### **EXECUTIVE SUMMARY**

# REVENUE-BASED AND DECOUPLED PAYMENTS AS PRODUCER SUPPORT INSTRUMENTS FOR ISRAELI AGRICULTURE

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#### **About the Koret-Milken Institute Fellows Program**

The Koret-Milken Institute Fellows Program accelerates Israel's economic growth through innovative, market-based solutions for long-term economic, social, and environmental issues. The program focuses on connecting government, philanthropic, and business resources that are vital to national growth and development.

Directed by the Milken Institute Israel Center, the Koret-Milken Institute Fellows Program awards annual fellowships to outstanding graduates of Israeli and international institutes of higher education. Fellows serve yearlong internships at the center of the nation's decision-making—the Knesset, government ministries, and other Israeli agencies—and aid policymakers by researching and developing solutions for various economic and social challenges.

In addition, fellows craft their own policy studies aimed at identifying barriers to economic and employment growth in Israel. The fellows' studies, carried out under the guidance of an experienced academic and professional staff, support legislators and regulators who shape the economic reality in Israel. The program offers the ultimate educational exercise, combining real-life work experience with applied research five days a week.

Throughout the year, fellows receive intensive training in economic policy, government processes, and research methods. They acquire tools for writing memorandums, presentations, and policy papers, and they develop management, marketing, and communication skills. The fellows participate in a weekly workshop, where they meet senior economic and government professionals, business leaders, and top academics from Israel and abroad. They also participate in an accredited MBA course that awards three graduate-level academic credits that are transferable to other universities in Israel. The course, which focuses on financial and economic innovations, is taught at the Hebrew University of Jerusalem's School of Business Administration by Professor Glenn Yago, Director of the Milken Institute Israel Center and Director of Capital Studies at the Milken Institute in California.

Fellows Program alumni can be found in senior positions in the public and private sectors. Some serve as advisers to government ministries while others work at private-sector companies or go on to advanced studies at leading universities in Israel, the United States, and Great Britain. Within the program's framework, more than 80 research papers have been published, catalyzing reforms, reducing barriers, bringing about economic growth, and improving the quality of life for Israeli citizens.

The Koret-Milken Institute Fellows Program is nonpolitical and nonpartisan. It is funded by the Koret Foundation, the Milken Institute, and other leading philanthropic organizations and individuals in the United States and Israel.

More about the program: www.kmifellows.org

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Agriculture is an economic sector with unique characteristics because it is influenced by external factors such as weather, demand for food products, and the fact that each country strives to fulfill its production capacity and control the ongoing supply of quality and fresh products. Israel is one of just a few countries in the world in which national security, and not necessarily professional and economic considerations, dictates the location and characterization of agricultural settlement. Thus, farms can be found in geographic locations that do not necessarily maximize the benefits of the specific region such as dairy farms in arid and humid places like the Jordan Valley, Arava and Negev, while wheat grows widely to capture land to preserve open areas. (Avivi, 2011).

In 2011, agriculture accounted for about 2% of Israeli GDP and 1.6% of the country's workforce with the value of agricultural output estimated at NIS 28.4 billion by the Central Bureau of Statistics.

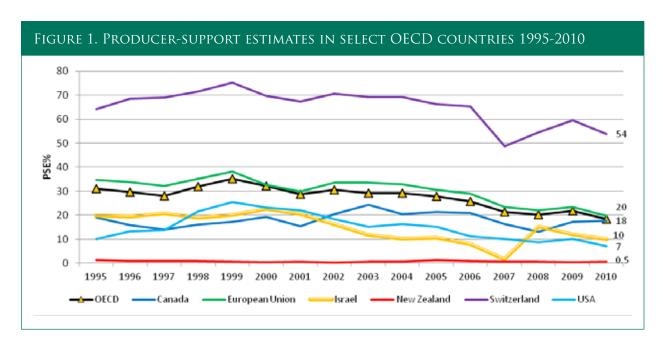
Israel is unique among developed countries in that 94% of agricultural land is state-owned while just 6% is in private hands. Land is administered by the Israel Land Administration (ILA), which distributes land-use rights to farmers for varying periods. Another distinguishing characteristic of Israeli agricultural production is the dominance of co-operative communities, principally the Kibbutz and Moshav. While the co-operative aspects of agricultural production management have gradually been replaced by more privatized management systems, particularly since the mid-1980s, these communities still account for about 80% of agricultural output, according to OECD figures for 2010.

In addition to its economic benefit from food trade, agriculture is a public product given external positive values such as landscape contribution, importance in history and tradition, preservation of biodiversity and protection of species, land preservation and ecological benefits such as permeation of rainwater, absorption of wastewater, and air-quality improvement. This study examines policy instruments in agricultural support worldwide in order to recommend an effective policy for Israeli agriculture.

The comparisons between the various worldwide support instruments were adjusted by two common nomenclature indicators -- the PSE from the Organization for Economic Co-operation and Development and the boxes model from the World Trade Organization (WTO). The two indicators were developed to create common ground to compare countries.

The Producer Support Estimate (PSE) is an indicator of the annual monetary value of gross transfers from consumers and taxpayers to support agricultural producers, measured at farm-gate level, that arise from policy measures, regardless of their nature, objectives, or impact on farm production or income. The PSE includes implicit and explicit transfers.

The percentage PSE is the ratio of the PSE to the value of total gross farm receipts measured by the value of total farm production (at farm-gate prices), plus budgetary support.



Source: OECD database, 2012.

The WTO, meanwhile, classifies the term subsidy into "boxes." Amber for limited subsidy; blue for subsidy that limits production; and green for unlimited subsidy. The WTO espouses reducing the limited, or amber box, subsidies, but does not limit the provision of the unlimited, or green box, subsidies.

- Amber box All domestic support measures considered to distort production and trade (with some exceptions) including measures to support prices or subsidies directly related to production and quantities.
- Blue box Designed to reduce distortion, any support that would be in the amber box is placed
  in the blue box if the support also requires farmers to limit production.
- Green box Green box subsidies must not distort trade or, at most, cause minimal distortion. They must be government-funded (not by charging consumers higher prices) and must not involve price support. They tend to be programs that are not targeted at particular products, and include direct-income supports for farmers that are not related to (are "decoupled" from) current production levels or prices. They also include environmental protection and regional development programs.

While different at their level of development, the attributes of the agricultural sectors, the level of support offered, etc., developed OECD countries and emerging economies share a common agenda regarding political interests in their overall supply of safe and cheap food, reasonable income for farmers and food producers, efficient food production, and competitive and sustainable use of natural resources.

This study attempts to tailor instruments used in these countries to the needs of Israeli agriculture.

Income insurance payments and decoupled payments represent creative options as policy instruments that might accommodate the needs of Israeli agriculture.

**Insurance Income** is based on the actual agricultural "revenue-based payment" model in the United States. It provides farmers with protection from crops' loss of income, regardless of the reason (change in price rates, loss of productivity or a combination). Although classified under the amber box (limited subsidy) this study assembled a model that allows the use of income insurance in compliance with rules of the WTO to allow classification under the green box (unlimited subsidy). The model has a number of problems in implementing enforcement and regulation, but is suitable for agricultural crops and certain sectors of agriculture.

**Decoupled payments** are the main form of support in the EU and Switzerland today. They also have a minimal impact on production decisions and the use of inputs. In practice, an agricultural producer receives a fixed sum of money for each dunam owned. The amounts of transfers in favor of direct subsidies improve and preserve the food production capacity in order to cope with the increasing demand for food and to maintain economic activity in less populated areas. Moreover, the subsidies are intended to help farmers preserve agricultural land. In some countries, this support is given for environmental and ecological activities and sometimes without the need for production. This support is classified under the green box of the WTO.

In this part of the study, the decoupled, or direct-payment system, was based on quantifying the benefits and positive externalities of Israel's olive-oil industry. The olive-oil sector was chosen mainly due to its importance in Jewish tradition and the Israeli landscape, as well as the fact that the olive tree is resistant to dry conditions and the soil's salinity. It also is a significant source of income for the minority population.

This study shows the total external contribution of the olive-oil sector in Israel quantified at NIS 204.8 million when external environmental benefits to the citizens of Israel a year are estimated at NIS 29. The ultimate goal is to provide direct support to the olive-oil sector on the basis of economic benefits from the industry. The value of agricultural output from the olive-oil sector for 2011 was estimated at NIS 194 million, according to the Central Bureau of Statistics.

Agriculture has many "public values" obtained under cultivation and the creation of green areas for the benefit of residents. These contributions are not due to the economic value of the product itself, but rather reflect other influences such as landscape values, social values and ecological values. Identifying policy instruments of support is significant because it shows open areas, and agriculture in particular, as "public goods" that need to be guaranteed for future generations.

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