International Journal of Emerging and Transition Economies
Vol. 6, No. 1-2, 2013, 45-55

FACTORS OF ISRAELI ECONOMIC DEVELOPMENT

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ABSTRACT

This article focuses on the sources of Israeli economic success. There were two main sources of Israeli success. Firstly, a large inflow of funds from abroad, mainly from the Jewish diaspora, enabled consecutive governments to make huge investment outlays. Secondly, effective integration of immigrants into social life provided the economy with highly qualified specialists. Traditionally, an important role in the economy of Israel is played by the financial sector and tourism. The defense industry, electronics industry and gem-cutting (in which Israel is the world undisputed leader) occupy a prominent position in the Israeli economy. An important factor that propels the Israeli economy is innovation.

Keywords: *Tourism, Innovation, Financial sector, ICT sector, Defense industry*

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INTRODUCTION

In the 1990s Israel became the most important high-tech center in the Middle East. It has a modern economy and infrastructure built almost from scratch after gaining independence in 1948. It is the highest expenditures on research and development (4.5% of GDP) that sets Israel apart from other OECD countries (it has belonged to the OECD since 2010). Innovative companies are engines of the Israeli economy. The country is the world leader in the production of armament, military equipment and gem-cutting. This article focuses on the sources of Israeli economic success.

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GEOGRAPHIC, POLITICAL AND SOCIAL BACKGROUND OF THE ISRAELI ECONOMY

Israel is a small country with an area of 22 thousand km2, located on the south-eastern shore of the Mediterranean Sea, with a population of almost 8 million people. 75% of inhabitants are Jewish and 20% are Arabs. In Israel, there are two official languages, which reflects the ethnic structure of the country – Hebrew and Arabic. Israel is a country of Jewish immigrants coming from all over the world. 45% of the adult population has a university degree, which contributes to a high level of human capital in this country. The Israeli biggest cities are: Jerusalem with a population of 750 thousand people (however, most countries do not recognize Israeli sovereignty over this city), Tel Aviv with a population of 400 thousand citizens (the country's economic hub) and a major seaport Haifa with 270 thousand citizens.

Contemporary Israel has been a sovereign state for only 65 years, but its history, which dates back to the times of the biblical patriarchs of Judaism: Abraham, Isaac and Jacob, is four thousand years long. The holiest places of Judaism and Christianity are located within the borders of present-day Israel. This attracts thousands of pilgrims and tourists every year.

Modern Israel is a secular state, but it is religion that plays an important role in its social life. Apart from Jews, Muslims, Christians, Druze and the followers of other religions live in Israel. As far as the political system is concerned, Israel is a republic with an unicameral parliament, a prime minister as head of government and an elected president. The state of Israel has a disadvantageous geopolitical location and has been at war with the Palestinian Authority. The country is also conflicted with the Arab world (except Jordan) and Iran. This obstructs trade with most countries in the Middle East and hinders tourism and transport of goods by land to other countries.

Israel's territory includes the fertile and densely populated coastal lowlands, crossed by tectonic faults and cracks upland areas and the Negev Desert. In Israel, there exists a varied climate: the Mediterranean, semi-arid climate, the desert climate and the tropical climate.

Israel suffers from water scarcity and has natural resources such as gravel, calcium, gypsum, rock salt, potassium salt and phosphates, which are no significant. On the shelf of the Mediterranean in recent years rich deposits of natural gas have been discovered, which are intended to be exploited – with the help of Gazprom – and then, after the liquefaction of gas, to be exported by sea.

ISRAEL'S ECONOMIC DEVELOPMENT

The first five years after gaining independence (1948–1953) posed many difficulties to the Jewish economy such as the problem of the absorption of thousands of immigrants coming from all over the world, which resulted in high inflation and unemployment. However, thanks to new economic policy adopted by the government, which embraced such actions as radical devaluation of the Israel pound, cuts in public expenditure and partial liberalization of prices, in 1954 dynamic economic growth was initiated (Wolffsohn, 2007). Over the next 20 years the Israeli economy GDP grew by ten percent a year, which was accompanied by a large influx of immigrants. Neither the neighborhood of hostile states surrounding Israel nor wars and considerable military expenditure held back socio-economic development and construction of new infrastructure. As a result, Israel underwent a transformation from an agricultural country with elements of the centrally-planned economy (cooperatives in agriculture and the influential trade-union movement) to an industrialized country with a conspicuous presence of the high-tech sector. This transformation was perceived as an "economic miracle". In fact, there were two main sources of Israeli success. Firstly, a large inflow of funds from abroad, mainly from the Jewish diaspora, enabled consecutive governments to make huge investment outlays. Secondly, effective integration of immigrants into social life provided the economy with highly qualified specialists.

The oil crises of 1973 – 1974 and 1979 – 1980 brought a slowdown to the economies of most developed countries and to the Israeli economy as well. GDP growth slowed to 3.8% per annum. In the 1980s it was further reduced to the rate of 3.1%. However, over the next decade GDP increased gradually to more than 5%, amounting to 7.7% in 2000.

Within the next years, till the beginning of the financial crisis in 2008, the Israeli economy grew by 4 – 5% per annum, which was 2% more than the average for the most OECD countries. In spite of the fact that the financial crisis slowed down economic growth, Israel was one of the few developed countries whose GDP increased in 2009 (0.7%). Over the years 2011 and 2012 Israel was brought back to the path of dynamic growth. In 2011 GDP grew by 4.8%, whereas in 2012 by 3.2% per annum (see table 1).

GDP per capita in Israel stands at 31 thousand USD (PPP), which represents 84% of the average for OECD countries. In relation to GDP, the level of government expenditure declined from 72.8% in 1981 to 44.3% in 2011, which reflected the rate in the U.S., but was far less than the average for the euro area (50.7%).

The thing that sets Israel apart from most other developed countries is the low unemployment rate, which in 2011 amounted to only 5.6%. What is more, the investment climate in Israel is commonly appreciated. According to the Global Competitiveness Index of the World Economic Forum, Israel occupies 26th place among 139 countries classified and according to the Index "Ease of doing business" 36th place among 183 countries classified (2012) (Israel Wirtschaft und Umwelt, 2013).

Table 1: Main Israeli Economic Indicators (2009-2011)

Specification	2008	2009	2010	2011*
GDP growth (in %)	4.4	0.8	4.8	4.8
GDP per capita (in thousand USD)	29.5	29.4	30.2	31.0
Inflation rate (in %)	3.8	3.3	2.7	3.2
The unemployment rate	6.1	7.6	6.7	5.6
Exports of goods and services (in billion USD)	57.2	45.9	55.7	62.5
Imports of goods and services (in billion USD)	64.4	46.0	58.0	70.8
Foreign exchange reserves (in billion USD)	42.5	60.6	70.9	78.9
Budget deficit (% of GDP)	2.1	4.1	no data	3.0
Public debt (% of GDP)	78.0	80.0	74.6	74.0
Foreign debt (in billion USD)	86.1	86.8	106.1	112.0
Foreign direct investment in Israel (cumulative value in billion USD)	56.9	58.8	77.8	82.8
Israeli foreign direct investment abroad (in billion USD)	53.7	55.0	64.9	68.9

*- estimates

Source: Ministerstwo Gospodarki, 2012.

THE STRUCTURE OF THE ISRAELI ECONOMY

The service sector accounts for 65% of Israel's GDP, the share of industry in GDP is 32%, whilst the share of agriculture amounts to less than 3%. Thanks to an efficient system of artificial irrigation, the lack of water in Israel does not impede intensive agriculture. The government pays a lot of attention to the development of agriculture, introducing policies supporting this sector. Almost half of the irrigated land area and one-third of dry-land farming belong to collective farms, of which there are two types. Those where private property is replaced by collective property are called kibbutzim, whereas those based on private property and the system of cooperatives are called mashavim. Both kinds of collective farms supply 40%

of the country's agricultural production and export goods worth annually 1.5 billion USD. Israel is an important producer of citrus fruits, vegetables and flowers, used both for the domestic market and for export. Also, well-developed inland, inshore and deep-sea fisheries play an important role in food production.

The service sector accounts for 82% of employment and 66% of GDP. Among the several service-sector industries, it is tourism that plays a significant part in Israel's socio-economic life. As a tourist destination, Israel is characterized by numerous attractions and advantages. These include a favorable climate, varied landscape, beaches, natural curiosities and the Dead Sea, the world biggest depression. All this is conducive to the development of domestic and international tourism. However, the most outstanding tourist attraction is the place itself – the cradle of the three monotheistic religions, whose cultural heritage permeates each other.

In 2012, Israel was visited by 3.5 million foreign tourists and pilgrims – mostly from the U.S. and Russia. The number of domestic tourists was even greater. Their tendency to travel around their own country is well known. The tourism industry accounts for 7.5% of total employment (AHK, Deutsch – Israelische Industrie – und Handelskammer, 2012).

Traditionally, an important role in the economy of Israel is played by the financial sector, in which banks take center stage (more than a 65% share in the assets of the Israeli financial system). Capital-market reforms that have been carried through in recent years have only slightly weakened the position of the banks. There are some general features that characterize the Israeli bank system: substantial concentration, weak competition, excessive employment and high fees (Izrael chce zwiększyć, 2012). Assets of all the banks in Israel amount to 1122 billion NIS and represent 138% of GDP. Branches of foreign banks have a 5% share of the banking services market. Israeli banks are represented by 1259 branches with employment level of almost 50 thousand workers. Israel's two largest banks have more than 50% of all bank assets. The rest of the banking system consists of three independent banks and four branches of foreign banks. Israel's largest bank – Bank Leumi Le Israel – employs 13.3 thousand people, has 322 branches and the value of its assets is 328 billion NIS (2010). Israel's second largest bank – Bank Happoalim – employs 13.9 thousand people, has 295 branches and its assets are worth 321 billion NIS (2010) (IMF, 2012). If we turn to three other Israeli banks, we get a 95% share of the assets of all the banking system. The global financial crisis did not affect the Israeli banks. Thanks to strict banking supervision and good legal regulations in their portfolios, there were not any toxic papers.

The Israeli authorities intend to break up a group of five banks dominant in the banking system of the country, hoping that this will help to enrich the range of products offered by banks, increase their quality and lower their costs.

Smoking chimneys and stacks of environmentally disruptive industrial waste disappeared from the industrial landscape of Israel a long time ago. In the Israeli industrial structure dirty industries were replaced by industries based on modern technologies and scientific output of many research and development Institutions such as the Hebrew University, The Israel Institute of Technology (Technion) and Weizmann Institute of Science. Thus, the ICT industry, which embraces companies engaged in the production of goods allowing electronic recording, data processing, transmission and playing back information, is gaining in importance. Apart from ICT, there are also other industries, such as electronics, chemicals and the pharmaceutical and electrical industry. However, the importance of the textile and food industry has declined. Traditionally, the defense industry and gem-cutting (in which Israel is the world undisputed leader) occupy a prominent position in the Israeli economy. Israel is also worldwide known as the producer of high quality medical equipment, laser equipment, industrial control systems, solar power equipment, devices for desalination and many other capital and consumer goods.

Currently, the Israeli economy – in contradistinction to the first decades after gaining independence – is strongly dominated by the private sector. In spite of the fact that the economy relies mainly on small and medium-sized enterprises, primarily large Israeli companies are well known in the world. The largest are the following companies or groups of companies:

- Tewa Pharmaceutical Industries Ltd.– the pharmaceutical industry
- Bazan Oil Rafineries – oil refineries, production of polymers and aromatics
- Osrae Corporation – oil refineries, production of fertilizers
- Bezeg – telecommunications service provider
- Delek Group – energy, real estate, trade, investment funds
- Elbit Systems – producer of electronic systems for the army
- Israel Aerospace Industries – military equipment and armament
- Amdocs – IT and telecommunications

INNOVATION AS THE ENGINE OF ECONOMIC DEVELOPMENT IN ISRAEL

An important factor that propels the Israeli economy is innovation. It is a result of a high level of human capital, large amounts of money spent on research and development and the state's support for research useful to the economy and high-tech companies engaged in such sectors as IT, telecommunications, defense, biomedicine, biotechnology, nanotechnology, etc. Since its inception in 1948, Israel has received more than 3 million immigrants, including nearly 1 million from the former Soviet Union, many of whom were physicists, engineers, doctors and specialists in other fields. The influx of well-educated Jews from around the world contributed, to a large extent, to an increase in the number of university graduates – currently 45% of the Israeli citizens have a university degree.

Among the OECD countries, Israel spends most on research and development – it amounts to 4.5% GDP. As many as 140 people per 10,000 population are engaged in R&D work for industry, which makes Israeli society one of the most innovative in the world (Broszura informacyjna eksportera, 2013). Critically, 80% of the expenditure on R&D is provided by the private sector, especially by venture capital funds. The second, most important source of financial support is the government's programme designed to spur the growth of new companies.

Israel ranks second, after the U.S., in terms of the number of companies listed on the NASDAQ. In many areas, Israeli companies have the best technology in the world, for example in the field of seawater desalination, wind and solar energy, the production of specialized armament and especially in the field of IT and telecommunications. Research on replacing conventional cars with internal combustion engines with vehicles powered by electricity is deeply advanced in Israel. Now Israel has the greatest number of hybrid vehicles in relation to the total number of cars.

The needs of the domestic arms industry that were a direct result of the Six Day War in June 1967 encouraged the Israeli economy to focus on innovation. France, as the largest supplier of weapons to Israel, imposed an embargo on arms exports, including combat aircraft. As a result, Israel had to develop its own arms industry in the field of production of tanks, missiles, aircraft and other military equipment. After the next Israeli-Arab conflict in 1973, Israel intensified its efforts to create the defense industry based on state-of-the-art technologies. Innovations developed for the needs of the arms industry percolated from the military to the civilian sector. Frequent armed conflicts and terrorist attacks contributed to search for new innovations in the medical industry (Hofman, 2002). Thanks to modern technological advances, Israel has become a very attractive place for the world-famous IT companies, such as IBM, Intel, Motorola, Microsoft, Telekom, Siemens, Mitsubishi (all of which have located their subsidiaries there).

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ISRAEL'S ECONOMIC FOREIGN RELATIONS, INCLUDING THE POLISH

As a country with a small internal market and lack of natural resources, Israel is dependent, to a large extent, on foreign economic cooperation. It belongs to such important international economic organizations as the World Trade Organization (WTO), the International Monetary Fund (IMF), the Organization for Economic Cooperation and Development (OECD). All this shows that Israel is widely open to the world. What is more, in 1995 the country signed an association agreement with the European Union, which came into force in the mid-2000. In addition to the EU, Israel has free trade agreements with the United States, Canada, Mexico and Turkey.

The fact that Israel is open to the world is evidenced not only by its belonging to many important international organizations but also by a high share of exports in GDP (43%). In 2011, the value of exports amounted to 62.5 billion USD, whilst the value of imports to 70.7 billion USD. In addition, Israel is an important exporter of services. As regards the balance of payments, Israel has been a surplus country for many years. The United States is the most important Israeli trading partner in both exports and imports. As for exports, China (including Hong Kong), Belgium, India, the United Kingdom, the Netherlands and Germany occupy further places on the list of Israel's most important partners. As for imports, China, Germany, Belgium, Switzerland and Italy are Israel's most important partners after the United States.

Goods belonging to the high-tech sector prevail in Israeli exports. Israel is the world's largest exporter of diamonds and a very important supplier of software and weapons. In addition, the country exports fruits and vegetables, but their share in global exports is decreasing. Crude oil, machinery, transport equipment, military equipment and gems are the most important items on the list of Israeli imports.

For geopolitical reasons, foreign direct investment in Israel is subject to fluctuation. For example, in 2011 they amounted to 8 billion USD, which was 60% more than a year before. Cumulative FDI in Israel reached 82.5 billion USD (see table 2). The largest influx of capital came from the United States and concerned the high-tech industry.

The value of Israeli foreign direct investment is slightly smaller and in 2011 amounted to 68.9 billion USD (cumulative).

Table 2: Foreign Direct Investment in Israel, 2005-2011, (in billion USD)

Years	2005	2006	2007	2008	2009	2010	2011
FDI	4.8	15.3	8.8	10.9	4.4	5.1	8.0

Source: Bank of Israel.

The Israeli-Polish trade relations are regulated by the association agreement signed between Israel and the European Union, which means that economic cooperation is based on the principle of free trade. However, there are some restrictions in the form of duty and quotas concerning some goods from the agri-food sector. As far as access to the market is concerned, a kosher-food requirement is another restriction. This is a result of the religious character of Israel.

Trade flows between Poland and Israel are not high and do not exceed 800 million USD. In 2011, exports reached 394 million USD and imports 370 million USD (see table 3).

Table 3: Polish - Israeli Trade, 2007-2011, (in billion USD)

Years	2007	2008	2009	2010	2011*
Exports	213.7	332.5	375.8	351.8	394.0
Imports	329.6	419.4	295.1	327.1	370.2
Balance	- 115.9	- 86.9	80.7	24.5	23.8

*- preliminary data

Source: Ministerstwo Gospodarki, 2012.

Polish-Israeli trade (both exports and imports) focuses on three main groups of products: engineering-industry products, chemical products and agri-food articles. Polish exports to Israel include means of transportation, car accessories, batteries, apparatus for wired telephony and television, beef meat, chocolate, sugar, cereal products, cleaning products, paper and cardboard. By contrast, Polish imports from Israel include pesticides, medicines, cosmetic products, phosphates, turbojet and turboprop engines, integrated circuits, printing machinery, medical equipment, arms and ammunition, textile, fruit juices, vegetables and other products.

Most of the Israeli investors operating in Poland invest their capital via companies domiciled in the U.S. or Western European countries. The value of Israeli direct investment in Poland is estimated at 2 – 5 billion USD. There are many Israeli companies that are commonly recognized in Poland, for example Egged, a transport company, Super Pharm, a pharmacy chain, TEVA, a pharmaceutical company, Cinema City, Tadi Pol, a telecom, and others. Investing in real estate and renewable energy is also very popular (Ministerstwo Gospodarki, 2012).

CONCLUSION

Israel is a country with a well-developed industry and modern agriculture. It is also an important center for international tourism. Among the OECD countries, Israel stands apart for its highest expenditure on research and development, which amounts to 4.5% of GDP. In the last two decades, it has become an important center of high-tech in the Middle East. Of great importance to the economy was the influx of thousands of scientists and highly skilled professionals from the former Soviet Union and billions of financial aid coming from the United States and Jewish organizations from all over the world.

Israel's economy is based on innovation-generating sectors. It is the world leader in the production of arms, military equipment and gem-cutting. What is more, Israel has great achievements in the field of biomedicine, biotechnology, information technology and telecommunications. There are also modern technologies for environmental protection and agricultural in use. The high-tech products dominate Israeli exports. Due to a small internal market and the lack of sales to neighboring Arab states, Israeli companies are forced to export their products to overseas countries such as the USA and China.

REFERENCES

AHK, Deutsch – Israelische Industrie – und Handelskammer (2012). Retrieved March 8, 2013 from the World Wide Web: http://www.ixpos.de.

Broszura informacyjna eksportera po rynku Izraela i Autonomii Palestyńskiej (2013). Retrieved March 8, 2013 from the World Wide Web: http://www.kig.pl/files.

Hofman, S. (2002). Israel Wirtschaft: Zugpferd Hochtechnologie. Geographische Rundschau, 2.

IMF (2012). Israel: Financial System Stability Assessment. April 2012. Washington, DC.

Israel, Wirtschaft und Umwelt (2013). Retrieved March 7, 2013 from the World Wide Web: http://www.auswaetiges-amt.de.

Izrael chce zwiększyć konkurencję między bankami (2013). Retrieved March 8, 2013 from the World Wide Web: http://www.obserwatorfinansowy.pl.

Ministerstwo Gospodarki (2012). Państwo Izrael. Informacja o stosunkach gospodarczych z Polską. Retrieved May 21, 2012 from the World Wide Web: http://www.mg.gov.pl.

Wolffsohn, M. (2007). Izrael Geschichte, Politik, Gesellschaft, Wirtschaft, VS Verlag für Sozialwissenschaften. Wiesbaden 2007.