Mahmoud Elkhafif,* Raja Khalidi** & Tareq Sadeq***

The Cost of Israeli Settler-Colonial Occupation on the Palestinian People****

تكلفة الاحتلال الاستيطاني على الشعب الفلسطيني

Abstract: This study reviews the available literature to estimate the economic cost borne by the Palestinian people as a result of the Israeli occupation of Palestinian territory, covering the period 1948-2022. It seeks to develop a methodology through which a broad estimate of the economic cost of the occupation can be generated, drawing on existing studies and available evidence to assess the cumulative economic losses incurred by Palestinians over this period. It advances three methodologies for such an assessment: aggregation, counterfactual estimation, and occupation gains. The choice of methodology depends on the type of economic variables being assessed. By updating cost estimates employed in previous studies, the analysis indicates that Israel's gains from its settlements and its occupation of the West Bank and East Jerusalem during the period 2000-2022 range between US$955 billion and US$1.707 trillion. Furthermore, when estimating the value of the losses resulting from the Nakba of 1948 in 2022 terms, material losses are found to have increased from US$3 billion to US$719 billion between the two years.

Keywords: Cost of Occupation; Economic Losses; Research Methodologies; Settlement Project; Israeli Occupation.

الملخص: تستعرض الدراسة ما أمكن حصره من دراسات من أجل تقدير التكلفة الاقتصادية التي يتكبدها الشعب الفلسطيني جراء الاحتلال الإسرائيلي خلال الفترة 1948-2022، لتقديم منهجية يُمكن عبرها تقدير واسع للتكلفة الاقتصادية للاحتلال. وتقترح الدراسة ثلاث منهجيات لتقدير تلك التكلفة: التجميع، والافتراض، ومكاسب الاحتلال، ويعتمد اختيار المنهجية على نوع المتغيرات الاقتصادية المراد تقديرها. وبتحديث تقديرات التكلفة التي اعتمدتها بعض الدراسات السابقة، يتضح أنّ مكاسب إسرائيل من مستعمراتها واحتلالها الضفة الغربية والقدس الشرقية، خلال الفترة 2000-2022، تراوح بين 955 مليار دولار أميركي و1707 مليارات دولار. وعند تقدير ما وصلت إليه قيمة خسائر نكبة عام 1948 في عام 2022، يتبيّن أنّ الخسائر المادية بين هذَين العامَين زادت من 3 مليارات دولار إلى 719 مليار دولار.

كلمات مفتاحية: تكلفة الاحتلال؛ الخسائر الاقتصادية؛ منهجيات البحث؛ المشروع الاستيطاني؛ الاحتلال الإسرائيلي.

* Former Senior Economist at the United Nations, and Former Coordinator of UNCTAD's Assistance to the Palestinian People (Corresponding Author).
Email: melkhafif@hotmail.com

** Former Director General of the Palestine Economic Policy Research Institute – MAS.
Email: khalidi@mas.ps

*** Professor of Economics at Birzeit University, Palestine.
Email: tsadeq@birzeit.edu

**** This study was originally published in Arabic in: Mahmoud Elkhafif, Raja Khalidi & Tareq Sadeq, "Taklufat al-Iḥtilāl al-Isrāʾīlī ʿalā al-Shaʿb al-Filasṭīnī," *Omran*, vol. 14, no. 54-55 (Winter 2026), pp. 47-78.

Introduction

The costs of the Israeli occupation of Palestine and its settler-colonial enterprise cannot be calculated through monetary valuation alone. Such frameworks fail to capture losses, particularly human losses, that are fundamentally non-quantifiable. Any estimate must therefore be limited to material losses that can be measured over time. It should not be understood as putting a price on the occupation or as an alternative to ending it, but rather as a cumulative record of documented damage. Estimating these costs and losses not only serves to document rights and assess harm, but also identifies the development needs required to remedy their destructive effects. Without such documentation, assessment, and redress, it is impossible to envisage a lasting and comprehensive peace, a just resolution of the Palestinian cause, or an end to the suffering of the Palestinian people.

This study first examines the literature produced since the 1948 Nakba that has sought to estimate the overall economic costs imposed on the Palestinian people by Israeli occupation. These costs stem both from the appropriation of Palestinian land, resources, and assets, and from policies designed to generate economic benefits for the occupying power while imposing economic losses on Palestinians. The study reviews and compares previous Palestinian and international efforts to estimate these costs, including those since 1967 associated with the settlement enterprise, which constitutes the most visible manifestation of the occupation on the ground.

The analysis begins by examining the theoretical approaches used to conceptualize the economic cost of occupation and the methodological challenges involved in estimating measurable losses. It then assesses existing estimates and updates selected calculations of losses resulting from the 1948 Nakba by expressing them in 2022 values. The study goes on to propose an alternative methodology for estimating the economic cost of occupation in the West Bank by quantifying the economic gains appropriated by Israel through its occupation of the West Bank and East Jerusalem. Finally, it discusses three complementary approaches to estimating the cost of occupation – aggregation, counterfactual estimation, and occupation gains – and proposes a framework for integrating all measurable economic costs within a single methodology, thereby minimizing double counting and ensuring consistency across estimates.

Post-Nakba Studies on the Costs of Settlement and Occupation

1. Conceptual Framework and Methodology

The economic dimension of occupation may be defined as the harm resulting from actions taken by the occupying power to appropriate the property, natural resources, and any economic benefits belonging to the occupied population. It also encompasses measures that undermine this population's ability to access their lands and use its natural resources, restrict their freedom of movement within their own homeland, and restrict their internal commercial, economic, and social interactions, as well as their dealings with neighbours and trade partners. In this context, the economic dimension of occupation encompasses not only the harm suffered by the occupied population, but also the economic benefits and gains accrued to the occupying state as a direct result of its policies and practices. The most costly economic harm has long-term effects, as the measures of the occupying state deprive the occupied population of one of the most important internationally recognized human rights, namely the right to development. As a result, present and future generations are deprived of their rights to employment, education, healthcare, safe drinking water, and food security, in addition to other basic human rights.

The principle underlying compensation for losses may be summarized as follows: when a change in economic conditions improves the welfare of some individuals while reducing that of others, those who benefit should compensate those who incur losses in a manner that leaves all parties at least as well off as they were prior to the change. In other words, compensation should restore those adversely affected to a position equivalent to that which existed before the change occurred. This principle extends beyond individual economic losses to encompass losses in social welfare, understood as the aggregate welfare losses borne by society as a whole. Such losses may be individual or collective in nature and include damages to public goods, namely goods whose consumption by one person does not diminish their availability to others.

The legal equivalent of compensation for losses arising from a change in economic circumstances is reparation,[1] namely the remedying of the harm and losses resulting from it. The essence of reparation, or full compensation, lies in restoring the situation to what it was before the loss occurred. If this is achieved through the restitution of rights, it constitutes restitution in-kind. However, restitution alone does not eliminate the need for compensation. The injured party must also be compensated for the losses incurred during the period between the occurrence of the harm and the restoration of the lost rights or property. Where restitution is impossible or does not take place, monetary compensation should be sufficient to place the injured party in a position equivalent to that which would have existed in the absence of the loss. Such compensation must also cover any additional economic losses sustained between the occurrence of the harm and the final monetary settlement.[2]

In this context, the economic cost of occupation corresponds to the compensation required to remedy the losses arising from occupation and settlement. These losses may arise from the appropriation of land, resources, and assets, and from the economic benefits thereby accrued to the occupying power. They may also result from denying the occupied population access to its resources and the ability to utilize them, as well as from restricting its capacity to formulate and implement policies that would enable the optimal use of its land, resources, and economic assets.

One approach is to estimate the total annual rental value, or annual return, generated by land, real estate, capital, and other assets that have been appropriated, for each year during which the appropriation has persisted. This methodology applies where the appropriation violates international agreements, laws, or norms, or where the occupied population has not consented to compensation for it. In such cases, the occupying power remains obligated to return what it has seized by force once a final resolution is reached. In that event, the right itself, that is, the assets, must be restored, and compensation is therefore not based on the value of the assets as a stock variable, but on payment of their annual rental value as a flow variable, together with an annual return on the accumulated rental value. This approach is suitable, for example, in estimating the losses resulting from what Israel has appropriated in Area C since the establishment of the Palestinian Authority (PA), because its appropriation of assets in Area C is contrary to all relevant agreements and international law. Accordingly, those rights must be restored to their rightful owners upon the end of the occupation and the conclusion of a final settlement.

The second methodology, which might be termed the counterfactual methodology, is best suited to estimating the economic cost of occupation in cases where the occupied population denied the ability

[1] Based on the Pinheiro Principles on refugees and post-Cold War reparations, see: United Nations Economic and Social Council, "Housing and Property Restitution in the Context of the Return of Refugees and Internally Displaced Persons," 28/6/2005, accessed on 15/9/2025, at: https://acr.ps/hBy2szM. See also: United Nations, Office of the High Commissioner, *Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law* (A/Res/60/147), 21/3/2006, accessed on 15/9/2025, at: https://acr.ps/hBy2sjb

[2] Nehemiah Robinson, *Indemnification and Reparations: Jewish Aspects* (New York: Institute of Jewish affairs, American Jewish Congress, 1944).

to make optimal use of its land and resources. This methodology has been employed in most estimates of the economic costs associated with the period following the establishment of the PA in 1994. It relies on the construction of counterfactual scenarios designed to answer a simple question: what would economic outcomes have been in the absence of occupation?

These assumptions vary according to the variable being estimated and the model employed. Various types of economic model may be used, including macroeconomic models, general equilibrium models, and models grounded in modern techniques such as Night-Time Luminosity (NTL) analysis.[3] The model need not be complex; rather, its principal requirement is that it adequately captures the key economic relationships relevant to the economy under study.

2. The Losses Suffered in the 1948 Nakba

Four studies employed the aggregation methodology to estimate the monetary value of the losses suffered by the Palestinian people in 1948. These estimates varied notably from one study to another, owing to the quantity and types of assets included in the estimation, as well as the prices used to assess the monetary value of the assets seized by the Zionist militias. The studies were conducted respectively by the United Nations Refugee Office of the Palestine Conciliation Commission, the League of Arab States,[4] Yusif Sayigh,[5] and Atef Kubrusi in collaboration with Sami Hadawi.[6]

The first two studies estimated the value of Palestinian losses at 1948 prices only, without adjusting for subsequent changes in purchasing power or for the return that the appropriated assets would have generated over time. Yet so long as the occupying power has neither restored the assets nor compensated their owners, both factors remain relevant to any estimate of the losses. Consequently, these early studies are best understood as providing empirical evidence of the real value of specific losses at the time they occurred rather than providing a comprehensive estimate of their economic value over time.

Sayigh estimated the value of the 1948 losses in pounds sterling at the prices for that year, and then re-estimated them at 1962 prices by incorporating compound adjustments for inflation and the return on capital between the two years. Kubursi similarly estimated losses in Palestinian pounds and US dollars at 1948 prices and later updated those estimates to 2000 values by adjusting for changes in purchasing power and for the return on capital stock over the period 1948-2000. The following section extends these calculations by incorporating both factors through to 2022.

The United Nations assessment was based on UN General Assembly Resolution 394 (V), adopted on 14 December 1950.[7] Prepared by the Refugee Office and presented as an annex to the Palestine Conciliation Commission's report to the General Assembly in 1951,[8] the assessment divided refugee losses into two categories: immovable property, including abandoned land in urban and rural areas, together with the buildings and structures situated on it; and movable property, comprising assets that

[3] Night-Time Luminosity (or Night-Time Lights, NTL) is the measurement of artificial light radiance emitted from the Earth's surface at night. Captured by satellite sensors, NTL serves as a key indicator of human activity, urban expansion, economic development, and population density. (Translator)

[4] *Arab Property and Blocked Accounts in Occupied Palestine* (Cairo: League of Arab States, 1956).

[5] Yusif Sayigh, *The Israeli Economy* (Beirut: PLO Research Centre, 1966), pp. 92-133.

[6] Atef Kubrusi, "An Economic Assessment of Total Palestinian Losses in 1948," in: Sami Hadawi & Atef Kubrusi, *Palestinian Rights and Losses in 1948: A Comprehensive Study* (London: Saqi Books, 1988), pp. 113-189.

[7] United Nations General Assembly, *Resolution 394 (V), Palestine: Progress Report of the United Nations Conciliation Commission for Palestine; Repatriation or Resettlement of Palestine Refugees and Payment of Compensation Due to them*, A/RES/394 (V) (New York: 14/12/1950), accessed on 12/7/2025, at: https://bit.ly/4lrAGR6

[8] United Nations General Assembly, *Progress Report of the United Nations Conciliation Commission for Palestine Covering the Period from 23 January to 19 November 1951*, A/1985 (Paris: 1951), accessed on12/7/2025, at: https://bit.ly/44YHy2u

refugees were forced to leave behind, such as vehicles, bank deposits, livestock, shares, securities, and agricultural equipment.

Regarding losses of immovable property, the Refugee Office estimated the abandoned area, which Israel seized and utilized after 1949 in its new colonial enterprise, at approximately 16,324 square kilometres, of which 4,754 square kilometres (4.75 million dunams) were agricultural land. Using the 1947 real estate tax assessments in Palestinian pounds,[9] the value of these areas was estimated at approximately 100 million pounds, allocated as follows: 69.5 million Palestinian pounds for rural lands, 21.5 million pounds for urban lands excluding Jerusalem, and 9 million pounds for land in Jerusalem.

Movable property losses were estimated at approximately 20 million pounds. Rather, it was based on assumptions regarding the Palestinian share of national income and, by extension, the presumed Palestinian share of the total stock of movable assets. As a result, the estimate should be regarded as indicative rather than definitive.

Accordingly, the Refugee Office estimated the total value of the immovable and movable property lost by Palestinians who were forced to flee their homeland at £120 million (Palestinian pounds, at 1947 prices). The Palestine Conciliation Commission regarded this figure as a debt owed by Israel to the refugees in the context of General Assembly Resolution 194, which affirms the Palestinian refugees' right to return to their homes and to receive compensation for their losses. Nevertheless, the estimate suffers from important limitations, including weaknesses in asset valuation and the absence of sufficiently reliable mechanisms for identifying and documenting the full range of Palestinian property losses.

The League of Arab States estimated total Palestinian losses in 1948 at £1,933 million at 1948 prices.[10] This estimate was based on a detailed methodology that assessed losses under the following categories: 1) agricultural land, accounting for approximately 57% of total losses, including orchards, cultivated land , pastures, and lands of average quality; 2) property in cities and villages, including land, buildings, installations, factories, livestock, and equipment; 3) movable property, comprising household furniture, furnishings, goods, merchandise, jewellery, vehicles, means of transport, ships, boats, and the like; and 4) bank deposits, securities, and insurance company funds.

The area of privately owned Palestinian land prior to the 1948 occupation was estimated at approximately 7.5 million dunams, representing 36.6% of the total land area in 1948, while state land was estimated at around 11.4 million dunams, making up 55.6% of the land area in 1948. A limitation of this estimate, however, is the lack of detail regarding land values and areas. Sayigh classified Palestinian losses under five headings:[11]

1. Personal property, including homes, hotels, restaurants, offices, automobiles, home and office furnishings, factories, bank deposits, securities and bonds, land, and livestock.

2. The Arabs' share in public utilities and property, including government buildings; roads, railway lines and stations, airports, and seaports; infrastructure; schools, hospitals, and laboratories; water networks; furnishings; forests, pastures, and state lands; natural resources; and the lands of the Negev Desert.

3. Losses of income, including losses resulting from the loss of employment opportunities or access to sources of income with high growth rates, particularly the loss of employment opportunities for skilled workers and professionals.

---

[9] The Palestinian pound was approximately equal to the pound sterling.

[10] *Arab Property and Blocked Accounts in Occupied Palestine*.

[11] Sayigh.

4. Transitional losses, including the economic cost of displacement, as well as losses incurred by the West Bank and the Gaza Strip due to their separation from the Palestinian economy.

5. Separation losses, representing the economic burden borne by neighbouring Arab states in absorbing large numbers of refugees.

According to Sayigh's estimate, the total value of personal property losses came to £756.7 million at 1948 prices, of which 53%, or £403.4 million, were attributable to land losses. When he revalued these same losses at 1962 prices, their value rose to approximately £1,169.3 million. The discrepancy between 1948 and 1962 values, an overall increase of £412.6 million, is explained by two factors: an increase of £279.9 million resulting from cumulative inflation between the two years, in order to preserve the purchasing power of the real value of the 1948 losses, and a further increase of £132.7 million representing the return on capital stock. This latter sum reflects what could have been generated as surplus value from the 1948 losses on the basis of annual growth rate of 4% between 1948 and 1962. However, this estimate is considered approximate, since it was not the primary focus of Sayigh's study.

In his detailed assessment of the losses of 1948, Kubrusi took the shortcomings of previous studies into account. He examined, in extensive detail, the value of confiscated Palestinian urban and rural lands, and classified the losses under the following ten categories:[12]

1. Urban and rural land, including the value of all land and buildings in the cities and villages that Palestinian refugees were forced to leave in 1948.

2. Industrial capital, calculated based on the 1943 General Census of Industrial Establishments, including the number of establishments, invested capital, number of workers, and the value of gross and net output after deducting the value of production inputs.

3. Agricultural capital, including farming tools and equipment, livestock, fixtures, and rural residences.

4. Private and commercial cars and vehicles.

5. Commercial capital and securities.

6. Hotels and restaurants.

7. Financial assets and bank deposits.

8. Personal and private wealth.

9. Infrastructure, including roads, railways, water and sewage networks, airports, and seaports.

10. Natural resources, including spring water, wells, and forests.

All the above were listed as material losses. Kubrusi also estimated losses in human capital resulting from the loss of the ability to work, as Palestinian labourers, technicians, professionals, and farmers were forced to compete with local workers in host countries for limited employment opportunities. Many Palestinian workers had to wait months or even years before finding work, which led to a loss of their skills.

Kubrusi also emphasized the need to assign a value to compensate for the psychological suffering caused by the loss of homeland, residences, parents, children, and displacement, drawing a comparison with the substantial compensation paid by the Federal Republic of Germany to Jews after World War II for psychological suffering and related losses. But his estimates did not attempt to assess this factor.

[12] Kubrusi.

Kubrusi estimated Palestinian material losses in 1948 at approximately 743 million Palestinian pounds, and losses in human capital at around 439.2 million Palestinian pounds, giving a total of 1,182.2 million pounds. Given that the exchange rate for that year was $4.03 to the Palestinian pound, material losses, human capital losses, and their combined total at 1948 prices came to approximately $2,994.3 million, $1770 million, and $4,764.3 million respectively.

Using the annual US inflation rate for the period 1948-2000, Kubrusi estimated the 1948 losses in terms of US dollars at 2000 prices. To adjust these losses in line with the principle of return on expropriated capital stock, he assumed a 4% annual growth rate in the real value of the losses over the same period. Table (1) shows estimates of the 1948 losses at both 1948 and 2000 prices. According to these estimates, which represent the most recent and methodologically and factually accurate figures available, the cost of the occupation of Palestine borne by the Palestinian people in material damages alone reached $173 billion at 2000 prices, while human losses of various kinds added a further $154 billion to this exorbitant cost of settler colonialism, arising from the 1948 Nakba alone.

Table (1): Estimated Value of Palestine's Material and Human Losses in 1948 in 2000 Prices

	1948		2000	
Type of losses	**1 million Palestinian pounds**	**Millions of US dollars**	**Billions of US dollars**	**4% annual growth (billions of US dollars)**
Material	743.0	2,994.3	22.5	173.0
Human capital	439.2	1,170.0	13.2	102.0
Total	1,182.2	4,764.3	35.7	275.0
Psychological and moral	185.0	745.0	7.0	52.0
Aggregate	**1,367.2**	**5,509.3**	**42.8**	**327.0**

Source: Atef Kubrusi, "An Economic Assessment of Total Palestinian Losses in 1948," in: Sami Hadawi & Atef Kubrusi, *Palestinian Rights and Losses in 1948: A Comprehensive Study* (London: Saqi Books, 1988); Atef Kubrusi, "Palestine Losses in 1948: Calculating Refugee Compensation," Center for Policy Analysis on Palestine, 3/8/2021, accessed on 7/9/2025, at: https://acr.ps/1L9GQ2H

3. The Economic Cost of the Occupation Since the Establishment of the PA

After the studies on the losses incurred during the 1948 Nakba, the subject of the economic cost of the occupation did not receive sufficient attention, nor did it receive discussion within the international community, until the report issued by the United Nations Conference on Trade and Development (UNCTAD) pursuant to paragraph 9 of General Assembly Resolution A/RES/69/20, adopted on 25 November 2014.[13] The report noted that a comprehensive assessment of the economic cost of the occupation requires a complex, detailed, and integrated framework capable of estimating direct and indirect economic costs across all economic sectors. It also requires coordination of efforts and resources, since the efforts undertaken so far have come from individual initiatives by specific institutions and do not fall within a unified framework that would bring them together without duplication or overlap.

The situation remains largely unchanged to this day, despite serious efforts by various national institutions, including the Palestine Economic Policy Research Institute (MAS) and the Applied Research Institute – Jerusalem (ARIJ), as well as certain international organizations, such as UNCTAD. Since 2016,

[13] United Nations, United Nations Conference on Trade and Development, *The Economic Costs Borne by the Palestinian People Under Israeli Occupation*, Note by the Secretary-General, General Assembly, Seventy-first Session, Item 35 of the provisional agenda (Geneva: 2016).

UNCTAD has undertaken what is arguably the most sustained and methodologically sophisticated effort in this field through a series of reports prepared pursuant to a United Nations General Assembly mandate renewed every two years. These reports have examined the economic costs of the Israeli occupation using an established methodology designed to assess both the direct economic damage caused by occupation and settler colonialism and the losses associated with foregone development opportunities. More recent UNCTAD studies have also sought to estimate the contribution of the settlement enterprise to the growth of the Israeli economy in the Occupied Palestinian Territory. This approach provides an alternative perspective on the economic costs borne by Palestinians by measuring the gains accruing to the occupying power from the same processes that generate Palestinian losses.

a. Foundational Studies

To assess the economic cost of the constrained policy space available to Palestinian policymakers as a result of measures taken by the occupation authorities and the Paris Protocol on Economic Relations, a 2009 UNCTAD study employed an econometric model of the economy of the Occupied Palestinian Territory. This model was used to simulate an alternative policy framework that would expand economic policy space beyond the limits imposed by the Israeli occupation and the Paris Economic Protocol.[14] The simulation assumed an integrated policy alternative combining expansionary fiscal policy, an exchange-rate policy designed to encourage exports and foreign trade, and a policy to promotion employment creation. The study found that, if a Palestinian state were granted full sovereignty over its economic policy instruments, Gross Domestic Product (GDP) could increase at an annual rate of 24% in the initial years following the expansion of policy space, while the unemployment rate could fall by 19% relative to its current level.

Following UNCTAD's earlier work, the World Bank focused on partial estimates of the cost of occupation in Area C in the sectors of agriculture, Dead Sea minerals and cosmetics, mining and quarrying, construction, tourism, and telecommunications.[15] The World Bank estimated the direct and indirect costs of occupation in Area C in these sectors at approximately $3.4 billion at 2011 prices, equivalent to 35% of the 2011 GDP, of which $2.2 billion were direct costs. It further estimated the concomitant fiscal cost at approximately $800 million in foregone public revenues, an amount equivalent to roughly half of the Palestinian fiscal deficit in the same year. The study also concluded that Palestinian employment could increase by 35 per cent if restrictions in Area C were lifted and Palestinian access to the area restored.

In research similar to the 2009 UNCTAD study, the Ministry of National Economy of the State of Palestine and the Applied Research Institute – Jerusalem (ARIJ) estimated the cost of the occupation for the year 2010 at nearly $6.9 billion, equivalent to 85 per cent of GDP at the time.[16] This figure represents an aggregate estimate of the costs resulting from the blockade imposed on Gaza, restrictions on water and other natural resources, including natural gas fields, the policy of closure and restrictions on movement, other restrictions imposed on domestic and international trade, the loss of tourism in the Dead Sea region, the uprooting of fruit trees, and the destruction of and damage to public facilities.

---

[14] United Nations, United Nations Conference on Trade and Development, *Alternative Policies for Sustainable Palestinian Development and State Formation* (Geneva: 2009).

[15] Orhan Niksic, Nur Nasser Eddin & Massimiliano Cali, *Area C and the Future of the Palestinian Economy* (Washington DC: The World Bank Group, 2013).

[16] Ministry of National Economy of the State of Palestine, The Applied Research Institute – Jerusalem (ARIJ), *The Economic Costs of the Israeli Occupation for the Occupied Palestinian Territory* (Bethlehem: 2011).

b. Fiscal Leakage

The earliest estimate of the leakage of Palestinian public funds to Israel appeared in the 2011 UNCTAD report,[17] followed by a more detailed study released in 2019,[18] which estimated the fiscal leakage and drainage of Palestinian fiscal revenues to Israel. However, this assessment did not assume an end to the occupation and therefore did not posit a scenario involving full Palestinian sovereignty over fiscal, monetary, or trade policies. Instead, it focused exclusively on the leakage resulting from Israel's obstruction of the implementation of certain provisions agreed in the Paris Protocol on Economic Relations, or from its allowing goods and commodities to be smuggled into the Occupied Palestinian Territory without the collection of any Palestinian taxes or customs duties. Within these parameters, the financial cost of the occupation, in terms of the accumulated leakage and loss of financial resources, was estimated by 2015 at approximately $1,660 million, equivalent of 13.1% of annual GDP at the time. Of this total, $473.4 million represented fiscal drainage into the Israeli treasury, while the remaining $1.2 billion represented lost Palestinian financial resources resulting from smuggling, Israel's control over Area C, and customs evasion through the under-invoicing of imports from Israel or through it.

The cumulative financial cost of the occupation, of which fiscal leakage constitutes one component, was estimated for the period 2000-2017 at approximately $19.5 billion in 2017 prices, equivalent to one and a half times of 2017 GDP. When compounded interest, which the Palestinian side is required to pay to offset the calculated annual losses, is added, the cumulative financial losses rise to $47.7 billion over the same period, or three times the 2017 GDP. Using a macroeconomic simulation model, the cumulative economic losses over the period 2000-2017 were further estimated at approximately $36.6 billion, in real terms with 2015 as the base year. This represented, on average, 22% of GDP and was associated with the annual loss of 111,000 potential jobs which could have reduced the unemployment rate by 9%.[19] Here, the economic cost lies in the increase that GDP could have recorded had the funds been available to the PA, thereby enabling it to pursue an expansionary fiscal policy.

Separately, the World Bank estimated the loss of Palestinian public revenue from various other sources at approximately $285 million, equivalent to 2.2% of GDP in 2014. The report also noted that Israel had withheld $668 million in Palestinian clearance revenues, equivalent to 5.3% of GDP in the same year.[20]

c. Sectoral Estimates

In 2015, UNCTAD estimated the direct damage resulting from the three Israeli wars on Gaza between 2008 and 2014 at approximately $5.6 billion at 2014 prices, or nearly twice the Gaza Strip's GDP in that year.[21] These damages include the value of destroyed buildings and facilities, as well as the loss of GDP during the 2014 war alone. However, the total cost of the destruction is much higher if indirect costs are taken into account, including the loss of human capital and the future income that could have been generated by destroyed productive assets, uprooted trees, and agricultural land that can no longer be cultivated. It may be said that this estimate is based on the aggregation methodology, since UNCTAD relied on the World Bank's assessment and on a survey of losses conducted by the Palestinian Economic Council for Development and Reconstruction (PECDAR).

---

[17] See Paragraphs 31ff. of this report: United Nations, United Nations Conference on Trade and Development, Trade and Development Board, *Report on UNCTAD's Assistance to the Palestinian People: Developments in the Economy of the Occupied Palestinian Territory*, Fifty-eighth Session (Geneva: 2011).

[18] United Nations, United Nations Conference on Trade and Development, *The Economic Costs of the Israeli Occupation for the Palestinian People: Cumulative Costs* (Geneva: 2019).

[19] The 21.5% figure represents the average for the period 2000-2017, whereas this percentage reached 26.6% in 2017.

[20] *Economic Monitoring Report to the Ad Hoc Liaison Committee* (Washington DC: The World Bank Group, 2016).

[21] United Nations, United Nations Conference on Trade and Development, Trade and Development Board, *Report on UNCTAD Assistance to the Palestinian People: Developments in the Economy of the Occupied Palestinian Territory*, Sixty-second Session (Geneva: 2015).

In a World Bank study of the Palestinian telecommunications sector, total revenue losses in the Palestinian mobile telecommunications sector during the period 2013-2015 were estimated at between $436 million and $1,150 million, approximately 1% of GDP,[22] in addition to losses in Palestinian public revenue ranging from $70 million to $184 million.

Other research has demonstrated that a 10% reduction in checkpoints, by shortening access times by to markets, could increase West Bank GDP by 0.6%. In the absence of such barriers, average per capita GDP in the West Bank by is estimated to increase by as much as 6.1%.[23] Israel has seized control of the Gaza Marine Basin, depriving Palestinians of the right to explore for and develop oil and gas resources in the West Bank and the Gaza Strip. It has also imposed severe restrictions on Palestinian activities aimed at utilizing natural resources, including building stone and sand in the Gaza Strip, phosphates and mineral resources in the Dead Sea, and petroleum and natural gas.[24] The value of building stone confiscated by Israel in Area C is estimated at approximately $900 million annually, equivalent to 0.7% of the 2015 GDP.

The Applied Research Institute – Jerusalem (ARIJ) estimated the direct costs and lost revenues resulting from the restrictions imposed by the Israeli occupation on the freedom of movement of people and goods in the West Bank, and on access to natural gas fields, oil reserves, fishing grounds, irrigation water, and Palestinian agricultural land.[25] This estimate also included the direct costs arising from the destruction of infrastructure, home demolitions in the West Bank, and the 2014 war on Gaza. The estimated cost came to approximately $9.95 billion, equivalent to 74% of GDP. However, the study covered only the direct costs of certain restrictions imposed by the Israeli occupation.

According to the UN Register of Damage Caused by the Construction of the Wall in the Occupied Palestinian Territory, 299 Palestinian communities have been adversely affected by the construction of the Apartheid Wall in areas where construction has been completed or remains underway.[26] By 31 May 2024, the Register had collected 73,785 claims for compensation from 269 affected Palestinian communities, of which 44,630 had been approved,[27] the vast majority relating to agricultural losses. However, the Register has not assessed the value of the damage covered by the accepted claim. It is crucial to estimate the economic value of these losses, since they constitute a significant, documented component of the economic cost of Israeli settler-colonial expansion.

Israel's appropriation of oil and natural gas is one of the most obvious direct economic costs of the occupation, yet it is also among the most difficult to measure because Israel withholds information and data on this vital resource. UNCTAD has sought to shed light on this component of the economic cost of the occupation.[28] Israel has seized control of the two Palestinian gas fields, Marine 1 and Marine 2, located

---

[22] Xavier Stephane Decoster et al., *Telecommunication Sector Note in the Palestinian Territories: A Missed Opportunity for Economic Development* (Washington DC: The World Bank Group, 2016).

[23] Niksic, Nasser Eddin & Cali.

[24] Walid Mustafa, *al-Mwārid al-Ṭabīʿiyya fī Filasṭīn: Muḥaddidāt al-Istighlal wa-Āliyyāt Taʿẓīm al-Istifāda* (Ramallah: Palestine Economic Policy Research Institute – MAS, 2016).

[25] Applied Research Institute – Jerusalem (ARIJ), *The Economic Cost of the Israeli Occupation of the Occupied Palestinian Territories* (Bethlehem: 2015).

[26] The United Nations Register of Damage Caused by the Construction of the Wall in the Occupied Palestinian Territory was established pursuant to United Nations General Assembly Resolution A/RES/ES-10/17, dated 24 January 2007. It focuses on damages related to the construction of the apartheid wall in the West Bank, including within and around East Jerusalem. However, it does not cover any other measures undertaken by the occupying power. See: "The Separation Wall," Israeli Information Center for Human Rights in the Occupied Territories (B'Tselem), 11/11/2017, accessed on 15/9/2025, at: https://acr.ps/1L9BPa3

[27] United Nations, General Assembly, "Letter Dated 8 July 2024 from the Secretary-General Addressed to the President of the General Assembly," 18/7/2024, accessed on 15/9/2025, at: https://acr.ps/1L9GPKN

[28] United Nations, United Nations Conference on Trade and Development, *The Economic Costs of the Israeli Occupation for the Palestinian People*.

off the coast of Gaza, as well as the oil field near the Rantis area in the West Bank.[29] Gas reserves in the two Gaza fields are estimated to approximately 1.4 trillion cubic feet. Using the average price of gas during the period 2012-2017, around $3.90 per 1,000 cubic feet, the total value of these reserves is estimated at $5.4 billion. After deducting production costs, the net value is estimated at approximately $4.6 billion.[30]

Verified oil reserves in the Occupied Palestinian Territory are estimated at approximately 1.53 billion barrels. At a price of $65 per barrel,[31] their total value is at around $99 billion. After deducting production costs, their net value is estimated at $63.3 billion. Had Palestinians been able to benefit from revenues from the two Gaza gas fields from the start of their operation in 2000, they would have obtained between 2000 and 2018 a sum of $4.6 billion available for investment in development and their improvement of the well-being of the Palestinian people.[32]

d. Regional Estimates

In a study of the cost of the Israeli blockade on Gaza during the period 2007-2018, UNCTAD analysed a counterfactual scenario assuming that the Gaza economy would have grown at the same average annual rate as the West Bank economy, namely 6.6 per cent, On this basis, had Gaza not been under blockade and had wars not occurred there, its economy could have been approximately 50 per cent larger than its observed size during that period.[33] Accordingly, the cumulative real economic losses are estimated at approximately $16.7 billion in 2015 prices.[34] In addition, the blockade, the Israeli wars on Gaza, and other occupation-related measures increased the cost of eliminating poverty in Gaza from $209 million in 2007 to $838 million in 2017.[35]

UNCTAD further estimated the cumulative economic cost of the occupation resulting from the policy of closure, restrictions, and military incursions imposed by the occupying state in the West Bank after the Second Intifada, over the period 2000-2019, at approximately $57.7 billion, in constant 2015 prices, equivalent to three and a half times the GDP of the Occupied Palestinian Territory in 2019,[36] with an average annual cost of $2.25 billion, or 34.8% of West Bank GDP. This estimate was based on a counterfactual scenario, which posited that, instead of the severe economic contraction experienced by the West Bank economy during and after the Intifada period (2000-2006), it would have continued to grow at an annual rate of 7.1%, corresponding to the average growth rate recorded between before and after the Intifada (1995-1999 and 2007-2019).

In a report to the General Assembly, and later in a more detailed study, UNCTAD estimated the cost of the occupation's control over Area C in the West Bank.[37] This estimate used an economic model based on modern night-time luminosity (NTL) satellite imagery analysis, and was built on a counterfactual scenario assuming that Palestinian economic activity had been allowed in Area C, with annual growth in the area under such activity equivalent to the growth recorded in Areas A and B during the period 2000-2020.

---

[29] Ibid.

[30] Ibid.

[31] This is the price that held at the time the study was prepared in 2018. By the final quarter of 2024, it stood at around $68.00.

[32] United Nations, United Nations Conference on Trade and Development, *The Economic Costs of the Israeli Occupation for the Palestinian People*.

[33] United Nations, United Nations Conference on Trade and Development, *The Economic Costs of the Israeli Occupation for the Palestinian People: Impoverishing Gaza Under Siege* (Geneva: 2020).

[34] Ibid.

[35] Ibid.

[36] United Nations, United Nations Conference on Trade and Development, *The Economic Costs Incurred by the Palestinian People Due to the Israeli Occupation: Constraining Development and Aggravating Poverty in the West Bank* (Geneva: 2021).

[37] United Nations, United Nations Conference on Trade and Development, *The Economic Costs Borne by the Palestinian People Under Israeli Occupation: Losses Arising from Additional Restrictions Imposed in Area C, 2000–2020* (Geneva: 2022); United Nations, United Nations Conference on Trade and Development, *The Economic Costs Borne by the Palestinian People Under Israeli Occupation: The Cost of Restrictions Imposed in Area C from Space* (Geneva: 2022).

The annual cost incurred by the Palestinian people as a result of the occupation's control over Area C was estimated at approximately 25.3% of West Bank GDP. On that basis, the cumulative loss over that period was estimated at approximately $49.9 billion at constant 2015 prices, equivalent to more than two and a half times Palestinian GDP in that year.[38]

UNCTAD estimated recently the economic benefit derived by the occupying state from its control over Area C, including East Jerusalem, at 2.7 times annual Palestinian GDP over the period 2000-2020. Consequently, the cumulative benefit to Israel's economy from its settlements during this period was estimated at approximately $628 billion, in constant 2015 prices, equivalent to 11.7% of Israel's cumulative GDP over those years. In other words, according to this estimate, an eighth of Israel's economy is derived from Area C in the West Bank, which has been designated for its settlement expansion. Accordingly, it may be argued that the true cost of the Israeli occupation's control over Area C in the West Bank is what that control generates, namely at least $30 billion year annually, at constant 2015 prices. This figure represents the cost of Israel's occupation of Area C alone, not of its entire occupation of the West Bank. This estimate may be challenged on the grounds that the Palestinian production function may not be as efficient as the Israeli one. The counterargument is that Palestinian productivity and economic efficiency would likely be substantially higher under conditions of full sovereignty and unrestricted access to land, resources, and markets.

Updating Cost Estimates and Exploring Estimate Methodologies

1. Methodology Suitability

When estimating the economic cost of occupation, it is important to distinguish between two types of loss. The first arises from the occupying state's appropriation of land, natural resources, property, and other assets belonging to the occupied population. The second results from depriving that population, wholly or partially, of the ability to make optimal use of its land, resources, and productive assets. Each type of loss requires a different methodological approach. The first methodology is intended to estimate losses resulting from the appropriation of assets, including land, real estate, property, and other forms of wealth – that is, losses associated with stock variables. In such cases, the aggregation methodology described above is generally the most appropriate. This approach relies on identifying and valuing all assets that were seized, appropriated, or abandoned by Palestinians who were displaced during the events of 1948.

The principal limitations of this methodology lie in the impossibility of producing a complete inventory of all affected assets, as well as in the difficulty of assigning precise monetary or rental values to the assets identified. The second methodology is used to estimate losses resulting from occupation-imposed restrictions that lead to losses in income, added value, GDP, or increased impoverishment. In other words, it is used to estimate losses associated with flow variables. In such cases, the most appropriate approach is what we have termed the counterfactual methodology, which relies on economic models to simulate counterfactual scenarios in which there is no occupation, or in which the restrictions and measures imposed by the occupation are less severe. The principal limitation of this methodology lies in its generality, which may limit its ability to estimate losses in a specific geographical region or economic sub-sector.

Moreover, the reliability of the resulting estimates depends on two key factors: (1) the accuracy of the simulation model and its ability to capture the underlying economic relationships of the economy under

[38] United Nations, United Nations Conference on Trade and Development, *The Economic Costs Borne by the Palestinian People Under Israeli Occupation: Losses Arising from Additional Restrictions Imposed in Area C, 2000–2020*, p. 2.

study; and (2) the plausibility of the assumptions underlying the counterfactual scenario, namely, what economic outcomes would likely have occurred in the absence of occupation.

2. Updating Estimates of Nakba Losses

The previous section discussed four estimates of the losses sustained by the Palestinian people in the 1948 Nakba, all based on the aggregation methodology. These estimates were conducted by:

1. United Nations Refugee Office of the Palestine Conciliation Commission.

2. The League of Arab States.[39]

3. Yusif Sayigh.[40]

4. Atef Kubrusi,[41] whose study is the most recent, comprehensive, and methodologically and factually precise, as it took into account the reservations raised regarding the previous estimates.

In what follows, the study updates Kubrusi's estimates of the Nakba's losses to estimate their value in 2022, 74 years after the Nakba, given the absence of reparation, restitution, and compensation. This estimate was selected because it is the most recent, comprehensive, and accurate. The valuation of these losses in 2022 is determined at two levels. At the first level, Nakba losses are revalued in 2022 to preserve the purchasing power of the original loss amount over the intervening 74 years. This is achieved by adjusting the dollar value of the Nakba losses, originally assessed at 1948 prices, using the annual inflation rate derived from the US Consumer Price Index (CPI). To preserve the purchasing power of Nakba losses at 1948 prices, the dollar value in 2022, increased in nominal terms by approximately 12.7 times. In other words, what one dollar could buy in 1948 required $12.7 in 2022. Consequently, the discrepancy in the monetary value of the losses between 1948 and 2022 is attributable to inflation rather than to an increase in actual market value (Table (2)).

Once the preservation of the purchasing power of the Nakba losses over time has been taken into account, the second level introduces the factor of preserving the return on capital. If reparation or compensation had actually taken place in 1948, and if the Palestinians had had access to these sums over the ensuing 74 years, what real return could that capital have generated, or what real growth rate could it have achieved during that period?

The second level adds the factor of the lost return on the material and human capital stock lost by the Palestinian people in 1948. According to the studies by Sayigh and Kubrusi, the figures in the final column of Table (2) are based on the assumption that the value of the Nakba losses grew at a real annual rate of 4%.[42] The real value of the losses in 2022 was then adjusted using the CPI to preserve the purchasing power associated with the Nakba losses, in the same way as at the first level.

Table (2) presents Kubrusi's estimates of the value of Nakba losses between 1948 and 2022. As would be expected, the value of these losses rises substantially once account is taken of the preservation of purchasing power and the return on capital. However, the figures in the final column reveal that the primary cause behind this very large increase is the return on material capital, that is, the growth that could have occurred had sums equivalent to the Nakba losses been available to the Palestinians and invested over those 74 years. Given the difficulty of identifying a methodology to estimate lost returns on human capital over 75 years of changing conditions, this study does not attempt a calculation of such values.

---

[39] *Arab Property and Blocked Accounts in Occupied Palestine*.

[40] Sayigh, pp. 92-133.

[41] Kubrusi, pp. 113-189.

[42] An annual growth rate of 4% was assumed to avoid overestimation. This is a conservative rate when compared to the actual growth rate of Jordan's economy, which grew at an annual average of more than 5% between 1948 and 2022.

Table (2): The Value of Nakba Losses in 1948 and 2022

	Value of losses in 1948 (millions of dollars)	Value of losses in 2022 (millions of dollars)	
		After inflation	After inflation and growth of material capital
Kubrusi's Estimates			
Material losses	2.99	37.9	718.9
Human capital losses	1.77	22.4	22.4
Psychological and moral losses	0.90	11.4	11.4
Aggregate losses	**5.66**	**71.8**	**752.7**

Source: The figures reflecting the value of losses as of 2022 were prepared by the authors.

3. Updating Estimates of the Economic Cost of the Israeli Occupation Since the Establishment of the PA

Most of the 15 reports discussed earlier, which address various aspects of the economic cost of occupation, relied on the hypothetical methodology that simulates a counterfactual scenario positing either the absence of occupation or its continuation under fewer restrictions. This methodology estimates the cost of losses in flow variables, such as income, value added to the economic sector, or GDP, the cost of combating poverty caused by the occupation, or the rental value of confiscated assets. Consequently, a criticism levelled against some of these studies is that they estimated losses relating both to flow variables and to stock variables, such as losses arising from the destruction of facilities or the confiscation of land and property. This led to overlap and duplication in the estimates. If, for example, the loss resulting from the destruction of an asset that had generated income is calculated, it is not appropriate also to calculate the cost of the lost income, since the value of the asset itself has already taken into account.

These 15 reports were unable to estimate the total cost of the occupation due to the difficulty of formulating a comprehensive set of assumptions capable of stimulating a counterfactual scenario reflecting the complete end of the occupation and, consequently, full Palestinian sovereignty over all political, economic, social, environmental, and security spheres. UNCTAD's estimate of the economic gains that accrued to the occupation authorities from their illegal settlements in the West Bank and East Jerusalem comes closest to the overall economic cost of the occupation of the West Bank.[43] That particular estimate will therefore be discussed separately in the next part of this section.

The two UNCTAD studies employed the hypothetical methodology through the stimulation of a macroeconomic model of the Occupied Palestinian Territory.[44] The objective of the first study was to estimate the cost of the occupation resulting from the restriction of the economic policy space available to Palestinian decision-makers, that is, the absence of economic sovereignty. The second study aimed to estimate the cost associated with the leakage and loss of Palestinian public funds. Neither study provided a comprehensive estimate of the cost of the occupation. Nor is it advisable to combine the two estimates, given the possibility that part of the cost may have been double-counted in both studies.

---

[43] United Nations, United Nations Conference on Trade and Development, *The Economic Costs Borne by the Palestinian People Under Israeli Occupation: Losses Arising from Additional Restrictions Imposed in Area C, 2000–2020*; United Nations, United Nations Conference on Trade and Development, *The Economic Costs Borne by the Palestinian People Under Israeli Occupation: Losses Arising from Additional Restrictions Imposed in Area C*.

[44] United Nations, United Nations Conference on Trade and Development, *Alternative Policies for Sustainable Palestinian Development and State-Building*; United Nations, United Nations Conference on Trade and Development, *The Economic Costs of the Israeli Occupation for the Palestinian People: Cumulative Costs*.

As noted, the UNCTAD studies posited counterfactual scenarios for Gaza and the West Bank, though not through an economic simulation model. Instead, they assumed fewer restrictions than those imposed by the occupation, together with growth rates higher than those recorded in reality.[45] In the case of Gaza, the losses resulting from the blockade between 2007 and 2018 were estimated based on a counterfactual scenario in which Gaza's economic growth rates matched those of the West Bank.[46] The first study of the West Bank estimated the cost of the tightening of occupation measures and restrictions during the Second Intifada (2000-2006) by simulating a scenario in which the economic growth rate was higher than that actually recorded, assuming an annual growth rate equivalent to the average observed before and after that period.[47]

To estimate the cost of the occupation in Area C, a third study sought to answer the following question: What would have happened had Palestinian economic activity in that area mirrored activity in Areas A and B during the period 2000-2020?[48] What distinguishes this study was its use of modern NTL technology. However, a weakness of these three studies is that their counterfactual scenarios are somewhat weak, since they do not posit an end to the occupation. Instead, they estimate the cost of specific restrictions imposed by the occupation while assuming its continued existence, and while excluding East Jerusalem from the estimate. On the other hand, one advantage of these studies is that their estimates can be combined, since there is no conflict or double-counting among them.

With regard to the 44,630 compensation claims accepted by the Register, it is essential to estimate both the value of the damaged assets and their rental value to quantify the cost of the occupation arising from the construction of the Apartheid Wall. It is also important to demand that Israel provide in-kind restitution, in addition to paying the rental value and the return on it at appropriate interest rates from the date of seizure or damage until the date of restitution.

Table (3) presents an update of pre-2022 estimates of the economic cost of the occupation. It displays the cumulative economic cost of the occupation over a 23-year period (2000-2022) at constant prices, with 2015 as the base year, as well as its cumulative nominal value in 2022. However, all these estimates are predicated on assumptions reflecting a relaxation of occupation restrictions and allowing Palestinians to make use of their lands and resources within the parameters of the Paris Economic Protocol. By 2022, the cumulative total of the costs resulting from narrowing of economic policy space or from the leakage and loss of Palestinian public funds is estimated at approximately $77 billion, or around five times the GDP of the Occupied Palestinian Territory in that year. In this context, the study does not update the estimate provided by the Applied Research Institute – Jerusalem (ARIJ), because it includes not only the cost of lost GDP but also the cost of destroyed facilities and infrastructure and Israel's appropriation of gas and oil fields. In other words, it conflates flow variables and stock variables in its cost calculations.

UNCTAD's estimates, namely items 3, 4, and 5 in Table (3), can be aggregated into a single estimate of the cumulative cost of the principal occupation-related restrictions in the Gaza Strip and the West Bank,

---

[45] United Nations, United Nations Conference on Trade and Development, *The Economic Costs of the Israeli Occupation for the Palestinian People: Cumulative Costs*; United Nations, United Nations Conference on Trade and Development, *The Economic Costs Incurred by the Palestinian People Due to the Israeli Occupation: Constraining Development and Aggravating Poverty in the West Bank*; United Nations, United Nations Conference on Trade and Development, *The Economic Costs Borne by the Palestinian People Under Israeli Occupation: The Cost of Restrictions Imposed in Area C from Space*.

[46] United Nations, United Nations Conference on Trade and Development, *The Economic Costs of the Israeli Occupation for the Palestinian People: Cumulative Costs*.

[47] United Nations, United Nations Conference on Trade and Development, *The Economic Costs Incurred by the Palestinian People Due to the Israeli Occupation: Constraining Development and Aggravating Poverty in the West Bank*.

[48] United Nations, United Nations Conference on Trade and Development, *The Economic Costs Borne by the Palestinian People Under Israeli Occupation: The Cost of Restrictions Imposed in Area C from Space*.

excluding East Jerusalem, because they do not overlap and there is no duplication between them. As shown in the table, the aggregate value of these estimates of the cumulative cost of the occupation over the period 2000-2022 exceeds $176 billion in 2022, equivalent to more than 11 times GDP in that year. By contrast, the World Bank estimate is confined to the cost of the occupation of Area C, with a cumulative total of $113 billion, equivalent to more than seven times GDP in 2022.

Table (3): Estimates of the Cumulative Economic Cost of the Occupation between 2000 and 2022

	Estimate Study	$1 million Fixed prices (2015 base year)	$1 million by 2022 prices	Cost as multiple of Palestinian GDP for 2022
1	UNCTAD (2009): Cost of lack of economic sovereignty (restricted scope for economic policy making); 23.6% of annual GDP	62.27	76.33	4.9
2	UNCTAD (2009): Cost of leakage and loss of Palestinian public funds; 26.6% of annual GDP	63.09	77.34	4.9
3	UNCTAD (2020): Cost of blockade on Gaza; 26.6% of annual GDP	21.98	26.94	1.7
4	UNCTAD (2021): Cost of occupation-related restrictions on Areas A and B of the West Bank after the Second Intifada; 28.8% of annual GDP	70.51	86.43	5.5
5	UNCTAD (2022): Cost of lack of Palestinian control over Area C of the West Bank; 20.9% of annual GDP	51.32	62.90	4.0
6	**Total cost of 3 + 4 + 5: occupied Palestinian territory excluding East Jerusalem**	**143.8**	**176.27**	**11.3**
7	World Bank (2013): Cost of the occupation of Area C: 35% of annual GDP	92.35	113.20	7.2

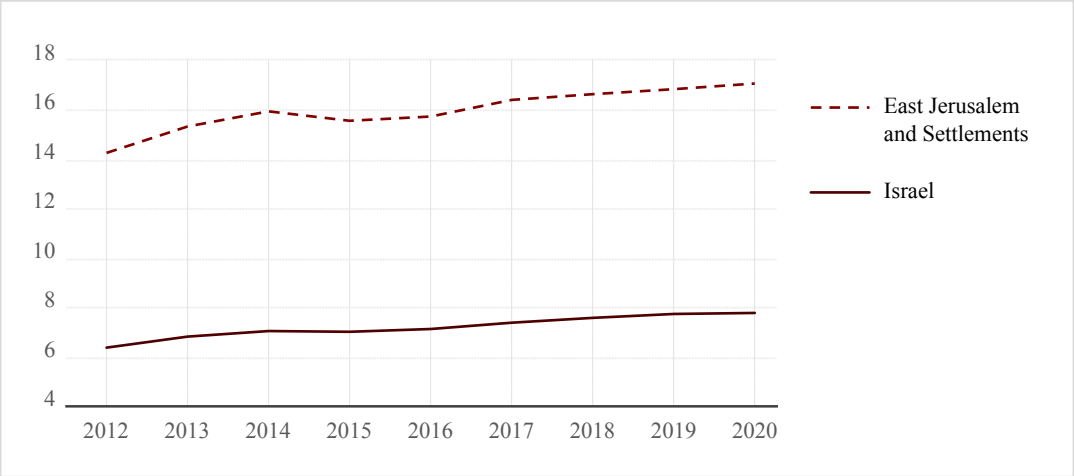
Source: Ibid.

4. Israeli Economic Gains from Its Occupation of the West Bank (2000-2022)

One of the best new approaches to estimate the economic cost of the occupation is to assess the gains appropriated by Israel through its occupation of the West Bank and East Jerusalem. UNCTAD was the first to estimate the cost of occupation from this perspective, using NTL analysis. By applying this methodology, UNCTAD was able to estimate the GDP appropriated by the occupying state through the use of Palestinian land and natural resources for the benefit of its own economy and its illegal settlements in the West Bank and East Jerusalem.[49] Figure (1) shows that the average annual NTL emanating from occupied East Jerusalem and the Area C settlements is twice that emanating from Israel. This indicates that the average per capita GDP in East Jerusalem and the West Bank settlements may be as much as twice the average in Israel. However, as a matter of extreme caution, UNCTAD assumed that the relative contribution of the population to GDP was the same in both regions, in which case the level of NTL in the two would be identical or at least closely comparable.

Figure (1): Israel, East Jerusalem, and the Settlements: Average Annual NTL (nW/cm-2sr-1)

[49] Ibid.



Source: United Nations, United Nations Conference on Trade and Development, *The Economic Costs Borne by the Palestinian People Under Israeli Occupation: The Cost of Restrictions Imposed in Area C from Space* (Geneva: 2022), p. 29.

Table (4) presents two estimates of the benefits Israel gained from its occupation of the West Bank, including East Jerusalem, between 2000 and 2022. The first estimate is based on UNCTAD's conservative assumption, namely that the West Bank's share of Israel's GDP is proportional to the share of the region's population in the combined population of the West Bank and Israel. The second estimate assumes that per capita GDP in the settlements of the West Bank and East Jerusalem is double the per capita GDP in Israel. Thus, as shown in the final column of Table (4), the estimated GDP generated in East Jerusalem and the West Bank settlements is at least 78% higher than the estimate based on the conservative assumption, that is, the difference between the final two columns of Table (4).

Table (4) indicates that the population of Israel, occupied East Jerusalem, and the settlements in the West Bank increased from 6.3 million in 2000 to 9.6 million in 2022, and that the share of the population residing in East Jerusalem and West Bank settlements rose from 11% in 2000 to 12.3% in 2022. According to UNCTAD's conservative estimate, the cumulative Israeli GDP generated through Israel's occupation of East Jerusalem and Area C of the West Bank between 2000 and 2022 amounted to $955 billion in 2022, or $757 billion at constant 2015 prices. This represented approximately 11.8% of Israel's GDP over that period and 48 times Palestinian GDP in 2022.

The second estimate indicates that the total GDP generated by East Jerusalem and the West Bank settlements during the same period came to $1,707 billion, or $1,354 billion at constant 2015 prices. This represented 21.1% of Israel's GDP during that period, or over 85% of twice Palestinian GDP in 2022. These figures point to the massive gains Israel reaped from its occupation of the West Bank. These gains can also be used to estimate the annual rental value of confiscated assets and, consequently, the cumulative compensation due until restitution is made.[50] Furthermore, these estimates suggest that ending the occupation of Area C and East Jerusalem would enable the Palestinian people to achieve a qualitative developmental leap capable of expanding their economy at unprecedented rates.

Table (4): Israel's Cumulative Economic Gains from Its Occupation of the West Bank (2000-2022)

(1)	(2)	(3)	(4)	(6)* (5) = 4x2

[50] The assumption underlying this conclusion is that the estimated gains made by the Israeli economy are equivalent to the losses inflicted on the Palestinian economy as a result of Israeli settlement. However, given the disparities in technology, productivity, and production inputs, this assumption may not necessarily be accurate. Be that as it may, the question remains: What would prevent the Palestinian economy, including its technology, productivity, and production inputs, from equaling those achieved by the Israeli economy if there were no occupation? These estimates can thus be utilized to determine both the annual rental value and the total monetary value of the assets that have been appropriated.

Year	Israel: Real GDP in millions of dollars (base year, 2015)	Population of Israel, the settlements and East Jerusalem	Share of settlement and East Jerusalem population	Real GDP of East Jerusalem and the settlements	
				UNCTAD assumption: equal economic activity	Maximum: doubled economic activity**
		(thousands)	(%)	Millions of dollars (base year, 2015)	
2000	184.40	628.90	11.0	20.19	36.40
2001	185.02	643.90	11.0	20.34	36.66
2002	184.81	657.00	11.0	20.36	36.68
2003	187.38	668.97	11.1	20.82	37.48
2004	196.35	680.90	11.2	21.92	39.44
2005	204.46	693.01	11.2	22.94	41.25
2006	215.88	705.37	11.4	24.53	44.06
2007	228.90	718.01	11.5	26.25	47.11
2008	238.43	730.88	11.6	27.67	49.58
2009	251.95	748.56	11.5	28.91	51.86
2010	265.96	762.36	11.6	30.80	55.21
2011	272.84	776.58	11.7	31.82	56.99
2012	284.89	791.05	11.8	33.69	60.25
2013	296.05	805.95	11.9	35.30	63.08
2014	303.41	812.57	11.9	35.99	64.35
2015	317.13	838.01	12.0	38.05	67.94
2016	330.70	854.60	12.1	39.88	71.17
2017	344.16	871.33	12.1	41.76	74.48
2018	358.46	888.28	12.2	43.72	77.94
2019	351.80	905.40	12.3	43.25	77.02
2020	382.10	921.69	12.4	47.45	84.42
2021	408.21	939.20	12.3	50.21	89.42
2022	416.36	957.05	12.3	51.21	91.21
Real cumulative value 2015	**6409.67**			**757.07**	**1354.00**
Cumulative value as of 2022	**8082.16**			**954.61 11.8%**	**1707.30 21.1%**

* GDP in this case is calculated based on NTL as shown in Figure (1). The calculation is done based on the following equation: Y2/P2 = Y*R/(P1+R*P2); where 2 refers to Region 2 (East Jerusalem and the settlements), 1 refers to Region 1 (Israel), P and Y denote population and income, respectively, and R represents the level of NTL in Region 2 relative to that in Region 1. The final term reflects per capita income in Region 2 relative to that in Region 1.

** See note above.

Source: Israel's GDP, the World Bank. See: World Bank Group, "World Development Indicators," *World Bank Group*, accessed on 27/9/2025, at: https://acr.ps/1L9BPuz. For population data covering the period 2000-2020, see: United Nations, United Nations Conference on Trade and Development, *The Economic Costs Borne by the Palestinian People Under Israeli Occupation: The Cost of Restrictions Imposed in Area C from Space* (Geneva: 2022), p. 30. Data for the years 2021-2022 are based on estimates derived from rates observed during the preceding four years.

5. A Comprehensive and Unified Framework?

The NTL methodology for measuring economic activity in the settlements is the most accurate due to its reliance on precise satellite data reflecting settlement economic activity. UNCTAD's estimate assumes that per capita GDP in the settlements and East Jerusalem is at least equal to that in Israel as a whole. This estimate suggests that settlement economic activity reflects the losses suffered by the Palestinian economy as a result of settlement economic growth. This may not necessarily be the case, but it does not provide an indicator of the extent of the Palestinian people's losses. UNCTAD's methodology for Area C assumes that Palestinian GDP growth rates in the West Bank's Area C are equal to those in Areas A and B. However, if the PA were to assume control of Area C, the growth rate across the West Bank would rise. The estimates produced by this methodology may therefore be viewed as conservative.

Estimating Israeli economic activity in the settlements and East Jerusalem is an important first step toward assessing the losses incurred by the Palestinian economy. This concluding section of the analysis proposes a methodology for estimating the value of resources exploited and appropriated by Israeli settlements in the West Bank and then adopts a counterfactual scenario that posits the utilization of those resources within the Palestinian economy itself.

The value of resources used in Israeli production can be estimated using the Leontief Input-Output Matrix model for the Israeli economy. This matrix is published on the website of the Organisation for Economic Co-operation and Development (OECD) covering the period from 1995 to 2020.[51] Based on this model, total economic sector output (X) is defined in terms of the input-output matrix (A), and the final demand for the products of the various sectors (F), as follows:

$$X = (I - A)^{(-1)} F$$

Consequently, the ratio of resources to the value added within the sectors can be expressed using the equation below, where P represents the matrix of product prices for the Israeli economic sectors[52]:

$$v = P (I - A)$$

This method enables an estimation of the resources used not only in the settlements, but in the Israeli economy as a whole. However, it may be assumed that the same technology and inputs are used both within the Green Line and in the settlements. Accordingly, once the value of the resources used in the Israeli economy has been estimated, the value of the resources used in the West Bank settlements can be estimated based on the settlements' share of Israel's GDP as shown in Table (4).

Moreover, the calculation can be undertaken using the two alternative estimates discussed above: (1) the UNCTAD estimate, which assumes that economic activity in the settlements is equivalent to that within Israel proper on a per-capita basis; and (2) an alternative estimate that assumes economic activity in the settlements is twice as large.

Once estimates of the resources used in settlements have been obtained, there are two options. The first is to use the aggregation methodology, while the second is to use the counterfactual

---

[51] The Organisation for Economic Co-operation and Development (OECD), "Input-Output Tables," accessed on 13/7/2025, at: https://bit.ly/3TCYxkw

[52] Thijs Ten Raa, *The Economics of Input-Output Analysis* (Cambridge: Cambridge University Press, 2006); Seyit Kerimkhulle et al., "The Use Leontief Input-Output Model to Estimate the Resource and Value Added," paper presented at 2022 International Conference on Smart Information Systems and Technologies (SIST), Kazakhstan, 28-30/4/2022.

methodology to calculate the economic losses incurred by the Palestinian economy as a result of settlement activity. Under the aggregation methodology, the value of the resources is adjusted to account for price inflation and accrued interest returns, while the counterfactual methodology entails the use of a macroeconomic model, such as the Leontief Input-Output model or the Computable General Equilibrium (CGE) model. However, these models require an input-output matrix. The only Palestinian matrix available is for 2004, which was updated by the Palestinian Central Bureau of Statistics (PCBS) in 2020.

Another model based on the counterfactual methodology could also be used, namely, the UNCTAD model, which is based on behavioural equations for the Palestinian economy. However, because this model relies on long time-series data, numerous assumptions would be required to generate the necessary time-series data on economic activity in the settlements. Furthermore, it would be necessary to incorporate new behavioural equations into the model in order to capture the relationship between settlement activity and the economic activity of various sectors in the West Bank. The matrix presented in Table (5) illustrates the channels through which settlements affect production sectors. For instance, the process of determining the value added to the agricultural sector requires variables such as the number of settlement outposts, including pastoral outposts, the number of workers employed in settlements, and the value of settlement-produced goods sold in Palestinian markets. Additionally, the NTL variable could be used for settlements operating quarries. Although some of the variables listed in Table (5), such as control over water resources and settler attacks on roads and farmers, are difficult to measure precisely, it is possible to use a proxy variable as an approximate indicator of such factors, such as the settler population in the West Bank.

Through the use of such methodologies, it would become possible to estimate the total cost of settlements. However, it is also essential to examine partial estimates at the sectoral level. Analysing the impact of settlements at the sectoral level does not yield a definitive estimate of their total cost, since such aggregation overlooks the interplay among sectors. Nevertheless, this approach can shed additional light on specific aspects that are often overlooked when calculating the overall cost of settlements.

UNCTAD has proposed that economic losses across various sectors should be measured according to the type of loss, such as physical damage, losses of water and natural resources, human capital losses, lost opportunities, public finance losses, losses suffered by local communities and residential areas, and psychosocial losses.[53] However, many of these losses arise from numerous overlapping causes, which makes them difficult to measure. Furthermore, economic sectors are interconnected and interdependent through the exchange of intermediate goods. Consequently, losses incurred in one sector will also have indirect adverse effects on others.

The matrix presented in Table (5) illustrates the principal channels through which settlements affect Palestinian production sectors. Estimating the losses incurred across all Palestinian production sectors due to settlement activity in the West Bank goes far beyond the scope of this study. That said, it offers a set of terms of reference pertinent to such methodologies. This matrix requires in-depth examination, in consultation with all relevant stakeholders, to ensure that all direct effects of settlement activity are taken into account.

[53] United Nations, United Nations Conference on Trade and Development, *The Economic Costs Borne by the Palestinian People Under Israeli Occupation*.

Table (5): Input-Output Matrix

Production inputs	Agricultural Sector	Industrial Sector	Construction Sector	Transport, Communications and Storage Sector	Financial Sector	Service Sector	Trade Sector	Government
Land and natural resources	Pastoral settlement, control over water resources, and settler attacks on agricultural lands	Control over oil and gas fields	Control over stone resources in Area C and construction of settlement quarries					Tax losses
Technology, capital merchandise and intermediate goods	Bans on the use of advanced technologies in irrigation and cultivation	Bans on the entry of advanced industrial technologies and "dual-use" commodities		Preventing telecommunications companies from using new frequencies (fourth and fifth generation)				Tax losses
Human resources	Working in the settlements	Working in the settlements	Working in the settlements				Working in the settlements creates dependency on the Israeli economy and reliance on imports from Israel	Tax and social security losses
Infrastructure	Bans on the development of water supplies in Area C The presence of checkpoints and the Separation Wall	Poor electricity infrastructure and policies of home and facility demolition	Poor electricity infrastructure, and directing Palestinian facilities to work in settlements industrial zones	Bans on road improvement in Area C and the presence of checkpoints	Occupation control over telecommunication infrastructure	Bans on the construction of services in Area C and demolition of those that exist	Checkpoints and control over roads	Tax losses
Trade	Flooding Palestinian markets with settlement products	Flooding Palestinian markets with settlement products				Heavy reliance on imports	Checkpoints and control over crossings	
Institutional and legislative environment	Civil administration measures	Civil administration measures and refusal to grant permits for facilities in Area C and Jerusalem	Civil administration measures, refusal to grant building permits and home demolitions	Civil administration measures	Civil administration measures	Civil administration measures	Civil administration measures	Civil administration measures to undermine the role of the Palestinian Authority

Source: Prepared by the researchers.

Concluding Recommendations

The evidence presented underscores the urgent need for a comprehensive research approach to monitoring and measuring the effects of the Israeli occupation and settlement enterprise on the various facets of life in the West Bank. The research conducted thus far suggests a number of recommendations and lines of inquiry that call for in-depth exploration in future studies, including the following:

1. Sector-specific analyses of the West Bank economy, undertaken within a broader research programme that extends beyond the scope of the present study. Such analyses should include surveys of firms, farms, and economic facilities in order to identify the constraints they face, including settlement expansion, settler violence, checkpoints, demolition policies, restrictions on construction, and limitations on access to electricity and water.

2. An estimate of the value of settlement-produced goods sold in Palestinian markets. Such an estimate would require interviews and focus groups with business owners, merchants, and labourers employed in the settlements.

3. A detailed legal and policy analysis of the procedures implemented by Israel's Civil Administration and the economic policies it imposes on the West Bank.

4. The formulation of a clear model based on production inputs that makes use of modern econometric tools to quantify the bias arising from omitted and intervening variables (inverse relationships in measurement), as well as a unified framework encompassing losses across all sectors. Such a framework must guard against redundancy, duplication, and overlapping measurement periods, while also identifying any areas of overlap that may exist. The objective is to prevent the double-counting of losses and to ensure that no loss, whether material or moral, is overlooked. Such a model must distinguish between losses associated with flow variables, such as income, and those associated with stock variables, such as real estate and physical capital, while incorporating a comprehensive survey of all damage that specifies what can and cannot be quantified.

5. Periodic updates of existing estimates of the losses incurred during the 1948 Nakba, and recalculation of their value based on recent prices. Such updates should preserve the purchasing power of the 1948 losses, as well as the hypothetical cost, that is, the return on appropriated capital stock, accumulated between 1948 and the year in which the update is made.

6. Estimates of the cost of the occupation during the periods 1967-1994 and 1994-2000, both of which remain comparatively under-researched. This should include the valuation of Palestinian land, real estate, and other assets appropriated by the occupying state in the West Bank from the date of their seizure.

7. The assignment of a monetary or rental value to all damages reported in the claims submitted to the UN Register.

Finally, there is an urgent need for a comprehensive framework for identifying, assessing, and documenting the losses sustained by Palestinians as a result of the war of extermination that the Israeli occupation has waged against the Gaza Strip, as well as the cities and villages of the West Bank, since 7 October 2023. Such a framework must account for the grave losses in human and physical capital, including infrastructure, as well as psychological and moral losses, and ensure the documentation of every war crime perpetrated by the Israeli occupying state.

References

Applied Research Institute – Jerusalem (ARIJ). *The Economic Cost of the Israeli Occupation of the Occupied Palestinian Territories*. Bethlehem: 2015.

Arab Property and Blocked Accounts in Occupied Palestine. Cairo: League of Arab States, 1956.

Decoster, Xavier Stephane et al. *Telecommunication Sector Note in the Palestinian Territories: A Missed Opportunity for Economic Development*. Washington DC: The World Bank Group, 2016.

Economic Monitoring Report to the Ad Hoc Liaison Committee. Washington DC: The World Bank Group, 2016.

Hadawi, Sami & Atef Kubrusi. *Palestinian Rights and Losses in 1948: A Comprehensive Study*. London: Saqi Books, 1988.

Hicks, John Richard. *A Revision of Demand Theory*. Oxford: Oxford University Press, 1956.

Kerimkhulle, Seyit et al. "The Use Leontief Input-Output Model to Estimate the Resource and Value Added." Paper presented at 2022 International Conference on Smart Information Systems and Technologies (SIST). Kazakhstan. 28-30/4/2022.

Kubrusi, Atef. "Palestine Losses in 1948: Calculating Refugee Compensation." Center for Policy Analysis on Palestine. 3/8/2021. Accessed on 7/9/2025, at: https://acr.ps/1L9GQ2H

Ministry of National Economy of the State of Palestine, The Applied Research Institute – Jerusalem (ARIJ). *The Economic Costs of the Israeli Occupation for the Occupied Palestinian Territory*. Bethlehem: 2011.

Mustafa, Walid. *al-Mwārid al-Ṭabīʿiyya fī Filasṭīn: Muḥaddidāt al-Istighlal wa-Āliyyāt Taʿẓīm al-Istifāda*. Ramallah: Palestine Economic Policy Research Institute – MAS, 2016.

Niksic, Orhan, Nur Nasser Eddin & Massimiliano Cali. *Area C and the Future of the Palestinian Economy*. Washington DC: The World Bank Group, 2013.

Raa, Thijs Ten. *The Economics of Input-Output Analysis*. Cambridge: Cambridge University Press, 2006.

Robinson, Nehemiah. *Indemnification and Reparations: Jewish Aspects*. New York: Institute of Jewish affairs, American Jewish Congress, 1944.

Sayigh, Yusif. *The Israeli Economy*. Beirut: PLO Research Centre, 1966.

The Organisation for Economic Co-operation and Development (OECD). "Input-Output Tables." Accessed on 13/7/2025, at: https://bit.ly/3TCYxkw

United Nations Economic and Social Council. "Housing and Property Restitution in the Context of the Return of Refugees and Internally Displaced Persons." 28/6/2005. Accessed on 15/9/2025, at: https://acr.ps/hBy2szM

United Nations General Assembly. *Progress Report of the United Nations Conciliation Commission for Palestine Covering the Period from 23 January to 19 November 1951*. A/1985. Paris: 1951. Accessed on12/7/2025, at: https://bit.ly/44YHy2u

_____. *Resolution 394 (V), Palestine: Progress Report of the United Nations Conciliation Commission for Palestine; Repatriation or Resettlement of Palestine Refugees and Payment of Compensation Due to them*. A/RES/394 (V). New York: 14/12/1950. Accessed on 12/7/2025, at: https://bit.ly/4lrAGR6

_____. "Letter Dated 8 July 2024 from the Secretary-General Addressed to the President of the General Assembly." 18/7/2024. Accessed on 15/9/2025, at: https://acr.ps/1L9GPKN

United Nations, Office of the High Commissioner. *Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law* (A/Res/60/147). 21/3/2006. Accessed on 15/9/2025, at: https://acr.ps/hBy2sjb

United Nations, United Nations Conference on Trade and Development. *The Economic Costs of the Israeli Occupation for the Palestinian People: The Unrealized Oil and Natural Gas Potential*. Geneva: 2019.

_____. *The Economic Costs Borne by the Palestinian People Under Israeli Occupation*. Note by the Secretary-General, General Assembly. Seventy-first Session. Item 35 of the provisional agenda. Geneva: 2016.

_____. *Alternative Policies for Sustainable Palestinian Development and State Formation*. Geneva: 2009.

_____. Trade and Development Board. *Report on UNCTAD's Assistance to the Palestinian People: Developments in the Economy of the Occupied Palestinian Territory*. Fifty-eighth Session. Geneva: 2011.

_____. *The Economic Costs of the Israeli Occupation for the Palestinian People: Cumulative Costs*. Geneva: 2019.

_____. Trade and Development Board. *Report on UNCTAD Assistance to the Palestinian People: Developments in the Economy of the Occupied Palestinian Territory*. Sixty-second Session. Geneva: 2015.

_____. *The Economic Costs of the Israeli Occupation for the Palestinian People: Impoverishing Gaza Under Siege*. Geneva: 2020.

_____. *The Economic Costs Incurred by the Palestinian People Due to the Israeli Occupation: Constraining Development and Aggravating Poverty in the West Bank.* Geneva: 2021.

_____. *The Economic Costs Borne by the Palestinian People Under Israeli Occupation: Losses Arising from Additional Restrictions Imposed in Area C, 2000–2020*. Geneva: 2022.

_____. *The Economic Costs Borne by the Palestinian People Under Israeli Occupation: The Cost of Restrictions Imposed in Area C from Space*. Geneva: 2022.

Winch, David M. *Analytical Welfare Economics*. London: Penguin Books, 1971.