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INNOVATION NATION

Benjamin Netanyahu

[Economist](#), Dec. 1, 2017

The future belongs to those who innovate. Israel is seizing the future. With 8.5m people, it has more companies on NASDAQ than almost any other country outside North America and ranks third in the World Economic Forum's ranking of most innovative economies. Israeli startups receive nearly 20% of global private investment in cyber-security, punching 200 times above our relative weight. Israel recycles 87% of its waste water, five times more than the runner-up. Israeli cows produce more milk per animal than those of any other country.

People everywhere benefit from Israeli innovations in their mobile phones, car navigation systems, life-saving drugs, medical devices—even the cherry tomatoes in their salads. Equally, Israel's intelligence services have helped stop dozens of terrorist attacks in dozens of countries. These successes are buttressed by world-class universities and research institutions like the Technion, the Weizmann Institute and the Volcani Agriculture Institute.

Technology without free markets does not get you very far. All national economies are engaged in a race in which the public sector sits astride the shoulders of the private sector. In our case, the public sector got too bloated. Under a policy I called "Fat man/Thin man", we put it on a strict diet and removed barriers to competition that hampered the private sector, enabling it to sprint forward.

We controlled public spending, lowered tax rates, reformed welfare and pensions, removed foreign-exchange controls, dismantled monopolies, privatised government companies and created new capital markets. The result has been 14 years of nearly continuous GDP growth of 4-5% annually, lowering the debt-to-GDP ratio from roughly 100% to 62%. We leverage government spending on military intelligence by encouraging veterans to form thousands of civilian IT and cyber-startups, which we regulate as little as possible. Government investments in roads and railways open up land for housing, which is developed by private contractors.

For 50 years government companies searched to no avail for offshore gas. Once we enabled private companies to search, they found gas deposits worth many billions of dollars. The government's take of these gas revenues will help fund our future needs in education, welfare and infrastructure. Israel became an economic tiger because we chose to be a nimble mammal rather than a fossil. Benefiting from the nexus of big data, connectivity and artificial intelligence, we are rapidly developing new industries.

Fifty years ago, Israel failed in its effort to develop a car industry. Yet in the past decade we have had 500 startups in automotive technology which receive billions of dollars of investments each year. In 2013 Google bought Waze, a crowd-sourcing navigation system, for \$1bn. In 2017 Intel paid \$15bn for Jerusalem-based MobileEye, entrusting it to oversee Intel's worldwide autonomous-vehicle businesses. Our universal digital health database holds great promise for breakthroughs in preventive and personalised medicine. Since technology alone does not guarantee our future, we must keep promoting entrepreneurship and fight excessive regulation. In the past two years I have chaired a cabinet committee that takes a machete to the weeds of overregulation, and Israel has moved from 27th to 16th in the Global Competitiveness Index.

What are the lessons of Israel's economic miracle for 2018 and beyond? The first is: innovate or perish. The second is: innovate to create alliances and advance peace. Our technological prowess has brought us many new friends, alongside our irreplaceable alliance with America. We negotiated economic pacts with Japan and China. Relations with India are booming. Twice within a year I visited Africa. I am the first Israeli prime minister to visit Australia and Latin America.

But perhaps the most promising change is closer to home. Many Arab countries now see Israel not as an enemy but as an indispensable ally in our common battle against militant Islam. They also seek Israeli technology to help their economies. The potential normalisation with Arab states could help pave the way for peace

with the Palestinians.

In 1968, in “The Lessons of History”, the great American writer Will Durant wrote: “The influence of geographic factors diminishes as technology grows. The character and contour of a terrain may offer opportunities for agriculture, mining or trade, but only the imagination and initiative of leaders, and the hardy industry of followers, can transform the possibilities into fact; and only a similar combination (as in Israel today) can make a culture take form over a thousand natural obstacles.” In the half-century since those prophetic words were written, Israel has indeed overcome a thousand obstacles. Its ingenuity offers hope for every nation under the sun.

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TEVA'S COLLAPSE - ISRAEL'S BIOTECH RECOVERY

Glenn Yago

[Jerusalem Post](#), Dec. 27, 2017

The Teva collapse resulted in a “lost year” for Israeli equities compared to other Developed Market indexes. More than any other company, Teva’s implosion accounts for the poor performance of all Israeli stock market indexes. Prior to its collapse, Teva comprised 29% of the Tel Aviv 125 Index, now down below 8%. The further planned voluntary de-listing of Mylan scheduled for February 2018 follows another life sciences de-listing, of Mellanox in 2013, creating another big hole in the local capital market and a loss for Israel’s role in this important industry.

Clearly, some new approach to financing medical solutions is overdue for Israel, instead of relying solely upon tax subsidies to large companies and the current limitations of our public and private equity markets. What can we learn and how can we prevent this from happening again? Already in 2014, Teva discussed

separating its generic from its specialty drug business, but instead (despite unsuccessful pressure from activist investors) it doubled down on the generic side of the business through its catastrophic acquisition of Activis, Allergan's generics business, for \$40.5 billion.

Over the past two years, Teva lost \$57b. of value, leaving it with a remaining market value of \$19b. It owes about \$35b. and faces a cliff of debt payments of \$9.1b. by 2019 and \$17.5b. by 2021. It faces these challenges with a cash flow that is projected to shrink to \$3.2b. in 2018 due to heightened generic drug competition and the loss of patent protection for its sole proprietary drug, Copaxone.

In an important article last week, Prof. Eyal Winter argued that Teva's failure "must not make the company that invented Copaxone into a company whose primary business is producing aspirin." Well, it might be too late to solve that problem for Teva, but not for the Israeli scientific and technology ecosystem that can build life science solutions to global health problems. Under the Law to Encourage Capital Investments, Teva secured over \$5.7b. in tax benefits, generating free cash flow and subsidies without any conditions or accountability to Israeli taxpayers. This enabled Teva to move much of its growth abroad and pay out dividends to shareholders and salaries to the executives who managed it into decline.

Teva just shut down its R&D facility operating from Israel and slashed its overall research and development budget. Without a creative strategy, this could threaten Israel's future competitive strength in the biotechnology sector. Teva no longer has the firepower to fund its drug development pipeline and needs to radically restructure its debt. It cannot provide long-term, fixed rate financing to drug development. With guarantees, public and private investment and credit-enhanced, re-searchbased obligations, Israel can.

THERE ARE plenty of examples in the world of pursuing new directions focused on biotechnology and accelerating medical solutions. In 2015, London's mayor proposed a \$15.7b. bio-pharma development fund. In 2016, UBS launched a \$470 million oncology fund. Bio-Bridge raised a \$135m. fund to make smaller investments for early-stage therapies that haven't made it to human trials. The State of California funded public bonds for \$3b. to fund the California Institute for Regenerative Medicine and accelerate therapies through public-private partnerships.

The government should use current negotiations it is holding with Teva over tax assessments as a lever to help restructure some of Teva's huge debt and transform that into a public-private partnership with the government and scientific research institutes in Israel. This could enable Israel to regain some value of the tax subsidy it lost subsidizing Teva's disastrous buying spree. In doing so, it could reboot a value- added translational medical ecosystem in Israel to solve global chronic and infectious diseases and enable new firms to emerge from the economic and business policy failures associated with Teva.

A debt swap of specialty drug patents could also reduce Teva's current debt burden. Teva could swap out current debt for the value of the remaining specialty drug patents whose development it can no longer support enabling Teva to right-size its reduced generic drug footprint. Those drug patents would become part of a long term public-private drug development partnership focused on specialty drugs, via a new Research Based Obligation (RBO) Bond that would finance the translational medical industry and other intellectual property emerging from technology transfer organizations through Israel's globally known medical centers, incubators, and the Israel Innovation Authority.

This would provide new players with sufficient runway to discover cures, vaccines, and treatment modalities including but beyond pills, where Israel's knowledge capital can be competitive. Last year, Teva received approval for three innovative drugs (Fluticasone Salmeterol MDPI, Vantrella and Fluticason Propionate MDPI). Another drug is in Phase III clinical trails for migraine headaches. Other drugs in

development at various stages include ones for movement disorders and Huntington's disease.

Analyst reports from Citigroup, JP Morgan and Morgan Stanley reported potential sales volumes of \$3-5b. annually from these drugs. Combined with patents from other technology transfer organizations in Israel, the country could yet achieve great value for the intellectual property it is so heavily invested in by fueling long-term commercialization. In some of our institute's financial innovations labs, colleagues from MIT, UC-Berkeley, NYU and elsewhere have shown how such financial engineering can increase success in fighting cancer, diabetes, neuropsychiatric disorders, blood disease and infectious diseases such as malaria, tuberculosis and neglected tropical diseases as well...

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**AFTER QUIET 2017, CHINESE INVESTORS SEEN
RESUMING ISRAELI TECH SHOPPING SPREE**

Shoshanna Solomon

[Times of Israel](#), Dec. 28, 2017

The sale of auto-technology firm Mobileye to Intel Corp. for a whopping \$15.3 billion was by far the most significant Israeli tech moment of 2017, but US President Donald Trump's tax reform, along with changes in the Chinese investment environment, will also be remembered as defining the year, as they injected uncertainty into past 12 months.

At the end of 2016, the Chinese government issued restrictions on outbound investments but then clarified its position in August 2017, setting out a policy that banned certain investments, for example, in the military, gambling and sex industries; restricted investments in other areas like real estate, films, sports and hotels; but encouraged investments in industries that promote China's technological development, as well as the oil and mining industries.

"2017 was a transition year," said Edouard Cukierman, managing partner of Catalyst Investments L.P., an Israel-based private equity fund that manages over \$250 million in investments. "The uncertain regulatory environment in China regarding investments in the first half of the year led to a slowdown in Chinese investment activity. The clarification of the rules in August has now opened up the bottleneck and I believe that in 2018 we will see renewed activity in Israel by Chinese investors." Catalyst's third fund, the CEL fund, which raised \$200 million in commitments from investors, was set up jointly with Hong Kong-based China Everbright Ltd. More than 50 percent of the funds raised by CEL was from Chinese investors, according to company data.

As the Asian giant seeks a stake in the global technology world, shifting its economy from a labor-intensive powerhouse to one driven by technology, Chinese firms have been on a shopping spree for technologies and startups. In the past five years Chinese companies have invested some \$16 billion in Israeli firms, not only high-tech, including the \$4.4 billion acquisition of Playtika by a Chinese consortium in 2016, the \$510 million buyout of medical device firm Lumenis by China's XIO Group in 2015, Alma Laser in 2013, and food company Tnuva in 2014.

The cooling of China's relations with the US — as Washington seems to have lost patience with China's hesitation in making trade concessions and its stance on North Korea — along with the recently passed US tax reform, which will make it more attractive for US companies to invest in local firms and not as many international firms, will also have an impact on Chinese activity in Israel, he said. "Chinese investors will be less keen to do business in the US, where they feel the environment has turned more hostile," he said. And US firms, which have been

traditionally the most active in acquiring Israeli startups, may turn their attentions inward, to their home turf. “This will open up opportunities for Chinese firms to operate in Israel,” he said.

Trump’s corporate tax reforms may also lead to US investors requiring Israeli startups to register as US entities, or to move significant operations to the US, so as to make them eligible for the tax rebates. In addition, Cukierman expects 2018 to see increased interest from Latin America in Israeli technology, as seen in the acquisition of Netafim by Mexican group Mexichem. “Abundant available money in the global economy and interest rates close to zero (despite a few hikes) continued to drive the local tech market this year,” consultants PwC Israel said in their 2017 exits report. The mood, however, was overshadowed by the limits imposed by Chinese authorities on foreign investments and by the uncertainty injected into the market by the US tax reform.

The total value of exits in the Israeli tech market (M&As and public offerings) was \$7.4 billion, up 110% year on year, compared with \$3.5 billion in 2016, according to the report published on Wednesday. Seventy exits took place in 2017, up from 55 deals in 2016. This figure represents a return to the levels seen in 2014 and 2015, with 70 exits each. In addition, the Israeli market twice broke the \$1 billion mark in 2017, thanks to Mobileye that was acquired by Intel for \$15.3 billion and NeuroDerm that was acquired by Mitsubishi Tanabe Pharma for \$1.1 billion. These two deals are not included in the exits report, as they would skew the data.

The average value per deal in 2017 was \$106 million, or a 66% increase year on year, even when deducting the two mega deals, the report said. Israeli tech companies returned to raising money via initial public offerings of shares on global and local markets: some 11 companies raised a total of \$414 million in IPOs this year, the report said. The largest equity issue in 2017 was that of ForeScout, which raised \$116 million on NASDAQ, reflecting a market cap of \$800 million...

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THE EMERGENCY MEDICS TAKING ON POST-TRAUMATIC STRESS DISORDER

Daniel K. Eisenbud

[Jerusalem Post](#), Dec. 28, 2017

In a country where terrorism and war are endured as a consistent, yet unpredictable, byproduct of a protracted and intractable geopolitical conflict, post-traumatic stress disorder is far from rare. While there is no recent data on the number of Israelis afflicted, Avi Steinherz, clinical director of United Hatzalah's Psychotrauma and Crisis Response Unit, said approximately 20% of those who experience or witness extreme violence will develop some form of PTSD.

"Statistics-wise, what we have found from 15 to 20 years of experience - including the intifadas, wars and incursions from Gaza - is that the majority of the general population has a resilience to traumatic events, and most people exposed to them do get better on their own," he said on Tuesday. "However, there is 20% of the population that enters into what is called 'acute stress reaction (ASR),' in the immediate aftermath of a traumatic event, and once you talk about that particular population the statistics flip around completely because among them almost 80% will develop PTSD, which is a condition which they, their families and communities can suffer from for the rest of their lives."

"Unfortunately," he continued, "our population here in Israel has a huge amount of hyper-sensitive people walking around with PTSD from the numerous, unending amount of trauma we're exposed to from all the wars, intifadas and the danger of

living under the gun and the threat of death at all times.” Steinherz said the country’s first Psychotrauma and Crisis Response Unit was formed in 2016, at the height of the so-called “stabbing intifada,” following years of germination.

“During our experience from the stabbing intifada, we had statistics from Magen David Adom indicating that there were between three and four more times the amount of people who were emotionally and psychologically traumatized than those physically wounded,” he noted. “But, the amazing thing we found, which is the driving force behind our unit, is that if the 20% of the population who enters ASR receives immediate stabilization, 75% of those people will not develop PTSD. So, time is of the essence.”

Today, over 600 specialists, ranging from psychiatrists, psychologists, social workers and EMTs, volunteer in the unit throughout the country as psychological first-responders following all terrorist attacks, missile incursions, deadly accidents, and violent criminal activity. According to Steinherz, the Psychotrauma and Crisis Response Unit, which has been dispatched over 400 times since its inception, is divided into two segments. “Our Advanced Life Support Unit is made up of 300 mental health professionals at the advanced level,” he explained. “The second team, which also has 300 volunteers, is called the Basic Support Unit, which includes medics and first-responders who have gone through an intensive course to provide immediate psychological first aid stabilization in the field.”

Based on the proven efficacy of these highly-trained volunteers, Steinherz said it has since become mandatory at United Hatzalah for all new EMTs to be trained in psychological first aid stabilization. “In the EMT courses, every single new incoming EMT must undergo five hours of psychological first aid training to help the medics themselves develop resilience to be able to deal with the traumatic experiences they are exposed to in the field,” he said. Moreover, Steinherz said that EMTs are trained to rapidly identify psychologically traumatized individuals, be they witnesses or family members of those physically wounded...*[To Read the Full Article Click the Following [Link](#)—Ed.]*

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[Fly Me To The Moon: SpaceIL Launches Funding Plea To Complete Space Race Amid Financial Troubles: *No Camels*, Dec. 18, 2017](#)—Israel's race to the Moon may soon have to come to a screeching halt as the Israeli startup SpaceIL, one of five finalists in the prestigious Google Lunar XPRIZE competition with a mission to land an unmanned spacecraft on the moon, says it's short of the funds necessary to complete the project and may have to forfeit.

[Technion Becomes First Israeli University to Open Campus in China: Shiri Moshe, *Algemeiner*, Dec. 19, 2017](#)—The Technion — Israel Institute of Technology became the first Israeli university to inaugurate a campus in China on Monday. The Guangdong Technion Israel Institute of Technology (GTIIT) is a result of a 2013 partnership between the leading Israeli school and Shantou University in China's southern Guangdong province.

[On Upcoming India Visit, Netanyahu to Gift Modi Israeli Mobile Desalination Vehicle: *Algemeiner*, Dec. 19, 2017](#)—When Israeli Prime Minister Benjamin Netanyahu travels to New Delhi next month, he will bring a special gift for his Indian counterpart Narendra Modi — a Gal-Mobile water desalination and purification jeep.

[Israel Helps Colombia Upgrade its Air Force: Yoav Zitun, *Jerusalem Post*, Dec. 28, 2017](#)—Colombian security officials, including the chief of staff and the commander of the Air Force, took part earlier this month in a ceremony marking the completion of an upgrading process of 22 Israel Aerospace Industries (IAI) Kfir fighter planes belonging to the Colombian army and manufactured in Israel in the early 1970s.

