**Tales from Silicon wadi**

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Military insecurity can boost an economy, up to a point

STANDING amid the skyscrapers of Tel Aviv, looking west over the sun-warmed Mediterranean, one can almost forget how unlikely Israel’s recent economic success has been. The country is a fortress: a tiny island of prosperity in a troubled region. Its neighbours are hostile; Syria, in the midst of a devastatingly bloody civil war, is a failed state. Israel itself is not only mired in conflict in the Palestinian territories, but riven by internal divisions between observant and secular Jews and between Jews and Arabs. International ire over the treatment of Palestinians leads to calls for boycotts of Israeli goods and divestment from Israeli companies. Yet over the past two decades, this small country, with a population of around 8m, has engineered an economic miracle (see left-hand chart). Israel is testimony to the advantages, and limitations, of fortress economies.

Since the 1990s Israel’s economy has been on a tear; between 2004 and 2013 growth in real GDP averaged about 4% a year. Output per person is similar to that in Italy. A nimble tech sector deserves much of the credit. The joke among foreign investors once ran that the best way to make a small fortune in Israel was to begin with a large one. No longer. Relative to the size of the population, there are more researchers working in R&D in Israel than in any other country (see right-hand chart). Venture-capital investment per person is the highest in the world. Israeli startups have increasingly hit it big in recent years, as with Google’s acquisition of Waze, which uses crowdsourced data to monitor traffic, for more than $1 billion in 2013. Cyber-security now generates more export revenue than arms do. Officials from Asia visit to study the tech sector, in the hope of replicating its success.

Israel’s experience follows a familiar script: that of the small, embattled country on the up and up. China’s previously hopeless nationalists somehow built an economic powerhouse after they had been relegated to the island of Formosa (now Taiwan). Having been booted out of Malaysia, Singapore subsequently became far richer and more productive than its neighbour. In fact, there is good reason to believe that Israel’s success stems at least in part from its geopolitical troubles.

Economic development requires a balance between individual freedom and the power of the state. The authorities must be able to collect taxes, for instance, and enforce property rights. External threats have often accelerated the development of the state. National defence is among the purest examples of a public good, and national survival provides a strong motivation to set up a strong state with the authority and legitimacy needed to ensure it. Historically, the expense of war has often prompted governments to improve their capacity to raise revenue. Britain first levied income tax during the Napoleonic wars; other countries instituted it during the arms race before the first world war.

External threats are hardly a sure-fire road to riches. Actual war is destructive. Torsten Persson, of Stockholm University, and Timothy Besley, of the London School of Economics, reckon the underlying institutional strength of the threatened country is crucial. Democracies respond better to external pressure; countries made rich by natural resources do worse. From its earliest days the state of Israel has been democratic (and short on resource wealth)—and has faced a near-constant existential crisis.

The strength and capacity of the Israeli state is most clearly visible in its armed forces, which are arguably the most important public institution in Israeli society. Most Jewish Israelis are conscripted into the military; about 100,000 new recruits, fresh out of secondary school, are drafted each year for a term of service of about two years. The most talented young people in each cohort are assigned to technical units within the Israel Defence Forces (IDF), such as Unit 8200, a signals-intelligence force similar to America’s National Security Agency. Those recruits, in turn, are able to hone their technical skills in the service.

Since the 1990s, when the government became more serious about commercialising the technologies being developed within the IDF, personal relationships built during military service have been critical to the growth of Israel’s tech cluster. Friends from the service start firms together after getting out, invest in each others’ ventures and provide technical and business advice. The personal networks nurtured by the IDF increase the return to staying in Israel for skilled engineers, helping the country retain talent that might otherwise go abroad. Like America’s army and its tech sector, the IDF and Israel’s startups have developed a symbiotic relationship; the IDF supplies talent and expertise to the private sector and is in turn a buyer of private firms’ inventions.

The digital partition

Yet it would be odd if fortress economies did not face constraints on their growth. The ingenuity and nimbleness of the Israeli tech sector does not extend to industries less closely linked to the work of the IDF: across the economy as a whole, Israel’s productivity is among the lowest in the rich world. The paucity of trade with its neighbours is partly to blame. There is no difficulty in selling high-tech services to distant clients, but manufactured goods are another story. Another problem is a dearth of competition in the low-tech parts of the economy.

The underpinnings of the tech sector’s success also limit the number of Israelis who are able to participate in it, and thus benefit from it directly. Ultra-orthodox and Arab Israelis do not have to serve in the army and study in segregated school systems, which are generally much worse than those other Israelis attend. These groups, unsurprisingly, are under-represented in tech. As you pass from predominantly Jewish areas into Arab ones, let alone into the Palestinian territories, the quality of infrastructure deteriorates dramatically. Israeli tech firms that operate in the Palestinian territories keep their presence there quiet, lest investors, customers or activists object. Within walls, there is only ever so much room to grow.