drugs. Probably more importantly though, from our discussions with scientists and physicians, we think that R&D pipelines have also become more innovative, building on the scientific advances of the past two decades. We've seen breakthroughs in drug development in a range of different areas, probably most notably in immune-oncology and Hepatitis C.

Karim Fakhry: So the industry's output of drugs, which had dropped well below trend, appears to be normalizing. At the same time, the level of R&D investment, which had been increasing at a high rate for a long period of time, has been gradually reduced over the last few years. So putting those together, R&D productivity appears to be on the mend. Importantly, the price we're paying for pipelines is moderate when compared to the dollars that these companies have invested in these pipelines.

Steven Voorhis: The second pillar of our investment thesis is emerging markets, where growing purchasing power is giving many consumers access to Western style medicines for the first time. We've seen across a range of different countries in different time periods that as economies grow spending on healthcare and spending on drugs tends to grow faster than GDP, supported by both consumer spending out-of-pocket as well as increasing government support for healthcare spending. In spite of the recent growth across emerging markets, per capita spending in most countries is still quite low on drugs, which gives a good runway for above-average growth in sales for the pharmaceutical companies for many years to come. That's meaningful because for most of our investments in the sector, 20 to 30% of their sales are generated on emerging markets and those sales come with good margins and high returns on capital.

Karim Fakhry: Absolutely. The third pillar of our thesis is that large pharma companies have a durable franchise and are limited in number. We believe that the integration of three competencies represent a durable franchise. The first competency is the funding of early stage drug assets. The second is the development of drugs, and the third is the commercialization of drugs. As we look around the globe, there are very few companies that have those three capabilities. Now those three competencies are built on the foundation of financial strength. These companies have tremendous financial strength. They have strong balance sheets, they generate a lot of cash flow, the cash flow is stable and predictable and that unusual financial strength, enables these companies to fund drug development, which, as you know, requires long periods of time, large amounts of capital and can be very unpredictable.

Steven Voorhis: I think those fundamental characteristics also help mitigate our risk investing in the pharmaceutical industry. Obviously every investment has risks and for pharmaceuticals it's probably most prominent in regulatory changes that could potentially happen, increasing pressures from payers, both private payers here in the U.S. and government payers outside of the U.S., and increasingly in the headlines, the risk of value destructive M&A activity. We try to stay on top of those risks by talking with payers and consultants and physicians and other people in the industry, by meeting frequently with the management teams of our holdings as well as their competitors, but at the end of the day, a sound business model, a strong balance sheet and a low valuation are really our best protectors against risk.

Karim Fakhry: Steve, a lot of our research process is trying to understand the earning power of a business. So we study competitive dynamics of an industry and try to project the profit generation of a business. Now the next step obviously is valuation. We try to understand what those profits are worth. The pharmaceutical business is at the unit economic level, a depleting asset business as opposed to an evergreen business. So if we think about Coca-Cola, Coca-Cola has recurring revenues, has recurring profits and so applying a price/earnings multiple to Coca-Cola's profits seems reasonable. Now for pharma businesses, applying a price/earnings multiple may not be as helpful and applying discount and cash flow analysis may be more helpful. I think as we look at the pharma businesses, it's important to look through the reported profits of the business and try to understand what the profits of the business are before the discretionary investment.

We think that the pharmaceutical company can be broken down into two assets. One is liquidation and the other is a venture capital portfolio. And so if you think about a pharmaceutical company, Pharma Co, there is an "Old Co." and there's a "New Co." Old Co. harvests the cash flows from historical discoveries so it generates a lot of cash flow. And then there's New Co. and New Co. is essentially a VC portfolio. New Co. is the R&D group taking some portion of those proceeds from old discoveries and investing them in what will hopefully be the next generation of growth, the next generation of products for the company. And importantly, the pharmaceutical company generates less than Old Co. because of the high level of discretionary investment.

Steven Voorhis: I think this slide illustrates your points well, Karim. We've just looked at a hypothetical pharmaceutical company with a set of existing products that we think will generate approximately \$100 billion in net present value from the cash flows to come from those products as they sell them all up until their patent expiration date. And we know some portion that's going to be reinvested into R&D, so here we say this may be \$40 billion of the \$100 billion goes to R&D, leaving \$60 billion as the present value of the cash flows that can come to us as shareholders. So we can then compare that to the current enterprise value of the company, the market value plus debt to get an idea of how much we're paying for that R&D investment that the venture capital portfolio or New Co will do. And so in this case if we're paying \$20 billion for \$40 billion of investment, we can feel pretty good that we're paying pennies on the dollar for the investment to be done, plus the investment that's already been made by the company. On the other hand, if the market valuation is very high relative to the cash flows that are going to come from the business and therefore show a fair amount of optimism about what R&D's going to create, then we have to be a lot more hesitant about investing.

Karim Fakhry: Yeah, Steve, what's critically important here is what management does with the proceeds of the liquidation because if management uses those cash flows from old discoveries to chase bad science projects or to chase bad transactions, then it will have squandered those proceeds and you lose the downside protection. So it is important that you believe in management and that you spend time with management and understand what they're going to do with those cash flows.

Steven Voorhis: That's a good point. So that's what we wanted to share today about our thoughts on investing in the pharmaceutical business. In summary, we think these are sound businesses that have had a tough cycle but are set up, we think, to do much better over the next few years. As investments, each one has its own individual investment pieces but what they all share is a modest valuation, a well-protected downside and the potential for real upside if R&D works out well. As a result, we continue to be substantial owners in several of these companies on behalf of our shareholders. Thank you for taking your time today and thank you for your interest in Dodge & Cox.

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