

Brazil and the United Kingdom: trade relations in the 1990s*

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RESUMO

Este trabalho analisa as relações comerciais entre o Brasil e o Reino Unido, as quais apresentam uma longa existência, mas que receberam mudanças significativas recentemente. Essas mudanças criaram expectativas de um incremento nas relações comerciais entre os países. As tendências recentes são analisadas tanto agregada como desagregadamente. Desenvolveu-se um modelo econométrico para explicar as exportações bilaterais em contexto global, o qual indica que ambos os países apresentaram desempenho insatisfatório em suas exportações bilaterais. O desempenho insatisfatório do Reino Unido no mercado brasileiro e do Brasil no mercado britânico são analisados separadamente. O trabalho encerra-se examinando as perspectivas para as relações comerciais entre os dois países nos próximos dez anos.

Palavras-chave: relações comerciais, Brasil, Reino Unido.

ABSTRACT

Trade relations between Brazil and the United Kingdom are long established but recent changes in Brazil have created expectations of an increase in the relationship between the countries. This paper explores recent trends in the bilateral trade relationship at both an aggregate and disaggregated level. An econometric model is developed to explain British and Brazilian bilateral exports on a global basis, which demonstrates that both countries have “underperformed” in their exports to each other. The British “underperformance” in the Brazilian market and the Brazilian underperformance in the British market are analyzed. The prospects for trade relations in the next ten years are considered.

Key words: trade relations, Brazil, United Kingdom.

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Trade relations between Brazil and the United Kingdom (UK) are long established. Following the transfer of the Portuguese royal family to Rio de Janeiro in 1808, Britain used its influence to secure special terms for its exports, while the British market soon became immensely important for the imperial government of independent Brazil.¹ By the middle of the 19th century (see Table 1), one third of all Brazil's exports were destined for the UK and over half of all its imports came from Britain.

This dominant position could not be expected to continue indefinitely, but as late as 1900 the UK was still providing nearly one third of all Brazil's imports (the rise of coffee meant that the UK, where tea was the preferred beverage, was being displaced by the USA as a destination for Brazil's exports). Even in 1950 (see Table 1), Britain remained an important trading partner for Brazil, although the Brazilian market was not of great significance to the UK.

The subsequent (relative) decline in the trade links between both countries continued unabated until the early 1990s. The trade missions sent by Britain to Brazil in the 1960s and 1970s made little difference and trade relations dwindled to an insignificant level. As elsewhere in Latin America, Britain saw its share of the import market fall to less than two per cent, while Brazil's exports to the UK were overshadowed by its exports to many other countries in the European Union (EU) and had fallen to less than three per cent of the total by 1995 (see Table 1).

Trade relations between Brazil and the United Kingdom have therefore declined in importance. However, recent changes in Brazil have created expectations of a change in the relationship – at least as far as UK exports to Brazil are concerned. Trade liberalisation in Brazil, beginning in 1990, has led to a sharp fall in tariff rates and a rapid growth in imports. This trend was accelerated following the introduction of the *Plano Real* in July 1994 as a result of real exchange rate appreciation. Indeed, so rapid has been the growth of Brazil's imports that between 1992 and 1996, it was the fastest growing market for British goods in the world with an increase in UK exports (valued in sterling) of 210%.

¹ See Manchester (1933).

Table 1
Trade Shares for Brazil and UK, c.1850 to 1995
Exports/Imports to/from Partner as a Percentage of Total

	c.1850	c.1900	c.1950	1990	1995
BRAZIL: exports	33.5	15.9	8.3	3.0	2.8
BRAZIL: imports	53.3	31.3	12.3	2.0	1.9
UK: exports	3.5	2.0	2.2	0.3	0.4
UK: imports	2.0	1.1	1.5	0.6	0.6

Sources: Derived from Platt (1972), IBGE (1987), Mitchell (1992), IMF (1996).

Since this explosion in British exports has coincided with an increase in trade missions sent by Britain to Brazil and much greater attention from British government ministers, it is tempting to conclude that Britain has reaped the benefit of its greater trade effort. However, the UK share of the Brazilian import market did *not* increase between 1990 and 1995 (see Table 1), so that Britain's 'exceptional' performance is mainly a reflection of the UK maintaining its market share of fast-growing imports. Thus, if and when the rate of growth of Brazil's imports declines (see last section), the rate of growth of British exports to Brazil is also likely to fall.

The changes in the British economy over the last two decades, while not as spectacular as those in Brazil, have also created new opportunities for exporters. The secular decline of Britain's manufacturing industry has continued giving rise to a substantial increase in manufactured imports, as the British economy becomes ever more oil- and services-based. The Single European Market (SEM), formally adopted in 1992, has eliminated most of the Non-Tariff Barriers (NTBs) between member states of the European Union, creating opportunities for exporters to service the whole of the European market from one entry point. The pound sterling has also appreciated strongly in anticipation of European Monetary Union (EMU) in 1999 without British participation. There has been some growth in Brazil's exports to the UK as a result of these and other factors, but (see next section) the performance has been relatively undynamic and Brazil is now expected to lose its traditional surplus on visible trade with the UK.

Although the level of bilateral trade is very modest, there are limits on what can be done to improve it. Trade relations between both countries are increasingly governed by rules established in regional or international treaties. Brazil's external tariffs are, in most cases,

subject to agreement with MERCOSUL partners, with the Common External Tariff (CET) set to cover all imports by 2006. Even in the case of those goods for which no CET has been set, Brazil's degree of freedom is limited (upwards) by membership of the World Trade Organisation (WTO) and (downwards) by powerful industrial lobbies.

Britain does not control its tariff rates, while trade policy for goods (but not yet services) is the responsibility exclusively of the European Commission (EC). The latter organisation is responsible for determining the Generalised System of Preferences (GSP) for all EU members and is phasing out almost all preferences for Brazil on agricultural and agroindustrial exports to the EU between 1997 and 1999. Export credits are still a national responsibility, but the Export Credits Guarantee Department (ECGD) has to work within parameters established by the EC as part of its commitments to the Organisation for Economic Cooperation and Development (OECD).

The bilateral trade relationship would undoubtedly be stimulated if the framework agreement signed between the EU and MERCOSUL in 1995 were to be converted into a Free Trade Agreement (FTA). However, while Brazil plays a dominant – not to say hegemonic – role within MERCOSUL, British influence within the EU is much more modest and the proposed FTA is likely to be very difficult to achieve. Furthermore, the EU appears more concerned with launching the third stage of EMU on schedule and enlarging membership to include the countries of central Europe. Both changes are likely to create difficulties for the expansion of Brazil's exports to the EU in the medium term (see last section).

In the next section, I explore recent trends in the bilateral trade relationship at both an aggregated and disaggregated level. I then develop an econometric model to explain British and Brazilian bilateral exports on a global basis, which demonstrates that both countries have 'underperformed' in their exports to each other. This is followed first by an analysis of British underperformance in the Brazilian market and then by an analysis of Brazilian underperformance in the British market. The final section looks at prospects for trade relations in the next ten years.

Recent trends

Although the long-term trade relationship between Britain and Brazil has been subject to secular decline, the short-term trend since 1990 has been very dynamic. The most spectacular evidence of this is provided by the growth of British exports to Brazil, which

have risen from \$481 million in 1992 to \$1,354 million in 1996 (see Table 2). Curiously, the Brazilian statistics on imports from the UK are not the same, although they tell a similar story. The Brazilian data (see Table 2), although they record the c.i.f. value of imports, consistently *undervalue* the UK data on the f.o.b. value of exports.²

The Brazilian market has been the most successful in the world for British exports since 1992, as mentioned in the previous section. Indeed, this trend continued in the first five months of 1997, with UK exports to Brazil rising by 33.6% over the same period in 1996. Britain, however, has not increased its market share significantly so that the rate of growth of UK exports to Brazil remains determined above all by the rate of growth of Brazil's imports.

Table 2
Brazil-UK Trade, 1990-6 (\$mn)

Year	1990	1991	1992	1993	1994	1995	1996
(A) Brazil							
Exports \$mn	945	1,057	1,286	1,140	1,229	1,326	1,324
Imports \$mn	460	489	406	560	755	975	1,246
Balance \$mn	+485	+568	+880	+580	+474	+351	+78
(B) UK							
Exports \$mn	589	596	481	622	807	1,067	1,354a
Imports \$mn	1,269	1,350	1,562	1,357	1,408	1,535	1,573a
Balance \$mn	-680	-754	-1,081	-735	-601	-468	-219

(a) Converted from pound sterling at 1.60 exchange rate.

Sources: 1990-5, IMF (1996); for 1996 DTI (1997) and SECEX (1997).

² The FOB value of exports from country A to country B is usually assumed to be 10% lower than the c.i.f. value of imports of country B from country A.

The growth in Brazil's exports to the UK has been much more restrained (see Table 2) and Brazil has continued to lose market share – albeit modestly (see Table 1). As a result of the faster growth of her imports from the UK, the trade surplus has shrunk from \$880 million in 1992 to \$78 million in 1996; indeed, this year (1997) the trade balance will show a deficit if current trends continue. However, bilateral trade balances are of no great economic significance and little importance should be attached to them *per se*. Far more important is Brazil's loss of market share and this loss is likely to be accelerated in 1997 as figures for the first five months suggest a 10% drop in the value of Brazil's exports to the UK at a time when UK imports are growing rapidly.

Turning now to the structure of bilateral trade, we find that Brazil's exports to the UK are relatively diversified with the top ten products accounting for some 55 per cent of the total. The structure of Brazil's exports to the UK, however, is quite different from the structure of Brazil's total exports, as Table 3 makes clear. For example, the leading export (leaf tobacco and waste) represents some two per cent of total exports, but 11 per cent of exports to the UK; indeed, the top ten products to the UK account for less than 20 per cent of total Brazilian exports.

The different structures in Table 3 capture the over-representation of primary and agroindustrial products in exports to the UK and under-representation of manufactured goods. This would not matter if the market opportunities for such products were favourable. However, the opposite is true: many of them are subject to the withdrawal of GSP status in the next few years; some (e.g. wood products; leaf tobacco; processed beef) are susceptible to campaigns in favour of reductions in consumption; while one (non-monetary gold) is highly cyclical and may be subject to re-export. Only one (piston engines, parts and components) is an important British import and in a listing of the 50 main UK imports with their leading suppliers Brazil appears just once (chemical wood pulp based on soda or sulphate).³

3 This product, fifth in the list of Brazil's exports to the UK, is 31st in the list of UK total imports. See Brazilian Embassy (1997, p. 25).

Table 3
The Structure of Brazil's Exports in 1996 (%)

	UK	Total
Leaf Tobacco and Waste	11.0	2.15
Footwear, parts and components	7.7	3.46
Gold, in intermediate form (non-monetary)	6.4	1.22
Beef, processed	6.1	0.41
Chemical wood pulp, soda or sulphate	5.6	2.0
Piston engines, parts and components	5.5	2.15
Plywood or laminated wood and similars	5.1	0.52
Iron ore and concentrates	3.3	5.64
Printing paper	2.2	0.66
Carpentry assemblies for construction	2.2	0.26
Other products	44.9	81.5

Sources: SECEX (1997); Brazilian Embassy (1997).

The Brazilian export structure to the UK is therefore a matter of some concern. Many of the leading products are vulnerable to a downward trend in consumption patterns; Brazil does not export to the UK many of the most important British imports; and the changes in the European GSP can be expected to have a negative effect on several exports.

If Brazil's exports to other developed countries (other than the UK) had the same structure, it might be argued that little could be done to improve the situation in the short term. However, this is not the case. Exports to the USA (19.23% of the total) include many manufactured products (particularly auto parts). Brazil in 1996 also exported more within the EU to Holland (7.43%), Germany (4.36%), Italy (3.21%) and Belgium/Luxembourg (3.0%) than to Britain (2.77%) and the structure in each case was quite different, although exports in all cases were dominated by primary and agroindustrial products. The most encouraging feature of Brazil's exports to the UK is the strong performance of piston engines, parts and components (see Table 3). Indeed, exports of auto parts are expected to grow with the decision by BMW to import engines for Rover assembly in the UK from Brazil. There has also been an aggressive and successful campaign to export poultry products in

recent months. Overall, however, export performance is undynamic and likely to remain so in the short term; the measures needed to boost exports in the medium term are considered in the final section.

British exports to Brazil are dominated by capital goods (see Table 4). Indeed, machinery and transport equipment account for nearly 50% of total exports. This helps to explain the rapid growth of UK exports to Brazil, since imports of capital goods have been particularly dynamic in recent years and Brazilian firms have been restructuring in order to be able to compete internationally. The second most important export product group is chemicals and related materials and these, together with machinery and transport equipment, account for nearly 75% of British exports to Brazil.

Table 4
UK Exports to Brazil in 1996: £mn and as a % of Total

	£mn	% of Total
Beverages	42.4	5.0
Minerals and Lubricants	15.3	1.8
Chemicals and Related Materials	207.5	24.5
Manufactured goods by material	58.8	6.9
Machinery and Transport Equipment	410.8	48.5
Miscellaneous Manufactured Articles	74.7	8.8
Other Products	37.2	4.4
Total	846.5	100.0

Source: DTI (1997).

When British exports to Brazil are examined using statistics on Brazil's imports from the UK (see SECEX, 1997), it is interesting to note that pistons for engines occupy the leading position; this means that there is a high level of intra-industry trade in this sector, since it is also one of the main Brazilian exports to the UK (see Table 3). In the first five months of 1997, there was also spectacular growth in the export of transmitters, receivers and spare parts compared with the same period in the previous year (+502.69%).

British exports to Brazil are, in general, representative of the structure of total British exports. Furthermore, this structure has benefited from the restructuring of the Brazilian economy, which has given special importance to capital goods imports. It is premature to talk of a permanent gain in the British share of Brazilian imports, as Table 1 makes clear, but it is encouraging that Britain has at least kept its share of a fast-growing market as a result of the complementarity between Brazilian import requirements and British export capacity.⁴ It is the lack of complementarity that was one of the main reasons for the loss of market share before 1990. British exports may also benefit from a revision of the automobile regime if the WTO panel rules against Brazil's NTBs and high tariffs for automobile imports.

There must be grave doubts, however, over the ability of the UK to sustain the high rate of growth of exports to Brazil achieved since 1992. The rapid growth of the Brazilian trade deficit since 1994 (estimated to have reached four per cent of GDP in the first half of 1997) has forced the authorities to adopt measures to restrict the growth of imports. These measures, including the ending of bank credit for imports in excess of \$10,000, are bound to affect capital goods imports in general and British exports in particular. Britain is also vulnerable in some product groups to the trade preferences given to MERCOSUL partners. Although import growth may continue through 1998 (an election year in Brazil), the rate of growth is likely to be limited to no more than the rate of growth of exports in the medium term (see final section). Given the obstacles faced by Brazilian exporters on both the demand and supply side, British exporters will have to accept more modest rates of increase in the future. This still leaves plenty of opportunities to expand exports, but the 'golden age' of exporting to Brazil is almost certainly over.

An econometric model of British and Brazilian exports

In order to understand the nature of British (Brazilian) underperformance in exports to Brazil (UK), an econometric model was constructed based on the standard gravity model of international trade.⁵ This model regresses bilateral exports on a series of independent variables, including population in foreign countries, GDP per head in foreign countries, and distance between the exporting country and its partners. In the case of the United Kingdom and Brazil, however, it was decided to incorporate four dummy variables: the first differentiates between partner countries that are islands and those that are not since

4 The British share rose from 1.96% in 1995 to 2.48% in 1996, but it is too early to say if this is a long-term change.

5 I am grateful to Hernán Vallejo for preparing the database and running the regressions on which this section is based.

island economies *ceteris paribus* have a greater propensity to import; the second differentiates between partner countries that are land-locked and those that are not; the third (unimportant for UK) differentiates between countries that share a common border with the exporting country and those that do not; the fourth differentiates between partner countries where English (Portuguese) is the first language and those where it is not, since it is widely assumed that British exporters prefer to sell in markets where English is widely used (this dummy is much less relevant for Brazil).

The gravity model used in this analysis therefore takes the following form:

EQUATION (1)

$$\ln X_j = \text{constant} + \beta_1 \ln POP_j + \beta_2 \ln GDPpc_j + \beta_3 \ln DIST + \beta_4 \ln IS.D + \beta_5 L.L.P.D + \beta_6 C.BOR.D + \beta_7 C.LAN.D$$

where 'ln' stands for natural logarithms, 'X' for British (Brazilian) exports to country 'j', 'POP' for population in country 'j', 'GDPpc_j' for GDP per head in US dollars in country 'j', 'DIST' for the distance between the UK (Brazil) and partner countries, 'IS.D' is the island dummy (1 for islands and 0 for other countries), 'L.L.P.D.' for Land-Locked Partner Country (1 if country has no sea coast and 0 elsewhere), 'C.BOR.D.' for Common Border Dummy (1 if domestic country has common border with partner country and 0 elsewhere) and 'C.LAN.D.' is the common language dummy (1 for countries where English (Portuguese) is the first language and 0 elsewhere). The model was run for three separate years (1986, 1989 and 1992) and the results for the UK are given in Table 5.

Table 5

Results of Regressions for UK Exports: Dependent Variable is UK Bilateral Exports

YEAR	lnPOP	lnGDPpc	lnDIST	IS.D	L.L.P.D	
1986	0.659***	1.269***	-0.774***	-0.065*	-0.461***	
1989	0.697***	1.319***	-0.813***	-0.003	-0.426**	
1992	0.711***	1.453***	-0.719***	0.129	-0.150	
YEAR	C.BOR.D	C.LAN.D	Constant	N° of observations	R ²	F
1986	0.643	1.116***	-5.586***	141	0.84	101.82
1989	0.539	1.110***	-6.061***	131	0.86	106.47
1992	0.703	0.935***	-8.069***	90	0.92	132.79

Note: *** Significant at 99%; ** significant at 95%; * significant at 90% level.

^(a) Uses values of GDP pc at PPP US dollars as in the Penn World Tables.

The regression results are encouraging with high R^2 and F statistics, indicating that much of the variation in the UK bilateral exports is explained by the independent variables. They show, for example, that the UK does export more to English-speaking countries, *ceteris paribus*. Since the regressions are in logarithmic form, the coefficients can be interpreted as elasticities showing that a 10% increase in GDP per head in partner countries, for example, increases British exports by between 12.7% and 14.5%. Finally, the coefficients on population and distance are very significant, indicating that UK exports are higher to countries with larger populations and smaller to countries that are more distant.

Equation (1) can be used to compare predicted UK exports with actual UK exports. In the case of Brazil, the data (see Table 6) confirm that British exports to Brazil in all three years are below the predicted level, implying underperformance by the UK. The degree of underperformance varies from 20.6% in 1989 to 39.6% in 1992.⁶

Table 6
Actual and Predicted Values of UK Exports to Brazil (\$mn)

Year	Actual	Predicted	Difference	% Difference
1986	432	554	-122	-22.0
1989	555	699	-144	-20.6
1992	481	796	-315	-39.6

The results shown in Table 6 are of considerable interest, but they must be interpreted with caution. The version of the gravity model used in this paper is designed to reflect structural characteristics in bilateral trade relationships rather than policy changes. Thus, predicted British exports to Brazil in Equation (1) can only rise in the short term if GDP per head in current dollars increases (other independent variables - including population - are virtually unchanged over the short-term). The model cannot therefore take account of the surge in Brazilian imports as a result of the policy changes adopted after 1990.

The results for Brazil are given in Table 7. They provide a similar picture to that given for the UK; the population and GDP per head of partner countries, together with distance to

⁶ The results for all countries (not shown here) are very revealing. They show that actual UK exports are below the predicted UK exports for all the main Latin American countries.

partner country, are highly significant explanatory variables, but the common language dummy is no longer of much importance (the number of trading partners where Portuguese is spoken is small). As with the UK, bilateral exports are sensitive to GDP per head in partner countries; a 10% increase, for example, generates additional exports of approximately 15%.

In Table 8 a comparison is made between actual and predicted exports from Brazil to the UK. They show that Brazil's exports have consistently underperformed with the degree of underperformance varying from 45.6% in 1989 to 69.6% in 1992. The latter figure should be interpreted with caution, however, as the predicted exports for that year were implausibly high.

Table 7
Results of Regressions for Brazilian Exports:
Dependent Variable is Brazil's Bilateral Exports

YEAR	lnPOP	lnGDPpc ^(a)	lnDIST	IS.D	L.L.P.D
1986	1.022***	1.633***	-1.468***	0.054	-0.388
1989	0.949***	1.537***	-1.191***	0.273	-0.311
1992	1.114***	1.584***	-2.454***	0.929***	-0.049

YEAR	C.BORD	C.LAND	Constant	N° of observations	R ²	F
1986	0.379	0.667	-6.982***	130	0.79	65.84
1989	0.799	0.807	-7.834***	127	0.79	62.29
1992	-0.140	-0.432	0.623	89	0.84	62.13

Note: *** Significant at 99%; ** significant at 95%; * significant at 90% level.

^(a) Uses values of GDP pc at PPP US dollars as in the Penn World Tables.

Table 8
Actual and Predicted Values of Brazil's Exports To UK (\$mn)

Year	Actual	Predicted	Difference	% Difference
1986	647	1,287	-640	-49.7
1989	1,031	1,897	-866	-45.7
1992	1,286	4,228	-2,942	-69.6

The results of these econometric models demonstrate what has long been suspected: Britain and Brazil underperform in their exports to each other. The model, however, does not explain the underperformance in any causal sense. In the next two sections, I explore a number of hypotheses designed to explain why bilateral exports are so disappointing.

British underperformance

The United Kingdom is a major international trader, with exports in 1995 of \$239.4 billion and imports of \$262.5 billion. Only the USA (\$582.5 billion), Germany (\$509.3 billion), Japan (\$443 billion) and France (\$286.7 billion) have higher exports. Britain is therefore the fifth most important trader in the world with 4.8% of world exports and 5.1% of world imports.

The UK trades with all countries in the world and, *ceteris paribus*, we would expect its share of any given import market to be equal to its share of world exports, i.e. 4.8% based on 1995 values. This is the starting point for an analysis of British exports to Brazil.

As shown in Table 1, the British share of Brazil's imports is approximately 2% as against the 'expected' share of 5% and an official target of 4%.⁷ The gap between expected and actual performance is therefore some 60%.⁸ This underperformance can be attributed to various factors and in this section I explore several hypotheses in an effort to identify the reasons for the shortfall.⁹

Hypothesis 1 - British underperformance in Brazil is due to overperformance in other markets.

It is a matter of simple arithmetic that overperformance by British exports in certain markets must lead to underperformance elsewhere. In the case of the UK, exports to the rest of the European Union (EU) are particularly important and represent (in 1995) nearly 55% of the total;¹⁰ the UK has 7.3% of total EU (excluding the UK) imports – far above the 'expected'

7 As part of the Link into Latin America campaign, launched in January 1995, the British government has set itself the target of doubling its share of the Latin American market.

8 Call the expected share $S(e)$ and the actual share $S(a)$; then the gap is defined as $\{[S(e) - S(a)]/S(e)\} \times 100$.

9 There are other hypotheses that could have been explored with more time; examples are (i) UK exports underperform because of overperformance of investment; (ii) UK exports underperform because of overperformance of services.

10 It might be expected that the UK overperforms in the US market. This in fact is not true, as the UK accounts for only 3.6% of US imports (1995 figures).

share of 4.8%. When the UK share of world trade is calculated to exclude the EU, the ratio falls to 3.4% and the gap (see fn. 8) to some 40%. Thus, overperformance in exports to the EU explains one-third of the underperformance in the Brazilian market.¹¹

Hypothesis 2 British underperformance is due to Brazil's overdependence on other markets.

Like the UK, Brazil is a member of a regional integration scheme and has forged close trading links with its partners in MERCOSUL (Argentina, Paraguay and Uruguay). Its three partners' share of world exports is 0.5%, but their share of Brazil's imports (1995 figures) is 13.7%. Thus, Brazil is 'overdependent' on its MERCOSUL partners and must necessarily have a lower dependence on imports from other sources, including the UK.

When Brazil's trade figures are adjusted for the difference between expected and actual MERCOSUL imports, the British share increases (1995 figures) to 2.3%, i.e. the gap falls to some 50%. Thus, Brazil's MERCOSUL links explain a further 10% of the difference between actual and expected British performance.

Hypothesis 3 - The UK is not exporting the products that Brazil wants to import.

If the growth of Brazil's imports takes place in products or product groups that are not exported by the UK, then it is difficult – not to say impossible – for the UK to achieve its expected share. In order to test this hypothesis, I have calculated the growth of Brazil's imports from 1990 to 1995 in 14 product groups (see Table 9) and ranked them in terms of their growth rates. I then ranked the same products in terms of the structure of British exports at the mid-point in the cycle (1993). A comparison of the two rankings gives a Spearman Rank Correlation Coefficient of 0.178.

The maximum value for Spearman is unity, so that the actual correlation is quite low. For example, the most important British export (chemicals) is only seventh in the ranking of Brazil's import growth rates (see Table 9), while the fastest growing product group (automotive products) is sixth in the British export list. However, the calculation of the Spearman Coefficient is sensitive to the choice of product groups, base and terminal year and it is doubtful if the structure of UK exports explains underperformance to any significant

¹¹ Note that, with this approach, the UK would be 'overperforming' if it succeeded in meeting the official target of 4% of the Brazilian import market.

degree. On the contrary, as we saw previously, there does seem to be a fair degree of complementarity at present between Brazil's need for capital goods and UK export capacity.

Table 9
Brazil's Import Growth and UK Export Structure

	Brazil (%)	Brazil Rank	UK Rank
Agricultural products	175	5	14
Fuels	2	13	10
Chemicals	140	7	1
Textiles/Clothing	479	2	8
Iron and Steel	47	12	11
Other semi-manufactures	165	6	12
Mining products (exc. fuels)	76	11	13
Power-generating machines	-7	14	4
Other non-elec. machinery	96	9	3
Office and telecom equip.	243	3	5
Electrical machinery	127	8	7
Automotive products	1,397	1	6
Other transport equipment	82	10	9
Miscellaneous	190	4	2

Sources: WTO (1996); DTI (1997).

The rates of growth of Brazil's imports in Table 9 take no account of the initial level of imports. It is therefore of interest to compare the structure of Brazil's imports with the structure of British exports and this reveals some major differences. For example, food, drink and tobacco products (1992/3 figures) accounted for nearly 8% of British exports and only 1.3% of total Brazilian imports; on the other hand, mineral products (including oil) represented 23.3% of Brazilian total imports, but only 2.5% of British exports. However, the structure is similar for many capital goods and it is difficult to argue that the structure of Brazilian imports works against the growth of British exports.

Hypothesis 4 - The UK underperforms by comparison with its main EU partners.

This is a particularly interesting hypothesis and one that often arises in discussions of British trade performance with Latin America. Strictly speaking, it is not a hypothesis at all and it does not 'explain' British underperformance in any sense; yet it is important to know if the UK is failing to match the export effort of its partners in Brazil.

In Table 10 I have listed the exports to Brazil (1995 figures) of those EU countries whose exports exceed or come close to those for the UK. As a proportion of total exports, the Italian performance is by far the best (1.2%) and the British the worst (0.4%), although the French performance (0.5%) is not dissimilar to the British. When expressed as a share of Brazil's imports, Germany (9.48%) moves into first place with Spain (1.6%) last.

These trade shares in themselves are not very helpful, as they take no account of relative weights. Table 10 therefore gives shares of world imports for each country and the gap between actual and expected performance is then calculated using the same methodology as before (see footnote 8). It now appears that all countries except Italy underperform in their exports to Brazil, although the degree of underperformance is greatest for the UK.

Hypothesis 1 explained part of British underperformance in terms of overperformance in exports to the EU. We can do the same for the UK's EU partners and this is done in Table 10. Because of their heavy reliance on the EU market, Spain and Germany now join Italy as overperformers in the Brazilian market, i.e. their exports to Brazil are greater than what one would expect in view of the dependence on the EU market. This leaves France and Britain as the underperformers, with British underperformance significantly greater than French.

Hypothesis 2 explained part of British underperformance in terms of Brazil's dependence on MERCOSUL. We can do the same for the other EU countries and this is also shown in Table 10. The French underperformance now virtually disappears, leaving the UK as the only EU country in this group with a significant underperformance in its exports to Brazil.

The evidence of Table 10 points strongly to British underperformance in the Brazilian market by comparison with other EU countries. Spain, for example, with only \$26 billion of non-EU exports compared with \$113 billion for the UK, exported almost as much to Brazil in 1995 as the UK. The Italian performance is also very impressive with Italy enjoying 5.7% of the Brazilian market against (an unadjusted) share of world exports of 4.7%, i.e. a similar share of world exports to the UK and a share of Brazilian imports that is three times larger.

Table 10
European Union Export Performance to Brazil: 1995

	UK	Italy	France	Germany	Spain
Total exports (\$bn)	239	232	287	509	92
- to Brazil (\$mn)	975	2,859	1,382	4,720	814
- %age to Brazil	0.4	1.2	0.5	0.9	0.9
%age of Brazilian imports	1.9 6	5.74	2.78	9.48	1.6
%age world exports	4.8	4.7	5.8	10.3	1.8
Gap (%) - see fn.8	-59	+22	-52	-8	-11
Non-EU exports \$bn	113	100	107	219	26
% non-EU world imp	3.5	3.1	3.3	6.8	0.8
Adjusted gap (%) ¹²	-44	+85	-16	+39	+100
Gap adjusted for MERCOSUL (%)	-35	+113	-3	+60	+135

Source: derived from IMF (1996).

It is not possible to explain in this paper the underperformance of the UK in relation to its EU partners, but this is a subject worthy of closer study. Part of the explanation could be the structure of these countries' exports, but part is almost certainly due to different marketing strategies and the pattern of direct foreign investment. In any case, the evidence of Table 10 indicates unambiguously that the UK – notwithstanding the recent growth – is lagging behind in exports to Brazil.

Brazil's underperformance in exports to UK

Although Brazil is the tenth largest economy in the world, as measured by GDP in dollar terms, it is only 23rd in importance in the list of exporters (1995 data). As a result, Brazil has less than one per cent of world trade (0.9% of world exports) and, *ceteris paribus*, this is its expected share of the British import market. Brazil's actual share of the market in 1995 was 0.58%, implying an unadjusted gap of 36%. This is much smaller than the

¹² The adjusted gap compares actual share of Brazil's imports with expected share based on proportion of non-EU world exports.

unadjusted UK gap (60%), but is still significant. As before, therefore, I will apply a number of hypotheses to see if the gap can be explained.

Hypothesis 1 Brazil underperforms in the UK market because it overperforms in exports to MERCOSUL.

Brazil's exports to its MERCOSUL partners have grown rapidly in recent years. In 1995 exports to partners reached \$6.15 billion and this represented 22.9% of all partner imports. Thus, Brazil has a bigger share of the neighbouring market than is 'expected' from a simple analysis of Brazil's share of world exports, and this means that Brazil's trade performance with the UK needs to be adjusted to take into account the over-reliance on MERCOSUL.

Brazil's non-MERCOSUL exports (in 1995) were \$40.35 billion, i.e. 0.79% of non-MERCOSUL world imports. If we now compare the actual performance in the British market with the new 'expected' share, the (adjusted) gap falls to 27%. Thus, dependence on MERCOSUL explains about 10% of the unadjusted gap in Brazilian performance in the UK market, but it does not eliminate it.

Hypothesis 2 - Brazilian underperformance is due to the UK's overdependence on other markets.

Britain's trade dependence on the European Union reduces the scope for Brazil to export to the UK. Although the share of British imports coming from the EU market is not as high as for many EU members, it is still in excess of 50%. Thus, we need to adjust the trade figures to take this dependence into account.

The UK had total imports in 1995 of \$263.8 billion. Of these, 51% came from EU partners. Total EU exports represent 37.4% of world imports; thus, the rest of the EU could 'expect' to have this share of British imports. When British imports from the EU are adjusted (downwards) for the 'excess' imports from the EU, the Brazilian share rises from 0.58% to 0.67% and the gap falls again to 26%.

It therefore appears that about one-third of the unadjusted gap of 36% is explained by Brazilian overdependence on MERCOSUL and about one-third by UK overdependence on the European Union, leaving a relatively small gap – about 15% – that is unexplained. This unexplained part of the gap is almost certainly due to the lack of complementarity between the Brazilian export structure and the UK import pattern. This hypothesis is not tested formally here, since it was discussed at some length in the second section of the paper. It is worth emphasising, however, that Brazil's main exports to the UK (see Table 3) have almost no correlation with the structure of British imports as given in Table 11 along with the main suppliers.

Table 11
Top Ten British Imports and Main Suppliers

Suppliers	1st	2nd	3rd	4 th	5th
1. Crude Oil	Norway	Algeria	Saudi Arabia	Kuwait	Venezuela
2. Motor Cars	Germany	France	Japan	Italy	Korea
3. Aero Parts	a	a	a	a	a
4. Petroleum	Norway	Sweden	Germany		
5. Lorries	Germany	Sweden	Holland	Belgium	Spain
6. Gear Boxes	Japan	Germany	France	Belgium	USA
7. Cane Sugar	Mauritius.	Guyana	Jamaica	Swaziland	Trinidad
8. Cathodes	Canada	Poland	Chile	Peru	Russia
9. Polyethyl.ene	Holland	France	Germany	Sweden	
10. Tractors	Germany	France	USA	Holland	Japan

(a) Figures split between EU countries (34%) and others (66%).

Source: Brazilian Embassy (1997).

Brazil's name does not appear in Table 11 and this in itself is a matter of some concern. However, more worrying is the vulnerability of Brazil's exports to changes in EU trade policies and British consumption patterns. These matters will be addressed in the next section.

Prospects

The prospects for Brazil's exports to the UK and British exports to Brazil are determined by:

- a) Macroeconomic performance - the growth rate of real GDP is a first proxy for the evolution of a country's imports and, by implication, its partners' exports.
- b) The ratio of imports to GDP - if the ratio of imports to GDP is rising (falling), this will have a positive (negative) effect, *ceteris paribus*, on the imports from partner countries over and above the real GDP effect.

c) The import share - the British (Brazilian) share of Brazil's (UK's) imports can alter as a result of changes in relative prices, a shift in consumption patterns or export promotion strategies.

In what follows, I shall explore each of these three determinants for Brazil and the UK in order to assess the prospects for British and Brazilian exports respectively.

(A) Brazil (i.e. prospects for UK exports)

The *Plano Real*, launched in July 1994, has brought annual inflation in Brazil down to single figures, but the reform process is still far from complete and the real exchange rate has appreciated. As a result, nominal and real interest rates have remained high *both* to attract the capital flows needed to finance the current account deficit *and* as a consequence of the budget deficit. The tight monetary policy, coupled with import restrictions (see below), has led to a reduction in the consensus forecasts for real GDP growth. These now average 3.5% for 1997 and 4.3% for 1998.¹² However, gross fixed capital formation – relevant for British exports of capital goods – is expected to rise by almost double these rates (7.8% in 1997 and 8.7% in 1998). No reliable estimates of GDP growth for 1999 and 2000 are available, but a realistic figure is five per cent (see Table 12).

Brazil's ratio of imports to GDP has been increasing rapidly since 1993, although it is still low by comparison with other countries at similar stages of development. In 1996 the ratio reached 6.8% and is expected to reach 7.6% in 1997 (assuming imports of \$61.5 billion and GDP in dollar terms of \$809 billion). Exports, however, remained at 6.1% of GDP in 1996 and are estimated at 6.3% in 1997 (assuming their value reaches \$50.4 billion). The trade deficit is still modest, but Brazil also has a large deficit in services (mainly interest payments) so that the current account deficit is estimated to exceed 4% of GDP in 1997 compared with almost zero in 1994.

This rate of increase in the current account deficit (and its ratio to GDP) cannot be expected to continue, since financial markets would react negatively if the ratio were to exceed 5%. With privatisation proceeds of nearly \$70 billion (including the Companhia Vale do Rio Doce (CVRD)) expected in the next few years, there is not likely to be any shortage of foreign finance for a deficit in the 4 to 5% range. However, keeping the deficit in this range has major implications for the growth of imports.

¹² See Latin American Consensus Forecasts (1997, p. 8).

Much will depend on the growth of Brazil's exports. If Brazil's exports were to grow rapidly, its imports could also expand rapidly without a major deterioration in the current account deficit. Export promotion policies have begun and the export sector is benefiting from the process of restructuring associated with the reduction in the so-called Brazil cost (e.g. the states' Imposto sobre Circulação de Mercadorias e Serviços (ICMS)), mergers and acquisitions and the rise in labour productivity. However, exports are still hampered by an uncompetitive exchange rate, a narrow enterprise base (some 500 firms out of 3 million are responsible for around 75% of Brazil's exports) and a lack of detailed knowledge about foreign markets. The consensus forecast for exports in 1997 is \$50.4 billion and in 1998 \$53.8 billion. These may be unduly pessimistic, but they do allow for import growth at 10% before the current account deficit exceeds 5% of GDP. This rate of growth of imports is faster than GDP so that the ratio of imports to GDP should be approximately 9% by 2000 – still low by international standards (see Table 12).

The UK share of imports remained stable at approximately 2% between 1990 and 1995 – rising to 2.5% in 1996 (based on preliminary figures). With an unchanged share (i.e. 2%), UK imports can be expected to reach \$1,634 million in 2000. However, Britain hopes to increase the share to 4% which – if achieved – means that British exports would reach \$3,268 million by the start of the new millennium.

Many factors will impinge on the UK share of Brazil's imports – not only British export promotion policies. In Britain's favour is the rapid growth in capital goods imports, which is expected to continue as a result of the high levels of direct foreign investment, the privatisation process and the restructuring of the Brazilian productive sectors in the face of growing international competition. However, the strength of the pound sterling puts British exports at a disadvantage compared with other industrial countries, e.g. France, Germany and Italy. In addition, Brazil's MERCOSUL commitments mean that relative prices will shift in favour of imports from partner countries as the remaining barriers to intra-regional trade are removed and the CET is extended to all products.

Table 12
Simulations For Brazil

	1996	1997	1998	1999	2000	Annual Growth (%)
GDP (\$ billion)	782	809	844	866	931	
Growth p.a. (%)	2.9	3.5	4.3	5.0	5.0	
Exports (\$bn)	47.7	50.4	53.8	59.2	65.1	
Imports (\$bn)	53.3	61.5	67.5	74.3	81.7	
Imports/GDP (%)	6.8	7.6	8.0	8.6	8.8	
UK import (\$mn)	1,323					
2% share					1,634	5.4
2.5% share					2,043	11.5
3.0% share					2,451	16.7

The most plausible scenario is therefore a British share of Brazil's imports between 2 and 3% (see Table 12). This gives a lower bound estimate for the growth of British exports to Brazil of 5.4% and a higher bound of 16.7%. This is, in fact, a satisfactory outcome for Britain and reflects the huge effort put into export promotion in Brazil by the Department of Trade and Industry (DTI), Foreign and Commonwealth Office (FCO) and the Link into Latin America (LILA) campaign. However, it does mean that Brazil will no longer be the fastest growing market for British exports.

The wild card in this scenario is the possibility of a Free Trade Agreement between MERCOSUL and the EU. Such an agreement would push relative prices in favour of all EU exporters at the expense of imports from other sources (particularly the USA). It is not, however, a short-term prospect and in this author's view is not even a medium-term possibility. I have therefore not included it in my simulations of British exports to Brazil.

(B) United Kingdom (i.e. prospects for Brazil's exports)

The UK economy has been recovering strongly since the deep recession at the beginning of the 1990s and the new Labour government has inherited a relatively healthy situation. In his first budget on 2 July 1997, the Labour Chancellor of the Exchequer, Gordon Brown, outlined the medium-term growth prospects for the British economy. These assume real GDP growth above trend in 1997 before falling back to the long-term sustainable rate of growth of 2.25% in 1998 and thereafter (see Table 13).

The Chancellor emphasised the need for fiscal tightening and this was applied mainly to the corporate sector. The post-budget consensus was that he had not done enough to rein in consumer demand, making further increases in interest rates inevitable. The interest rate differential between the UK and its EU partners and the difficulties faced by Britain's European partners in their efforts to meet the Maastricht criteria for a single currency have made sterling a one-way bet for the time being; as a result, the pound has strengthened dramatically in the last 12 months and import growth (in terms of volume) has accelerated; the rate of growth of imports is expected to continue to outpace the rate of growth of GDP (both measured at constant prices) leading to a rise in the ratio of imports to GDP (see Table 13).

Table 13
Simulations for UK

	1996	1997	1998	1999	2000	Annual Growth (%)
GDP Growth (%)	2.5	3.25	2.25	2.25	2.25	
Export Growth -%	7.0	6.25	5.0	5.0	5.0	
Import Growth -%	8.5	7.25	7.75	5.0	5.0	
Import/GDP (%)	35.2	36.6	38.4	39.0	40.0	
Imports (\$bn)	282	302	325	342	359	
Brazil (\$mn)	1,573					
Share (0.6%)					2,153	8.2%
Share (0.5%)					1,794	3.3%

The UK is a very open economy and British imports of goods and services represented in 1996 35.2% of GDP at factor cost (1990 prices). British imports in 1996 are estimated at \$282 billion and they are expected to continue to grow in excess of GDP. The rate of growth in dollar terms is hard to calculate in view of changes in the dollar-sterling exchange rate and movements in international commodity prices. I have therefore assumed growth of imports in current dollars at the same rate as the forecast rate of growth of the volume of imports, increasing the import share to 40% by 2000.

The Brazilian share of imports was approximately 0.6% in the first half of the 1990s (see Table 1), i.e. six-tenths of one per cent. However, Brazil would be doing extremely well if it held on to this share for the following reasons:

a) There was no increase in the dollar value of Brazil's exports to the UK in 1996.

- b) There was a 10% fall in the dollar value of Brazil's exports to the UK in the first five months of 1997
- c) Brazil will lose most of its remaining Generalised System of Preferences (GSP) privileges in the UK (and EU) market by 2000.
- d) The expected entry of Cyprus, Poland, Hungary, the Czech Republic, Estonia and Slovenia to the EU after 2002 will give these countries (whose combined exports to the UK exceed Brazil's by a substantial margin) a price advantage in many products (e.g. shoes).

There are some offsetting factors: reform of the Common Agricultural Policy may increase opportunities for Brazil's farm exports; investment in Brazil by UK companies (and in the UK by Brazilian firms) will create opportunities for intra-firm trade (e.g. Rover engines); the strength of sterling against the dollar (and by implication the *real*) is of some assistance to Brazil. However, it is very unlikely that these factors in themselves are sufficient to reverse an expected decline in Brazil's share of UK imports. The optimistic scenario, therefore, is that Brazil retains a share of 0.6% and the pessimistic one is that it falls to 0.5%; this gives rise to annual export growth between 1996 and 2000 in the range 3.3% to 8.2% (see Table 13).

Brazil does not devote the same attention to the British market as the UK devotes to the Brazilian market. Trade missions are almost unknown, although one came in 1997 from São Paulo, and within Europe Brazil exports more to Belgium, France, Germany and Italy than to Britain. This lack of attention is a major reason for the poor performance of Brazil in the UK. The British economy is one of the most open in the world, but the structure of Brazil's exports works against their expansion. Brazil needs to shift its exports to Britain towards manufactured goods and develop greater knowledge of the market through research, joint ventures and trade missions.

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