September 2020

Policy Brief

Thinking Differently about the Israel Citizens Fund

Knesset Special Oversight Committee on the Israel Citizens Fund

Acknowledgments

This policy brief is based upon the testimony (September 8, 2020) of Prof. Glenn Yago to the Knesset Special Committee on the Israel Citizens Fund (previously Knesset Special Oversight Committee on the Fund to Regulate State Revenues from Levies on Gas and Oil Profits) derived from prior and ongoing research at the Jerusalem Institute's Milken Innovation Center. We are grateful to the Special Committee's Knesset members and staff for their invitation. Special thanks for additional help on research and editing to Steven Zecher and Leora Shoham-Peters of the Milken Innovation Center as well as to Dinah McNichols and Mike Bailey.

About the Milken Innovation Center

Milken Innovation Center's work focuses on developing market-based solutions to Israel's greatest challenges as it transitions from a start-up nation to a global nation. Our goal is to accelerate economic growth, build human capital, and cement Israel's role as a pioneer in addressing global challenges in water, food, education, health, and energy with solutions that others can replicate.

The Blum Lab for Developing Economies is part of the global network of Blum Centers for Developing Economies based at the University of California-Berkeley enabling interdisciplinary problem solving in key areas of energy, health, technology, food, water, health and other challenges to sustainable development. From more information: www.milkeninnovationcenter.org

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Background

In December 2011, at the request of the National Economic Council, we published the research recommendations of a Financial Innovations Lab on the formation and design of a sovereign wealth fund (SWF) for Israel. Participants at the Lab included representatives from the National Economic Council, the Ministry of Finance, the Bank of Israel, and international institutional investors, including sovereign wealth funds, pension funds, insurance companies, and asset managers, and academic researchers on sovereign wealth funds

We looked at the operational structures and investment strategies of numerous sovereign wealth funds, and noted that many more would likely appear on the landscape. And they have. Back then, the Sovereign Wealth Fund Institute (SWFI) counted 56. In 2020 it profiles 122.[1] Some countries—among them Sweden, Finland, China, Singapore, Russia, Chile, Mexico, Australia, Canada, and the US (if one counts SWFs held by 13 US states and a US university)—have more than one SWF. All told, the SWFI names 17 in Europe, 17 in North America, 18 in Africa, 23 in Asia, 8 in Australia and the Pacific, 14 in Latin America, and 25 in the Middle East.

Our report, **Structuring Israel's Sovereign Investment Fund: Financing the Nation's Future**, was discussed widely in the financial press, and in subsequent government working teams and the Knesset hearings that led to passage in July 2014 of the Israel Citizens Fund Act to create Israel's first sovereign wealth fund.

The principles behind the Israel Citizens Fund (ICF) are rooted in the conviction that the government and its constituents are entitled to equity in the wealth that state institutions helped create. The ICF will provide the resources to build national wealth and lessen the economic risks that can sow inequality, weaken societal cohesion to the detriment of the country's essential social and human capital, and threaten Israel's growth.

Simultaneously, it can address ongoing threats of currency appreciation ("Dutch Disease") by investing in new markets utilizing new waves of development and impact technologies providing sustainable development solutions based on the U. N. Sustainable Goals which were first declared in 2015. Subsequent supporting Government of Israel decisions relating to these new markets and SDGs followed quickly (No. 1605, Latin America in 2014; No. 1584, Africa in 2017; No. 2783, India, 2017, and No.4021, International Development, 2018).[2]

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[1] Sovereign Wealth Fund Institute, 2020: https://www.swfinstitute.org/profiles/sovereign-wealth-fund. See also, Bernstein, Shai, Josh Lerner, and Antoinette Schoar. "The Investment Strategies of Sovereign Wealth Funds." *Journal of Economic Perspectives* 27, no. 2 (Spring 2013): 219–238.

[2] See recommendations on our Lab Report: Structuring Israel's Sovereign Investment Fund: Financing the Nation's Future, 2011: 31-32.

The SWF questions we addressed in 2011 related to vast revenues anticipated from natural gas and other natural resources, as described in the Sheshinski I and II reports.[3] At the time, it was thought that the injection of these revenues could actually double Israel's trade surplus and usher in enormous economic opportunity. There was also concern at the Bank of Israel and elsewhere that this windfall would lead to currency appreciation and kill Israel's high-tech export industry, the goose that laid our golden egg, and cripple the most important driver of our economic growth: our knowledge capital.

A sovereign wealth fund, argued experts from the IMF and OECD to the Central Bank, would shield local currency from too rapid appreciation and local markets from rising prices, and reduce pressure on the Central Bank to buy foreign exchange reserves to offset inflating shekel values tendencies.

We didn't recommend a final design for the new sovereign wealth fund, but our Lab report did lay out optional legal and governance frameworks; potential trade-offs between investment strategies; best practices for governance and asset management; and criteria for performance evaluation. We still stand by our conviction that a sovereign wealth fund can achieve dual aims: (1) serving as an investment vehicle to build long-term emergency savings; and, once the Fund achieves benchmark returns, (2) using its profits to target other policy objectives.

Our report addressed possible diversification of the capital base, and we hold firm in this recommendation to expand the Fund's capitalization beyond natural gas and other resource commodities to include non-commodity government-controlled assets as well as investment activity. Below, we will detail the evolution of sovereign wealth funds, from their early focus on income from natural resources to their current status as diversified, risk-managing wholesale finance facilities.

The ICF has yet to launch, but it's equally important to look at what has happened in the past decade that makes our recommendations even more relevant today.

Israel now holds $146 billion in foreign exchange reserves, and has spent more than $15 billion alone in recent years buying US dollars to hold down the shekel and keep prices affordable. Had Israel been able to launch the ICF on time, those billions instead could have been invested into domestic growth, not spent at foreign banks. A sovereign wealth fund will render obsolete or minimally mitigate the need for this kind currency "insurance."

[3] Sheshenski I Committee (2011) on oil and gas extraction continued historic level of the 12.5% royalty unchanged. It imposed an oil and gas levy on profits (revenues minus current expenses), but only after recovery of 150% of the amount invested in exploration and developing a project. This is referred to as a recovery factor (R-Factor) of 1.5. The rate of the levy would start at 20% if the R-Factor is 1.5 (recovery of 150% of amount invested) and range progressively up to 60% of the R-Factor reaches 2.3 (recovery of 230% of amount invested). After implementing these measures, the total Government Take (GT) would amount to about two-thirds during the life of a profitable project. Sheshenski II Committee (2014) recommended that firms operating in the mineral extraction sector pay a progressive tax rate starting at 25% once they reach an annual return on investment of 14%. The rate would rise to 42% for a return above 20%. Companies would also pay the government royalties of 5% of their revenue, compared with a variable rate of 2-10% currently. All told, the government would take between 46% and 55% of profits from natural resource companies, up from 23% prior to the Sheshenski Committee recommendations.

The COVID-19 pandemic makes us rethink everything. Israel faces market pressures that may have begun with volatile gas prices but have been exacerbated by the health and economic crises of the COVID-19 pandemic. We have one year before gas revenues to the ICF begin to accelerate, and we should take this time to reconsider, expand, and diversify the Fund's capital base. We will need the ICF as part of our economic recovery.

Back in 2011, we also recommended that the ICF include a platform mechanism capable of supporting strategic investment in emerging-market development, especially for the kinds of technology exports in which Israel specializes and that promote the U.N.'s Sustainable Development Goals (SDGs)—these have been cited in numerous Israel government resolutions in recent years. Today we have the Israel Innovation Authority (IIA), which is perfectly positioned as a mechanism to accelerate Israel technology exports in conjunction with the currently considered Israel Development Finance Institution.

Since its creation in 2016, the IIA has been channeling innovation and startups working in disruptive technologies. It steers incubators, accelerators, investment, and technology transfer, and sets a high priority on finding and forging partnerships between local firms and foreign researchers, businesses, and investors. With a $500 million budget to help bring ideas to life, the IIA has set the stage for mutual trade and growth for Israel and its developing-world partners.

That stage reflects the huge shift in the global trade. The world's advanced economies, who are Israel's traditional trading partners, have seen their markets contract as their populations age and productivity slows. Meanwhile, frontier and emerging markets account for 60 percent of global GDP growth, and some of the fastest growth rates. They will be the key drivers of future global economic growth.

Many of these developing markets are not so distinct or geographically distant from Israel. They share similar histories and scarce resource conditions, and would benefit, as we do, from disruptive technologies in water, agritech, health, and energy alternatives. Investment in external development projects correlates with lower inflationary risk, less risk to the ICF capital base, and greater competitiveness for Israel firms and innovation. This recommendation from our 2011 report carries even more urgency today.

Since our report came out, the expected natural gas windfall has lost some of its sheen. Gas prices are at a 30-year low and are expected to remain low through 2021, and although gas revenues from the Eastern Mediterranean basin will still produce a significant revenue stream to the ICF, there is a safe way to diversity the Fund as a hedge against price volatility. Opening the Fund to strategic development investment will enable it to mature into a wholesale finance facility, capable of lending to and investing with other large financial institutions, government agencies etc., for funding sustainable impact investments at home and in new markets beyond our borders.

Our report was released for the 90th anniversary of Keren Hayesod's registration in Britain and its initial capitalization in 1921. Founded the previous year in London, Keren Hayesod is, in a sense, Israel's first modern sovereign wealth fund. Chaim Weizmann, Albert Einstein,

Louis Brandeis, Menachem Ussishkin, and financial donors from Europe and the US participated in its founding. We stand on the shoulders of those giants who had the vision to create a sovereign wealth fund for the people, and who seeded funding for Bank Hapoalim and other nation-building transportation, communications, agricultural, and water projects during the pre-State period. Out of these grew the Reading Electrical Facility in Tel-Aviv, the Israel Electric Corporation, Egged, Dead Sea Works, and other mainstays of the modern economy.

In those early days, the fund's capital base was built with remittances from abroad and the "national tax" of KKL-JNF's famous blue fundraising boxes. A century later, and with a sovereign wealth fund of our own, we can build up a self-sustaining and permanent capital base on the bedrock of insights and events in Israel's dynamic history, and identify and create more opportunities in the years ahead.

So What Happened to the Launch?

This Special Committee has reviewed the missteps and foot-dragging, market uncertainties, political decisions and their reversals, and lost opportunities that have delayed the ICF launch. We are grateful to committee members for putting those challenges into focus through these hearings.

Our report in 2011 emphasized the need for independent management of the ICF. And we weren't alone; Central Bank governors and the 2014 ICF Act itself emphasized independence, and placed fund management under the Bank of Israel, not the Ministry of Finance. Yet in no time, we watched regulations set out and then voided, lawsuits and threats of lawsuits, court-ordered divestments—in short, the politicization of not just the extraction of our natural resource wealth, but of the taxes and royalties it could generate.

A partial list of the political risk in the decade since we published our report includes:

- contradictory changes and injunctions related to Israel's gas export policy (2013);
- roadblocks created by Israel's antitrust commissioner over Delek and Noble Energy's growing market power status in the Israel energy market (2014), which led to the company's partial divestments that were later delayed by court objections[4];
- court/government rulings (2016) that prohibited changes to regulations for up to ten years on issues of export, domestic use, and taxes (government take);
- continual coalition turnover that added still more regulatory/political risk to foreign direct investors throughout this period, risk that was further amplified by crashing global gas prices and lower yields;

[4]Both ex-ante and ex-post analysis ensued. Ex-post evaluations of market power on price competition is overcome with pitfalls related to time of decision, market size (Israel versus regional energy market), etc. It wasn't clear that the difference-in-differences analysis was used and multiple methodologies were deployed in these politicized disputes over market size. See F. Ilkovitz and A. Direx, "Ex-post economic evaluation of competition policy enforcement: A review of the literature," DG competition staff paper, European Union, 2015 and Y. Friedman, "The Natural Gas Production Industry—Government Policy Seven years after the "Tamar Discovery," Bank of Israel, March 15, 2016.

- increased reputational risk to Israel from international investors attributable to these delays;
- increased opportunity costs that have delayed the launch of the ICF, and that are now the focus of the important work of this Knesset committee.

The ICF missed its original date, which we expected in 2018, because tax revenues from the natural gas projects hadn't reached the trigger of 1 billion NIS (under the Sheshinski I and II committees). According to the 2014 law, one year after the trigger date, the Fund could distribute 3.5 percent of investment revenues for social, economic, environmental, and educational purposes, based upon proposals the government would submit to the Fund.

In anticipation of the Fund formation, the Bank of Israel made an initial deposit in 2013 of tax revenue into a special account set aside for the Fund. That sum, NIS 459 million, came from the Mari-B Yam Tethys gas field, which was by then depleted with all production halted, in 2012. As we know, that first deposit was also the last. Again, this is due entirely due to unpredictable and politicized regulatory policies that led to court fights and contested tax rulings, and a publicity nightmare at home and abroad.

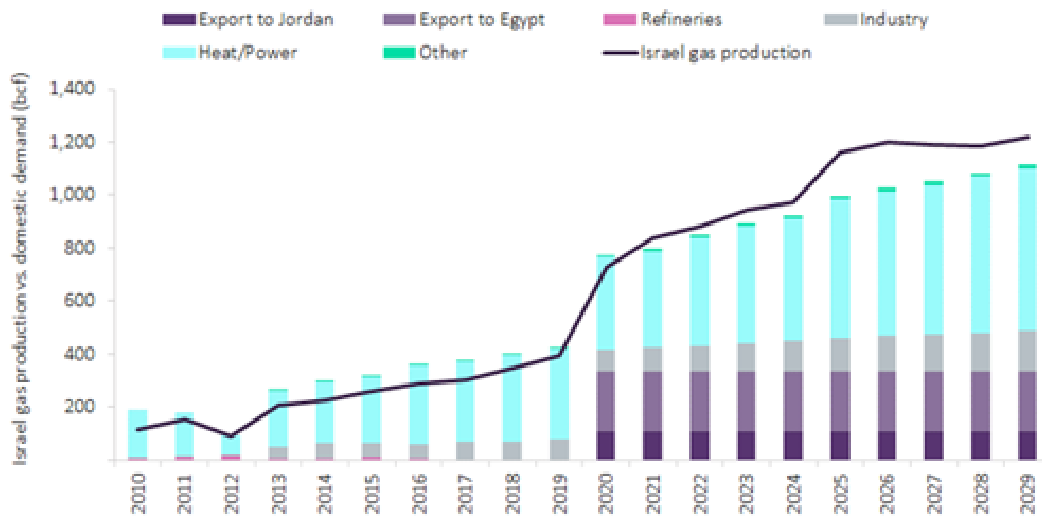
Years later, we have no sovereign wealth fund, we still hedge against currency volatility by buying up other countries' currencies, and COVID-19 spreads uncertainty across the health system and economy.

We Can Use This Time Wisely

The Bank of Israel reported to this Special Committee that the Fund's launch threshold is now expected by the end of 2021. And, as you have heard, the window remains open for course correction. We can launch the ICF on time, and we can use this interval before launch to strengthen its framework to add resilience to its capitalization not only for wealth preservation but also for wealth building.

As the Israel Tax Authority reported to this Committee, revenue inflows into the Fund could be as high as $12–13.4 billion by 2030 (alternative estimates put inflows as low as $4.2 billion, which is still an impressive sum) and could accumulate to $60 billion by 2064. Revenues and the possibility of additional sums from the Dead Sea Works subsidiary of Israel Chemicals (ICL) and other natural resource development are not definite and depend on dispute resolution with the State of Israel, including the potential residual value of ICL if it loses its license for potash extraction. As the figure below suggests, we have the rest of this decade to make sure we can maximize returns to the Citizens Fund. Just as natural gas is a transition fuel to a renewable, low-carbon economy, so too is the ICF an investment facility catalyzing Israel's transition from a startup to a global nation, shaping more regenerative and inclusive markets and home and abroad.

Israel gas production versus domestic gas demand: Export Potential[5]



Source: Off-Shore Technology, 2019

Average annual nominal rates of return for SWFs vary widely, based on their strategic asset allocations. Over the past decade, New Zealand reported the highest returns (15.5 percent), followed by the US State of Alaska (9.7 percent), Norway (7.6 percent), and the China Investment Corporation (5.18 percent).[6] Despite this wide variance, it is reasonable to expect the ICF to average 5–7 percent annual net returns. Even those disappointed by lower-than-hoped-for gas revenues can't scoff at the potential size and impact. Natural gas is still a key transition fuel for low-carbon economies and will be in demand for years to come, and over the next decade, the Fund could reach $14-$24 billion on a compounded basis—a major lever with which to expand stability and growth, and job and income creation.

We continue to discover new natural resource deposits. Past disappointments on gas prices aside, we have every reason to expect that natural resource exploitation will accelerate. Back in 2010, we didn't yet know as much about gas in the Karish North or the likelihood of future discoveries in the Eastern Mediterranean basin. Considering the political risk unleashed since our Lab Report, it's no surprise that Israel's success in attracting other investors to explore and develop reserves was discouraging. There is still considerable promising geology for further discovery in the Eastern Mediterranean basin. Perhaps, acquisition of Noble Energy by Chevron will offer new opportunities. At the time of our 2011 report, there was no public discussion of possible $7 billion EastMed pipeline carrying 10 billion cubic meters of gas to Greece and Cyprus, or linkage with the Poseidon pipeline to carry another 20 billion cubic meters to Europe. Nor did we have the Israel–Jordan national gas agreement ($10.5 billion), the Israel–Egypt agreement ($15 billion), or new and significant finds in Cyprus and Greece.

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[5] Israel Gas supply set to exceed domestic demand and has export potential, Off shore Technology, June 5, 2019.
[6] Andrew Bauer, "How Good Are Sovereign Wealth Funds at Investing Money Made from Natural Resources?" National Resource Governance Institute, June 13 blog post. 2018. https://resourcegovernance.org/blog/how-good-are-sovereign-wealth-funds-investing-money-made-natural-resources.

Additionally, there is further research and development in Israel on renewable natural gas (e.g., anaerobic digesters, biogas recycling, etc.).

These future revenue streams, concentrated and dependent solely on finite resources, make it more important to rethink the ICF framework. Sovereign wealth funds around the world, including in the most advanced economies, are turning to non-commodity revenue sources for their capital base. For example: the UK's Big Society Capital, which is funded by unclaimed bank accounts and Lottery surplus finds, and since 2012 has invested in fund managers, private equity and social banks. Potential government revenue sources also include IP rents, unclaimed assets from the General Fiduciary (Apitropos Klali), and Israel Bond issuances. Revenue streams based on government assets would increase the Fund's size and—again, following the direction of other SWFs—enable it to minimize risk, maximize returns, and ultimately become a self-subsidizing wholesale finance facility that invests in Israel and its developing-market trading partners.[7]

Why is this especially important? To repeat: because of COVID-19, we have to rethink everything to facilitate the post-pandemic recovery—and not just ours, but that of other nations, including current and potential trade partners. The Citizens Fund should be primed for launch next year with a more diversified capital framework and legal mechanisms to take full advantage of the IIA and other incubators and accelerators. With the ICF, we can reboot Israel's lagging productivity, long held down by non-tradable and protected industries, and expand into new revenue sources and markets receptive to our primary assets: disruptive technological innovation and high-value exports in tradable goods and services.[8]

Taking a glass half-full approach, we can say that the previous decade positioned us for a panoramic view and a comprehensive guidebook of risk and opportunity.

Israel's Export-Driven Economy and Dutch Disease Is Real

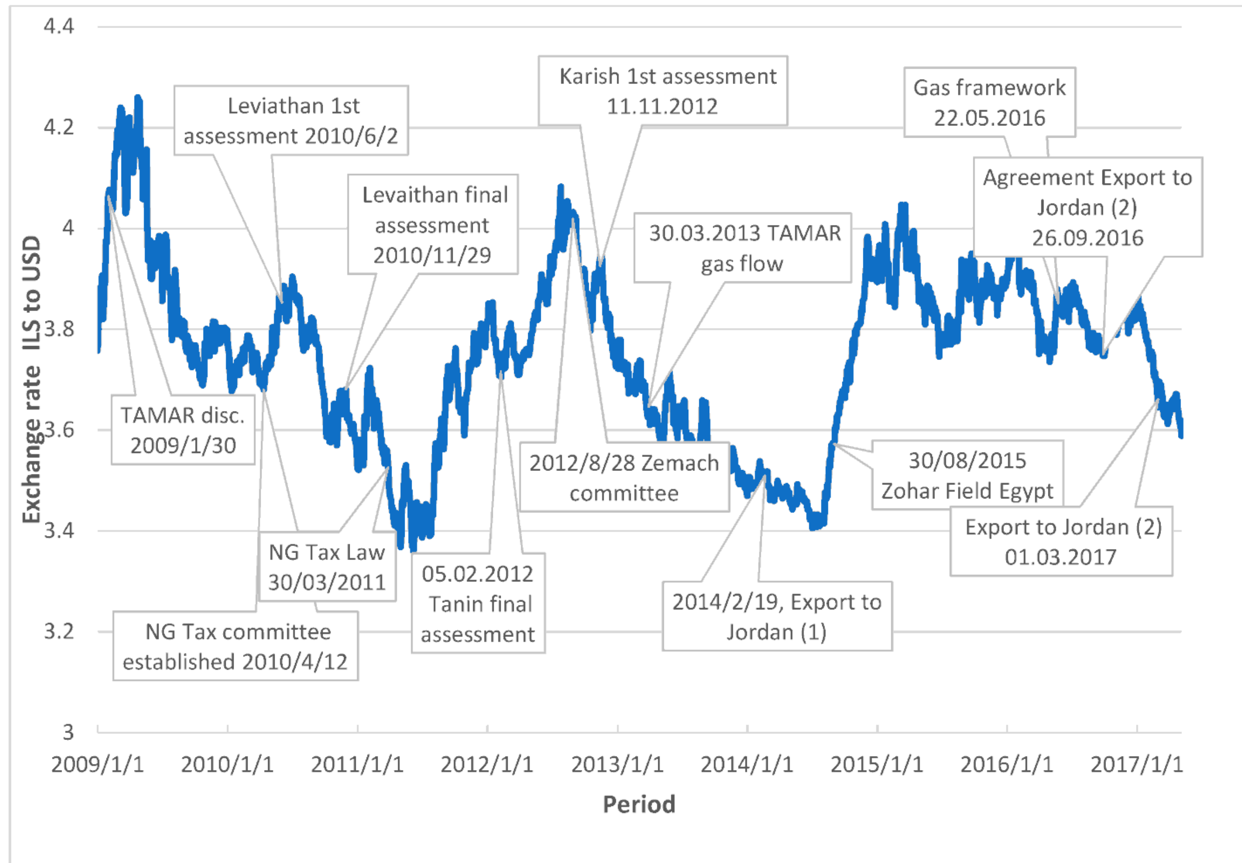
There's no doubt that Dutch disease persists. The most comprehensive and definitive study of this severe economic "disorder" (Palatnik, Tavor, and Voldman 2019) employs event study analysis of fluctuations in the daily ILS–USD real exchange rate for the period 2009–2017. Gas-related news did indeed affect the exchange rate and appreciation of the ILS, as shown in Figure 1; and we should assume that it will increasingly do so as production and trade expand. In fact, starting next year we should expect to see trade balance increases that could over-appreciate the currency.[9] Since the connection of the gas fields in 2013, gas announcements have strengthened expectations for currency appreciation and stronger reactions in foreign currency markets. The research concludes that "the classic symptom of the Dutch Disease—exchange rate appreciation—is already in place, even though the natural gas export has not

[7] Ronald Cohen, *Impact: Reshaping Capitalism to Drive Real Change,* London: Ebury Press, 2020: 166–80.
[8] Gilad Brand, "Why Does the Start-Up Nation Still Have Low Productivity?" Taub Center, Jerusalem, 2018. See also Regev and G. Brand, "Causes of Widening Productivity Gaps between Israel and the OECD: A Multiyear Industry-Level Comparison," State of the Nation Report 2015. Taub Center for Social Policy Studies in Israel; "Raising the Standard of Living in Israel by Increasing Labor Productivity," Bank of Israel special report, 2019.
[9] R. R. Palatnik, T. Tavor, and L. Voldman, 2019. "The Symptoms of Illness: Does Israel Suffer from "Dutch Disease?" *Energies* 12, 2752.

yet reached its expended potential. The role of the sovereign wealth fund in mitigating the foreign currency inflow is of high importance."

In short, Israel should not overlook lessons from the Netherlands and other small countries that mismanaged their natural resource windfalls.

Figure 1. Timeline of natural gas-related events and daily ILS–US$ exchange rate, 2009–2017



Source: Palatnik et. al., 2019

As originally conceived, the ICF remains an important antidote for Dutch disease. A considerable body of empirical research affirms that Dutch disease "is an economic illness easy to catch, difficult to cure."[10] It happens when the accelerated exports in some natural resource or sector, as with natural gas for Israel, causes an in-rush of foreign currency that pushes up the value of the local currency. Dutch disease has also been shown to occur with sudden inflow of FDI or foreign aid.

As foreign currency floods the country and is converted, the government spends more on infrastructure and public services, that is to say, goods that can't be traded across borders. Employment and productivity concentrate down to the narrow, accelerated industrial base and its correspondingly narrow export base. As the "real" exchange rate continues to appreciate, a unit of foreign currency now buys fewer services in the domestic economy. Local goods become less affordable, and exports cost more until the country's other export

[10] Ilana Ianchovichina and Harun Oder, "Dutch Disease: An Economic Illness easy to catch, Difficult to cure," Brookings Blog, October 17, 2017.

industries lose out to cheaper overseas competitors. And finally, the cost to extract the natural resource that was the cause of the windfall actually exceeds the revenue it generates.[11] Inevitably, the county becomes less competitive globally as its economy falters from within.

As explained earlier in these hearings, Dutch disease derives from the experience in the Netherlands in the 1970s. Natural gas discoveries in the North Sea "crowded out" historically competitive domestic manufacturing because the appreciation of the real exchange rate made it cheaper to buy those goods in other markets. Manufacturing output declined, as did net exports. Dutch disease is worsened by rising inequality in the distribution of natural resource rents (the total revenue that can be generated from the extraction of the natural resource less the cost of extracting the resource).[12]

Imagine the hit if high-tech exports were to be crowded out of the Israel economy.

That is the risk that for years has kept Governors of the Central Bank awake at night. As noted, the Bank of Israel announced in 2018 that it had bought up $13.1 billion in US dollars over the previous five years to offset the effects of gas production on the shekel exchange rates to stabilize exports. The Bank had hoped that the launch of the Fund in 2018 would put an end to this costly method of managing exchange rate appreciation. But when that didn't happen, it quickly returned to foreign currency intervention as the only remaining tool to neutralize shekel appreciation, and it increased those purchases by another $2 billion through Q1 2020. The costs could be avoided or reduced through the ICF's investments.

Once Dutch disease sets in, it will be difficult to reboot the lost competitive advantage. The Bank can't just devalue the shekel while income inequality, lower productivity, and political instability persist. This is why, as empirical evidence shows us, the launch of the Citizens Fund is more important than ever. Because it offsets foreign currency inflow and mitigates currency appreciation, the Fund insulates the economy from volatilities in gas prices while immunizing it from Dutch disease. Profits from natural resource extraction will continue to ensure sustainable development because they will be invested in alternative energy sources, education, research and development, and infrastructure.[13]

SWFs Find New Direction: Mobilizing Strategic Long-Term Investors in New Markets

SWFs continue to evolve. The "first-generation" SWFs more than 50 years ago were really "stabilization" funds, focused on recycling natural resource revenues (oil, gas, and minerals). Newly industrialized countries like Brazil, Russia, and China launched the "second-generation" SWFs with large export surpluses. Most recently, SWFs are going beyond those traditional sources of capitalization, their foreign exchange reserves and commodity wealth, and

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[11] "What Dutch Disease Is and Why It's Bad," *Economist*, November 5, 2014.

[12] N. Magud and S. Sosa, 2010. "When and Why Worry About Real Exchange Rate Appreciation: The Missing Link between Dutch Disease and Growth," IMF Working Paper 10/271. December; N. Behzada et.al., 2017. "Does Inequality Drive the Dutch disease? Theory and Evidence," *Journal of International Economics*, 106:104–118.

[13] This is known as Hartwick's Rule for sustainability as a prescription for reinvesting resource rents. J. M. Hartwick, 1977. "International Equity and the Investing of Rents from Exhaustible Resources," *American Economic Review*, 67:972–74.

combining them with alternative income sources, such as dedicated taxes, immigrant investor programs, revenues or asset transfers from state-owned enterprise restructuring, diaspora bonds, IP rents, and funds raised in international capital markets.[14]

Interesting examples for your reference include IP Bridge (Japan); the Sovereign Patent Fund (France); Temasek (Singapore); Mudabala (UAE); Fondo Strategico Italiano (Italy); Direct Investment Fund (Russia); Ithmar Capital (Morocco); and the Strategic Investment Fund (Ireland). In April 2020, Germany established a fund totaling €600 billion in assets, of which €100 billion are been earmarked for equity investments, €400 billion designated for guarantees, and €100 billion for refinancing. Austria followed suit.

It is auspicious that Israel's arrival to the world of sovereign wealth investors should occur as it transitions from a startup nation to a global nation[15] and while there is time to refine the Fund's framework for post-COVID-19 capitalization and beyond.

Worldwide, SWFs represent impressive assets worth $8.4 trillion; aggregate losses since the beginning of the COVID-19 crisis stand at about 12 percent. A recent survey by the International Forum of Sovereign Wealth Funds and State Street shows that the vast majority SWFs have not engaged in liquidations due to draw-downs by cash-strapped governments, as happened during the 2009 financial crisis.[16] We credit this to new investment strategies. COVID-19 has pushed SWFs into uncharted territory. Increasingly, governments are leveraging their funds to shape the post-pandemic recovery[17]; recent investments favor technology, telecom, infrastructure, and health care—all sectors Israel has targeted for national investment and in which the Fund could co-invest with other SWFs. Singapore's Temasek and Australia's Future Fund are now financing research to accelerate COVID-19 vaccine initiatives. Other SWFs are finding buying opportunities in depressed asset prices. Saudi Arabia's Public Investment fund has put $2 billion toward an amalgamation of new acquisitions. By June 2020, SWFs had poured over $17 billion into venture capital funds or new tech and health technology startups.

Israel's particular challenges, particularly in a post-COVID-19 recovery and amid lower gas commodity prices, and the great opportunities ahead can help frame the remaining question about the ICF:

What is the best way to leverage our national assets so as to link them to domestic and global sustainable development goals?

The best answer is still the answer we presented in 2011. Israel needs an independently managed ICF whose commodity-based capitalization is strengthened with diversified non-

[14] J. Braunstein and A. Ali, "New Frontiers in Sovereign Wealth Fund Capitalization," in P. Doberscu (ed.), *Development in Turbulent Times,* Springer: 2019: 119–132.

[15] R. Sharma, 2017. "Sovereign Wealth Funds Investment in Sustainable Development Sectors," Global Projects Center, Stanford University.

[16] "Pandemic, No Panic: Evidence from Institutional Investor Flows," 2020. State Street/International Forum of Sovereign Wealth Funds.

[17] B.Bortolotti, V. Fotak, and C. Hogg, "Sovereign Wealth Funds and the COVID-19 Shock: Economic and Financial Resilience in Resource-Rich Countries,“ 2000. Sovereign Investment Lab, August 4. Bocconi University, BAFFI CAREFIN Centre Research Paper No. 2020–147.

commodity revenues, and from which total a portion is sequestered to deploy for development projects that expand Israel's technology exports into new markets.

Additive sources of asset building for the Israel Citizens Fund could include:

- current and future tax incentives or partial government guarantees for technology firms; government-owned enterprises undergoing restructuring; land development; Israel Electrical Corporation projects and other assets that could be returned as equity shares, strengthening the Fund's balance sheet by retaining interest in these transactions[18];
- payers of any prospective new wealth tax that pay in kind through equity shares;
- Any government "bail-ins" (e.g., El Al, ownership change at ICL, large real estate transactions of publicly owned land) that could be compensated through retained equity stakes the ICF would hold;
- current and future funding using IP or patents created by Israel government investments that could be repaid either by fees or equity shares to the Fund;
- creation of Research Bond Obligations or future Israel Innovation Authority investment funds that fuel innovation and would enable the government to recuperate its investments in innovation[19];
- debt-funded equity purchases and project finance that "size up" the Fund. (The Bank of Japan has long exercised this policy lever for quantitative easing and stimulus through asset purchase of shares and ETFs). The US Federal Reserve's Corporate Credit Facility buys ETFs and corporate bonds, providing critical liquidity to US capital markets. SWFs in Turkey, France, Germany, and Singapore have pursued more active interventions in capital markets as liquidity providers and owners. Given the current very low interest rates, the Fund could create a passive investment vehicle to buy up depressed shares (as private equity currently does) and generate upside asset ownership, yielding a compounded 5–7 percent yield as those equities recover.

Returns from the Citizens Fund could help support:

- universal basic income (individualized cash grants, as in the case of the Alaska Permanent Fund and recent Kol-Zchut Program in COVID-19 Response);
- long-term individualized savings programs (e.g., the Saving for Every Child Program, pensions);
- educational and health services (e.g., Texas Permanent School Fund/Permanent University Fund and similar programs in Singapore);
- support for startups and SME businesses (e.g., Ireland and Israel);
- UN sustainable development goal investments in beta sites, projects, and companies that the Israel Innovation Authority, along with other incubators and accelerators, targets for growth.

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[18] N. Gilman and Yakov Feygin, *Building Block for a National Endowment,* Berggruen Institute, July 2020.
[19] Models for Biomedical Innovation and Commercialization, Financial Innovation Lab, Milken Innovation Center, August 27, 2018.

How can Israel best invest its sovereign wealth?

Let's return to the topic of emerging markets and the tectonic shift toward inter-regional trade patterns to ask, is Israel best served by investing in developed or developing markets? Should it invest in current OECD trading partners where returns and risks or low? Or should it diversify toward emerging and frontier markets? France, Germany, the UK, and Singapore—expanded into equity investing—and have joined the ranks of funds in Dubai, Abu Dhabi, Morocco, Malaysia, among others, to invest in emerging and developing markets. Why would they do this? For the same reasons we should: they're doing good and doing well.

Asset allocation is the most important aspect of a SWF's structure. Simulations show that central banks and conventional SWFs have concentrated their wealth investments of accumulated reserve assets in short-term liquid securities of industrial countries that have historically generated the lowest yields as asset groups.[20] Yet similar simulations suggest that much more capital could be directed to high-return developing economies and still boost equity investments in local companies and emerging market projects.

Indeed, successful SWFs are increasingly setting aside platforms that operate as development finance institutions for new export markets in emerging and frontier markets. Targeted investments in Israel technology exports could help avoid the problem of non-performing asset allocation because they would be based on in-demand capacity-building and technology transfer related to sustainable development.

From Sovereign Wealth Funds to Sustainable Development Funds: Building the National Endowment Fund

Given the tectonic shifts in the trade partnerships and the global economy,[21] and Israel's status as *the* leader in disruptive technology, the Citizens Fund has the inside track if it wants to join with global institutional investor partners. Long-term investments across asset classes in infrastructure (water, energy, transportation and telecommunications), global health, food and agriculture and cybersecurity will drive aggregate growth over the next decades. Over $12 trillion dollars of business opportunities have been demonstrated by focusing on the SDGs.[22]

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[20] L. Summers, "Opportunities in an Era of Large and Growing Official Wealth," in J. Johnson-Calari and M. Rietveld, eds., *Sovereign wealth management,* London: Central Banking Publications, 2008: 15–28, as cited in Javier Santiso, "Sovereign Development Funds: Key Financial Actors of the Shifting Wealth of Nations," EMNet Working Paper, October 2008; OECD (2016) "Business Insights on Emerging Markets 2015," OECD Emerging Markets Network, OECD Development Centre. Similar simulations imply that more capital could be directed in the future to high return developing economies.

[21] See our reports from the Milken Innovation Center-Jerusalem Institute, Israel's Bridge to Developing Economies, January 21, 2018; Designing an Israeli development financing platform: Towards Sustainable Development Goals, June 24, 2019, Accelerating Agritech Solutions in Israel, California and Developing Economics, June 6, 2020.

[22] R. Sharma, Sovereign Wealth Funds Investment in Sustainable Development Sectors, Global Projects Center, Stanford University, November 13, 2017.

If the Fund applies Israel's technological advantage to export investments in those SDGs, we will be sharing our capacity-building and learn-by-doing skills with markets in dire need of them. We'll increase their productivity and our own, and no doubt learn a few things along the way. And as our nation grows wealthier with the gas revenue stream, we will be offsetting the potential negative impacts of currency appreciation with these investments in diverse products and industries.

This is why we must look deeper into that panoramic view, and into the future, to build the Fund into a facility that includes options for co-investments and co-innovation with other sovereign wealth funds. The Fund's framework and managers must be able to:

- structure and integrate sustainable development targets to bake in requirements for pre-development, risk mitigation, and building project investment pipelines in targeted countries for tech exports;
- determine how technology adaptation and transfer can better facilitate investment outcomes-based financing for long-term investors;
- develop in-house capabilities for investing in strategic assets abroad;
- increase deal flow and reduce transaction costs for business and project finance;
- and demonstrate disruptive technologies that can cut across trade and supply chains to increase impacts in investment yields, productivity, job creation, and income.

In sum, it's time to learn from our mistakes, move on, and get to work launching a Fund framework that stabilizes the currency and reduces export risk; brings greater returns to the Fund; helps build markets where our disruptive innovation is most needed; and showcases Israel as a major investment and co-investment partner in new markets in Africa, Asia, Latin America, and throughout the Middle East.

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