Pharmas should adopt innovation through alliance with academia

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PHARMA INDUSTRY: AT A GLANCE

- The pharma industry in Bangladesh is growing at over **15**% a year
- Sales were about $**2.4**b in 2017
- The growth rate in India, Pakistan and China are **15**%, **11**% and **9.5**% respectively
- Per capita spending on healthcare services is $**88** in Bangladesh
- The spending is $**129** in Pakistan, $**267** in India and $**369** in Ski Lanka
- Bangladesh exports drugs to over **130** countries in Europe, Asia and Africa
- The country earned a little more than $**90**m in 2017 from pharma exports

THE pharmaceutical industry in Bangladesh has done remarkably well, growing at more than 15 percent a year, with sales of approximately $2.4 billion in 2017. The growth rate in India, Pakistan and China are 15 percent, 11 percent and 9.5 percent respectively. The country's need of drugs is almost entirely met by those produced domestically. To some extent, this contributed to the fact that per capita spending on healthcare services in Bangladesh is the lowest among the South East Asian countries.

In a recent World Bank publication, it was reported that per capita spending on healthcare services is $88 for Bangladesh, $129 for Pakistan, $137 for Nepal, $167 for Afghanistan, $267 for India, $281 for Bhutan, and $369 for Sri Lanka. Obviously, the share of pharmaceuticals in the overall healthcare spending in Bangladesh is very small because locally produced drugs are much cheaper than the imported ones and the pharmaceuticals industry in Bangladesh deserves some credit. Some may argue that the lower healthcare spending may also indicate relatively lower access to healthcare services in Bangladesh compared to other Asian countries, but it is widely reported that Bangladesh performs much better in health outcomes, such as, longevity, maternal mortality rate, infant mortality rate, vaccination rates, compared to those countries with the exception of Sri Lanka.

In 2017 and 2018, a couple of local pharmaceutical companies had a few drugs approved by the US Food and Drug Administration (FDA) for getting into the US market. Even though the approved drugs are generic and quite old, it is the right strategy to reach the door step and gather experience in navigating a very competitive market. Most non-US pharma companies with a good footing in the US market started with older generic drugs as Bangladesh is doing now. However, it is easy to get approval for an older generic drug by the FDA but getting market access, especially in the shelves of pharmacies in the US, is quite challenging.

All pharmaceutical companies in Bangladesh use the generic form of active pharmaceutical ingredients (API) to manufacture their products, and some of the APIs come from very old drugs. They do not invest in R&D to develop any innovative drugs. Rather they depend on the expiry of the patents of branded drugs in Europe and the US to manufacture their generic versions. No wonder the export earnings from pharmaceutical products to more than 130 counties bring less than $100 million. Since Bangladesh is practically a closed economy as far as pharmaceuticals are concerned, patients in the country do not have the access to so many innovative drugs available outside the country. Even though, under the TRIPS agreement, Bangladeshi companies are entitled to get licence for manufacturing lifesaving drugs for domestic need, the quality and the efficacy of the products have been questioned by many.

The Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement administered by the World Trade Organization provided the opportunity to low-income countries for receiving licence from high-income countries to manufacture life savings drugs for domestic consumption. However, Bangladesh is expected to become a middle-income country by 2021. In that event, Bangladesh will lose the TRIPS privileges.

Pharmaceutical is a high tech science business. While Bangladesh does not have any high tech science business yet, the conditions are perfect for promoting one. IT, telecommunications and pharmaceuticals are very promising sectors. The pharmaceutical sector is doing well but lacks innovative products. The current policy of relying on low margin generic products to grow is a low growth equilibrium trap for the country.

It is true that developing innovative products in the pharmaceuticals is a very capital-intensive and risky business. But the reward is also very high – if successful. An investor does not need to make money in every project, but one or two successful projects might outweigh the losses incurred in the failed projects. This has been the practice of the world's leading pharmaceutical companies.

Progress of the life science technology has been astounding during the last decade or so. Starting with the human genome mapping in the 1980s, and now moving into personalised medicines era, better efficacious large molecule biotech drugs, gene therapy and the market for super profitable orphan drugs, have opened up opportunities for any investor to make money.

The business model of the research-based big drug companies around the world has moved away from traditional in-house R&D infrastructure to more alliance-based R&D practice for drug development. In-house drug development is too costly and risky, so companies are forming alliances, buying licence of a molecule, or co-sharing a molecule for testing and developing a drug. Big companies are continuously looking for opportunities to form alliance with niche life science companies or buy the licence of an innovative molecule or a process. A large percentage of the drugs sold in the US are those developed through alliances between two or more institutions. My own research using the IMS data shows that one-third of all drugs approved by the US FDA between 2008 and 2018 were developed through alliances.

Bangladesh has an abundance of English speaking scientists, and the wage rates are low compared to developed countries. Perhaps for a wage structure of one scientist in the US, a Bangladeshi investor can hire more than a dozen scientists. For any innovation, the most important factor is an "idea" that has commercial value and is patentable. Given the volume of publicly available information, innovative investors may systematically pursue "the idea" and build it into a commercial product. The product could be a new molecule, a process or new knowledge. Many pharmaceutical companies have partnerships with universities for conducting basic science research. These partnerships are breeding grounds for developing the molecules of potential therapeutic value.

The pharmaceutical industry in Bangladesh should form similar network and partnerships with the local scientists' community.

The current market for bio-similar, a generic version of the branded biologic drug, is another opportunity for the pharmaceutical industry to move into. Unlike generic drugs, biosimilar drugs are basically a therapeutic competitor since these drugs are not quite substitutable as in the case of generics and are considered an alternative to the original biologic drug with its own patent with higher profit margin. Since the initial investment in the infrastructure in such high tech business could be high and risky, it needs support from the government to incubate the business venture. Support could come in the form of tax shelter, grant and loan or some combination of these. According to the India Brand Equity Foundation, India is investing heavily in the biotechnology industry and its size is expected to grow from the current $11 billion to $100 billion by 2025.

Developing capacity for research-based innovative companies is a long process that needs not only financial resources, but also skill manpower, appropriate regulatory framework, and proper public policies on health and education, to name a few. Towards this objective, partnership with research-based academic institutions in the country for basic life science research may produce cost-effective development of molecules or process for clinical testing of the underlying pharmaceutical product. The current practice of dependence on others for the APIs and manufacturing only generic drugs is unsustainable in the long run.

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Tax cuts to support economic stability: China premier

REUTERS, *Shanghai*

CHINA'S plans for tax cuts targeting smaller companies will help to support employment and economic stability, and will expand the country's tax base over the long term, Premier Li Keqiang was quoted as saying on Saturday.

"Implementing tax cuts for small and micro enterprises is mainly to support employment," Li said in comments posted on the Chinese government's website.

Developing and strengthening small companies is linked to economic stability and stable employment, he said.

"Looking at the long term, this will continue to expand the tax base, conserve tax resources and ultimately achieve wins for mass employment, corporate profits and fiscal revenues," he was quoted as saying, referring to the corporate tax cuts.

Li's comments come amid growing official concern over China's slowing economic growth and its impact on the labor market.

Chinese authorities plan to set a lower economic growth target of 6 to 6.5 percent in 2019, compared with "around" 6.5 percent in 2018, sources told Reuters, as weakening domestic demand and a damaging trade war with the United States drag on business activity and consumer confidence.

Analysts expect that China's economy grew around 6.6 percent last year, its slowest pace since 1990, and it is expected to cool further in coming months before a slew of support measures start to kick in.

"The bottom line for the policymakers is social stability, which is crucially tied to the unemployment rate and job creation," analysts at BoAML said in a recent note. "With US-China trade risks still looming large, we believe policymakers would not hesitate to take pre-emptive measures to stabilize expectations on job stability."

China's Premier Li Keqiang

More growth boosting steps are expected this year as policymakers seek to avert the risk of a sharper slowdown. China's State Council, or cabinet, said on Jan. 9 that it would further reduce taxes for smaller companies.

India's industrial output growth nosedives

REUTERS, *New Delhi*

India's industrial output slumped to 0.5 percent in November amid a slowdown in auto and garment manufacturing, making Prime Minister Narendra Modi's challenge to boost investment before an election in the coming months seem tougher than ever.

Annual industrial output growth in November was far below a forecast of 4.1 percent in a Reuters poll and an upwardly revised 8.4 percent year-on-year increase in October, government data released on Friday showed.

The industrial output data series is widely considered as volatile but many economists said the November figures were also affected by lesser number of working days in November due to festival.

"The sharp drop in industrial production growth in November is in large part linked to the shift in the timing of the Diwali holidays last year," Shilan Shah, India economist of Capital Economics in Singapore said.

"Near-term prospects for industry remain fairly upbeat."

Modi, who is aiming for a second five year term in national elections which must be held by May, has pumped billions of dollars of state funds into building roads, ports and airports to support economic growth and create jobs.

US government shutdown may depress job growth

REUTERS, *Washington*

A partial shutdown of the US government could slash job growth by as much as 500,000 in January and lift the unemployment rate above 4.0 percent unless the impasse in Washington is resolved before next Friday, economists warned.

Some 800,000 government workers missed their first paycheck on Friday following the partial shutdown which started on Dec. 22 as President Donald Trump demanded that the US Congress give him $5.7 billion this year to help build a wall on the country's border with Mexico.

The Labor Department, which has not been affected by the shutdown, surveys employers and households for its closely watched employment report, which includes nonfarm payrolls and the unemployment rate, during the week that includes the 12th of the month.

For this month, the pay period for most federal employees that includes the week of the 12th runs from Jan. 6 to Jan. 19. About 380,000 workers have been furloughed, while the rest are working without pay.

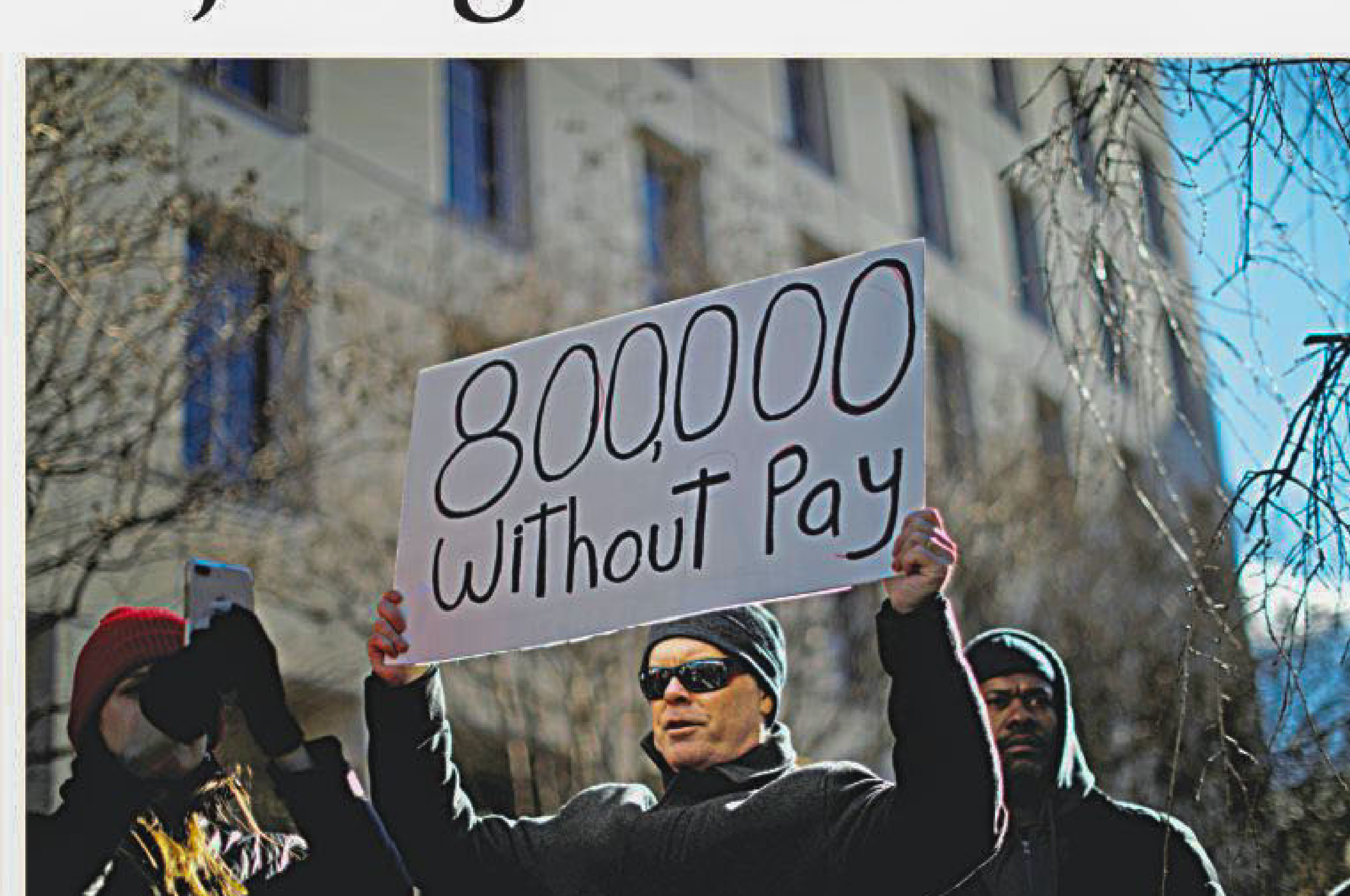
Unless the government reopens next week, furloughed workers will probably be counted as unemployed, as they would not have received a salary during the pay period survey.

"So, if the government remains closed past January 19, then furloughed federal workers will not receive pay during the survey week, meaning that we'd very likely get a big drop in the headline payrolls report, something on the order of perhaps 500,000 to 600,000," said Omair Sharif, senior US economist at Societe Generale in New York.

That could result in the first monthly decline in employment since September 2010 and snap a string of 99 consecutive months of jobs gains. But if Congress decides to pay these workers retroactively as was the case following the October 2013 government shut down, they would be considered employed.

"You can look at the private sector payroll figure to bypass this distortion, but it'll create some uncertainty and prevent us from getting a clean read on the labor market," said Sharif.

The economy created 312,000 jobs in December, the most in 10 months. Trump likes to boast about the strong labor market as one of his crown achievements. The shutdown, which on Friday tied the record for the longest in the nation's history, could also drive up the unemployment rate in January.



REUTERS

A demonstrator holds a sign, signifying hundreds of thousands of federal employees who won't be receiving their paychecks as a result of the partial government shutdown, during a "Rally to End the Shutdown" in Washington on Thursday.

The household survey from which the jobless rate is derived would likely consider the furloughed workers as unemployed.

"These workers account for about 0.2 percent of the current labor force, so all else equal, the increase in unemployment associated with the government shutdown could lead to a 0.2 percentage point increase in the unemployment rate in January," said Daniel Silver, an economist at JPMorgan in New York.

The unemployment rate rose two-tenths of a percentage point to 3.9 percent in December as some jobless Americans piled into the labor market confident of their employment prospects.

While these impacts on the labor market are likely to be temporary, they could make it difficult for policymakers to get a clear read of the health of the economy for monetary policy.

Economists also worry that a prolonged government shutdown could hurt both business and consumer confidence, and undercut business and household spending.

Richmond Federal Reserve President Thomas Barkin said on Thursday that the shutdown, which has delayed the release of Commerce Department data, including November trade figures, could affect the amount of economic data available to the Federal Reserve, the US central bank.

JPMorgan estimates the shutdown is cutting 0.1-0.2 percentage point every week from quarterly economic growth. It said the impact could be even larger if the shutdown led to a significant shift in sentiment.

"The 2013 shutdown did have noticeable negative effects on some measures of consumer and business sentiment, but these effects proved short-lived against a backdrop of otherwise strong economic data and buoyant equity markets," said Silver.

"It is possible that an extended shutdown right now could interact with market declines and already weakening economic data to produce a larger drag on sentiment and the overall economy."