CHAPTER 1.4

Premium Air Travel: An Important Market Segment

SELIM ACH

BRIAN PEARCE

International Air Transport Association (IATA)

The premium (first and business class) travel segment is an important market, particularly for hotels and network airlines, but also for others in the Travel & Tourism (T&T) value chain. For example, international air passengers traveling on premium seats represent 8 percent of traffic but 26 percent of passenger revenue.[1]

Premium travel by air is closely related to business activities, such as the international trade of goods and services and foreign direct investment (FDI), because an important way in which people build and maintain business relationships is through face-to-face meetings.[2] A previous survey showed that around 70 percent of passengers on premium seats are traveling to do business.[3] Consequently, the size and potential of premium travel markets between country pairs will reflect the size and potential for flows of international trade, investment, finance, and other business activities. This chapter reports on research that quantified the relative impact of the most important business travel drivers determining the size of premium travel markets between country pairs.

In the first part of the chapter, we will identify and then quantify, through an econometric model, various factors related to the number of premium passengers; the second part focuses on how successfully these particular drivers explain differences between country pairs. In the last part, we will explore how changes in aspects of a country's attractiveness to business travelers—measured by different pillars of the World Economic Forum's Travel & Tourism Competitiveness Index (TTCI)—could boost business and premium travel to a country.

Drivers of premium-class passengers

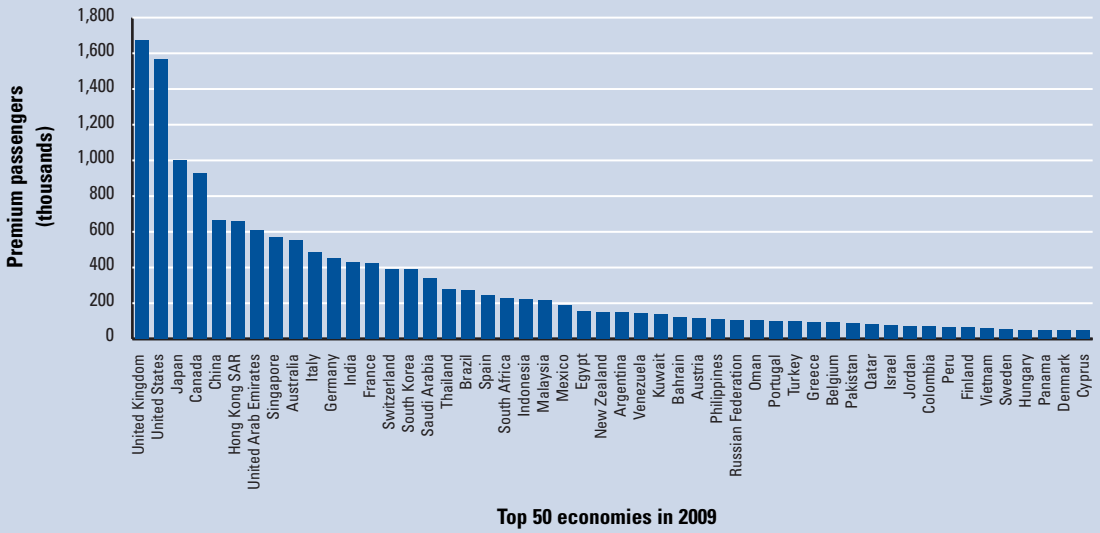
Figure 1 shows the number of passengers traveling on premium seats for the top 50 countries. In 2009, the United Kingdom was the country with the greatest number of premium travelers, followed by United States and Japan.

There is a wide range of experiences across countries, but the figure shows that the top 10 countries in terms of premium passengers, except the United Arab Emirates, are large economies.

Figure 2 confirms that there is a positive relationship between the number of premium passengers traveling between the countries in a pair and the size of the economies at either end of the flow. This figure suggests that there are some interesting country-pair outliers to the estimated relationship between the size of the economies involved and the number of premium passengers. These outliers can be classified as:

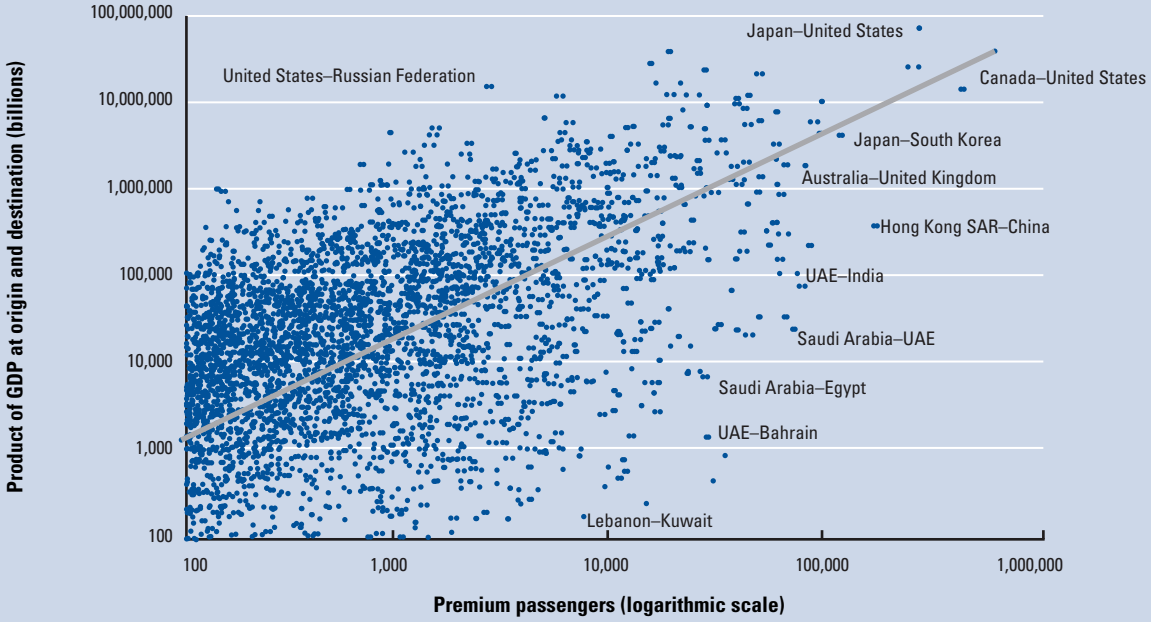
- those country pairs (at the top left of the figure) with a relatively small number of premium passengers but large economies at both origin and destination (such as the United States–Russian Federation pair), and

Figure 1: Premium international arrivals, top 50 economies (2009)



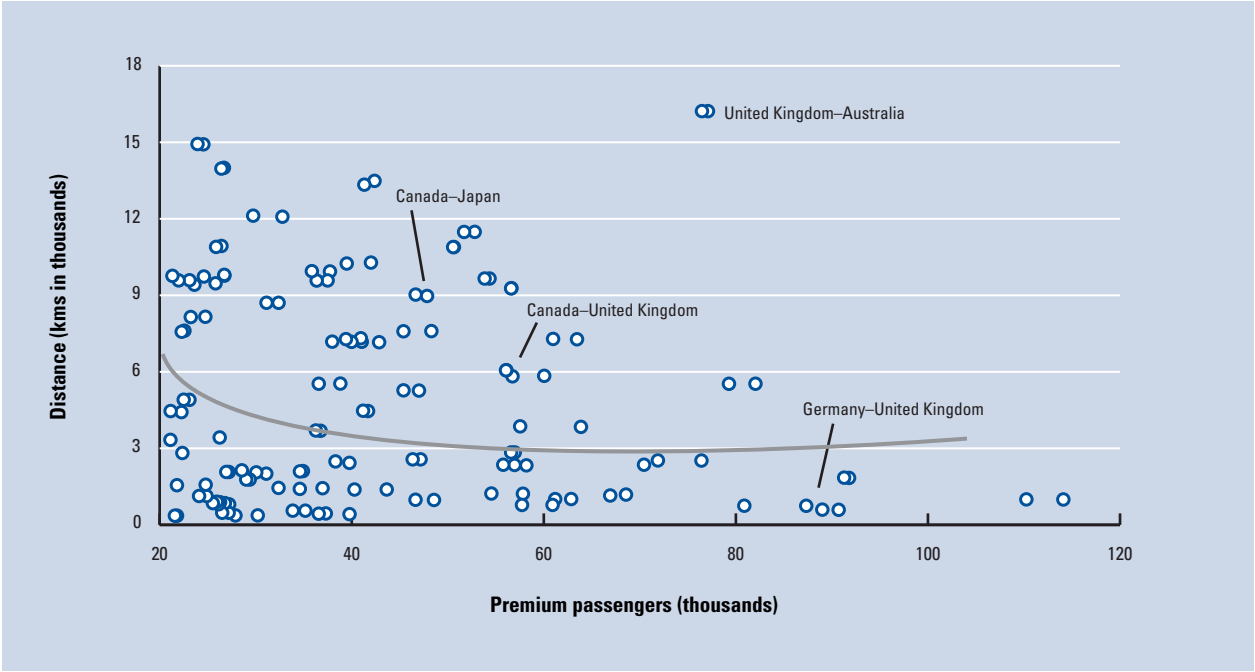
Source: IATA PaxIS.

Figure 2: GDP and premium passengers by country pairs



Source: IATA PaxIS.

Figure 3: Distance between country pairs vs. number of premium passengers



Source: IATA PaxIS.

- those pairs (at the bottom of the figure) with a relatively high number of premium travelers but small economies (such as the United Arab Emirates–Bahrain pair).

Figure 2 shows several examples where economic size, at both origin and destination, is not the only factor that drives premium passengers. For example, the number of premium travelers between Canada and the United States is about twice the number of business passengers between Japan and the United States, despite Japan being a bigger economy than Canada in terms of GDP. Another example is the market between Hong Kong and China, which is about half of the size of the one between Canada and the United States in terms of business passenger numbers, but represents only 3 percent of the US-Canadian economies. These examples demonstrate that there are factors other than economy size that need to be taken into account when explaining differences in the number of premium passengers. In particular, the relationship between travel and distance is one of them.

Travel cost will rise with distance in both time and money terms. Consequently, trade and business travel will, all other things being equal, diminish with distance, as shown by Figure 3. For country pairs of similar size in terms of GDP, such as Germany–United Kingdom and Canada-Japan, the figure shows that the number of passengers traveling between Germany and the United Kingdom is higher than it is for the route between Canada and Japan, as the distance on the first market is shorter.

One clear outlier to the estimated relationship with distance is the premium travel market between the United Kingdom and Australia, with 80,000 travelers—about three times larger than the Singapore–United States market. The distance between countries for both markets is similar, and consequently travel cost is similar, suggesting that travel to Australia is, among other factors, related to the country's historical relationship with the United Kingdom.

Besides economic size and the distance between countries, the TTCI allows a closer analysis of the other factors associated with the size of the premium travel market. However, the TTCI score, which is composed of 14 pillars, captures a wide range of factors and policies, some of which might be less crucial than others to international business travelers. Indeed, business travelers and holidaymakers have different perspectives when planning to invest in or visit countries. For example, the pillars that consider health and hygiene, tourism infrastructure, the prioritization of Travel & Tourism, and natural and cultural resources may not be as relevant to business travelers as the others. Therefore we analyze the relationship of premium travel to only those pillars directly associated with business activities and premium travel.

One interesting indicator from an investor's point of view is the regulatory framework of a country, which is captured through the first pillar. This pillar includes some

essential factors, such as how well property rights are protected and the cost of setting up a business. Additionally, it captures the extent to which the policy environment is favorable to the development of the T&T industry. Those factors will also influence the development of business activities such as trade in goods or services and FDI relative to the size of the economy.

Another relevant factor for investors is how easily and quickly business deals can be made in a country. Given the increasing importance of the online environment and electronic transactions, it is important for investors to assess the quality of the information communication and technologies (ICT) infrastructure. This is captured by a specific pillar that measures, among other factors, the extent to which online tools are used for business transactions. This is a catalyst for investors and therefore an important aspect of analyzing the premium travel market.

Price competitiveness is the third important element to take into account when planning to visit or invest in a given country, as it captures some of the costs of doing business. It measures factors such as the extent to which goods and services in the country are more or less expensive than they are in another destination (purchasing power parity), airfare ticket taxes, and taxation levels in the country.

Figure 2 shows examples of where these pillars appear to be strongly related to the number of passengers traveling on premium seats. Middle Eastern destinations, such as the United Arab Emirates or Saudi Arabia, have shown a consistently good business environment in terms of regulatory framework, ICT infrastructure, and price competitiveness. As such, business traffic between Saudi Arabia and the United Arab Emirates has been 35 percent stronger than the traffic between Saudi Arabia and Egypt. Both distance and size of economies is comparable in these two markets. The difference in the number of premium passengers is associated, among other factors, with the ICT infrastructure, which is more developed in Saudi Arabia (with a score of 4.4 out of 7) than in Egypt (with a score of 2.4).

The implication of these outlying country-pair markets is that it is possible for countries to succeed in boosting or failing to realize the potential of premium travel, over and above the flows implied by economic size and distance. But to be useful, that insight requires quantification. For this purpose, we developed an econometric gravity-type model. The model shows that all three do indeed play an important role.[4]

Economic size at both origin and destination is the most significant factor in explaining differences between country pairs. All other things being equal, the model suggests that a 10 percent rise in GDP would lead to a 6 percent increase in the number of business passengers. Any 10 percent improvement in policy rules and regulations, ICT infrastructure, and price competitiveness would lead to an increase of 4.5 percent, 2.2 percent, and 13.8 percent, respectively, in the number of travelers. For every 10 percent increase in distance between economies, the model suggests premium travel markets, all other things being equal, will be 9 percent smaller.

As shown in Figure 1, premium travel to the United Kingdom was the biggest market, with more than 1.6 million premium passengers. According to the model, this market is strongly related to both economic conditions (55 percent) and a good regulatory framework and ICT infrastructure (20 percent).

Figure 4 shows the top 30 biggest markets in 2009, representing about 18 percent of the total traffic flows of the year. The number of passengers traveling on premium seats between the United States and Canada was the largest market, with more than 400,000 passengers. According to the model, economic size explains about 76 percent of the traffic flow between these two countries. Similarly, economic size explains premium traffic between the United States and Japan and between the United States and the United Kingdom by more than 80 percent.

As expected from the graphical analysis in the first part of this chapter, a greater distance between countries has a negative effect on the number of business passengers. All the pillars selected—the policy rules and regulation (A01), ICT infrastructure (B09), and the price competitiveness in the T&T industry (B10) have a positive relationship with the number of passengers traveling on premium seats.[5]

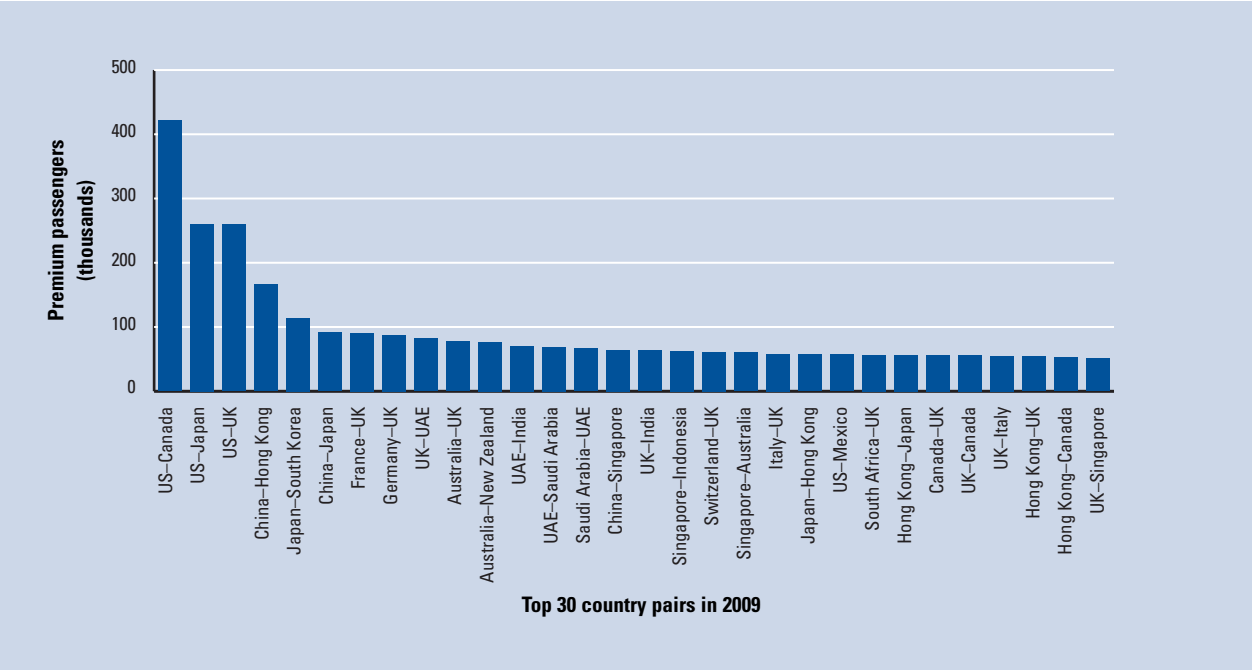
Looking at the fourth-largest market, premium travel market between China and Hong Kong is explained to some extent by both short distances between these two countries (13 percent) and also by the size of both economies (56 percent).

According to the model, premium travel to Middle Eastern destinations, such as the United Arab Emirates and Saudi Arabia, is related to some extent (30 percent) to a favorable regulatory framework, a well-developed ICT infrastructure, and a relatively low cost of doing business. However, economic size explains to a greater extent (60 percent) the travel market between the United Kingdom and the United Arab Emirates.

Another example shows that economic size could be as important as the business environment of the destination country. Premium travel between Lebanon and Kuwait (see Figure 2) is explained almost equally by the favorable environment (33 percent) and economic conditions (35 percent).

Traffic flows between the United Kingdom and Singapore and between Thailand and the United Kingdom also illustrate the extent to which pillars—that is, factors apart from economic size and distance—are related to premium passenger numbers. For the United Kingdom–Singapore pair, the average score for the three pillars is high, coming in at 5.5 (compared with a regional average of 4.5), suggesting that these economies are attractive for business travel. Economies and distance are

Figure 4: Number of premium passengers by country pairs, 2009



Source: IATA PaxIS.

comparable between these two country pairs; however, the first market, at 51,000 business passengers, is more than twice the size of the second one. According to the model, the performance of the first market is associated with its excellent infrastructure, which explains about 50 percent of the size of premium travel flows between these two countries.

Boosting premium travel by improving T&T competitiveness

Many countries have a great potential to increase the number of business travelers by improving one or several of these drivers. Using the model developed, we assess the degree to which changes to the drivers of the premium travelers could boost the size of the premium travel markets over and above the flows determined by economic size and distance.

In Asia, India is among the countries that showed a weak position in 2009 in terms of ICT infrastructure (2.0 out of 7) and also in terms of the regulatory framework (3.7), as both scores are below the regional average of 4.5. The premium travel market from the United Arab Emirates is one of the biggest markets serving India, and serves about 70,000 travelers a year. This number could be improved by 30 percent if India could manage to raise its infrastructure and regulatory frameworks to the regional average, assuming all other factors remain unchanged. Alternatively, all else being equal, the number of premium passengers on this market could rise by 0.6 percent if India's GDP improves by 1 percent.

European economies have low scores for the price competitiveness of the T&T industry. In 2009, countries such as the United Kingdom and France show the relatively low scores of 2.8 and 2.9, respectively, compared with the regional average of 3.9. Even if this pillar explains only a small proportion of the difference in number of premium passengers (12 percent), bringing the value of this pillar up to the sample average of 4.5 would increase the number of inbound business between the United Arab Emirates and the United Kingdom by about 60 percent, assuming all other factors remain unchanged. Similarly, the number of business passengers from Italy—which is one of the largest markets for France, with more than 25,000 passengers during 2009—would increase by 50 percent if France improved its price competitiveness from a score of 2.9 to 4.5.

Another example in Europe is the travel market between the United States and Russia, which had about 3,000 premium passengers in 2009. Russia shows relatively low scores on the regulatory framework and ICT infrastructure (3.5 and 3.4, respectively) compared with the European average (4.8 and 4.3). The number of premium passengers traveling from the United States to Russia has the potential to increase by some 23 percent if Russia were to raise its policy rules and regulation and ICT infrastructure to the European average.

Conclusion

This chapter shows that the number of passengers in premium seats is not driven only by economic activities between countries, but depends also on other factors. For particular country pairs, factors captured by the T&T pillars—such as policy rules and regulations, ICT infrastructure, and price competitiveness in the T&T industry—explain to some extent (30 percent) the number of premium passengers. The model demonstrates that any effort to improve one of the drivers will boost the size of this travel market. The analysis identified some outliers, such as the traffic flow between the United Kingdom and Australia, which seem to be driven by other factors—such as historical relationship—that are not captured through the model. The premium travel market to some Middle Eastern countries, such as the United Arab Emirates, is another group of outliers because those countries provide a favorable business environment and infrastructure.

Notes

1 These figures come from the IATA Origin-Destination database, which shows the number of passengers traveling by seat class and its associated revenue.

2 US Travel Association and Destination & Travel Foundation 2008.

3 Civil Aviation Authority 2009.

4 All three of the pillars identified explain a large proportion of the variation of the data (68 percent) and are statistically significant within a 95 percent confidence interval. For sake of completeness, all other pillars included in the TTCI have been tested and are not statistically significant within a 95 percent confidence interval, and therefore are not included in this particular model.

5 *A01* refers to pillar 1 of subindex A, *B09* refers to pillar 9 of subindex B, and *B10* refers to pillar 10 of subindex B.

References

ARTNet. 2008. Gravity Models: Theoretical Foundations and Related Estimation Issues. Presentation at the ARTNetCapacity Building Workshop for Trade Research, June 2–6, Phnom Penh, Cambodia.

Civil Aviation Authority. 2009. *UK Business Air Travel: Flying on Business: A Study of the UK Business Air Travel Market.* London: Civil Aviation Authority.

Greene, W.H. 2000 *Econometric Analysis,* 4th edition. Upper Saddle River, NJ: Prentice Hall.

IATA (International Air Transport Association). 2008. "Air Travel Demand: Measuring the Responsiveness of Air Travel Demand Changes in Prices and Incomes. *IATA Economics Briefing* No. 9.

———. 2009. Corporate Air Travel Survey (CATS). 2009 Edition. IATA.

Martinez-Zarzoso, I. 2003. "Gravity Model: An Application to Trade Between Regional Blocs." AEJ 31 (2): 174–87.

Süleyman, T. O. 2010. "What Determines Intra-EU Trade? The Gravity Model Revisited." *International Research Journal of Finance and Economics* 39 (2010): 244–50.

UNWTO (United Nations World Tourism Organization). 2010. Available at http://www.unwto.org/facts/eng/highlights.htm .

US Travel Association and Destination & Travel Foundation. 2008. *The Return on Investment of US Business Travel.* Washington DC: Oxford Economics USA.

World Economic Forum. 2007. *The Travel &Tourism Competitiveness Report 2007: Furthering the Process of Economic Development.* Geneva: World Economic Forum.

———. 2008. *The Travel &Tourism Competitiveness Report 2008: Balancing Economic Development and Environmental Sustainability.* Geneva: World Economic Forum. World Economic Forum.

———. 2009. *The Travel &Tourism Competitiveness Report 2009: Managing in a Time of Turbulence.* Geneva: World Economic Forum.

Appendix A: Specification of the model

We have used a gravity model to capture the business and structural effect of the change in the number of passengers traveling on premium seats. The time range of the model covers the period 2007 through 2009. The total number of cross-sections (country pairs) included is 12,953. The total number of observations is 36,707. Data on number of passenger traveling on premium seats are from the IATA PaxIS database.

The dependant variable of the model is the number of passengers traveling on business seats. Explanatory variables include the following T&T pillars A01: Policy rules and regulations; B09: ICT infrastructure; and B10: Price competitiveness in the T&T industry.[1] The other variables are GDP (in real terms) of origin and destination economies and the distance between each country of the country pairs.

The formal description of a panel data model is

$$Y_{ijt} = \alpha + (X'_{ijt}, \beta)\ \delta_{ijt} + \epsilon_{ijt},$$

where Y is the dependant variable—the number of business passengers traveling between country i and country j, through the time period t.

X is a matrix of regressors, including GDP of country i, GDP of country j, distance between countries i and j, the value of the 1st pillar (A01), the value of the 9th pillar (B09), and the value of the 10th pillar (B10).

α is the overall constant of the model,
δ is the fixed cross-section specific effects between country i and country j,
ϵ_{ijt} is the error term between country i and country j, and
t is the time period covering 2007, 2008, and 2009.

We estimate the model in (natural) logarithm terms using a panel data technique, including fixed effects representing drivers specific to the individual country:

$$\begin{aligned}\log (Passengers)_{ijt} = {} & C_1 + C_2 * \log (\mathrm{GDP}_i * \mathrm{GDP}_j)_t \\ & + C_3 * \log (Dist)_{ijt} + C_4 * \log (\mathrm{A01}) \\ & + C_5 * \log (\mathrm{B09}) + C_6 * \log (\mathrm{B10}) \\ & + \epsilon_{ijt} + (CX = F)\end{aligned}$$

The estimation of the model is broadly in line with our expectations. All drivers identified above are statistically significant, and the model explains a large proportion of the variation of the data with an R^2 value of 68 percent.

The product of GDP at both origin and destination is highly significant; a greater distance between countries has a negative effect on the number of business passengers. All the pillars selected—that is, the policy rules and regulation pillar (A01), the ICT infrastructure pillar (B09), and the price competitiveness in the T&T industry pillar (B10)—have a positive impact on the number of passengers traveling for business.

Table 1: Estimation of the coefficients

		Coefficients	*t* statistics
C_1	Constant	3.79	17.41
C_2	Real GDP_i x Real GDP_i	0.60	123.54
C_3	Dist: Distance	–0.92	–61.49
C_4	A01: Policy rules and regulations	0.45	4.30
C_5	B09: ICT infrastructure	0.22	4.26
C_6	B10: Price competitiveness in the T&T industry	1.38	14.19

Notes: Coefficients are in log form assuming cross-section fixed effect (rounded to two decimal places).
All the coefficients are statistically significant, with the correct sign and estimated with standard errors that are robust to serial correlation.

Note

1 *A01* refers to pillar 1 of subindex A, *B09* refers to pillar 9 of subindex B, and *B10* refers to pillar 10 of subindex B.