TRANSACTIONS COSTS IN INTERNATIONAL TRADE: Why They Matter for Developing Countries

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Banyak studi mendiskusikan bahwa biaya transaksi perdagangan internasional adalah salah satu faktor penting bagi tetap negara dalam konsep perdagangan internasional. Penurunan biaya transaksi perdagangan internasional pada suatu negara merupakan salah satu sumber dalam pertumbuhan ekonomi bagi negara bertanggung jawab. Negara-negara berkembang, seperti Indonesia, dinamis untuk dapat memperoleh biaya transaksi perdagangan internasional jika negera tersebut berkembang sesuai dengan memperoleh peningkatan dalam perkecambaan internasional. Usaha penurunan biaya transaksi perdagangan tersebut dapat dilakukan dengan akses yang bersangkutan atau bekerja sama dengan negara lain dalam kerangka kerja sama internasional, seperti APEC dan WTO. Tujuannya adalah untuk membangun hubungan perdagangan bilateral di antara negara-negara di Asia.

Keywords: transactions cost; international trade; developing countries

The thesis of this paper is that the volume and composition of foreign trade cannot be explained without considering the influence of transaction costs on international exchange. In a period of globalization, a country's success in raising its level of participation in global commerce, and utilizing the well-known gains of trade, will depend on its ability to lessen the inhibiting effects of high transaction frictions on exports and imports. In emerging nations, such as Indonesia, a legacy of tariffs and restrictions, poor infrastructure, toward-looking firms, and weak financial intermediaries creates an environment of transactions costs that restricts fuller participation in international trade. Inexperienced private exporters may not find it profitable to search for foreign opportunities, since obtaining needed information and building confidence between themselves and overseas importers require time and money.

One reason why Indonesia's foreign sector has grown rapidly in recent years is initial success in reducing transactions.
costs and creating a more favorable climate for imports and exports. Much more needs to be done. Participation in regional trade agreements such as ASEAN and APEC is as well as continued progress within the global GATT-WTO framework, are important institutional mechanisms for reducing impediments to trade and creating common conventions that govern trade contracts and establishing means for resolving conflicts over trade practices. More conscious attention in the public and private sectors to reducing transactions costs is needed in Third-World nations, and those that are most successful in reducing transactions burdens on trade will experience the most rapid integration into the world economy of the 21st century.

Transactions Costs and International Trade Theory

International economics has stood apart as a subfield of the discipline since its origins. One need only conjure the shades of the Mercantilists, Adam Smith, David Ricardo, and Alfred Marshall to make this claim self-evident. The dichotomy between the domestic and foreign sectors is long-standing and has implications for theory, concepts of value, and policy. It is worth asking why external transactions have invited special inspection by great economists and yielded such remarkable insights into the process of exchanging. The answer is that trade within the boundaries of a particular society raises no unusual issues. There are rules that those engaged know they should follow, the gains and losses are more or less anticipated and shared by all, and information and enforcement costs are comparatively low. A stable and known institutional context may be taken for granted, in which to analyze actors' behavior. In vivid contrast, when exchanges occur across social and national borders none of these conditions may be presumed.

Differing social and economic regimes incorporate inconsistent institutions or rules of the game. Examples include variations in business codes, judicial procedures, relations between state and market, and stances towards market agents. Languages, weights and measures, coinages, and normative judgments about dealings in selected products will diverge. Each of these myriad dimensions of variety adds to the information, transactions, and enforcement costs associated with affecting acts of international exchange. From the 1400s on, the consolidation of the mercantile nation-states of Europe was achieved by numberless collectively and privately engineered measures to reduce domestic exchange or transfer costs. During the late nineteenth and early twentieth centuries, technological changes lowered shipping and communications expenses, as railways, steam shipping, and telegraphy spread. After Bretton Woods, international organizations, trade negotiations, and regional trading arrangements have achieved pronounced decrements in the costs and risks of moving products from one country's jurisdiction to another.

The standard comparative cost model assumes transactions costs are zero. The conventional textbook treatment sometimes mentions transportation charges, insurance rates, and banking fees, all of which are monetized, but do not integrate them into the discussion. This extreme simplification has the effect of reducing the entire analysis of exchange merely to a determination of the location of production. It obviates any discussion of the institutionalization of exchange, of broadly defined transactions costs, and of culturally defined consumption imperatives.
All trading parties are presumed to follow identical commercial practices. One effect of ignoring institutional gaps and frictions in the exchange process is that the costs of trade are substantially overestimated. The orthodox model, with zero transfer costs, yields a base case, maximum volume of trade. One could, in reality, make the adverse assumptions that transactions costs are infinite, in which instance these would be no trade; all goods would be unobtainable. Clearly, in the transnational exchange process all public and private sector functions in a variety of institutional regimes, possess only flawed pretensions about outcomes, and are subject to a varying level of domestic monetary and non-monetary institutional transaction expenses. There is not sufficient wisdom at the point to propose more than that these transfer costs are higher than generally thought in comparison to supply costs and that, ever since, the ratio of the two has fallen substantially because of technological improvements and institutional refinements.

Institutional arrangements and the transactions costs associated with them are a primary determinant of the level and composition of world trade. A number of strong theoretical conjectures may be derived from this proposition. These can be fleshed out by judicious use of historical evidence and by looking at features of contemporaneous trading relationships. The institutional theory of interregional transactions does not dislodge the standard, widely-held competitive advantage theory. Rather, the conventional model remains a special case rather than representing boundary cases, where there are no institutional frictions associated with cross-border exchange and transactions costs equal zero. Adams (1987) presents an institutional theory at length. Adams (1984) emphasizes institutional international economic policies.

The paramount question here is prof. for a thorough understanding of international transactions costs. This list indicates how many forms such costs take as well as the interest to be possessed by developed countries as they seek to raise the level and efficiency of their participation in the global economy. A salient but crucial intention is to make an initial bid to examine the scale of international transfer costs, to examine how their impact has changed over time, and to assess the consequences for Asia's modern bilateral trade flows. The presently developed countries benefited from sustained declines in transaction costs in the half century before World War II. With conscious intervention, in the half century following the end of World War II. Increasingly, led by Japan and the East Asian tigers, emerging economies have discovered that raising the wave of world trade propelled by eliminators of barriers to trade and reductions of trade frictions can make decisive contributions to the growth of their foreign sectors. A view of the apparently high expenses, barriers, and risks associated with international transactions, it may well be asked why such exchange historically has been so important. The response is that external barriers, particularly in long-distance trade, are likely to affect exceptional benefits to the engaged parties. As a general proposition, barriers climatic and technological variance with distance, ancient international trade transmitted into the domestic realm items of rarity and value, produced on local considerations of need or status. Typical early trade goods include salt, griststones, spices, furs, weapons and metal articles, textiles, and psychoactive substances such as tea, coffee, opium, tobacco, and chocolate. Wide divergences between domestic availabilities and costs, and these dynamics in supply.
partners, provoke compulsive incentives to seek out viable channels of exchange. In this ongoing competition of values, and the ensuing praiseworthy incentives to realize the gains of intersocietal transacting, one can perceive the nucleus of the deterministic, classical theories of absolute and comparative advantage.

The challenges and rewards of intersocietal exchange are everywhere amenable to human intervention and it is this that must be analyzed, not ostensively assumed away. Intersocietal exchange is the outcome of cognizant action in a particular institutional context. Even in the face of steep transactions costs and indeterminate risks, it behooves agents to seek zealously to engage in transborder commerce. Such agents are by no means limited to classes of private market dealers or legions of international peddlers. Perhaps most frequently in precapitalist times, long-distance trade was steered by institutional compacts and was regulated and overseen by branch offices of city or state governments. As in Venice and the Italian city-states, a congeries of elite families may have been instrumental. By the sixteenth century, that novel institution, the chartered merchant trading company, forerunner of today's transnational corporations, moved toward center stage as an instrument of exchange management.

Concealing intersocietal trade as entailing varying forms of instituted process yields several robust principles (Adams 1987).

- **Transactions costs** will be higher, and volumes of exchange lower, the more disparate are the institutions of the two societies involved, subject to the usual cherished pariah caveat.
- **To put this axiom the other way round, trade will be greater the more similar are two societies' institutions, such as modes of exchange, forms of governance, juridical methods, and property rights, because transactions costs and risks will be lower.**
- **Trade within spheres where there is growing institutional convergence, arising through imperial expansion or cooperative negotiation, will expand more rapidly than in a highly segmented setting.**
- **A traditional society, or a modern nation, may unilaterally adopt policies to bring its practices into conformity with those of a larger component of the global system, and thereby reap the benefits of diminished transfer burdens.**

Alone and in concert, states and private actors will desire considerable energy to the reduction of barriers to intersocietal exchange. It is very costly over the long run for any society, even a large imperial state, to try to go it alone. The modern instances of the Soviet Union and China are compellingly illustrative. Isolation from Euro-Asian channels of exchange condemned Sub-Saharan Africa and the uncolonized Americas to technological, military, economic, and immunological backwardness. Small adaptive trading peoples have secured economic and even military supremacy over large closed societies, as the Netherlands (Netherlands Indies), Great Britain (India), and Japan (East Asia) have illustrated in recent centuries. None of this denies the reality that under particular conditions a high degree of isolation may be desirable, at least for a time. The arguments for infant-industry tariffs, or subsidies, are compelling. Closing the city gate to beavers of the plague makes sense. The aloofness of the Swiss or the Tibetans' Shangri-La proclivity may have temporary merit. Nonetheless, over the reach of time, there are very large and cumulative material and nonmaterial sacrifices incurred by remaining outside global trade and intellectual flows.
International Transactions

Costs

The potential costs of intercountry exchange involve out-of-pocket monetary payments, the commitment of real resources, the forgoing of immediate consumption, and intangibles such as time, bother, and risk. From the point of view of the people involved, or potentially involved, these blockages are normally cumulative or multiplicative rather than simply additive. In other cases, resolving all problems for one, such as getting insurance or bank credit or meeting the demands of a single bandit king, is still fatal to consumption of a deal. More likely, though, transfer costs will decline sharply because of economies of scale and scope. At the same time, the new transaction for a commodity will pave the way for like exchanges; similarly, penetration of an alien trading domain in one dimension will ease the path in others.

A catalog of intercountry transactions costs with added commentaries on avenues to their reduction suggests their considerable range and magnitude. No distinction is drawn between monetized and non-monetized costs because the line between the two varies from case to case and time to time. The point cannot be developed here but it is instructive to notice how many of the efforts to lower the costs of transacting require the provision of public goods, of which the lighthouse has long served as the prototype. How public goods get provided in a world in which there is no overarching political authority is itself a conundrum as severe, one that is becoming ever more necessary to resolve as the burgeoning population of the planet faces continuing environmental, work, security, and basic-needs challenges. Clearly, Indonesia and other rising nations must target these categories of transaction costs as a means of promoting their roles in the flows of world commerce and finance. It should be noted as well that providing transaction-cost-reducing services in such forms as transport, market analysis, and financial and insurance intermediation is not only export-enhancing but can itself be an important source of exchange revenue, as pointed out by Mr. Faisal Rawwaza, one of Indonesia's most influential economists, in a recent discussion with a leading journalist. He said, "problems like transactions costs are escaping our attention and are already hurting our economy, especially exports" and the balance on services account.

Transport charges and risks. Production costs are those entailed in the manufacture or provision of a good or service. From that point on, the transfer expenses of locational change begin to accumulate. These embrace packaging, storage, and inventory costs, which may encompass actual cash outlays or opportunity costs. Shipping involves loading a conveyance such as a canal, diesel truck, large or small, the expenses of moving the product, including actual or expected interest; and unloading, as other modes, such as a freight vessel; unloading and storage; and, finally, movement to a final place of use. Along the way, shipments will be lost or damaged; there will be pilferage and spoilage; in early times, particularly, allowances must be made for losses of cargo or ships or to pirates or to wars or to bandits. The nature of a good affects the influence of each of these types of trans-
port charge and risk. The conventional differentiation is between bulky goods and those of low weight and high value. This hardly does justice to the many distinctions that may be drawn. Shipping the identical weight of grain or wine necessitates different methods and costs, and the same applies to saffron and diamonds.

Many variables affect the level of transport expenses. Technological advances lower costs and are among the most striking features of economic history. Improvements in sailing ships and navigational skills have occurred in many settings and diffused to others. The extension of road systems, canals, railways, and port facilities magnifies the function of infrastructure in reducing shipment expenses. Risk-pooling by merchant families and the rise of insurance agencies lower individual agents' exposures. Societies with dominant naval and land power could suppress such hazards as discovery or buccaneering, often converting public-good benefits to wealthier, free-rider states.

In the Mercantilist era, shipping in foreign vessels was frequently barred, effectively establishing an infinite price. An added element in determining exactly what charges a merchant faced, in more modern times, is the existence of extremely complex freighting rate conventions governing many modes of transport, which may or may not be discounted from their nominal quotations, and may or may not have official sanction.

Tolls, tariffs, customs charges, non-tariff barriers. Most political authorities, of whatever legitimacy, have sought to raise revenue by imposing charges on imports, exports, or transit services. These tolls, tariffs, imports, permits, customs charges, and taxes have been so common, and their negative bearing on exchange so thoroughly probed, that not much needs to be said about them. Quotas, prohibitions, and non-tariff barriers are equally well-comprehended. In fact, the only important question to raise is why this type of transfer cost has attracted so much attention compared to others. Perhaps the answer is that these instruments are official policies that impede trade and merchant profits. Unlike many of the other obstructions to exchange, these can be immediately supplied or removed in response to political forces. The evasion of high import or absolute barriers by smuggling and bribery has always been a by-product of trade charges and controls.

A good deal of the world's political history has involved contests among juridical leaderships for command of the revenues, or spoils, from trade excesses. Such taxes have been widely adopted because it is easy to collect them at ports, bridges, or city gates; and, there may have been the naive but not wholly inaccurate belief that foreigners were paying the fees. During the Mercantilist epoch, the rise of nation states simultaneously stripped local authorities of much of their power to assess charges on domestic trade, while controlling and garnering the revenues from international commerce for the central government. From the 1700s on, national tariffs have moved up and down in concert with political forces, beggar-thy-neighbor attitudes, and business-cycle pressures. After World War II, a great range of bilateral agreements, customs unions, and regional trading blocs have come upon the scene. In combination with the negotiating rounds of the General Agreement on Tariffs and Trade, now the World Trade Organisation, these institutional initiatives have produced lower trade barriers downwards in dramatic fashion.

Financial charges and risks. Expecting cases of pure barter or gifting,
which are a rare but continuing component of international exchange relations, all transactions in goods have financial complements. These add other costs and uncertainties to any bargain. There are fees associated with changing coins, handling bullion, and acquiring foreign exchange. Money changers are never figures of popular esteem because they take visible slices out of others' directly useful and productive trades. The emergence of paper instruments, such as bills of exchange, greatly facilitated the financial clearings that underpinned merchandise commerce, but brought other forms of charges and discounts. Today, banking, interest, and currency charges are a component of any transaction. Many forms of risk travel along on the financial bypaths of international dealings. In a metallic money system, these include debasement, the theft or loss of coins or bullion, and misfeasance in exchange, possibly attributable to asymmetric information about rates. Non-payments or delayed payments are hazards. Embarrassment of funds is generally easier and more lucrative than diversion of physical cargoes. Realizing an expected profit in any monetary regime depends on accurately forecasting money costs and money revenues, inaccurate knowledge of purchase and sales prices and of the monetary costs of production, such as wages, inputs, or supplies, may lead to disappointing results.

The financial and reputational facets of long-distance trade have presented a daunting barrier to exchange. From early times to the present, social relationships have served as conduits of commerce because of the advantages they afford in coping with these transactional handicaps. First prior to, and now alongside, the multinational company, families, kinship alliances, and clan networks have functioned to lower transfer costs and overcome information voids and deficiencies in reputational knowledge (Adams 1993; Greif 1989, 1995). Recently, in more formally organized ways, many corrective developments have abated or controlled international financial costs and risks. These include innovations in banking and financial intermediation and the rise of new forms of payment, today including telegraphic and electronic transfers. To some degree, bank certification of the contractual adequacy of importers substitutes for a lack of experience with and knowledge of the reputations on the part of remote exporters. Further information about prices and exchange rates, and its rapid dissemination, have been facilitated by newspapers, the mails, semaphores, the telegraph, and the telephone. In the absence of a true world currency or unit of account, national monies have been compelled to serve as media of commerce and standards of accountancy. Exchange-rate instabilities have been countered by such fixed-rate systems as the gold standard and the postwar IMF gold-dollar arrangement. In the contemporary world's pre-dominantly flexible-rate paradigm, forward hedging is a necessity for private agents to control their exposures.

Information and search costs. Accumulating trade across wide distances requires acquiring vast reservoirs of information. From the exporting side, there is the need to identify those persons who are interested in acting on the other side of the transaction. In a market setting, these are customers or clients; in a non-market pattern, they may be agents of a government or delegates of an elite. How does an itinerant peddler or the captain of a merchantman know that a long journey will lead to sufficient sales to make the venture worthwhile? Rumors, good
guests, and repeated visits help. Conversely, how does the importer as an active agent locate sources of supply for needed grains, metals, perfumes, or luxury cloths? Information and conjectures about how prices and exchange ratios differ across space must be in mind before trading ventures can be launched and realized.

In all cases, except those that are remote in time, effort, and the degree of wealth are needed to secure useful, accurate facts about exchange opportunities. Explorations, prospecting, and voyages of discovery are means of learning about foreign supplies, needs, and tastes. Trade missions, fairs, and embassies are institutions that facilitate and concentrate information flows. Economic historians are quite aware that the foci of market transactions shift with mutations in search and information costs. S.R.H. Jones (1994) has investigated the transition from vagueness on periodic markets (fairs) to personal or diffused trade in England from about 1550 through the 1700s. In the middle of the fourteenth century there were at least 1756 weekly public markets operating in the countryside. Jones believes that the ever more abundant commercial intelligence flowing from London, as for instance the grimy and disorganized commodity advertisements in the London Gazette, were neither the result of a lack of intelligence nor the result of a lack of capital. Rather, the result was the expansion of the market system, which is the basis for the rise of the modern market economy.


de-tailed account of a journey to the


good

(1878-93)
irreplaceable to incomensurable weights, measures, and standards. What is evident is that enormous resources are being devoted to creating universal criteria. Even as one set of issues is resolved, others spring up as new technologies emerge, examples being found in such products as VCRs, software, and high-definition television broadcast and receivers.

One of the most difficult tasks faced by the European Union is hammering out acceptable standards, amidst existing regional diversity exemplified as well as anything by the inharmonious electric current and socket a traveler encounters. In any event, adoption of a standard imposes disproportionate burdens on one or the other country, producer, or consumer. As fresh technologies come on line, selection of one variant over another will yield huge rent gains to one set of innovators and render the others ex-ante or ex-post marginals. There is a view, with some basis in fact, that industrial and health standards in the rich countries are somewhat used as a means of excluding exports.

Property rights and contract enforcement: Resolving a transaction from start to finish involves negotiations within a stable customary or formal legal framework. It is not always correct to call this "reaching a contract" since that is only one form of commitment, but the term can facilitate if broadly read. Preeminence to transfer is ownership or control. Any society has a set of property rights and one or more ways of legitimizing the shift of use or ownership from one person, or collective entity, to another. The capture and sharing of a good include appropriational and locational advantages. One of the most meaningful, if not the most consequential, is in which people differ is in their institutional management of appropriational and locational movements of resources and products and their associated rights. Because inter-transaction exchange must bridge at least two incommensurate realms, special provisions must evolve. These could be worked out spontaneously by the trading agents or be put in place by renegotiation between appropriate authorities. In either case, resources must be committed and costs incurred. The inevitably remaining ambiguities impose hardships on future agents of trade.

Defaults on contracts and other matters of dispute must be resolvable in a timely and orderly way. If exchange is not to be impeded or riven with uncertainties, European states had associated courts or arbitrations that tried to resolve conflicting and performance conflicts. The classical Athenian sponsored merchant courts in Piraeus. The European colonial empires sometimes worked with local authorities to resolve differences with native dealers and suppliers, and on other occasions un-leashed naked force to impose solutions on their liking. A contemporary issue that was very incompletely resolved during the final Uruguay round of GATT was the controversy over intellectual property rights, which stemmed from imputed pirating of books, patents, and entertainment media in some nations.

Languages and communications: Economics underlines the significance of language and communication in framing market and exchange behavior. Speaking is preeminence to almost any type of human interaction. In his famous passage on the propensity to truck, barter, and exchange, Adam Smith denied that this human tendency was innate to human nature but remarked that it was more likely a "consequence of the faculties of reason and speech" (quoted in McCloskey, 1994, p.32). To leave, to be treated, to
persuade, to negotiate and to reconcile, all these depend upon speech and are features of an exchange compact. As McKinsey justly says, "...markets live on people's tongues" (p. 37). To go further in a lively African or Middle Eastern marketplace, the talk may be more valued than the petty commerce that is effected.

If markets live on people's tongues, how then can one transact ex-changes occur when languages differ? There are several possibilities and each incorporates the drawback of cost and resources and imposes hindering transfer obstacles. A merchant must learn one or more foreign languages. A multilingual translator can be hired. In a colonial system, an imported language such as English, French, or Spanish was imposed, or material necessity and levity pride drove its spread among the indigenous population. The unlearned rise of a trading language, such as Swahili or pidgin English, can ease communication. The use of common symbols, abbreviations, and number systems transcends verbal differences. Sign language was used in the early North American fur trade, a practice that continues with a different alphabet and grammar in the pits of the Chicago Board of Trade.

Measuring International Transactions Costs and Their Trend

Surprisingly, despite the increasing use of the idea of transaction costs, efforts to define them operationally and then measure them are rare. As with a number of other economic concepts such as risk, transactions costs are often treated as a residual differential rather than independently measured. Their presence is inferred from something that does not happen when it should, at this case an exchange that would yield gains to parties on both sides of the transaction. Much of the empirical work on transactions costs has centered on such microlevel topics as business organization and contracting and little has been done concerning foreign trade or the behavior of multinational corporations (Klein and Shleifer, 1994). Wallis and North (1986) estimated that the transaction sector in the U.S. economy has come to absorb as much as 40 percent of GDP, but this conveys little information about what is happening to transfer costs per unit of output or per episode of exchange in different areas at different historical moments.

It is only from the latter part of the nineteenth century that constructions of world trade and income have much validity. Maddison (1992) has estimated the rise in world exports from 1880 to 1913. Value and volume more than doubled in these three decades. Supply and demand factors certainly shared responsibility for this extraordinary growth. There includes productivity and incomes and the opening of new markets. Institutional changes, the emergence of a free-trade climate, breakthroughs in transportation and communications led to falling transactions costs and were undoubtedly of consequence. Pioneering trade growth is only one effect of reductions in hindrances to exchange. It may be suggested that when international transactions expenses fall more rapidly than equivalent domestic costs, then the growth of world exports will exceed the growth in world output. Another way of putting this hypothesis, is

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* This section draws heavily on a paper done by a graduate student at Northeastern University under my supervision (Brown, 1995). The industrious and skilled contributions are appreciated and hereby acknowledged.
that a reduction in trans-borderly costs increases the range and volume of tradeables versus non-tradeables. In a universe with zero transactions costs, everything is tradable and moves towards those who value it most.

Confirmation of these suspicions is provided by Maddison (1982) who documents a sharp upturn in the world's exports/GDP ratio from the mid-1800s through 1913. The traffic in many categories of goods benefited from the spread of a market system, from comparatively tranquil inter-regional relations, from the stability of the gold standard, and from radical improvements in transport and communications technologies. Bulky items such as sugar, coffee, oil and silk, hides, cotton, rice, meat, coal, iron, and steel show strong gains. Among the most crucial of the institutional changes associated with the diffusion of the market system on a broader scale than had been previously known in the Americas, Asia, and Africa was the assertion of the European vision of property rights and their disposition. Railroads, mineral rights, trading concessions, and commercial factories were putatively purchased or extracted, often in circumstances where the non-Europeans acting on the other side of transactions had no indigenous authority or customary or legal basis for their representations. This one-sided establishment of novel property regimes eased the spurious dimensions of goods transfers just as the improvements in physical infrastructure facilitated locational activities.

Not all international transactions costs are readily calculable, the difficulties of language translation being one example. Maddison's evidence of rapid trade growth and of a rise in the world's exports/GDP ratio bolsters the proposition that proportional and locational biases on global traffic rapidly loosened between 1850 and 1910. There remain essentially two questions to answer. First, what was the ratio between transactions costs and the values of export? Or, restated, how important were transactions costs? Second, what was the trend in transactions costs after 1850?

Table 1 offers rough estimates of six types of trade costs, expressed as a percentage of merchandise trade on a decadal basis. The far right-hand column shows the sum of these fractions. In the absence of tariff data for the 1850s and 1860s, only

<table>
<thead>
<tr>
<th>Decade</th>
<th>Freight</th>
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<tr>
<td>1850s</td>
<td>7.81</td>
<td>1.00</td>
<td>3.00</td>
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<td>8.80</td>
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<td>3.00</td>
<td>0.00</td>
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<tr>
<td>1870s</td>
<td>10.17</td>
<td>1.74</td>
<td>3.00</td>
<td>0.66</td>
<td>0.37</td>
<td>1.00</td>
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<td>1880s</td>
<td>6.62</td>
<td>2.89</td>
<td>3.00</td>
<td>7.58</td>
<td>1.21</td>
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<tr>
<td>1890s</td>
<td>6.21</td>
<td>1.29</td>
<td>3.00</td>
<td>6.66</td>
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<td>1.00</td>
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<tr>
<td>1900s</td>
<td>3.79</td>
<td>1.06</td>
<td>3.00</td>
<td>6.66</td>
<td>0.04</td>
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four decades' totals are calculated. These categories of expenses comprised about 23 percent of export value in the 1870s but declined to some 16 percent in the 1900s. Looking at the columns, freight charges rose into the 1870s then fell rapidly; losses at sea show a similar path. Midsize, cargo shrinkage from theft or spoilage, does not show a trend. Average tariffs decline and there are dramatic drops in communication-charges, first in postage in the 1880s, then in telegraph and telephone fees in the 1890s and 1900s. Factorage, or foreign representation, expenses are taken to remain constant even though there was a transition from use of agents to reliance on internal sales subsidiaries in many commercial businesses.

Of course, the figures reported in Table 1 do not encompass all transfer incidences. Omitted are such categories as information, search, enforcement, and contracting costs. Let us make the heroic assumption that the counted costs are one-half of the total; this would suggest that total exchange costs added at least 50 percent to production costs, on average, in the 1870s, and no less than 35 percent in the 1910. Since far less than one-half the world's goods were involved in commerce, which is tantamount to saying that their transaction costs were infinite, this estimate pertains only to traded goods. Obviously, there are important indexing issues to be resolved before definitive calibration of the level and trend of international transactions burdens can be achieved.

The estimates in Table 1 should be regarded as first passes at the in-game costs in the growth of world commerce. As North (1990, 1994) and Barrie (1981) have demonstrated, even getting a clear handle on movements in average shipping charges is fraught with pitfalls. Importantly, costs that apply to Table 1 should be revisited. The trade factors is based on North (1994) as extended by Sowell (1995) and applies to American ships in a leading role of the period. Losses at sea are based on trade in U.S. dollars, but plagues were probably increasing, so results are taken as a constant. The average tariff rate is based on a trade-weighted average of the rates for Austria, Belgium, France, Italy, the Netherlands, Sweden, the United Kingdom, and the United States. Predictive tendencies are judged by the price of the cheapest first-class letter in the United States. Telegraph and telephone fees are approximated by a treat in British costs.

\[ X = (X_i + X_j) \times (M_i - M_j) \times (M_i - M_j) \times (1) \]

where:
- \( X_i \) = exports from country \( i \) to country \( j \)
- \( X_j \) = exports from \( j \) to \( i \)
- \( M_i \) = imports of \( i \)
- \( M_j \) = imports of \( j \) from \( i \)
- \( M' \) = world imports
- \( M'' \) = imports from \( j \) to \( i \)

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The equation for trade flows is

$$\text{LX} = -22.71 + 0.73LY + 0.67LY + 1.43LY + 0.78LY + 0.05LH + 1.08L + 0.47LH = 0.92LH = 1.51LH$$

and that for trade intensity is

$$\text{LX} = 3.35 + 0.14LY + 0.12LY + 0.24LY + 0.06LY + 0.14LH + 1.12L + 0.40LH + 0.65LH + 0.01LH = 0.91LH$$

The adjusted R² for (2) is 0.68 and for (3) is 0.39. In (2), all coefficients are significant at the 0.001 level or higher and have the correct sign. Both countries' GDPs (Y') and per capita GDPs (y') are positively related to the volume of bilateral trade. Disparities in A/L ratios (L/A) stimulate trade as the factor proportions theory predicts. Considering the same variables in the intensity version (3) all are significant and with the correct sign, with the exception of y1. Broadly speaking, the larger are the sizes of two national economies and the higher their per capita incomes, the wider and proportionately more intensive will be their exchanges. Beyond this gravity model, the conventional factor proportions divergence offers explanatory leverage.

The following remain in the two equations are distaste (UD), adju-
cenary (CAD), previous colonial relation-

Revolution (2) is corrected for heteroskedasticity. It is impossible to test simultaneously both heteroskedasticity and autocorrelation. Correction for first-order autocorrelation yields very much the same coefficients. Equation (3) is corrected for first-order autocorrelation and is an OLS model, which may not be the ideal specification (Hab. 1979). For (3), n = 4020 after adjustments for non-sampling of the intensity index.
ship (COL, and membership in the chief
regional trading bloc (ASEAN). In addi-
tion to the obvious interpretation that can
be put on each of these, they have been ex-
tended to represent the combined influence of
institutional and transaction-cost elements.
Dispense registers not only transport costs but
other communications and information
handicaps; adequacy does much the
same. The lasting importance of a colonial
connection strongly implies that four or
five decades of independence does not
sever important commercial ties, mutual
knowledge, the role of immigrant comuni-
ation in transnational networking, and
shared cultural, linguistic, and legal trac-
kins. Lastly, the comity implied by mem-
bership in ASEAN does foster trade, and
certainty not only by tariff reductions. All
four of these variables are significant and
appropriately signed in (2) and all but
ASEAN are significant in (3).

Convergences in Thought and Directions of Inquiry

The two equations taken together vigor-
ously reinforce the viewpoint that a fully
satisfactory explanation of global trade
patterns and growth rate growth from ex-
amination of supply and demand vari-
able, factor proportions, and a large set of
institutional and transactions-cost pa-
rameters. Underrepresented in the present
discussion have been technological and
human-capital sources of advantage as
well as other institutional conditions such
as forms of business organization, the na-
ture of private-public sector spillovers, and
public infrastructures. Institutions do mat-
ter in shaping the pattern and growth of
world trade. Institution-building and trans-
action-cost reductions have had a key func-
tion in the expansion of trade, in specific
modern regions or earlier contexts, such as
that fostered in the eastern Mediterranean
by the thalassocracy of ancient Athens
(Adams 1994) or by the British Empire.

Economists have used the phrase "the
law of one price" to highlight the impact of
free trade on national markets, but one
way with equal vigor advances "the law of
one rule" as a foundation injunction for
sharing the advantages of trade. In the
modern world, there are mighty autocras-
tious pressures working to achieve con-
vergence in operating principles and ac-
complish reductions in transactions costs.
There is nothing precedent or ideologi-
cal about the processes at work; they are
under the control of various forms of indi-
vidual and collective, private and public,
action. As history has so far played itself
out, the adoption of common rules appears
to have led to convergence towards a pri-
ate-property, mixed-capital market system.
This is far too simplistic and deter-
mistic a conclusion. The open-ended
rules of national governments and interna-
tional organizations, operating increasingly
in conjunction with councils of participa-
tory democracies, have been born and will
continue to be voluntarily directive in
shaping workable global institutions.
What truly matters is that one set rules for
transnational enterprises be some established,
not that they are optimal, efficient, or just.

* District is measured by maiorazgo and lord path to the economic nature of gravity of the economy.
Adjectivity means going a common border, which generally occurs trade, but in a case such as Indus-
Pakistan they capture an important magnitude. Japan and China are the only two cases that did have a
cultural overlap. Membership in ASEAN is a clear market, but including SARC and smaller equations did not
yield any results, which is not surprising because as it has not become an effective trade bloc and is scarred by
the aforementioned treaty on the self-chosen, a representative deviation in a converging world.
References


