Incomplete contracts, the port of Gaza, and the case for economic sovereignty

by

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Abstract
We reconsider the case for constructing a port in the city of Gaza, and more generally for a future Palestinian State controlling independently its vital economic interests. We construct a theoretical example that demonstrates that the notion of economic sovereignty is compatible with modern economic theory: essentially, a State should have sovereign power over its vital economic interests just as a company should acquire property rights over specific assets of strategic importance. The theoretical example yields two main results: firstly, Israel and Palestine will not be able to realise a peace dividend without Palestine having some economic sovereignty. Secondly, strategic assets generate value by enabling trade, but their separate records are likely to show accounting losses.

1   INTRODUCTION

The basic dilemma concerning economic relations between Israel and a (future) Palestinian state is the extent to which the two units should be economically integrated (or separated). On the one hand, it is argued that integration would generate more gains from trade, facilitate economic growth and maximise the peace dividend. On the other hand, it is argued that Israeli occupation has undermined economic development in the West Bank and the Gaza Strip, and that some separation is needed in order to turn things around. The former is sometimes considered as the economic approach, while the latter is sometimes described as an 'alternative' approach, which puts politics before economics. Indeed, as we shall see below, at least in some cases the international development agencies have used the 'economic argument' in order to advocate more economic integration.

At the heart of the debate lies the notion of *economic sovereignty*: the view that countries should have sovereign power over their vital interests, in particular strategic assets like ports, power stations, telecommunication systems and maybe some key industries. Indeed, most economists are hostile to the notion of economic sovereignty, believing that it serves a nationalistic, rather than an economic, purpose. Some might even argue that traditional economic theory cannot accommodate the notion of economic sovereignty: scarce resources should be allocated according to comparative advantage rather than some perceived strategic value.

The purpose of this short note is to point out that modern economic theory does not rule out a priori the notion of economic sovereignty (although it certainly does not argue that every asset is strategic and that countries should be autarchic with respect to every industry). Essentially, we argue that the notion of economic sovereignty is isomorphic to that of private property. It is well understood by now that firms may be forced to own and control certain assets rather than buy the services from external suppliers. This is because they cannot write down complete contracts that would protect them against opportunistic behaviour by these suppliers.[1] Clearly, sovereign parties face even greater difficulties when they try to protect vital interests by way of a contract.

We use the port of Gaza as a leading example, although we believe that the argument is applicable more broadly. From the very beginning of the Oslo peace process,[2] the Palestinians considered a port in the city of Gaza to be an economic interest of vital economic importance. Most of the economists involved in the peace process considered such a port an extravagant symbol of national sovereignty which a poor Palestine could ill afford. It was argued that since ports are prone to significant scale economies, and since the nearby Israeli port of Ashdod still had excess capacity, buying services from Israel would prove more cost-effective.

In our view, this argument was based on narrow technological considerations and ignored the strategic issues that arise when contracts are incomplete. We construct a simple theoretical example where investment in strategic assets may actually facilitate, rather than impede, trade among nations. To understand why, suppose that the peace dividend is generated by a Palestinian development project that yields some exportable goods. Hence, the project is strongly complemented by a service generated by a specific asset, a port through which the goods are shipped to foreign markets. Now suppose that the Israeli port of Ashdod has excess capacity (even if it was operating at full capacity, due to significant scale economies in the technology of operating harbours it would be cheaper to expand capacity in Ashdod rather than construct a new port in Gaza). Hence, in a first-best world the parties may benefit from trading port services.

Note, however, that such a trade presupposes the ability to contract upon, and enforce, the 'access fee' to the port. Suppose, to the contrary, that contracts are incomplete or un-enforceable. In that case, the access price will be determined according to the ex post bargaining power of the parties. Possibly, that price will fail to compensate the home country for the sunk cost of its investment in the development project. If that is foreseen in advance, the whole deal will fall apart and the potential peace dividend will never materialise. In such a world, the only remedy may be to locate another port within the sovereign territory of Palestine. Obviously, such a solution will decrease the peace dividend; however, a decreased peace dividend may be better than no peace dividend.

One practical implication from our analysis is that accounting-based rates of return on the port will fail to capture its social welfare. We highlight this result by the following argument: a port in Gaza may stand idle as Palestinian exporters use cheap port services in Israel; a Gaza port is nevertheless essential in preventing Israel from behaving opportunistically and charging fees that drive the ex-post rate of return on the development project down to zero.

Our analysis is an application of the property-rights incomplete-contracts literature. It is interesting to note, however, that while Hart (1995) emphasises the 'under-investment' result, ours is an over-investment result: second best investment is higher than first-best investment. In that respect, our result is closer to the 'strategic excess capacity' result, derived in the context of international trade; see Tirole (1988). It is also interesting to note the relation of our analysis to the sovereign-debt literature; see Fernandez and Eaton (1995). Note, however, that the latter literature emphasises that sovereignty is an obstacle to trade, because it weakens enforcement. While we agree with this observation, we point out that, given that the parties are sovereign and enforcement is already weak, strengthening the sovereign position of the weaker party may balance the relationship and thus ease, rather than disrupt, trade among nations.

This note is organised as follows: more details on the Oslo Declaration of Principles (DOP) and on the Gaza port decision can be found in Section 2. Section 3 contains a very simple example indicating that a Gaza port might have made sense. A brief conclusion is provided in Section 4.

2   SOME HISTORY OF THE GAZA PORT

The Gaza port is already mentioned in the DoP signed first in Oslo and then in Washington on 13 September 1993. The economic section of the declaration states that there will be 'co-operation in the field of transport and communications, including a Program, which will define guidelines for the establishment of a Gaza Sea Port Area'.[3] The issue of a port in Gaza receives more detailed attention in the Interim Agreement of 28 September 1995. It is stated that 'plans for the establishment of a port in the Gaza

Strip in accordance with the DOP … will be discussed and agreed upon between Israel and the Council.'[4] To resolve the security issues, it was agreed that ships would have to harbour first in an Israeli port.

However, the Gaza port was never built, partly because of the recommendations of the international development agencies. It is well known that ports are prone to significant economies of scale, which imply, according to standard analysis, that one is better than two. Thus, for example, a report by the Armand Hammer fund calculates that the 'use of [the] Ashdod Port would cost [neighbouring Arab] countries (Jordan and Iraq) at least $7 per ton [*i.e.* 50%] less than the use of a yet un-built Gaza port' (net of investment required to expand capacity at Ashdod). Indeed, the report states explicitly that the construction of a port in Gaza can be justified only on the grounds of 'non-economic considerations'.[5] More significantly, the World Bank has argued that other infra-structure projects such as roads, water treatment facilities and housing were more urgently needed. This is because 'the region is presently served by modern facilities in the existing Israeli ports on the Mediterranean coast and the Port of Eilat and the Jordanian Port of Aqaba in the Gulf of Aqaba. Therefore, the economic viability of a new port at Gaza will need to be assessed within the regional context. However, [the report still mentions that] the Palestinians consider the port an essential element.'[6]

Unfortunately, this optimistic spirit of co-operation has never materialised. The year 1994 saw some of the worse acts of violence so far in the history of the Israeli-Palestinian conflict, committed by extremists from both sides, a violence that has been escalating ever since. In response, the Israeli government has implemented a policy of closures, preventing Palestinian access to Israeli territory in general, and particularly to the port of Ashdod. The Israeli government has usually argued that the measures are necessary for security reasons, but the Palestinians have always argued that the closures are ineffective security-wise, and are rather a means to penalise the Palestinian civil population, or even worse to pressure it towards renegotiating the Oslo agreement. As we shall see below, an important aspect of our theoretical argument is that no third party can verify such claims. It is telling, however, that some outsiders found them to be credible.[7] For example, the

head of the World-Bank delegation to the West Bank and Gaza argued that 'the Paris Protocol created a *de-facto* customs union. But a union that works presupposes mutual interests, good will and an environment of trust and respect. This environment had eroded over the past two years. Increasingly adversarial relationships between the Palestinian Authority and the Israeli Government put a customs union implementation at risk. … Private Israeli-Palestinian trade relations are close and in many cases parties are satisfied. However, when the interests are not identical, the Palestinians have little control. Israeli commercial interests can be advanced either by various traditional obstacles (port delays, claims of failures to meet standards, etc.) or by means of other barriers and costs, which may be intertwined with security or safety procedures. Israel defends its fiscal interests by enforcing limits on Palestinian direct imports, by its control of external market access and its control of all import tax remittances, essential to Palestinian fiscal health.'[8]

3 THE MODEL

In this section we present a simple example that uses incomplete-contract theory to argue that a port in Gaza would make economic sense in a second-best world where inter-state enforcement mechanisms are weak.

The setting

There are two periods: ex ante and ex post. The real interest rate is assumed to be zero. There are two players: $\{i,p\}$, which we dub 'Israel' and 'Palestine', respectively. Ex ante, player p can implement a development project, which costs c ex ante, and would yield an output $d > c$ ex post. We may think of the development project as either public (eg infrastructure, training and education programmes) or private (new business implemented in a decentralised manner with aggregate yield and cost of d and c). We also assume that the output of the project is an export commodity so that realising the income is contingent upon accessing foreign markets. We interpret $(d - c)$ as a 'peace dividend'.

To reach the international markets, player p must access a harbour from where the goods can be shipped abroad. Now suppose that player i has a harbour which is in excess capacity. For simplicity, the existing capacity of i's harbour is sufficient to accommodate

all of p's exports at a shadow-price of zero. More specifically, we assume that player p can access i's port at a zero marginal cost, without any additional investment in infrastructure. In contrast, it is costly for player p to construct its own harbour: we assume that the fixed cost of a new harbour is k; the marginal cost of exporting goods via the new harbour is assumed to be zero. Obviously, in a first-best world, investing in a new harbour is wasteful. However, we assume that the surplus generated by the project is large enough to cover the cost of constructing a harbour, namely,

(1) $d - c - k > 0.$

We also assume that there is a production lag in the construction of the harbour: it has to be built ex ante so as to be operational ex post when the project comes on stream.

Clearly, p's access to i's port needs to be guaranteed by way of a contract at the time that the investment decision is made. However, contracts are valid only to the extent that they can be enforced. Obviously, international transactions are notorious for the weakness of their enforcement mechanisms, and we assume that no contractual obligation is enforceable internationally. However, we assume that the international community can punish any action of one player against the territory of the other. We discuss this assumption further in the next sub-section.

Our last assumption is that player i has all the bargaining power both ex ante and ex post. This assumption is made for simplicity: the result will not change qualitatively if we allocate the bargaining power more evenly. As it happens, the assumption is not at odds with the Israeli-Palestinian reality.

First best

It has already been noted that there is no first-best rationale for player p to construct a harbour in its own territory. Therefore, the only purpose of the present sub-section is to explain what contracts and enforcement mechanisms are required to support the first-best outcome. Hence, assume for the time being that everything is contractible and

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enforceable. We shall argue, at the end of this subsection, that this assumption is not very realistic, for it assumes a powerful and well-informed enforcement agency, a counterfactual.

The first-best contract contains an access-price t^*, at which player p may export its goods via player i's harbour. Under the assumption that i has all the bargaining power, t^* is trivial to compute:

(2) $t^* = Min(d - c, k) = k.$

That is, player i uses his bargaining power to extract all the surplus from the transaction, subject to the constraint that player p cannot be charged more than the cost of constructing its own harbour. Using equation (1) we get that the second constraint is binding.

Obviously, the contract should require that while player p crosses i's territory it obeys i's traffic laws, its pollution standards and safety requirements, as well as abstaining from any criminal activity. If not, player i may use its sovereign power to stop player p from accessing the harbour. These conditions may seem technical, but they are not. Ex post, player i will try to behave opportunistically, and renegotiate the access price t upwards. Since c is already a sunk-cost, and since the option of building a harbour is no longer available, there is nothing that prevents player i from renegotiating the access price up to d.[9] The practical way to do this is by using the 'law abiding' clauses in the contract as an excuse for stopping player p from crossing i's territory to access the harbour. Note that even if there exists an international agency that is responsible for enforcing the contract, it is unlikely to be able to establish whether denying access is strategic or justifiable under the law-abiding clauses. In the language of the incomplete-contracts literature, player p's conduct within player i's territory is 'observable but not verifiable.'

Second best

It is quite obvious that once player p foresees that player i would behave opportunistically and will expropriate the peace dividend, it will not invest in the development project. But it is quite obvious that had player p been allowed to construct its own harbour, it would collect a surplus of

$$d - c - k > 0.$$

Hence, building its own port, though first-best wasteful, is second-best welfare enhancing, supporting international trade between player p and the rest of the world.

Three points are worthy of some elaboration. First, note that it is likely that the port will lose money. The reason is the following: suppose that player p supplies port-services to its own citizens at some fee $t_p > 0$. Whatever this fee is, player i would have an incentive to undercut it. This is because its own harbour is in excess capacity; at a zero marginal cost, it is profitable to expand traffic at any positive price. The exact equilibrium price depends on how we model the oligopolistic competition among the two players. Let us note that under the plausible assumption of Bertrand competition, the equilibrium fee t^*_p would be zero. Thus, from an accounting point of view the harbour is a pure waste of money. Hence, standard net-present-value rules for evaluating investment projects may not be valid for strategic assets in a second-best world. In our setting, the value of the harbour is not captured by the cash-flow that it (does not) generate, but rather by the fact that it prevents player i from behaving opportunistically. Without such a guarantee, player p cannot implement its development project.

Secondly, comparing the first and the second best, it is easy to see that player p's profits are the same. Hence, the whole dead-weight loss, k, resulting from the contractual imperfection falls on player i. If player i could pre-commit itself not to behave opportunistically towards player p, it could collect the amount that player p spends (in the second-best world) on constructing the harbour. Also, comparing the 'no project' state with the second best, it is easy to see that player i has no share in the peace dividend, and is thus indifferent to whether the development project is implemented or not. It is easy,

however, to amend the example giving player *i* some bonus in case the development project is implemented. (It can be interpreted as profits of *i*'s suppliers to *p*'s producers while operating the project.) Once that is done, it is actually in i's best interest to allow the construction of a port so as to pre-commit itself not to behave opportunistically and to enable the generation of the peace dividend both for its own and its neighbour's sake.

Thirdly, it is worth noting that the second best arrangement (trade supported by a strategic asset) works under the crucial assumption that player *i* will not use its military power to block player *p*'s harbour because the international community is able to stop such an action. Why would the international community stop an action of player *i* against the territory of player *p*, but not enforce a contract that allows player *p* access to player *i*'s harbour? The reason is that when player *i* denies access to the harbour, the international community cannot verify whether this action is opportunistic, or whether it is a 'justifiable' response to player *p* breaching the 'law abiding' condition in the contract. We believe that this is, essentially, what happened in the Israeli-Palestinian case. Israel denied the Palestinians access to Israeli harbours on grounds of defence against terrorism. While terrorism was a fact, it was impossible to establish whether the Israeli steps were genuine, or whether these were opportunistic steps intended to renegotiate the contract.

4   CONCLUSIONS

We have started this paper by identifying two seemingly conflicting views regarding the desired economic relations between Israel and an independent Palestine: on the one hand, the economic approach that recommends integration so as to maximise the peace dividend; on the other hand, the 'alternative' approach that argues that integration would lead to Israel's continued control of Palestine, which would undermine the latter's economic development (as it has done in the past).

The main purpose of this paper is to provide a synthesis of the two approaches. We have shown that modern economic theory does not support a priori the view that the optimal level of integration is full integration. In a sense, the analysis implies that one cannot clearly distinguish between the economic and the political aspects of Israeli-Palestinian

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relations. We have constructed a simple example where allowing Palestine to hold a strategic asset separately from Israel is a necessary condition for the generation of the peace dividend. Investment in the strategic asset is justified even though the actuarial rate of return on the asset is likely to be negative. Hence, a certain amount of separation is actually a necessary condition not just for the political stability of an Israeli-Palestinian peace treaty, but in also in order to support international trade between Palestine and the rest of the world.

It is important to emphasize that the analysis is not limited to the port of Gaza alone. Rather, we use the port of Gaza as a leading example that helps to explain what we mean by 'strategic assets'. It is obvious that the port is not unique. The argument would apply immediately to other border points, such as airfields or land exits. Indeed, any asset or policy that may be used by Israel in order to disrupt the normal operation of the Palestinian economy should count as well. For example, internal routes within the Palestinian territory that are used for the delivery of labour, raw materials and finished goods may also be considered strategic. Indeed, we have observed in recent years many cases where such roads were blocked in order to impose internal closures, with enormous damage to the Palestinian economy.

At the same time, it is important to emphasize that our argument is not in favour of autarchy, but rather in favour of trade and co-operation supported by the establishment of sovereign power over strategic assets. It is worth repeating some of the key assumptions. Firstly, strategic assets have some crucial technological properties; most importantly they strongly complement a broad range of economic activity, and they are specific in the sense of not having any close substitute. Secondly, we deal with parties emerging out of a long and bloody conflict, having no mutual trust, goodwill or reputation on which co-operation could be maintained. Thirdly, the parties are highly asymmetric. It follows from our technological assumptions that while Israel may hold up Palestine, the converse is unlikely. It is only the interaction of the technological and the political factors that makes certain assets strategic in nature.

Lastly, we would like to raise the following question: why should the above analysis be applied to Israel and Palestine, but not to peaceful neighbouring countries in, say, Western Europe? The answer is that our game-theoretic model is well suited to capture the state of conflict within which Israel and Palestine operate. Probably, a more peaceful situation is characterised by some additional factors that would allow the parties to establish a co-operative solution. Some 'social capital' of good will or reputation may be one of these factors. Another may be a web of interwoven interests between individuals within those countries so that a majority of people in both countries lose from breaking down the relations. Analytically, modelling the co-operative solution is probably a more demanding task than modelling the conflict. Unfortunately for Israel and Palestine, we have not yet reached the point where dealing with such an analytical challenge is a matter of practical urgency.

NOTES

[1] See Klein, Crawford and Alchian (1978), and Hart (1995).

[2] For more background see Arnon et. al. (1997).

[3] Article 5, Annex III-Protocol.

[4] Annex 1, Article XIV, paragraph 4.

[5] See Ben-Shahar, Fishelson, and Hirsch (1989), p.141.

[6] See World Bank (1993).

[7] Arguably, the government sought concessions payable in political rights rather than money, but this bears little effect on the analysis.

[8] Dr. Joe Saba, the Resident Mission Director of the World Bank in the West Bank and Gaza Strip, in a speech delivered in Nablus on September 29th, 1998. Quoted in the *Palestine Economic Pulse*, 3: 5, September- October 1998, pp.4-5.

[9] Payment may be extracted in kind, an interpretation that fits better the description in section 2: according to the Palestinian side, Israel's closure policy was intended to renegotiate the Oslo agreement and extract more concessions, territorial and other.

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