

Growth Strategy 2017

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This is a short summary, for the full paper (in Hebrew) see

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Growth Strategy 2017

The gap between the standard of living in Israel and that in leading OECD countries has remained unchanged for many years. This policy paper presents an economic strategy for Israel whose goal is to narrow the gaps in per capita GDP and the rate of poverty over time. The strategy is based on a macroeconomic analysis aimed at identifying the main causes of the gaps between Israel and selected leading countries. These countries ("the benchmark countries") were chosen because they are of similar size to Israel in terms of population and also in terms of level of openness to international trade and the character of their growth, which is based on human capital. They are therefore suitable as a reference point for identifying strengths and weaknesses in Israel and as a target which we can aspire to. This group of countries has levels of per capita GDP and productivity that are higher than Israel's and levels of poverty that are lower. The benchmark countries include Austria, Belgium, Denmark, Ireland, The Netherlands, Finland and Sweden. We feel that in general, the OECD average is not the correct target to aspire to, since it also includes relatively poor countries whose presence in the index should not influence Israel's goals. Israel should aspire to become like the leading countries in Western Europe and North America.

The target we propose is to increase per capita GDP to the levels in the benchmark countries and also to move the level of poverty closer to theirs¹ within 15 years. We focus on reducing poverty and do not use the term "inequality" since in our opinion the most appropriate goal is to provide the entire population with what is considered to be a reasonable standard of living in the country. The rate of poverty, which is measured as the number of people whose disposable income is less than half the median income, reliably represents this desire without harming high-income households.

In order to adopt an efficient policy to carry out the strategy, an analysis is carried out of the sources of the gap in per capita GDP and the level of poverty. GDP in Israel has grown at an annual rate of about 7 percent during the period from the country's establishment until the 70s and the gap in productivity (output per hour worked) and in per capita GDP between Israel and the developed countries narrowed during this period. Per capita GDP in Israel, which was about 35 percent of that in the US at the beginning of the 50s, rose to about 65 percent in 1974 and the gap in productivity narrowed to 30 percent. However, since then there has been a significant slowdown in the growth of productivity, such that the gap

¹ We are currently working on the poverty targets and they will be published in a later paper to be published by the Aaron Institute.

between Israel and the US stood at 44 percent in 2015. A similar picture is obtained for the benchmark countries. The gap in per capita GDP between Israel and the benchmark countries, which was 30 percent in 1994, has remained unchanged and the gap in output per hour worked has widened somewhat, from 38 percent to 41 percent. The rate of employment, which was particularly low in Israel, has risen in the last decade and is somewhat lower (by about 2 percent) than that in the benchmark countries and higher than in the US. Given the rise in the rate of employment, productivity is today the main source of the gap in the level of per capita GDP. The rise in productivity in the exporting industries was a significant growth engine during the last decade, but productivity in these industries is already high in international terms and in addition the growth of Israel's trading partners has slowed significantly, such that it will be difficult for this engine of growth to continue pulling the economy forward. The rise in the rate of employment, which draws workers with little experience and often lower-than-average skill levels into the workforce, is of course one of the reasons for the slow growth in productivity during the last decade and particularly in view of the fact that these workers primarily entered the service industries where productivity is low. But this point only emphasizes the need to raise productivity, primarily among workers in these industries, in order to provide them with a reasonable wage level and to continue the upward trend in the rate of employment.

The incidence of poverty in Israel is high relative to other countries and the second highest among the OECD countries. In 2013, it stood at 18.6 percent as opposed to an average of 11.5 percent in the OECD countries and 8.2 percent in the benchmark countries and in 2015 it rose to 19.6 percent. In Israel, as in other countries, the gaps in labor income can be attributed primarily to the rate of poverty and inequality in household disposable income, due to both the gaps in rates of employment and the widening gaps in income per hour worked. The three main causes for the continuing growth in these gaps are human-capital-intensive technological progress, the globalization processes and weak regulation which is manifested in the non-enforcement of labor laws. All three of these factors are significant in Israel and their effect has intensified over time. Indeed, some of them play an even greater role than in other countries. Another unique characteristic of Israel is the very high rate of fertility. Since there is a positive and clear-cut correlation between the size of households and the incidence of poverty, this characteristic is a major component in the trends of poverty in Israel, particularly because large households are concentrated in the lower deciles. Characterization of the poor in Israel according to family size, employment situation and ethnic group provides additional evidence that the incidence of poverty rises with

number of children and declines with number of earners. The effect of each of these factors separately is amplified by the negative correlation between family size on the one hand and number of earners and wage level on the other. To reduce poverty and improve the situation of the weak sectors of the population requires a policy strategy that focuses not only on increasing employment and experience but also raising productivity and wages, primarily among populations with low levels of skills and education.

The gap in productivity between Israel and the benchmark countries was about \$22 per hour worked in 2013.² In order to understand the factors behind this gap, and in particular the factors that can be influenced by government policy, we employ a widely used method of macroeconomic analysis based on the main factors of production and economic growth. This method presents per capita GDP as being determined by employment, human capital, private capital, public capital (factors of production) and production efficiency (total factor productivity, also called the “Solow residual”). On this basis, we carry out a comparison of the gap between Israel and the benchmark countries in order to understand the sources of the gaps in per capita GDP and output per hour worked. As mentioned, since the number of hours worked in Israel is similar to that in the benchmark countries, all of the gap in per capita GDP is the result of the level of output per hour worked, which is lower by 41 percent! A comparison of the data for the factors of production shows that the level of private capital per hour worked in Israel is about one-half of that in the benchmark countries and the level of per capita public capital is lower by 55 percent. Similarly, the level of human capital in Israel is about 11 percent lower than the average for the benchmark countries and even lower for individuals without a post-secondary education.³

² 2013 is the last year for which there is data on all of the countries. We are using it as a base year.

³ According to the OECD Survey of Adult Skills (PIAAC).

On the basis of this data, we carried out a macroeconomic analysis which points to the economic factors behind the gap in productivity of \$22 per hour worked with the benchmark countries:

- **The effective cost of capital for private capital investment:** Using data on the level of the factors of production, one can calculate the implicit cost of capital, which is the cost that justifies the actual level of private capital. **This factor explains 48 percent of the gap in productivity**, i.e. about \$10.50 per hour worked. **In our estimation, the high cost of investment in capital, derived from the low quantity of capital is primarily the result of a high level of corporate taxation on non-exporting businesses and a heavy bureaucratic burden.** We are currently working on a more detailed model that will make it possible to determine the specific causes of the high price of capital in the private sector.
- **The level of public capital:** Economic research shows that transportation infrastructures are the main determinant of public capital's contribution to low productivity (Aschauer, 1989). **This factor explains 24 percent of the gap in productivity**, i.e. about \$5.10 per hour worked.
- **The level of human capital**, as represented by the skills of working-age individuals. **This factor explains 21 percent of the productivity gap**, i.e. \$4.50 per hour worked.

The results show that these three main factors explain the vast majority (93 percent) of the gap in per capita GDP between Israel and the benchmark countries while total factor productivity (the remainder) explains only the remaining 7 percent (\$2). Thus, it is clear that the efficiency of production and the gap in such factors as investment in research and development are not the main source of the gap. These causes of the productivity gap, which primarily affect traditional manufacturing, construction, commerce and services, are consistent with the numerous findings that the productivity problem mainly affects the non-tradables industries and the tradables industries that produce mainly for the local market. These results are also consistent with the previous recommendations of the Aaron Institute to invest primarily in raising the productivity of low-skilled workers in the economy, most of whom are employed in these industries and whose productivity and wages are low. Therefore, the adoption of these policy measures, apart from their contribution to economic growth, will also improve the poverty situation, since most of the growth in productivity and wages will benefit the lower half of workers.

Following the macroeconomic analysis, we propose a strategy to deal with the main factors behind the productivity gap between Israel and the benchmark countries: investment of public capital, particularly in transportation infrastructure; the creation of a system of higher technological and vocational education, in parallel to the existing system of higher academic education; and the stimulation of the business sector by reducing the bureaucratic burden.

Investment in public infrastructures: Israel needs to increase its capital stock by about NIS 470 billion simply in order to attain the current per capita level of public capital in the benchmark countries within about 15 years. In order to attain the expected per capita capital stock in the benchmark countries in about 15 years from now will require the addition of about NIS 600 billion to public capital. The closing of such a large gap will require a major increase in the scope of government investment to about 3.7 percent of GDP per year during the period of investment, as opposed to the current level of about 2 percent. Such an increase cannot of course be financed from existing budget sources under the current fiscal rules. Therefore, we recommend that the additional investment be financed by increasing the deficit up to 3.5 percent of GDP for a period of 15 years. This addition of 0.6 percent of GDP above the official deficit target (and in actuality more than that) will finance the necessary increase in investment. A significant proportion of the projects will be carried out using the PPP and BOT methods, so that the additional budget will primarily involve financing the interest on the investment. According to our calculations, the expected growth in productivity can raise the rate of growth by about 1 percent to the vicinity of 4 percent real annual growth. Along this trajectory, the increase in the debt-to-GDP ratio as a result of the increase in the deficit will be minimal, i.e. about one-half of a percentage point at the end of 15 years. It is important that any addition to the deficit be allocated to investment in transportation infrastructure, which has a large and relatively immediate effect on productivity. Economic research indicates that the effect of transportation infrastructure by way of the agglomeration effect and economies of scale can be significantly higher than that obtained from a standard cost-benefit analysis based on the shortening of travel times (Venables, 2007).

A national program for investment in transportation should be based on the following principles:

- **In the immediate term – prioritizing public transportation**, including a significant increase in the frequency of buses on routes with high demand and an improvement in accessibility of the train stations by means of efficient feeder lines. To this end, metropolitan transportation authorities should be created and/or the Ministry of Transportation should be provided with the necessary authority.
- **Significantly increasing the scope of transportation infrastructure planning** in order to create a stock of plans ready for implementation. The allocation of resources is of course dependent on the existence of plans that are ready for implementation.
- **Reducing the discount factor for investments from 7 percent to 3-4 percent:** The high value of the discount factor hinders public investment and biases projects towards alternatives with low initial expenditure and an early flow of benefits and is not in line with accepted practice in the developed countries and the current level of interest rates in the market.
- **Synchronization between housing and transportation plans:** The plans for private and public transportation should be coordinated with urban development plans. There is no logic in massively investing in the construction of mass transit systems in the large metropolises, and primarily in the Dan region, while at the same time encouraging a shift of the population to the periphery.
- **Continuing investment in roads:** Even if public transportation reaches 40 percent of all travel in 20 years, the amount of travel in private vehicles will not diminish from its current level, in view of the growth in the population and the growing demand for private vehicles.
- **Importing a significant proportion of new infrastructures:** International companies with high levels of productivity should be allowed to participate in infrastructure tenders. This should include bringing to Israel all of the required equipment and manpower, which will upgrade the standards of the industry. In addition, barriers should be removed that hinder the import of capital and building materials. This measure will also contribute to reducing the pressure for appreciation of the exchange rate.

- **Introduction of congestion tolls, competition in public transportation and shared transportation and also a reduction of bureaucracy** in public transportation and shared transportation solutions, with the goal of immediately easing congestion while the new infrastructures are being built.

A system of higher technological and vocational education: Economic research indicates that the return on a year of schooling in a system of higher technological and vocational education, both for the individual and the economy, is identical to that in a system of higher academic education. We recommend the creation of a higher technological and vocational education system that will contribute to the development of skills and human capital among individuals who do not choose an academic education and will support growth in the public and business sectors. The system should be based on principles that include providing employment skills, a general education and a feeling of excellence to high school graduates; vocational development over the course of a career; involvement of the business and public sectors in the curricula, in mentoring and in instruction; immediate absorption in employment; and compatibility with the skills demanded in the labor market. The budgeting per student should be identical to that in the budgeted academic colleges.

The creation of the system on the basis of an infrastructure of technological colleges, which will be integrated with the academic colleges, will fill the need to provide general human capital, will ensure economies of scale and will improve the image of technological and vocational education, while at the same time eliminating the glass ceiling for graduates. The target is for at least one-quarter of a cohort to choose technological and vocational studies within 10 years. The budgeting of the system, which will reach about NIS 1 billion annually, will come from the regular increase in the yearly budget.

Reducing the bureaucratic burden: The bureaucratic burden constitutes a hindrance to business and acts as a barrier to entry for entrepreneurs and a tax on business activity and competitiveness, primarily for small and mid-sized businesses. The state of doing business in Israel and the bureaucratic burden are not improving and the relative international ranking of Israel is worsening. Many countries have carried out comprehensive reforms in order to reduce bureaucracy and regulation and based on international experience it can be seen that countries that have significantly reduced their bureaucracy did so by creating designated government units with clear powers and targets. In contrast, Israel has carried out only small-scale measures. In view of the extensive experience in other countries in making it easier to do business, the main recommendation is to create a designated

government unit—the Unit for Promotion of Business in Israel. Its goals will include the identification of the most pressing bureaucratic problems and coordinating the effects to eliminate them and evaluating the surplus burden of existing and new regulation. In addition, it should be involved in the creation and operation of one-stop centers for the opening of a business, the licensing of a business, import licenses, etc., where all of the necessary government services will be provided. Without the creation of a designated unit for this purpose, there will be no long-term commitment by the government to reducing bureaucracy and improving regulation. The most appropriate organizational location for the unit would be in the Ministry of Finance or the Ministry of the Economy. Reducing the bureaucratic burden can close a significant portion of the gap in the effective price of capital in Israel.

There are voices heard in public discourse and also among economists that are calling for a significant increase in social expenditure through the raising of taxes and government expenditure as a percentage of GDP to levels common in Western Europe. We believe that in view of the level of per capita GDP in Israel, which is significantly lower than in the benchmark countries, and given the size of defense expenditures, this issue is not a top priority. In our opinion, the vision of growth (enlarging the pie) with emphasis on an increase in productivity per hour worked, particularly in industries with low productivity and wages, should be the basis for economic strategy. These factors, together with fixing the size of real defense expenditure (which will result in a declining proportion of GDP over time, as occurred over the past 10 years) will create the sources for the improvement of social services in the future. Apart from the investment in public infrastructures and in particular transportation infrastructures, the government should maintain its current expenditure level at about 40 percent of GDP, in parallel to a decline in the proportion of defense expenditure and interest payments within GDP. This policy will enable the government to increase social welfare expenditure which focuses on the improvement of education, employment skills and health for the entire public, and also supports the population that is outside the labor force.

Aaron Institute for Economic Policy

In the name of Aaron Dovrat z"l

The vision of the Aaron Institute for Economic Policy is to sustain economic growth and social strength in Israel, by researching, modelling and developing modern, innovative and up to date strategies and policy tools for the Israeli economy, based on up-to-date global knowledge.

All modern economies aim for economic growth, achieved through employment increase and a rise in workers' productivity. The Aaron Institute conducts economic research that yields proposals for innovative policy tools and reforms for promoting growth, employment and productivity. The goal of policy research is to influence monetary and fiscal policy, as well as to formulate long-term plans for economic and social issues and contribute to the narrowing of social gaps. The institute aims to affect professional discourse, spur discussion based on credible information and socio-economic research, which will ultimately provide tools that will support a growth path and create social resilience in Israel.

The institute's main aim is to develop policy strategies that eliminate weaknesses and empower the strengths of the Israeli economy. We propose broad reforms as well as policy changes to particular industry sectors. In this framework Israel's relative advantages in technologic innovation and advances in the public and services sectors can be maximized. At the Aaron Institute, we crucially define quantitative goals while involving some of the countries' best economists in research and policy paper discussion meetings.

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