United States
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Agricultural
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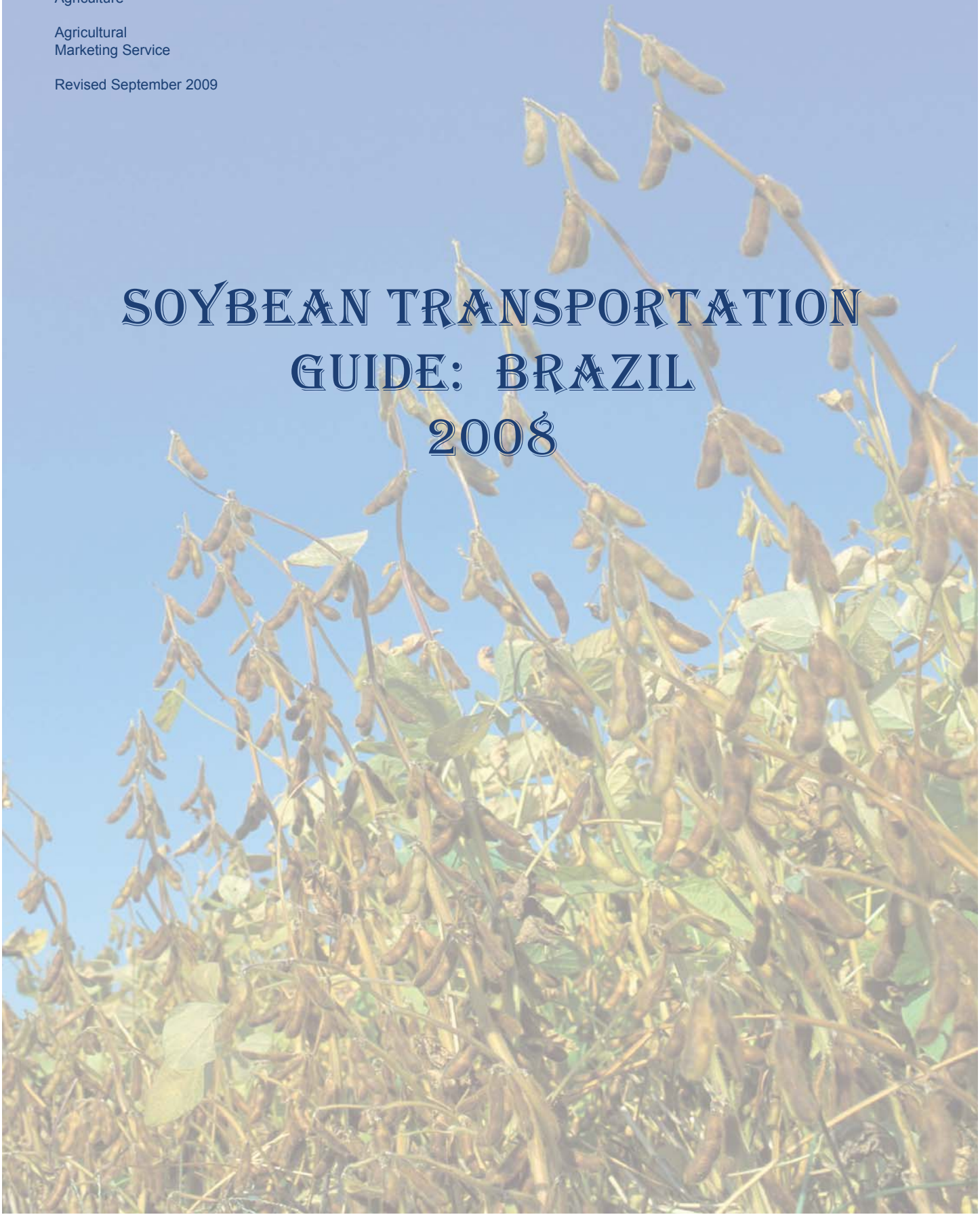

SOYBEAN TRANSPORTATION GUIDE: BRAZIL 2008

United States Department of Agriculture
Marketing and Regulatory Programs
Agricultural Marketing Service
Transportation and Marketing Programs

Revised September 2009

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SOYBEAN TRANSPORTATION GUIDE: BRAZIL

Introduction

Brazil is the second largest soybean exporter after the United States and one of the most important U.S. competitors in the world oilseeds market. Brazil's competitiveness in the world market depends largely on its transportation infrastructure and cost. The Soybean Transportation Guide is a visual snapshot of Brazilian soybean transportation in 2008. It provides data on the cost of shipping soybeans via highways and ships to Shanghai, China, and Hamburg, Germany, and gives information about soybean production, exports, railways, and ports.

Santos was the largest soybean export port, accounting for 34 percent of Brazilian exports in 2008. Brazilian soybean transportation costs to Hamburg and Shanghai as a percentage of total landed costs declined 20−47 percent in Mato Grosso (MT), Paraná (PR), Rio Grande do Sul (RS) and South Goiás (GO) from a year earlier as a result of a boost of 39−54 percent in farm prices and a 24-53 percent decline in ocean rates.

The drop in ocean rates to Shanghai, caused by weak global demand and excess vessel capacity, was not enough to offset the large increase in truck rates to ports. These selected routes saw proportionally higher increases in transportation costs in terms of the U.S. dollar because of the nearly 6 percent appreciation of the real against the dollar, which lowers transportation costs for Brazilian shippers because truck rates within Brazil are set in reais and ocean rates are set in U.S. dollars. Since 2005, the real has appreciated 25 percent against the U.S. dollar.

The Brazilian soybean export transportation cost index increased 16 percent in 2008. The cost of shipping a metric ton (mt) of soybeans 100 miles by truck increased from $8.44 in 2007 to $9.75 in 2008. Truck rates were pushed up by increased fuel costs, increased exports to China, and by increased transportation demand for corn, soybeans, and rice. In addition, there is an increased risk of carrying a higher-value cargo caused by the rise in soybean prices. Truck rates increased the most in July, hitting a record of $11.15 per mt/100 miles during the 3rd quarter. In the last 3 years, the peaks of Brazilian soybean exports have occurred in July, when almost two thirds of the year's soybeans are exported. Costs in the fourth quarter, however, fell sharply in line with a suddenly depreciated exchange rate and the seasonal decline in shipments.

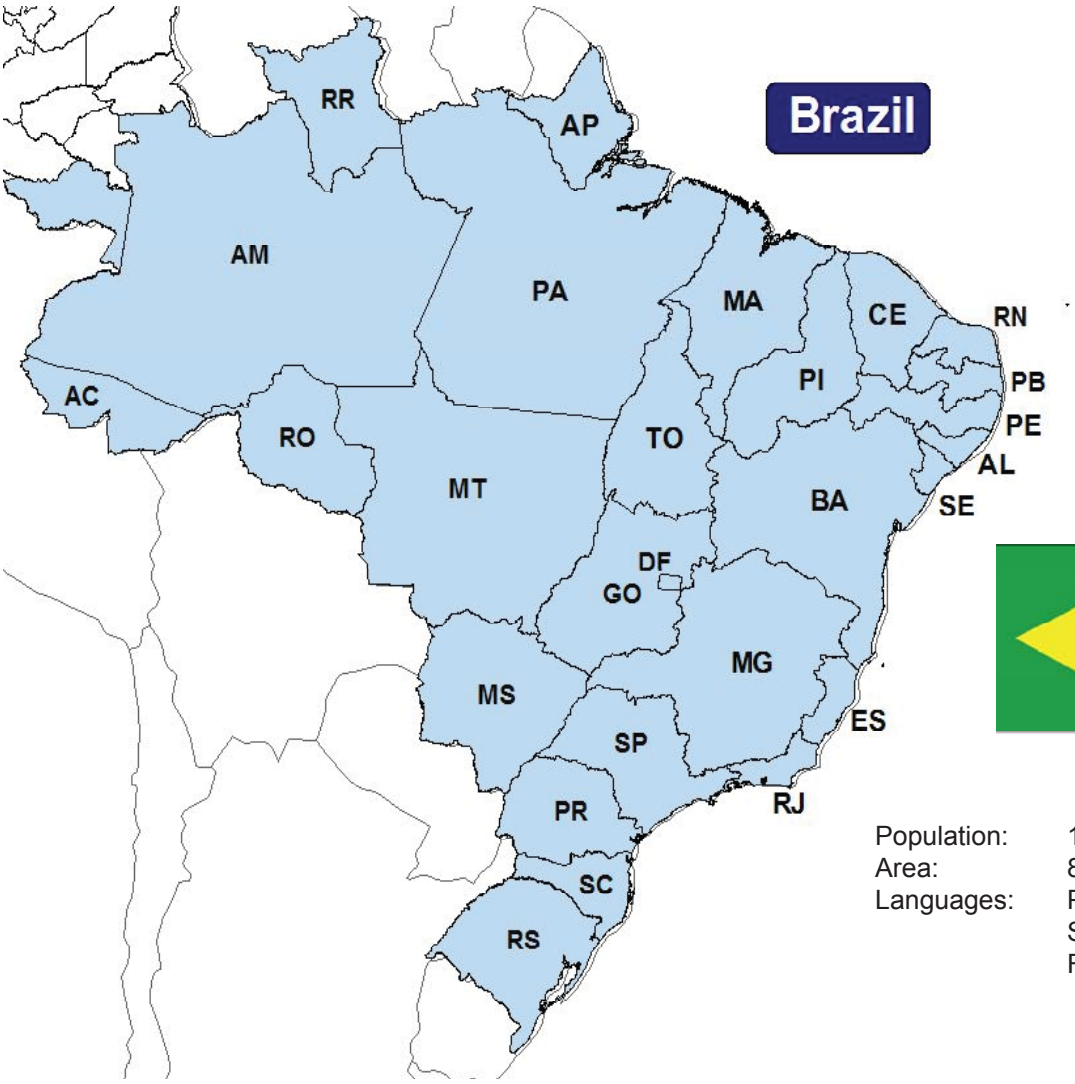
Ocean rates from the ports of Santos, Paranaguá, and Rio Grande to Hamburg dropped 24−53 percent. Freight rates to Shanghai followed the same trend, falling 11−15 percent compared with 2007. Weak global demand and excess vessel supply caused the drop. During 2008, ocean rates from Santos to Shanghai decreased 15 percent from $82.83/metric ton (mt) to $70.38/mt from the same period last year.

Farm values reached their peak in the 3rd quarter, dropping in the 4th quarter but still remaining 39−53 percent higher than the previous year. Despite the rise of over 50 percent in MT soybean prices, producers did not realize all the benefits of the increase in farm prices due to high debt and rising production and transportation costs as well as uncertainties surrounding the financial markets, which created difficulties in securing importers' trade credit.

Transportation costs represent 31–34 percent of the total landed costs of shipping soybeans from Sorriso, North MT (the largest Brazilian soybean-producing state), to Shanghai and Hamburg through Santos and Paranaguá. Sorriso is located 1,190 miles from Santos and 1,262 miles from Paranaguá. The cost from Cruz Alta in Northwest RS to the same destinations was only 16–19 percent of the total landed cost because of the shorter road distance (288 miles) to the Port of Rio Grande. U.S. transportation as percentage of total landed costs for soybeans to Hamburg and Shanghai were down 15–24 percent in 2008 and well below Brazil's percentages, due largely to higher farm prices.

Acknowledgments

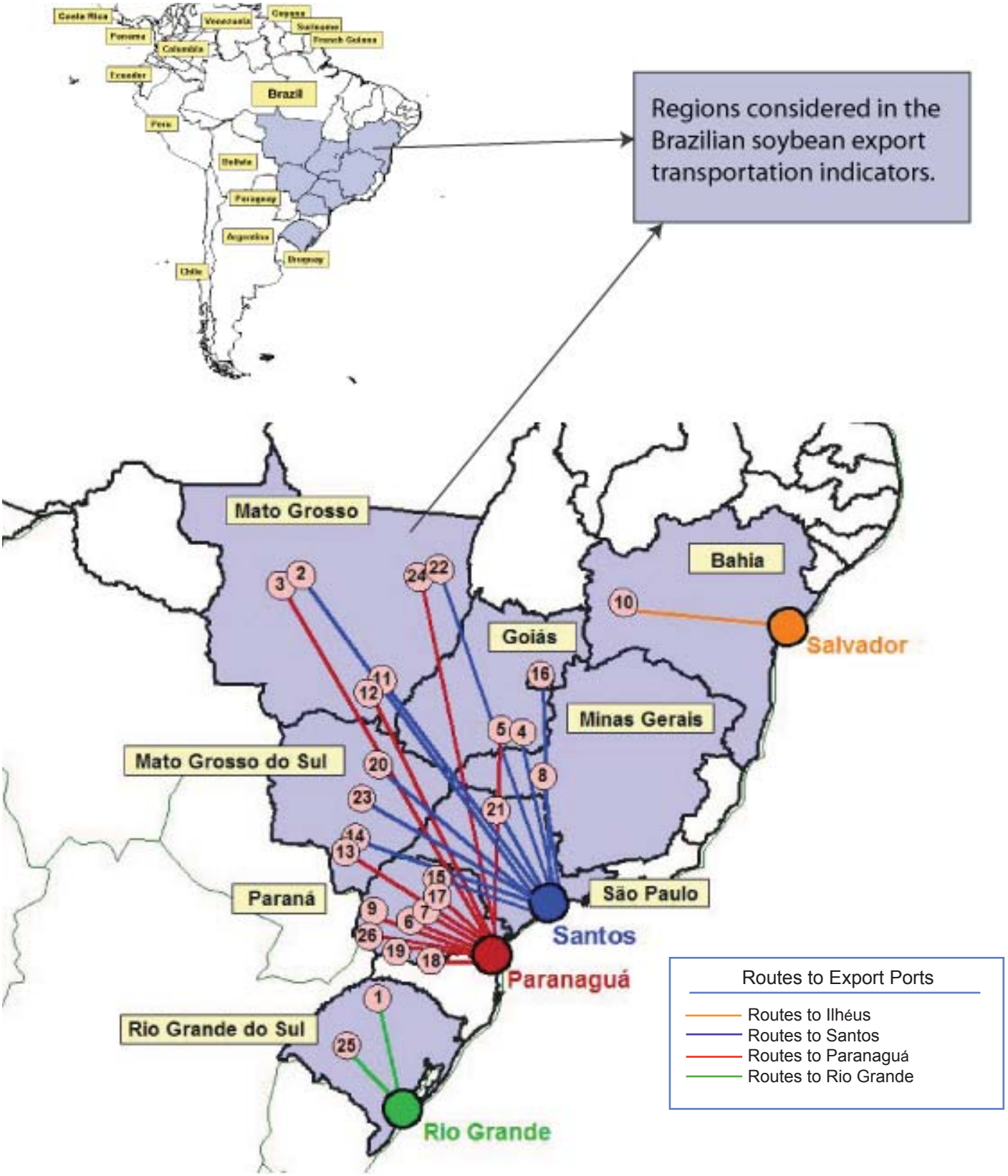
The author would like to acknowledge Carlos Eduardo Cruz Tavares and Mariano Marques (Companhia Nacional de Abastecimento, CONAB), Ellen Capistrano Martins and Kleane Pessoa Nogueira (National Association of Railroads, ANTF), Adilson Domingos dos Reis (Caceres, State of Mato Grosso), Curt Reynolds (USDA, Foreign Agricultural Service) for providing regional information and maps of Brazil. Comments and critiques by Keith Menzie (USDA, Office of the Chief Economist) and Mark Ash (USDA, Economic Research Service) are greatly appreciated. The support provided by Alan Hrapsky, Morgan Perkins, Sergio Barros, Priscila Ming, and Julie Morin (USDA, Foreign Agricultural Service) is gratefully acknowledged. The author would also like to thank Michael D. Smith, editor, and Jessica Ladd, graphic designer.



Population: 198,739,269
Area: 8,511,965 sq km
Languages: Portuguese (official), Spanish, English, French

State and Abbreviation	
Acre (AC)	Paraíba (PB)
Alagoas (AL)	Paraná (PR)
Amapá (AP)	Pernambuco (PE)
Amazonas (AM)	Piauí (PI)
Bahia (BA)	Rio de Janeiro (RJ)
Ceará (CE)	Rio Grande do Norte (RN)
Distrito Federal (DF)	Rio Grande do Sul (RS)
Espírito Santo (ES)	Rondônia (RO)
Goiás (GO)	Roraima (RR)
Maranhão (MA)	Santa Catarina (SC)
Mato Grosso (MT)	São Paulo (SP)
Mato Grosso do Sul (MS)	Sergipe (SE)
Minas Gerais (MG)	Tocantins (TO)
Pará (PA)	

Routes[1] and regions considered in the Brazilian soybean export transportation indicator[2]



[1]Table defining routes by number is shown on page 13
[2]Regions comprised about 83 percent of Brazilian soybean production, 2007
Source: USDA/AMS & ESALQ - University of São Paulo (USP), Brazil

In 2008, Brazilian soybean transportation costs from South Goiás (GO), Mato Grosso (MT), Paraná (PR) and Rio Grande do Sul (RS) to Hamburg, Germany, as a percentage of total landed costs declined 23-47 percent from a year earlier due to a significant increase in farm value and a 24-53 percent decline in ocean rates.

Cost of transporting soybeans from Brazil to Hamburg, Germany										
	2005	2006	2007	2008	Percent change 2007-2008	2005	2006	2007	2008	Percent change 2007-2008
	--US$/mt--					--US$/mt--				
	North MT[1] - Santos[2]					North MT[1] - Paranaguá[2]				
Truck	79.10	79.46	97.67	115.74	18.50	77.64	78.05	88.05	109.90	24.81
Ocean	48.16	46.76	73.01	52.36	-28.28	47.19	45.76	71.05	53.81	-24.26
Total transportation	127.26	126.22	170.68	168.10	-1.51	124.84	123.81	159.11	163.72	2.90
Farm value[3]	163.97	164.88	233.82	358.99	53.53	163.97	164.88	233.82	358.99	53.53
Landed cost	291.23	291.11	404.50	527.09	30.31	288.81	288.70	392.93	522.71	33.03
Transport % of landed cost	43.70	43.40	42.50	31.60	-25.60	43.25	43.00	40.80	31.10	-23.70
	Southeast MT[1] - Santos[2]					North Center PR[1] - Paranagua[2]				
Truck	58.95	57.56	69.58	80.61	15.86	21.52	21.31	32.36	33.60	3.80
Ocean	48.16	46.76	73.01	52.36	-28.28	47.19	45.76	71.05	53.81	-24.26
Total transportation	107.11	104.33	142.59	132.97	-6.74	68.71	67.07	103.42	87.41	-15.48
Farm value[3]	163.97	164.88	233.82	358.99	53.53	210.24	213.81	281.14	399.30	42.03
Landed cost	271.08	269.21	376.41	491.97	30.70	278.95	280.88	384.56	486.71	26.56
Transport % of landed cost	39.51	38.80	38.20	26.9	-29.50	24.63	23.80	27.00	17.90	-33.90
	South GO[1] - Santos[2]					Northwest RS[1] - Rio Grande[2]				
Truck	37.59	43.56	50.47	55.33	9.64	12.84	16.16	21.82	15.98	-26.77
Ocean	48.16	46.76	73.01	52.36	-28.28	46.72	45.03	71.73	33.98	-52.63
Total transportation	85.75	90.32	123.48	107.69	-12.78	59.55	61.18	93.55	49.96	-46.60
Farm value[3]	181.92	189.63	268.65	373.13	38.89	208.35	210.34	267.06	309.01	15.71
Landed cost	267.66	279.96	392.12	480.82	22.62	267.90	271.53	360.61	358.97	-0.46
Transport % of landed cost	31.93	32.20	31.80	22.30	-29.90	22.21	22.30	26.10	13.90	-46.70

[1]Producing regions: RS = Rio Grande do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná
[2]Export ports represent 60 percent of total soybean exports; na = not available; [3]Companhia Nacional de Abastecimento (CONAB)
Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

2008 Summary

In 2008, Brazilian soybean transportation costs to Shanghai, China, as a percentage of total landed costs declined 20-31 percent compared with 2007 due to a decline in ocean rates and higher farm values. In Sorriso, North MT (the largest Brazilian soybean-producing state) the drop in ocean rates to Shanghai, caused by weak global demand and excess vessel capacity, was not enough to offset the large increase in truck rates. Sorriso is located 1,190 miles from Santos and 1,262 miles from Paranaguá.

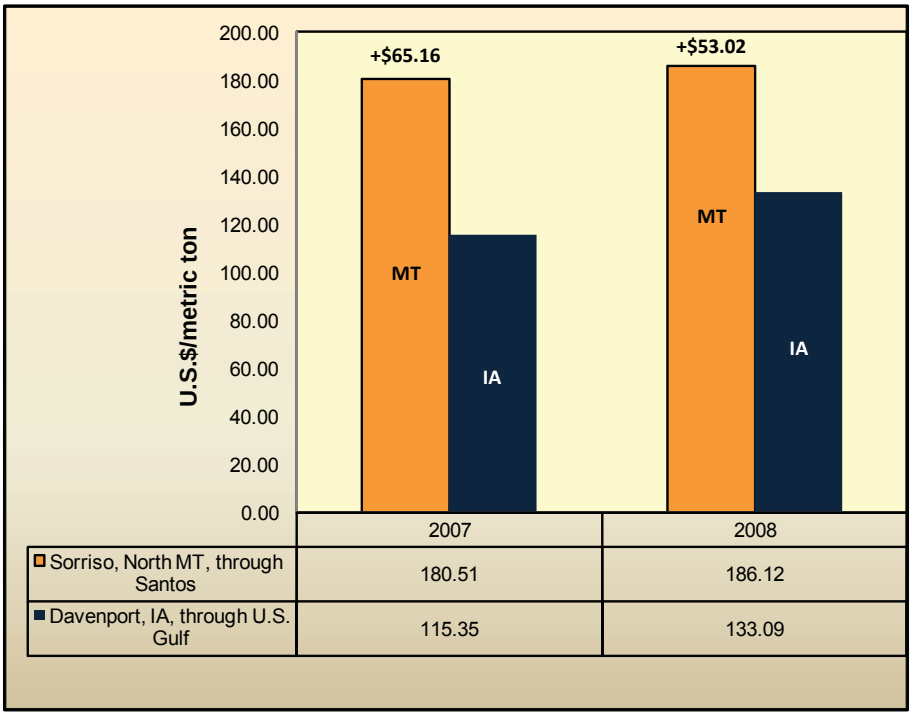
Cost of transporting soybeans from Brazil to Shanghai, China

	2005	2006	2007	2008	Percent change 2007-2008	2005	2006	2007	2008	Percent change 2007-2008
	--US$/mt--					--US$/mt--				
	North MT[1] - Santos[2]					North MT[1] - Paranaguá[2]				
Truck	--na--	79.46	97.67	115.74	18.50	--na--	78.05	88.05	109.90	24.81
Ocean	--na--	57.31	82.83	70.38	-15.04	--na--	56.31	80.81	71.66	-11.32
Total transportation	--na--	136.77	180.51	186.12	3.11	--na--	134.36	168.86	181.56	7.52
Farm value[3]	--na--	164.88	233.82	358.99	53.53	--na--	164.88	233.82	358.99	53.53
Landed cost	--na--	301.65	414.33	545.11	31.57	--na--	299.24	402.68	540.56	34.24
Transport % of landed cost	--na--	45.40	43.90	34.10	-22.3	--na--	45.00	42.30	33.60	-20.50
	Southeast MT[1] - Santos[2]					North Center PR[1] - Paranagua[2]				
Truck	--na--	57.56	69.58	80.61	15.86	--na--	21.31	32.36	33.60	3.80
Ocean	--na--	57.31	82.83	70.38	-15.04	--na--	56.31	80.81	71.66	-11.32
Total transportation	--na--	114.87	152.41	150.99	-0.93	--na--	77.62	113.18	105.26	-7.00
Farm value[3]	--na--	164.88	233.82	358.99	53.53	--na--	213.81	281.14	399.31	42.03
Landed cost	--na--	279.75	386.23	509.98	32.04	--na--	291.43	394.32	504.56	27.96
Transport % of landed cost	--na--	41.11	39.90	29.70	-25.50	--na--	26.50	28.90	21.00	-27.30
	South GO[1] - Santos[2]					Northwest RS[1] - Rio Grande[2]				
Truck	--na--	43.56	50.47	55.33	9.64	--na--	16.16	21.82	22.29	2.17
Ocean	--na--	57.31	82.83	70.38	-15.04	--na--	55.81	81.56	72.08	-11.62
Total transportation	--na--	100.87	133.30	125.71	-5.70	--na--	71.97	103.37	94.37	-8.71
Farm value[3]	--na--	189.63	268.65	373.13	38.89	--na--	210.34	267.06	394.66	47.78
Landed cost	--na--	290.50	401.95	498.84	24.10	--na--	282.31	370.43	489.03	32.02
Transport % of landed cost	--na--	34.60	33.50	25.40	-24.40	--na--	25.20	28.10	19.40	-31.20

[1]Producing regions: RS = Rio Grande do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná
[2]Export ports represent 60 percent of total soybean exports; na = not available; [3]Companhia Nacional de Abastecimento (CONAB)
Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

In 2008, it cost $53.02 more per metric ton to ship soybeans from Sorriso, North Mato Grosso (MT) to Shanghai, China, than from Davenport, IA. Sorriso is located 1,190 miles from the port of Santos.

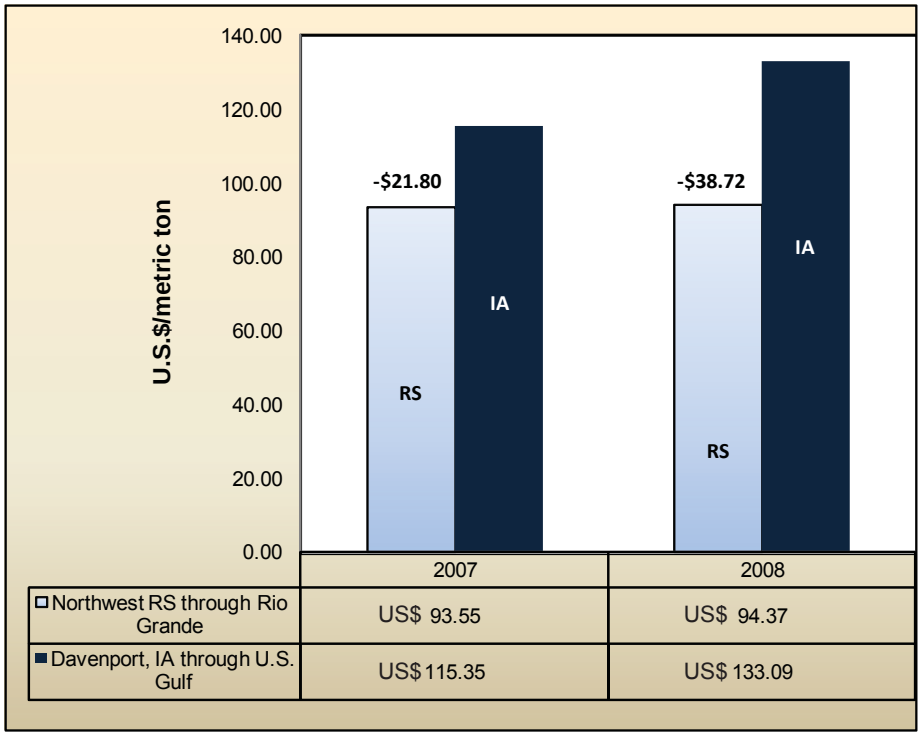
Transportation cost differences between Mato Grosso (MT) and Iowa (IA) to Shanghai, China



	2007	2008
Sorriso, North MT, through Santos	180.51	186.12
Davenport, IA, through U.S. Gulf	115.35	133.09

In 2008, the cost of shipping a metric ton of soybeans from Cruz Alta, Northwest Rio Grande do Sul (RS), to Shanghai, China, cost $83.14 less than from Davenport, IA. The distance from Cruz Alta to the port of Rio Grande is 288 miles.

Transportation cost differences between Rio Grande do Sul (RS) and Iowa (IA) to Shanghai, China



	2007	2008
Northwest RS through Rio Grande	US$ 93.55	US$ 94.37
Davenport, IA through U.S. Gulf	US$ 115.35	US$ 133.09

2008 Summary

In 2008, truck rates valued in reais from Cruz Alta, Rio Grande do Sul (RS), to Rio Grande and from Londrina, Paraná (PR), to Paranaguá declined 7 and 3 percent from a year earlier, respectively. In contrast, truck rates from Sorriso, North Mato Grosso (MT), to Santos and Paranaguá increased 8 and 14 percent, respectively.

Truck rates for selected Brazilian soybean export routes, 2005-2008

Route #	Origin[1] (reference city)	Destination	Distance (miles)[2]	2005	2006	2007	2008	Percent Change 07-08
				Reais/metric ton				
1	Northwest RS[3] (Cruz Alta)	Rio Grande	288	31.25	32.09	42.83	39.75	-7.20
2	North MT (Sorriso)	Santos	1190	191.83	172.90	190.37	206.25	8.34
3	North MT (Sorriso)	Paranaguá	1262	188.40	169.84	171.59	196.05	14.26
4	South GO (Rio Verde)	Santos	587	90.56	94.74	98.45	99.16	0.72
6	North Center PR (Londrina)	Paranaguá	268	52.26	46.35	62.89	60.78	-3.35
11	Southeast MT (Primavera do Leste)	Santos	901	143.14	125.29	135.70	144.86	6.74

[1]Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price
[2]Distance from the main city of the considered region to the mentioned ports
[3]RS = Rio Grande do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso do Sul, SP = São Paulo
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

In 2008, selected Brazilian export truck routes saw proportionally higher increases in transportation costs in U.S. dollar due to the appreciation of the real against the U.S. In 2008, the real appreciated about 6 percent against the dollar, from 1.9485 to 1.8346 per dollar. Since 2005, the real has appreciated almost 25 percent against the U.S. dollar.

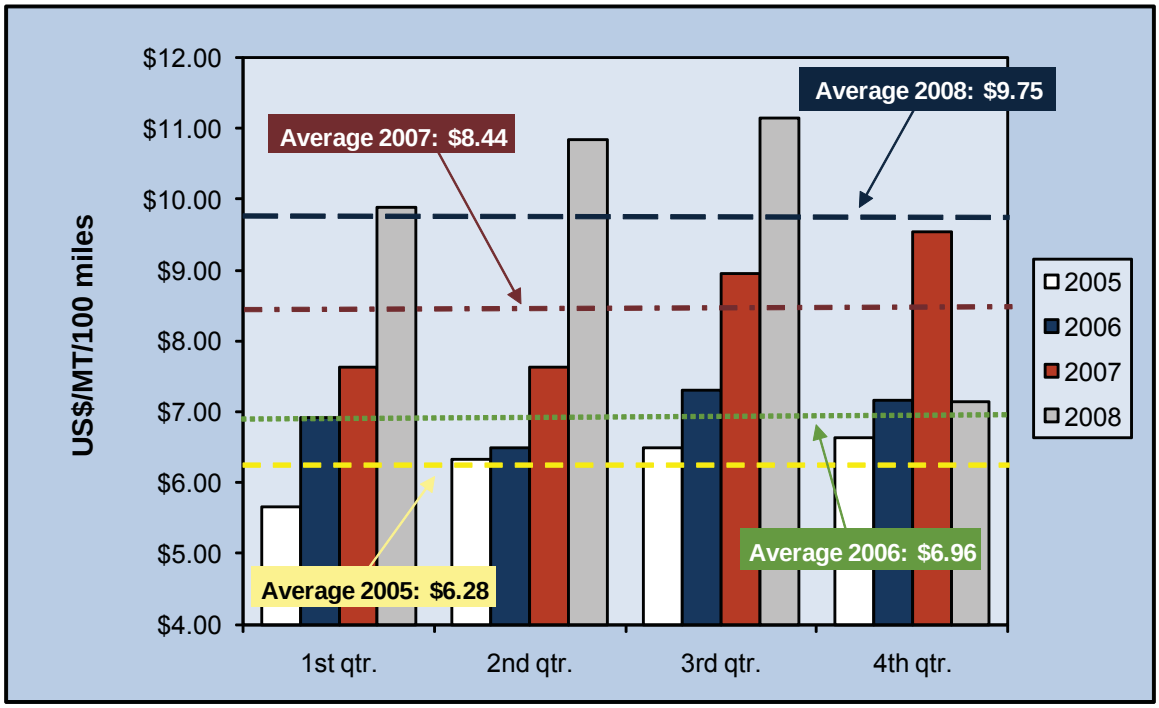
Truck rates for selected Brazilian soybean export routes, 2005-2008

Route #	Origin[1] (reference city)	Destination	Distance (miles)[2]	2005	2006	2007	2008	Percent Change 07-08
				US$/metric ton				
1	Northwest RS[3] (Cruz Alta)	Rio Grande	288	4.46	5.61	7.58	7.74	2.17
2	North MT (Sorriso)	Santos	1190	6.65	6.68	8.21	9.73	18.50
3	North MT (Sorriso)	Paranaguá	1262	6.15	6.18	6.98	8.71	24.81
4	South GO (Rio Verde)	Santos	587	6.40	7.42	8.60	9.43	9.64
6	North Center PR (Londrina)	Paranaguá	268	8.03	7.95	12.08	12.54	3.80
11	Southeast MT (Primavera do Leste)	Santos	901	6.54	6.39	7.72	8.95	15.86

[1]Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price
[2]Distance from the main city of the considered region to the mentioned ports
[3]RS = Rio Grande do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso do Sul, SP = São Paulo
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

The Brazilian soybean export transportation cost index increased about 16 percent in 2008. The cost of shipping a metric ton (mt) of soybeans 100 miles by truck increased from $8.44 in 2007 to $9.75 in 2008.

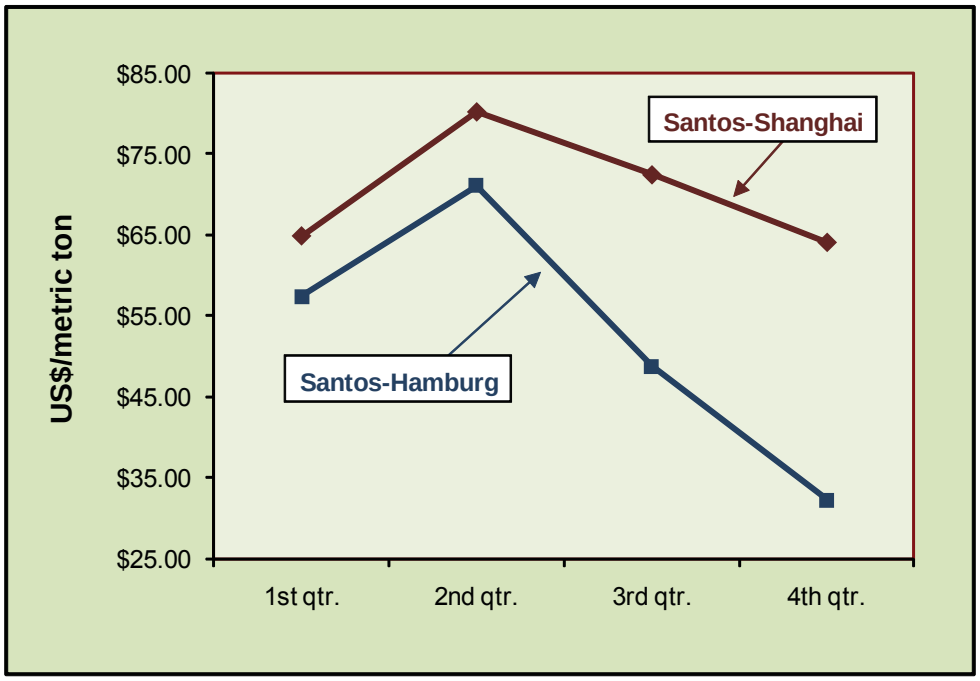
Brazilian soybean export truck cost index



Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

In 2008, ocean rates from the Port of Santos to Shanghai, China, reached a peak of $80.27/mt early in the year but later declined; ending the year 20 percent lower, at $64/mt. Ocean rates to Hamburg followed the same trend but dropped significantly at the end of the year, about 55 percent.

Brazilian soybean ocean freight from Santos to Shanghai and Hamburg, 2008

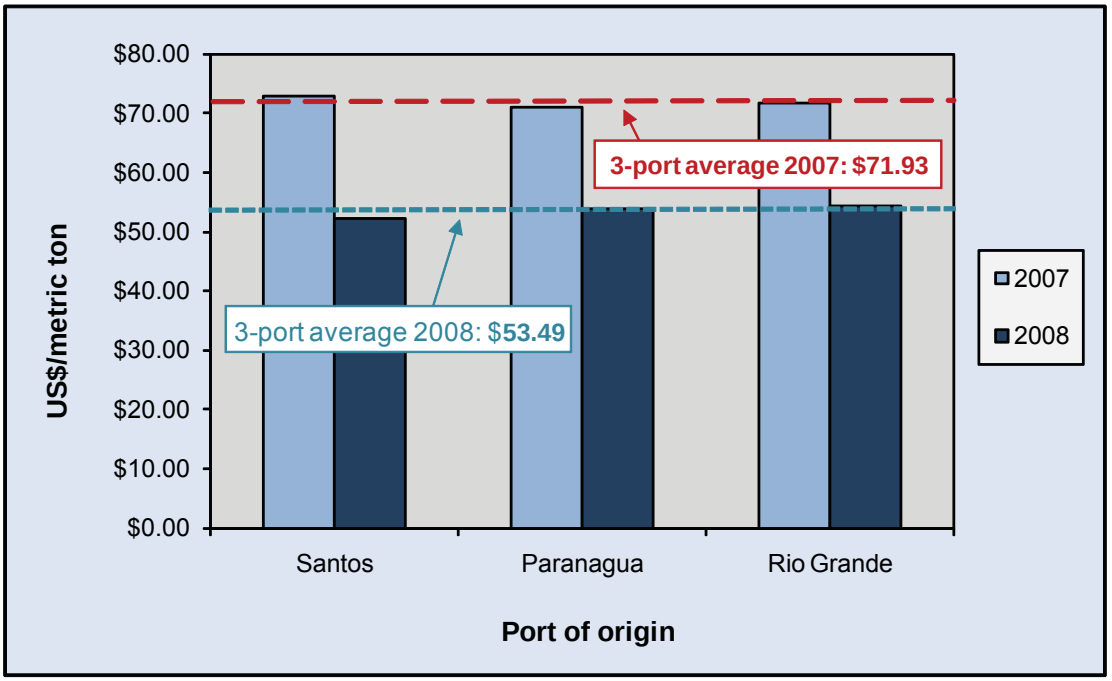


Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

2008 Summary

The cost to ship 1 mt of soybeans from Brazil to Hamburg by ocean-going vessel decreased on average almost 26 percent, from $71.93/mt to $53.49/mt.

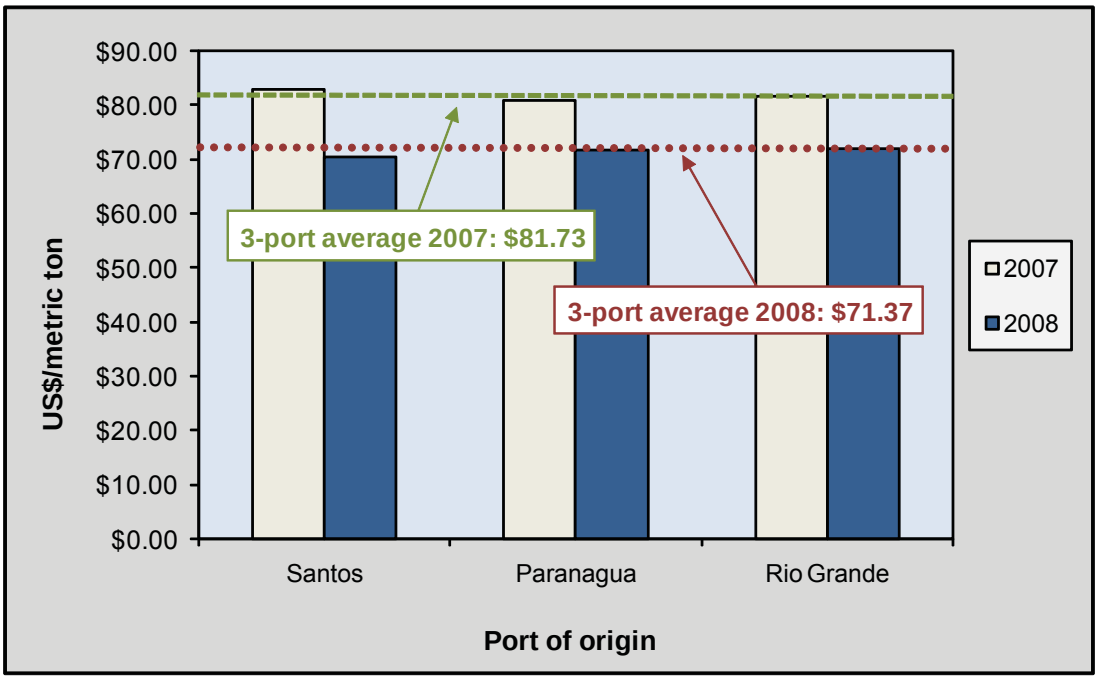
Ocean rates from Brazil to Hamburg, Germany, declined in 2008



Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

In 2008, the cost to ship 1 mt of soybeans from Brazil to Shanghai by ocean vessel fell on average nearly 13 percent, from $81.73/mt to $71.37/mt, from a year earlier.

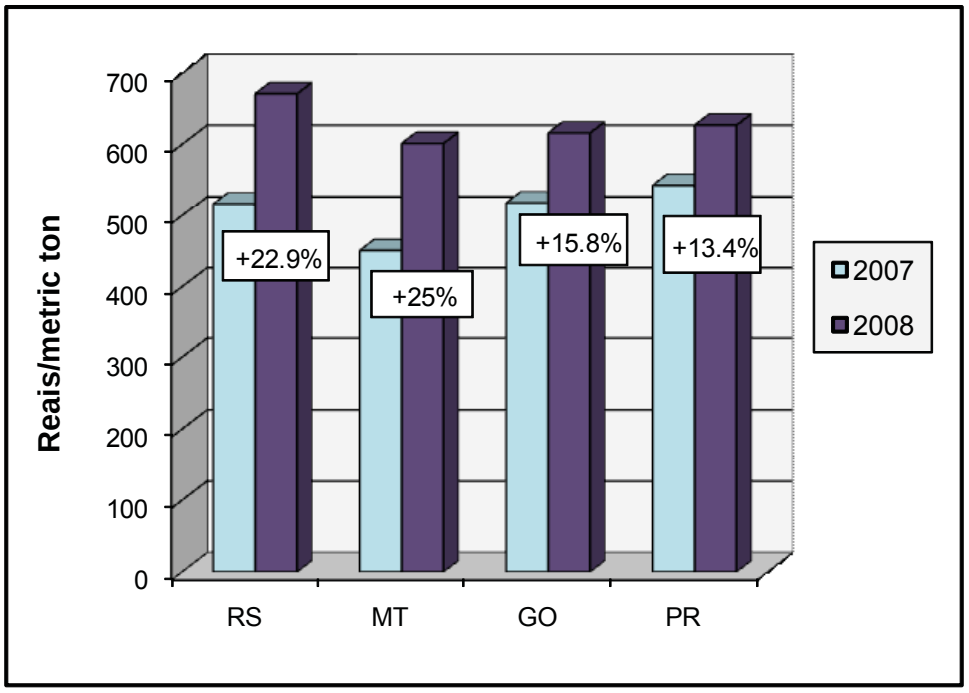
Ocean rates from Brazil to Shanghai, China, dropped in 2008



Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

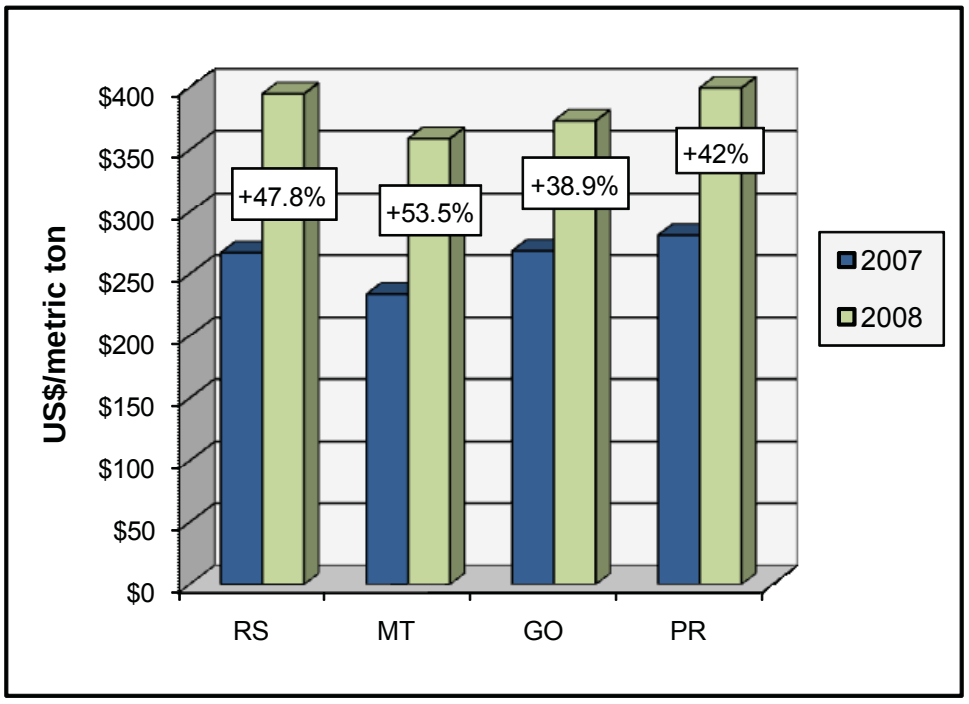
Farm prices in reais increased 25 percent in Mato Grosso (MT) in 2008. However, when farm prices are measured in US$, they increased 54 percent from a year earlier, due to the appreciation of the real against the U.S. dollar.

Selected Brazilian farm prices



RS = Rio Grande do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná
Source: Companhia Nacional de Abastecimento (CONAB)

Selected Brazilian farm prices

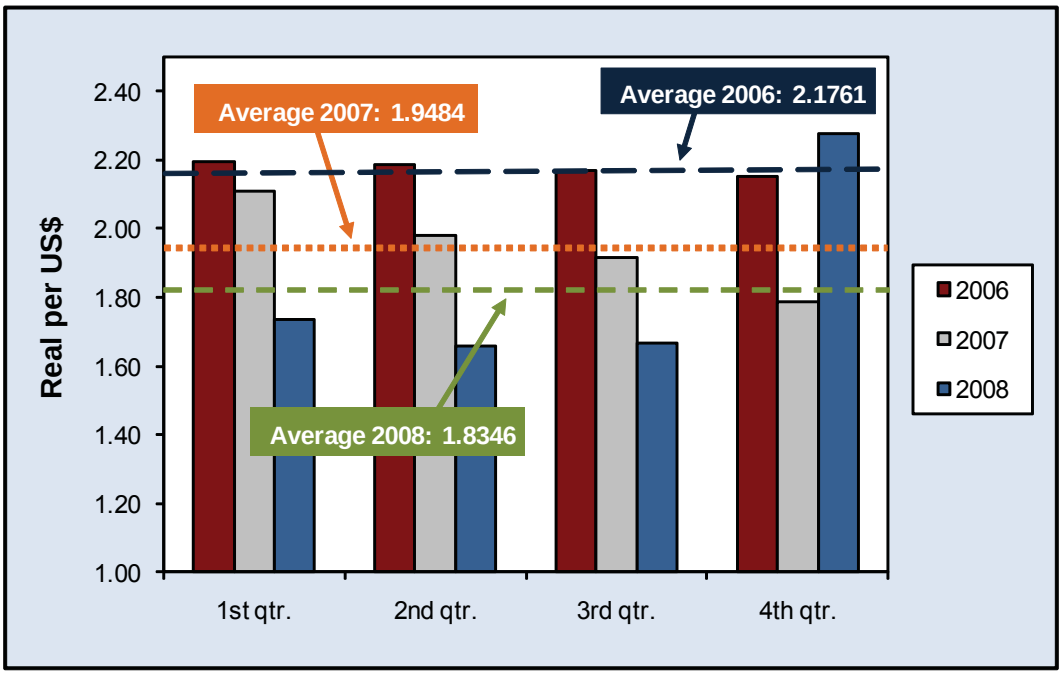


RS = Rio Grande do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná
Source: Companhia Nacional de Abastecimento (CONAB)

2008 Summary

In 2008, the real appreciated about 6 percent against the dollar compared with 2007, from to 1.9484 to 1.8346 per dollar.

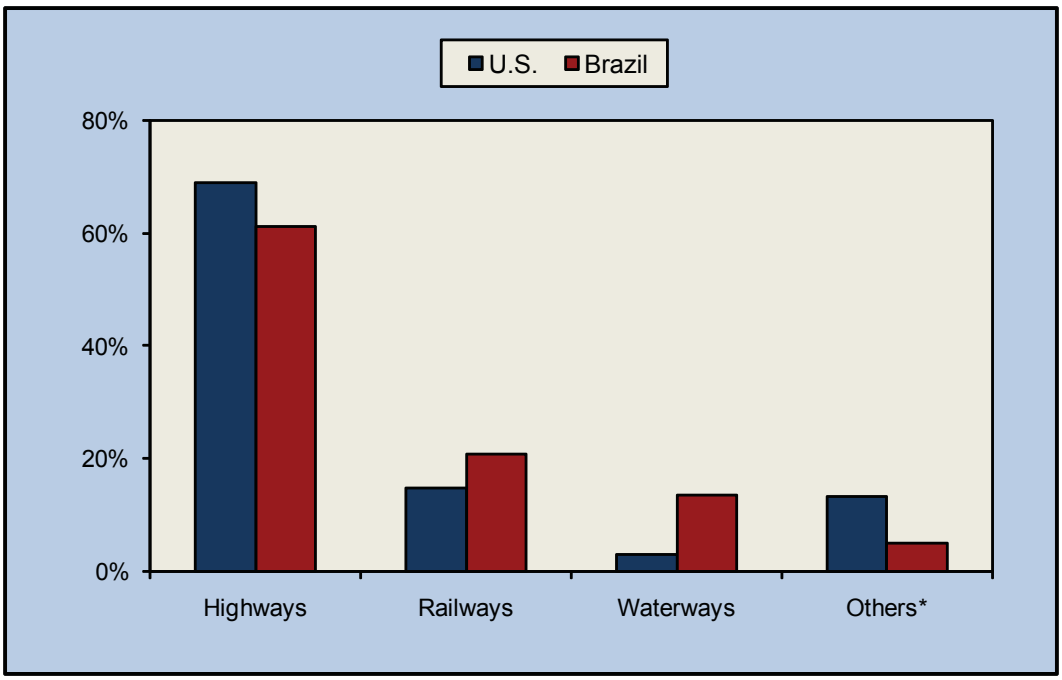
Average quarterly exchange rate, real per U.S. dollar



Source: Banco Central do Brasil

In 2007, trucks were the predominant mode for transporting general cargo in Brazil similar to the United States.

U.S.— Brazil modal share for general cargo, 2007



*Ocean, air, pipeline, multiplemodes, etc.
Source: U.S. Department of Transportation (DOT)); Confederação Nacional do Transporte (CNT) and Agência Nacional de Transportes Terrestres (ANTT).

Quarterly costs of transporting soybeans from Brazil to Shanghai, China										
	2008					2008				
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
	North MT[1] - Santos[2] --US$/mt--					North MT[1] - Paranagua[2] --US$/mt--				
Truck	117.44	127.04	140.26	78.22	115.74	110.47	120.77	132.75	75.62	109.90
Ocean	64.81	80.27	72.43	64.00	70.38	66.53	80.79	74.03	65.30	71.66
Total transportation	182.25	207.31	212.69	142.22	186.12	177.00	201.56	206.77	140.92	181.56
Farm Value[3]	349.23	389.20	419.80	277.74	358.99	349.23	389.20	419.80	277.74	358.99
Landed Cost	531.48	596.51	632.49	419.96	545.11	526.23	590.76	626.58	418.66	540.56
Transport % of landed cost	34.3	34.8	33.6	33.9	34.1	33.6	34.1	33.0	33.7	33.6
	Southeast MT[1] - Santos[2] --US$/mt--					North Center PR[1] - Paranagua[2] --US$/mt--				
Truck	79.40	85.79	94.91	62.35	80.61	35.65	36.02	34.52	28.19	33.60
Ocean	64.81	80.27	72.43	64.00	70.38	66.53	80.79	74.03	65.30	71.66
Total transportation	144.21	166.06	167.34	126.35	150.99	102.18	116.81	108.55	93.49	105.26
Farm Value[3]	349.23	389.20	419.80	277.74	358.99	423.63	434.42	435.49	303.68	399.31
Landed Cost	493.44	555.27	587.14	404.08	509.98	525.81	551.23	544.03	397.17	504.56
Transport % of landed cost	29.2	29.9	28.5	31.3	29.7	19.4	21.2	20.0	23.5	21.0
	South GO[1] - Santos[2] --US$/mt--					Northwest RS[1] - Rio Grande[2] --US$/mt--				
Truck	56.78	62.34	61.40	40.82	55.33	19.32	28.40	25.47	15.98	22.29
Ocean	64.81	80.27	72.43	64.00	70.38	67.01	81.27	74.23	65.80	72.08
Total transportation	121.59	142.61	133.82	104.82	125.71	86.33	109.67	99.69	81.78	94.37
Farm Value[3]	406.90	401.89	409.37	274.34	373.13	404.89	429.72	435.02	309.01	394.66
Landed Cost	528.50	544.50	543.19	379.16	498.84	491.23	539.39	534.72	390.79	489.03
Transport % of landed cost	23.0	26.2	24.6	27.6	25.4	17.6	20.3	18.6	20.9	19.4

[1]Producing regions: RS = Rio Grande do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná
[2]Export ports represent 60 percent of total soybean exports; [3]Companhia Nacional de Abastecimento (CONAB)
Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

Transportation Indicators

Quarterly costs of transporting soybeans from Brazil to Hamburg, Germany										
	2008					2008				
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
	North MT[1] - Santos[2] --US$/mt--					North MT[1] - Paranagua[2] --US$/mt--				
Truck	117.44	127.04	140.26	78.22	115.74	110.47	120.77	132.75	75.62	109.90
Ocean	57.38	71.08	48.80	32.18	52.36	58.90	72.68	50.20	33.48	53.81
Total transportation	174.82	198.12	189.06	110.40	168.10	169.37	193.45	182.94	109.10	163.72
Farm Value[3]	349.23	389.20	419.80	277.74	358.99	349.23	389.20	419.80	277.74	358.99
Landed Cost	524.05	587.32	608.86	388.14	527.09	518.60	582.65	602.75	386.84	522.71
Transport % of landed cost	33.4	33.7	31.1	28.4	31.6	32.7	33.2	30.4	28.2	31.1
	Southeast MT[1] - Santos[2] --US$/mt--					North Center PR[1] - Paranagua[2] --US$/mt--				
Truck	79.40	85.79	94.91	62.35	80.61	35.65	36.02	34.52	28.19	33.60
Ocean	57.38	71.08	48.80	32.18	52.36	58.90	72.68	50.20	33.48	53.81
Total transportation	136.78	156.87	143.71	94.53	132.97	94.55	108.70	84.72	61.67	87.41
Farm Value[3]	349.23	389.20	419.80	277.74	358.99	423.63	434.42	435.49	303.68	399.30
Landed Cost	486.01	546.07	563.51	372.26	491.97	518.18	543.12	520.21	365.35	486.71
Transport % of landed cost	28.1	28.7	25.5	25.4	26.9	18.2	20.0	16.3	16.9	17.9
	South GO[1] - Santos[2] --US$/mt--					Northwest RS[1] - Rio Grande[2] --US$/mt--				
Truck	56.78	62.34	61.40	40.82	55.33	19.32	28.40	25.47	15.98	22.29
Ocean	57.38	71.08	48.80	32.18	52.36	59.36	73.18	50.70	33.98	54.30
Total transportation	114.16	133.42	110.19	73.00	107.69	78.68	101.58	76.17	49.96	76.60
Farm Value[3]	406.90	401.89	409.37	274.34	373.13	404.89	429.72	435.02	309.01	394.66
Landed Cost	521.06	535.31	519.57	347.34	480.82	483.58	531.30	511.19	358.97	471.26
Transport % of landed cost	21.9	24.9	21.2	21.0	22.3	16.3	19.1	14.9	13.9	16.1

[1]Producing regions: RS = Rio Grande do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná
[2]Export ports represent 60 percent of total soybean exports; [3]Companhia Nacional de Abastecimento (CONAB)
Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

Truck rates for selected Brazilian soybean export transportation routes, 2008									
Route #	Origin[1] (reference city)	Destination	Distance (miles)[2]	Share (%)[3]	Quarterly Freight Price (US$) 1st	2nd	3rd	4th	Avg 2008
					------- (per 100 miles)[4]-------				
1	Northwest RS[5] (Cruz Alta)	Rio Grande	288	3.23	6.71	9.86	8.84	5.55	7.74
2	North MT (Sorriso)	Santos	1190	14.34	9.87	10.68	11.79	6.57	9.73
3	North MT (Sorriso)	Paranaguá	1262	13.52	8.75	9.57	10.52	5.99	8.71
4	South GO (Rio Verde)	Santos	587	7.17	9.67	10.62	10.46	6.95	9.43
5	South GO (Rio Verde)	Paranaguá	726	5.80	7.78	8.76	8.46	5.59	7.65
6	North Center PR (Londrina)	Paranaguá	268	3.69	13.30	13.44	12.88	10.52	12.54
7	Western Center PR (Mamborê)	Paranaguá	311	3.35	9.06	10.96	10.88	6.64	9.38
8	Triangle MG (Uberaba)	Santos	339	4.39	13.61	15.04	15.76	11.06	13.87
9	West PR (Assis Chateaubriand)	Paranaguá	377	3.36	8.35	10.07	8.61	5.26	8.07
10	West Extreme BA (São Desidério)	Ilhéus	544	5.50	10.50	12.47	14.30	8.82	11.52
11	Southeast MT (Primavera do Leste)	Santos	901	3.93	8.81	9.52	10.53	6.92	8.95
12	Southeast MT (Primavera do Leste)	Paranaguá	975	3.64	7.84	8.87	9.15	6.22	8.02
13	Southwest MS (Maracaju)	Paranaguá	612	2.71	8.50	8.52	8.76	6.00	7.94
14	Southwest MS (Maracaju)	Santos	652	2.54	8.21	8.55	9.00	6.67	8.11
15	West PR (Assis Chateaubriand)	Santos	550	2.30	10.23	11.14	10.13	7.99	9.87
16	Western Center RS (Tupanciretã)	Rio Grande	273	2.09	11.29	11.78	11.49	6.86	10.36
17	Southwest PR (Chopinzinho)	Paranaguá	291	1.61	10.44	9.40	9.52	7.49	9.21
18	Eastern Center PR(Castro)	Paranaguá	130	2.37	15.78	14.87	13.53	9.52	13.42
19	South Center PR (Guarapuava)	Paranaguá	204	1.84	14.38	15.69	14.18	10.37	13.66
20	North Center MS (São Gabriel do Oeste)	Santos	720	1.92	7.78	8.51	8.34	5.71	7.58
21	Ribeirão Preto SP (Guairá)	Santos	314	1.40	11.48	12.66	15.01	11.02	12.54
22	Northeast MT (Canarana)	Santos	950	2.21	10.70	12.09	11.89	8.10	10.69
23	Assis SP (Palmital)	Santos	285	1.37	8.66	10.34	9.48	6.45	8.73
24	Northeast MT (Canarana)	Paranaguá	1075	1.95	9.30	10.14	10.34	6.55	9.08
25	Western Center RS (Tupanciretã)	Rio Grande	273	2.36	12.48	13.01	13.87	5.55	11.23
26	Southwest PR (Chopinzinho)	Paranaguá	291	1.41	12.38	12.89	13.74	10.52	12.38
Average			**626**	**100**	**9.87**	**10.84**	**11.15**	**7.14**	**9.75**

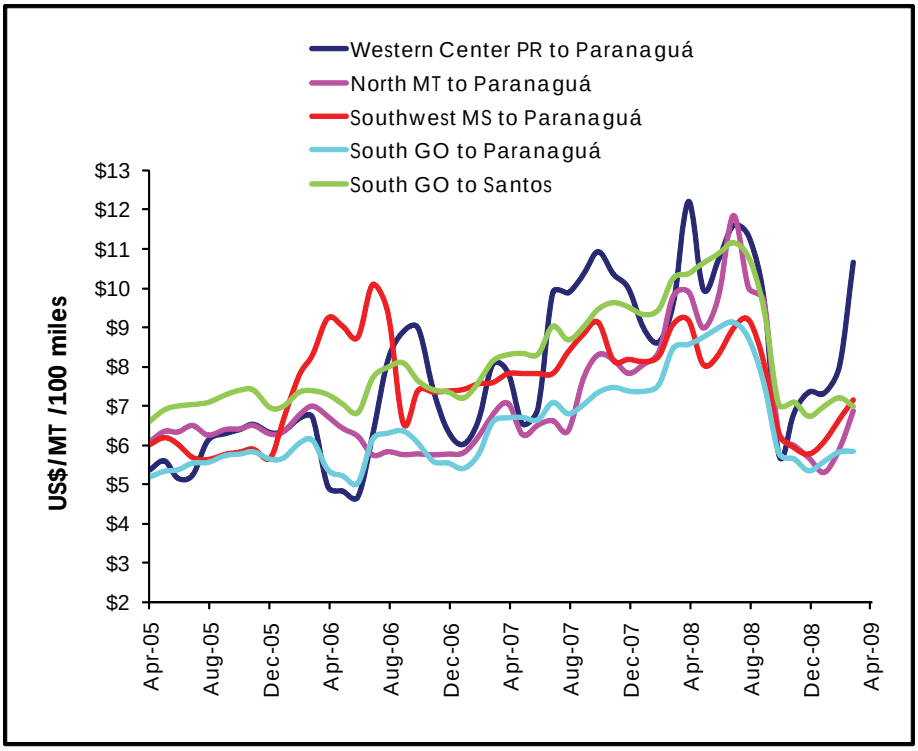
[1]Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price; na = not available
[2]Distance from the main city of the considered region to the mentioned ports
[3]Share is measured as a percentage of total production
[4]US$ per metric ton (average monthly exchange rate from “Banco Central do Brasil” was used to convert Brazilian reais to the U.S. dollar)
[5]RS = Rio Grande do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso do Sul, SP = São Paulo
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Transportation Indicators

Truck rates for selected Brazilian soybean export transportation routes, 2005-2008									
Route #	Origin[1] (reference city)	Destination	Distance (miles)[2]	Share (%)[3]	Quality Freight Price (US$) 2005	2006	2007	2008 ------- (per 100 miles)[4]-------	Percent Change 2007-08
1	Northwest RS[5] (Cruz Alta)	Rio Grande	288	3.23	4.46	5.61	7.58	7.74	2.17
2	North MT (Sorriso)	Santos	1190	14.34	6.65	6.68	8.21	9.73	18.50
3	North MT (Sorriso)	Paranaguá	1262	13.52	6.15	6.18	6.98	8.71	24.81
4	South GO (Rio Verde)	Santos	587	7.17	6.40	7.42	8.60	9.43	9.64
5	South GO (Rio Verde)	Paranaguá	726	5.80	5.11	5.78	6.73	7.65	13.57
6	North Center PR (Londrina)	Paranaguá	268	3.69	8.03	7.95	12.08	12.54	3.80
7	Western Center PR (Mamborê)	Paranaguá	311	3.35	5.72	6.68	8.62	9.38	8.91
8	Triangle MG (Uberaba)	Santos	339	4.39	9.48	10.30	12.20	13.87	13.61
9	West PR (Assis Chateaubriand)	Paranaguá	377	3.36	5.82	6.76	7.55	8.07	6.97
10	West Extreme BA (São Desidério)	Ilhéus	544	5.50	7.28	8.08	9.78	11.52	17.77
11	Southeast MT (Primavera do Leste)	Santos	901	3.93	6.54	6.39	7.72	8.95	15.86
12	Southeast MT (Primavera do Leste)	Paranaguá	975	3.64	6.06	5.95	7.16	8.02	11.96
13	Southwest MS (Maracaju)	Paranaguá	612	2.71	5.83	8.16	8.05	7.94	-1.31
14	Southwest MS (Maracaju)	Santos	652	2.54	6.01	8.00	7.72	8.11	5.00
15	West PR (Assis Chateaubriand)	Santos	550	2.30	5.84	7.20	8.32	9.87	18.71
16	Western Center RS (Tupanciretã)	Rio Grande	273	2.09	–na–	–na–	–na–	10.36	–
17	Southwest PR (Chopinzinho)	Paranaguá	291	1.61	–na–	–na–	–na–	9.21	–
18	Eastern Center PR (Castro)	Paranaguá	130	2.37	10.12	9.55	16.24	13.42	-17.34
19	South Center PR (Guarapuava)	Paranaguá	204	1.84	8.33	9.56	10.98	13.66	24.34
20	North Center MS (São Gabriel do Oeste)	Santos	720	1.92	5.47	6.21	7.02	7.58	8.01
21	Ribeirão Preto SP (Guairá)	Santos	314	1.40	7.55	8.91	10.82	12.54	15.89
22	Northeast MT (Canarana)	Santos	950	2.21	7.35	7.87	8.90	10.69	20.20
23	Assis SP (Palmital)	Santos	285	1.37	–na–	–na–	–na–	8.73	–
24	Northeast MT (Canarana)	Paranaguá	1075	1.95	–na–	–na–	–na–	9.08	–
25	Western Center RS (Tupanciretã)	Rio Grande	273	2.36	–na–	–na–	–na–	11.23	–
26	Southwest PR (Chopinzinho)	Paranaguá	291	1.41	–na–	–na–	–na–	12.38	–
Average			**626**	**100**	**–na–**	**–na–**	**–na–**	**9.75**	–

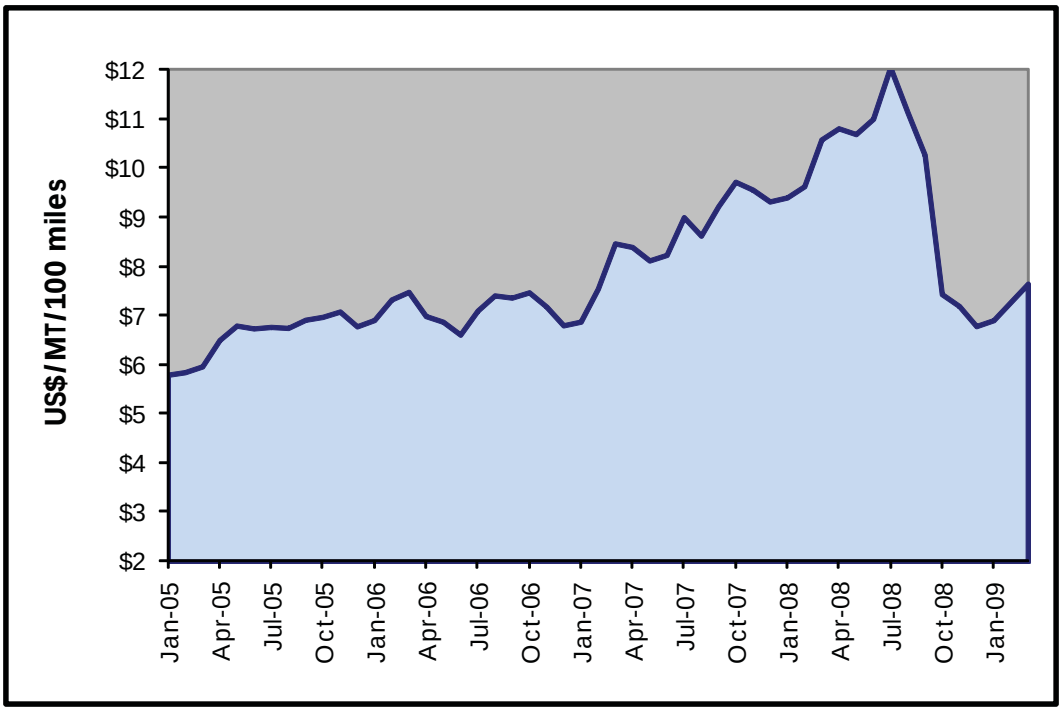
[1]Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price; na = not available
[2]Distance from the main city of the considered region to the mentioned ports
[3]Share is measured as a percentage of total production
[4]US$ per metric ton (average monthly exchange rate from "Banco Central do Brasil" was used to convert Brazilian reais to the U.S. dollar)
[5]RS = Rio Grande do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso do Sul, SP = São Paulo
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Truck rates for selected Brazilian soybean export transportation routes



Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Brazilian soybean export truck transportation weighted average prices, 2005/09



Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Transportation Indicators

Monthly Brazilian soybean export truck transportation cost index							
Month	Freight price* (per 100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)	Month	Freight price* (per 100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)
Jan-05	5.80	40.8	100.00	Mar-07	8.47	12.2	146.00
Feb-05	5.85	0.9	100.90	Apr-07	8.40	-0.9	144.76
Mar-05	5.97	2.0	102.92	May-07	8.12	-3.3	140.05
Apr-05	6.51	9.0	112.14	Jun-07	8.24	1.4	141.99
May-05	6.80	4.5	117.22	Jul-07	9.00	9.3	155.20
Jun-05	6.74	-0.9	116.22	Aug-07	8.63	-4.2	148.75
Jul-05	6.77	0.5	116.76	Sep-07	9.23	6.9	159.05
Aug-05	6.75	-0.3	116.41	Oct-07	9.72	5.4	167.61
Sep-05	6.92	2.5	119.27	Nov-07	9.56	-1.6	164.86
Oct-05	6.98	0.9	120.28	Dec-07	9.32	-2.5	160.71
Nov-05	7.09	1.6	122.15	Jan-08	9.40	0.9	162.12
Dec-05	6.78	-4.3	116.95	Feb-08	9.63	2.4	166.02
Jan-06	6.91	1.9	119.18	Mar-08	10.59	9.9	182.46
Feb-06	7.33	6.0	126.36	Apr-08	10.81	2.1	186.35
Mar-06	7.48	2.1	129.02	May-08	10.69	-1.1	184.32
Apr-06	6.99	-6.6	120.57	Jun-08	11.00	2.9	189.67
May-06	6.88	-1.7	118.56	Jul-08	12.05	9.5	207.73
Jun-06	6.62	-3.8	114.05	Aug-08	11.14	-7.6	192.00
Jul-06	7.10	7.3	122.41	Sep-08	10.27	-7.8	177.00
Aug-06	7.41	4.4	127.79	Oct-08	7.44	-27.5	128.24
Sep-06	7.37	-0.6	127.02	Nov-08	7.20	-3.2	124.13
Oct-06	7.48	1.5	128.88	Dec-08	6.79	-5.7	117.11
Nov-06	7.19	-3.8	123.92				
Dec-06	6.81	-5.3	117.32				
Jan-07	6.88	1.1	118.60				
Feb-07	7.55	9.7	130.15				

*Weighted average and quoted in US$ per metric ton
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Shanghai, China (US$/metric ton)*			
	Ports		
	Santos	Paranaguá	Rio Grande
2006			
1st qtr	50.13	49.13	48.63
2nd qtr	44.80	43.80	43.30
3rd qtr	60.98	59.98	59.48
4th qtr	73.32	72.32	71.82
2006 Average	**57.31**	**56.31**	**55.81**
2007			
1st qtr	73.32	72.32	71.82
2nd qtr	111.20	110.20	109.70
3rd qtr	72.00	65.50	70.50
4th qtr	74.81	75.22	74.20
2007 Average	**82.83**	**80.81**	**81.56**
2008			
1st qtr	64.81	66.53	67.01
2nd qtr	80.27	80.79	81.27
3rd qtr	72.43	74.03	74.23
4th qtr	64.00	65.30	65.80
2008 Average	**70.38**	**71.66**	**72.08**

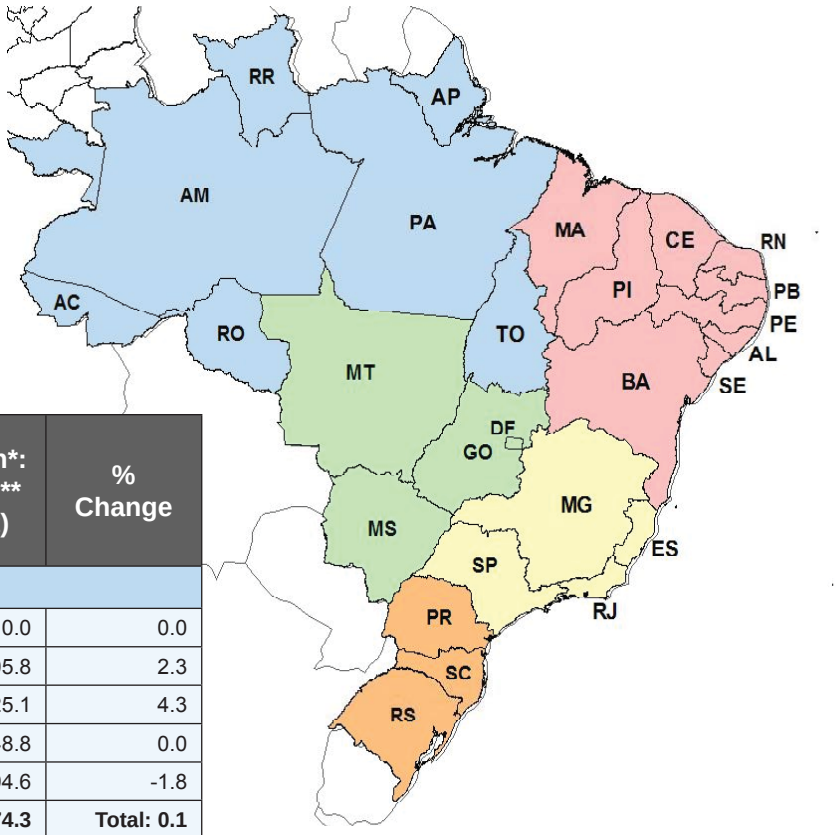
*Correspond to the average actual values negotiated between shippers and carriers and weighted according to the magnitude of the shipped volume
Source: Sistema de Informações de Fretes, SIFRECA, ESALQ/USP (University of São Paulo, Brazil)

Transportation Indicators

Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany (US$/metric ton)*			
	Ports		
	Santos	Paranaguá	Rio Grande
2005			
1st qtr	45.53	44.64	44.20
2nd qtr	45.84	44.84	44.39
3rd qtr	44.54	43.54	43.04
4th qtr	56.73	55.73	55.23
2005 Average	**48.16**	**47.19**	**46.71**
2006			
1st qtr	39.51	38.51	37.06
2nd qtr	36.91	35.91	35.41
3rd qtr	50.24	49.24	48.74
4th qtr	60.40	59.40	58.90
2006 Average	**46.76**	**45.76**	**45.03**
2007			
1st qtr	60.40	59.40	58.90
2nd qtr	91.61	90.61	90.11
3rd qtr	59.35	53.12	57.85
4th qtr	80.67	81.08	80.06
2007 Average	**73.01**	**71.05**	**71.73**
2008			
1st qtr	57.38	58.90	59.36
2nd qtr	71.08	72.68	73.18
3rd qtr	48.80	50.20	50.70
4th qtr	32.18	33.48	33.98
2008 Average	**52.36**	**53.81**	**54.30**

*Correspond to the average actual values negotiated between shippers and carriers and weighted according to the magnitude of the shipped volume
Source: Sistema de Informações de Fretes, SIFRECA, ESALQ/USP (University of São Paulo, Brazil)

Soybean production by state



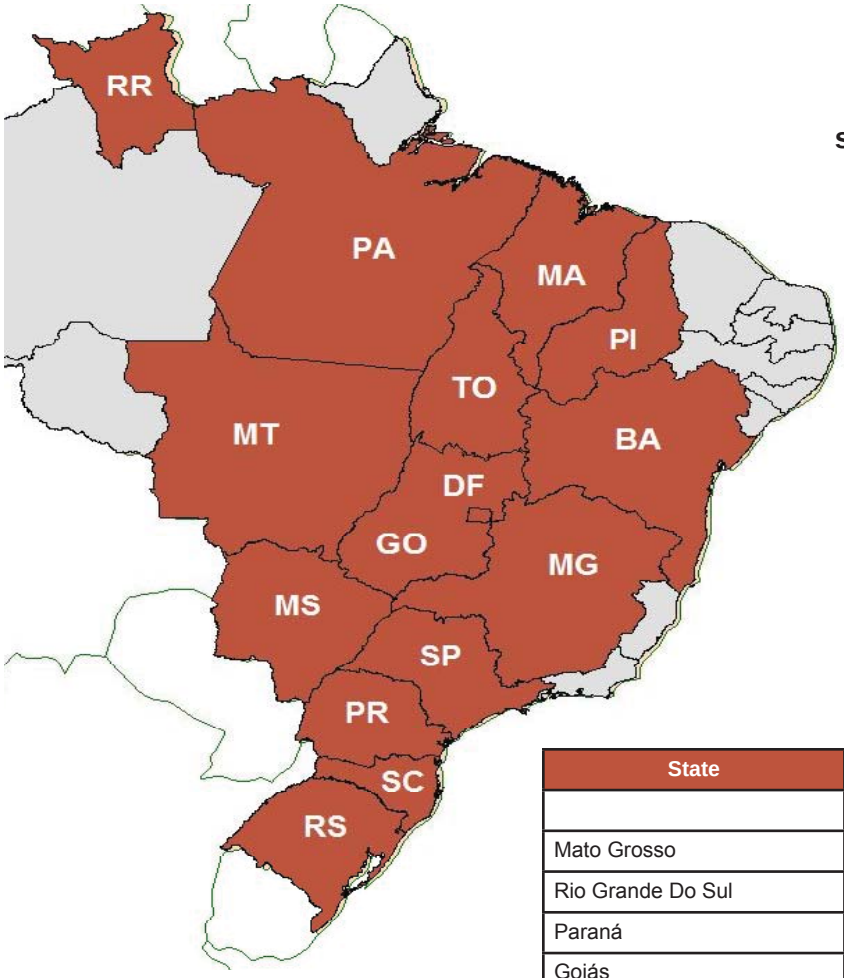
Region/State	Production*: 2007-2008 (1,000 mt)	Production*: 2008-2009** (1,000 mt)	% Change
North			
Amazonas (AM)	0.0	0.0	0.0
Pará (PA)	201.1	205.8	2.3
Rondônia (RO)	311.6	325.1	4.3
Roraima (RR)	48.8	48.8	0.0
Tocantins (TO)	910.9	894.6	-1.8
	Total: 1,472.4	**Total: 1,474.3**	**Total: 0.1**
Northeast			
Bahia (BA)	2,747.6	2,511.8	-8.6
Maranhão (MA)	1,262.8	1,159.8	-8.2
Piauí (PI)	819.4	805.6	-1.7
	Total: 4,829.8	**Total: 4,477.2**	**Total: -7.3**
Center West			
Distrito Federal (DF)	153.4	154.6	0.8
Goiás (GO)	6,543.5	6,536.1	-0.1
Mato Grosso (MT)	17,847.9	17,698.2	-0.8
Mato Grosso do Sul (MS)	4,569.2	3,995.5	-12.6
	Total: 29,114.0	**Total: 28,384.4**	**Total: -2.5**
Southeast			
Minas Gerais (MG)	2,536.9	2,595.4	2.3
São Paulo (SP)	1,446.5	1,505.5	4.1
	Total: 3,983.4	**Total: 4,100.9**	**Total: 2.9**
South			
Paraná (PR)	11,896.1	9,902.2	-16.8
Rio Grande do Sul (RS)	7,775.4	7,839.2	0.8
Santa Catarina (SC)	946.6	1,036.8	9.5
	Total: 20,618.1	**Total: 18,778.2**	**Total: -8.9**
Total Production:	**60,017.7**	**57,215.0**	**-4.67**

*Data based on calendar year, January-December
**Forecast, June 2009
Source: Companhia Nacional de Abastecimento (CONAB)

Soybean Production

Brazil soybean supply and distribution (1,000 metric tons)									
Year*	Area Harvested	Beginning Stocks	Production	Imports	Total Supply	Exports	Crush	Domestic Consumption	Ending Stocks
1996/97	11,800	834	27,300	1,450	29,584	8,327	18,944	20,658	599
1997/98	13,000	599	32,500	634	33,733	9,325	21,832	23,586	822
1998/99	12,900	822	31,300	616	32,738	8,912	21,645	23,423	403
1999/00	13,600	403	34,700	794	35,897	11,779	21,578	23,502	616
2000/01	13,934	616	39,500	854	40,970	15,521	22,773	24,992	457
2001/02	16,350	457	43,500	1,100	45,057	16,074	25,843	28,302	681
2002/03	18,448	681	52,000	1,124	53,805	19,987	27,796	30,520	3,298
2003/04	21,476	3,298	51,000	364	54,662	19,257	28,914	31,807	3,598
2004/05	22,800	3,598	53,000	352	56,950	22,799	29,730	32,515	1,636
2005/06	22,229	1,636	57,000	40	58,676	24,770	28,754	31,654	2,252
2006/07	20,700	2,252	59,000	108	61,360	23,805	31,511	34,445	3,110
2007/08	21,300	3,110	61,000	88	64,198	24,515	31,890	34,865	4,818
2008/09	21,600	4,818	57,000	50	61,868	25,850	31,350	34,358	1,660
2009/10**	22,000	1,660	60,000	150	61,810	24,950	32,220	35,295	1,565

*Data based on Brazil's local February/January Marketing Year (MY)
Where February 2006 - January 2007 is the 2005/06 MY
**Forecast: August 12, 2009
Source: USDA/Foreign Agricultural Service/Circular Series

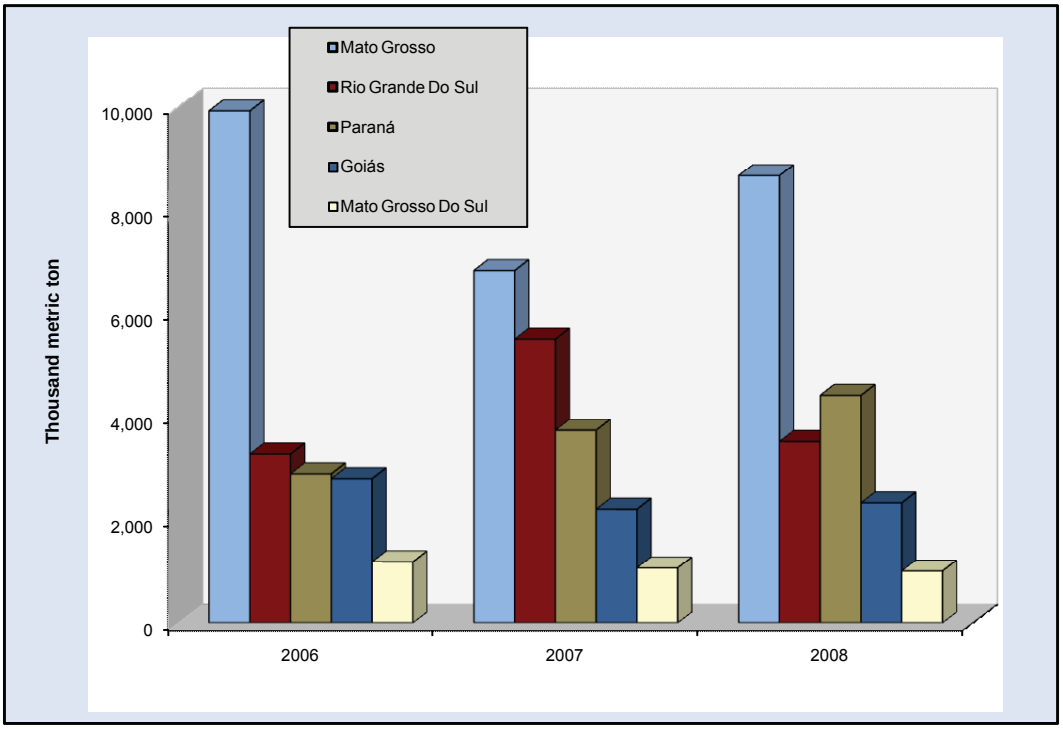


Top 15 Brazilian soybean exporting states

State	2006	2007	2008	Rank
	----------metric ton----------			
Mato Grosso	9,920,599	6,822,137	8,661,067	1
Rio Grande Do Sul	3,281,005	5,503,371	3,516,357	2
Paraná	2,891,525	3,729,772	4,395,927	3
Goiás	2,800,224	2,192,407	2,311,912	4
Mato Grosso Do Sul	1,182,096	1,065,860	1,006,343	5
Santa Catarina	206,735	1,057,247	424,549	6
Maranhão	1,021,543	841,944	921,861	7
Bahia	448,706	708,876	951,041	8
São Paulo	939,202	630,970	761,981	9
Tocantins	633,956	434,541	551,883	10
Minas Gerais	1,179,189	379,804	370,795	11
Rondônia	250,120	229,107	312,364	12
Piauí	24,429	9,132	131,996	13
Pará	81,853	67,484	129,640	14
Distrito Federal	57,873	30,115	38,843	15
Others	38,918	31,008	12,931	
Total	**24,957,973**	**23,733,775**	**24,499,490**	

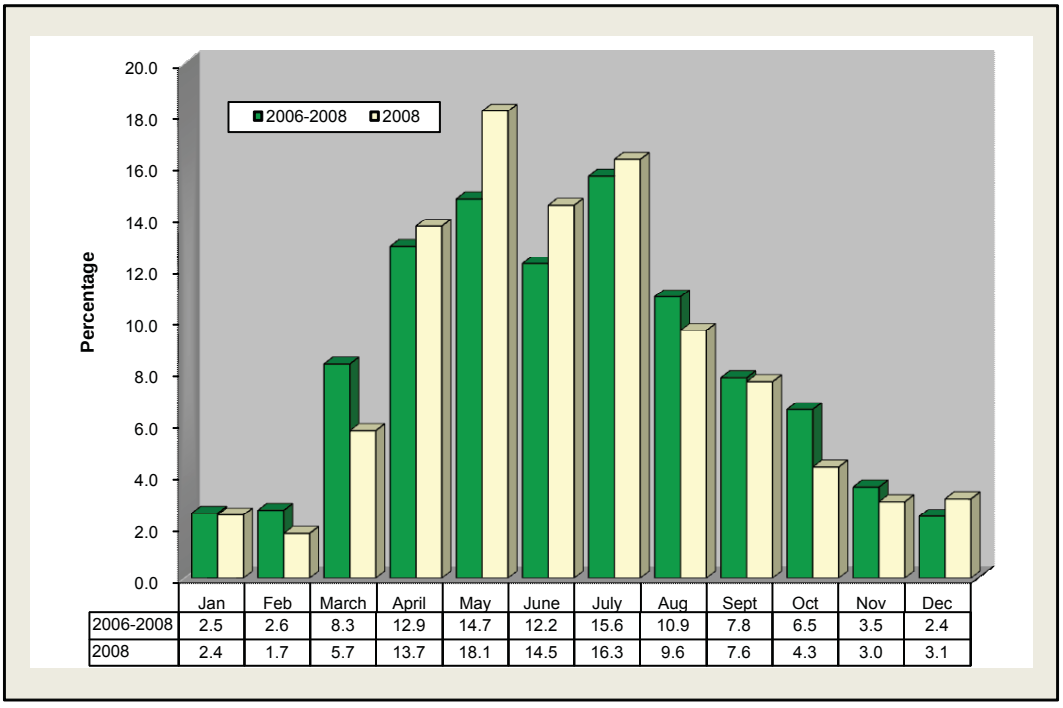
Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)/Digem/Suinf/Geint

Top 5 Brazil soybean exporting states



Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)

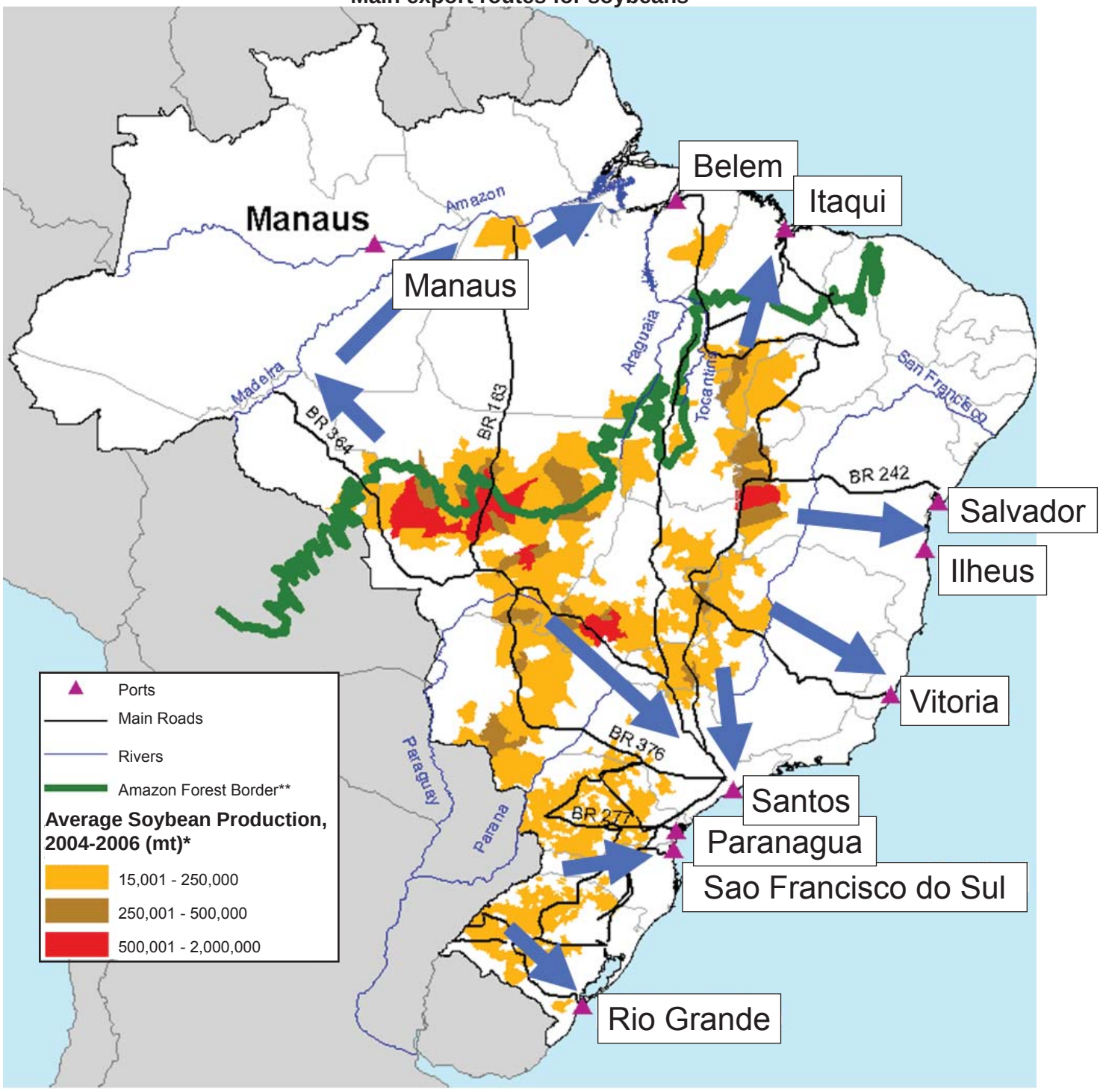
Brazil soybean average monthly exports



	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
2006-2008	2.5	2.6	8.3	12.9	14.7	12.2	15.6	10.9	7.8	6.5	3.5	2.4
2008	2.4	1.7	5.7	13.7	18.1	14.5	16.3	9.6	7.6	4.3	3.0	3.1

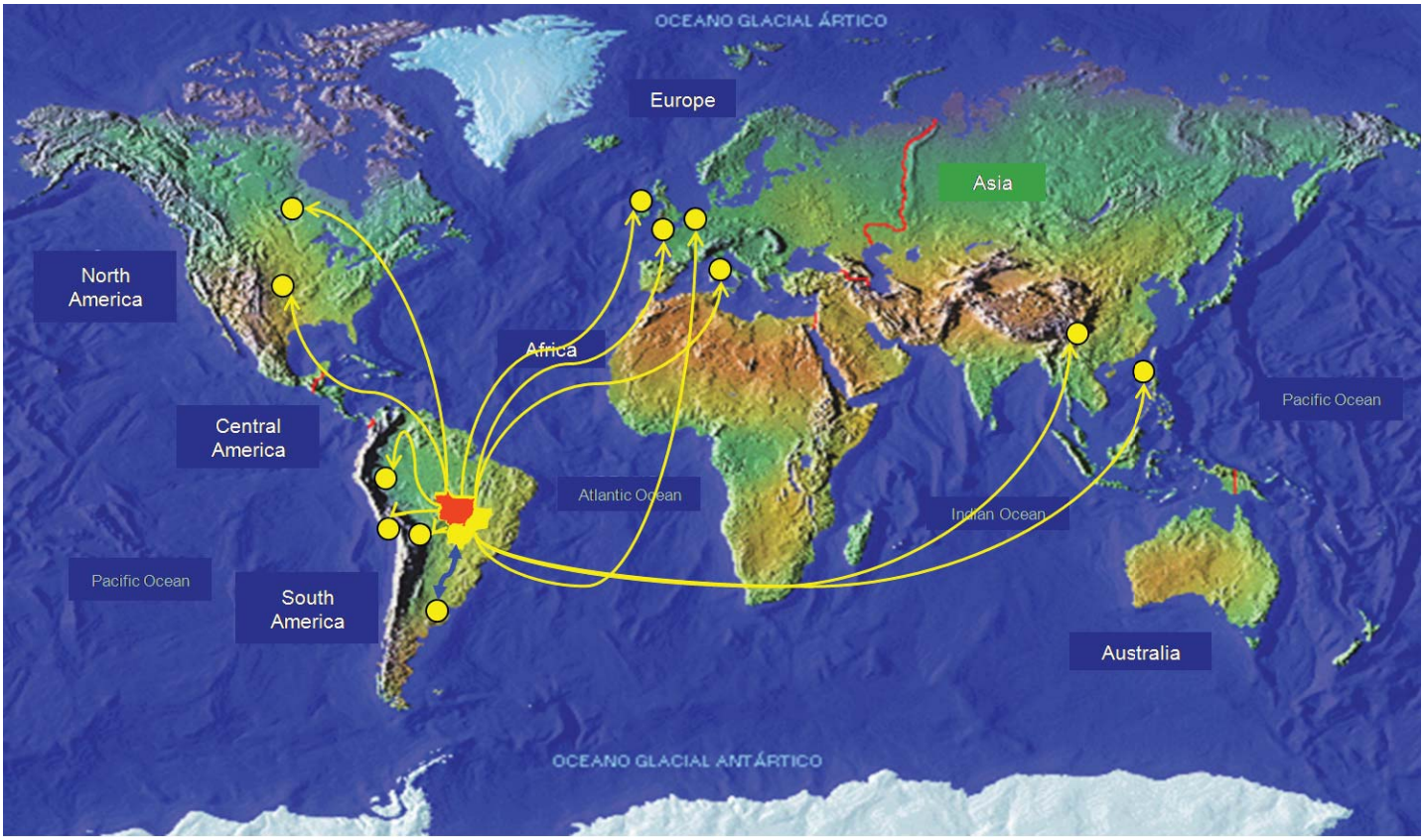
Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)

Main export routes for soybeans



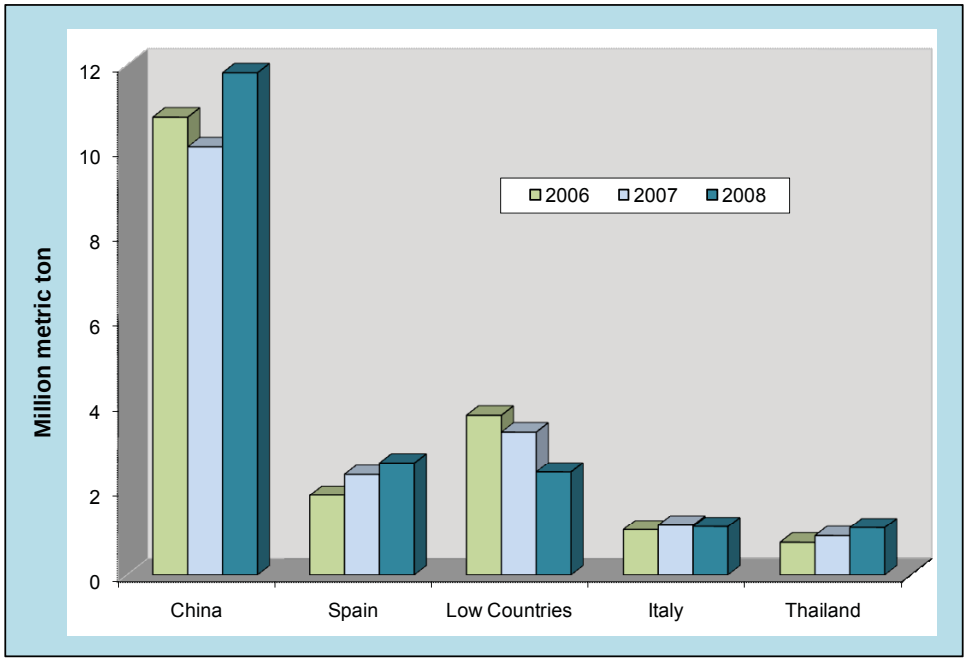
*Companhia Nacional de Abastecimento (CONAB)
**World Wildlife Fund (WWF)
Source: USDA /Agricultural Marketing Service & Foreign Agricultural Service

World export routes for Brazilian soybeans



Source: State of Mato Grosso, Department of Tourism and Commerce, Caceres

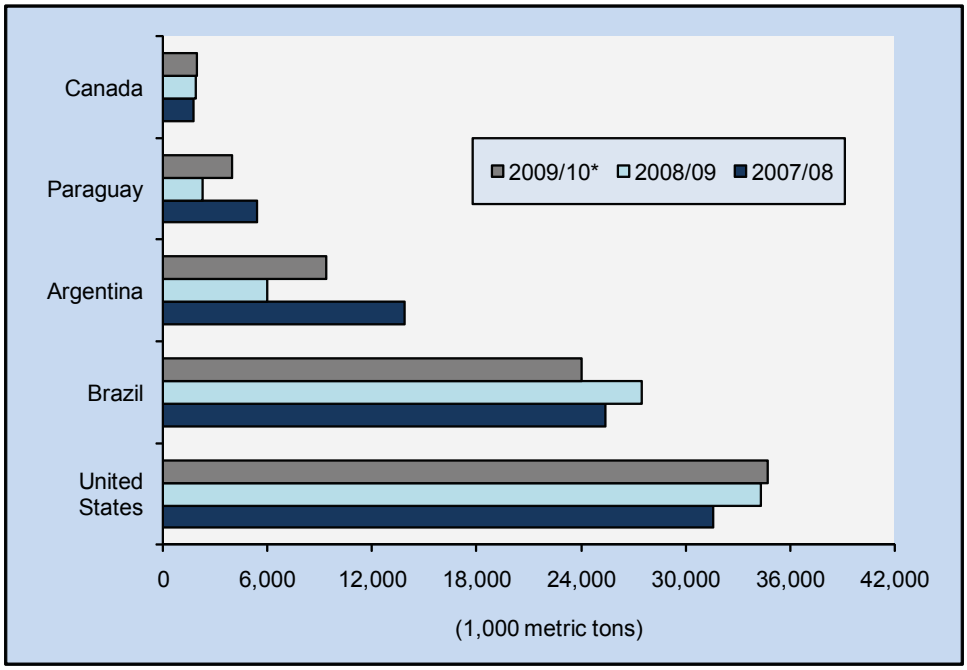
Brazil soybeans: top 5 export destinations



Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)

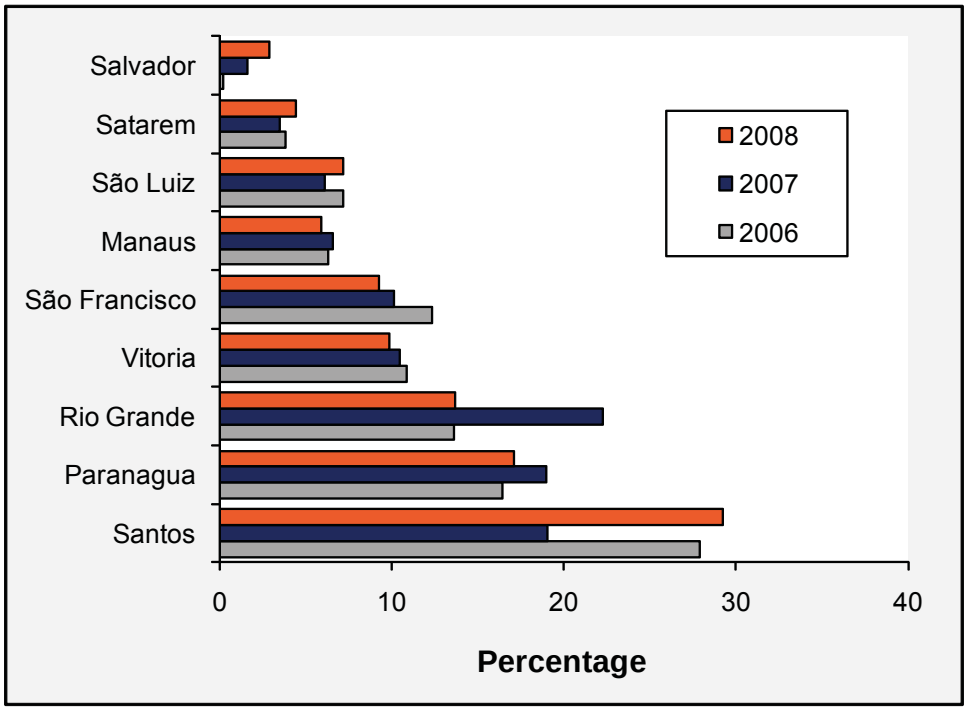
Brazil is the second largest soybean exporter country after the United States. In 2008, Santos was the largest Brazilian soybean export port followed by Paranaguá and Rio Grande.

Top 5 world soybean exporting countries



*Forecast: July 10, 2009
Source: USDA/FAS

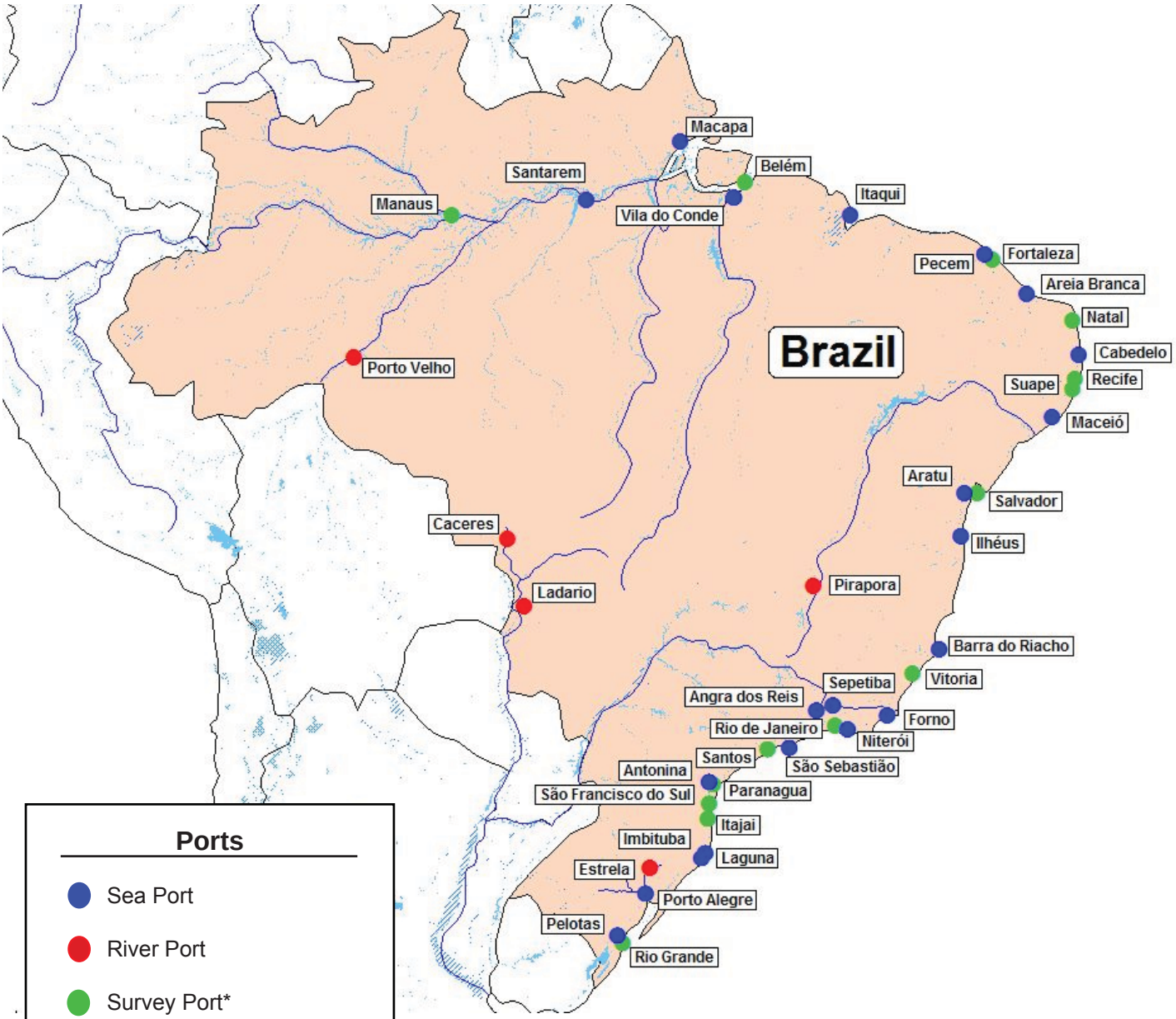
Brazil soybean exports by port



Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)

Brazilian ports

The Port of Santos Channel is 426.4 ft wide and 42.64 ft deep. The Port of Paranaguá's entrance strip is 656 ft wide and 39.36 ft deep. It has 3 access channels. Galheta, the major access channel, extends 17.7 miles and has a width ranging from 492 to 656 ft, and a depth of 39.36 ft. The Port of Vitória's entry strip is 820 ft wide and 62.32 ft deep. Its access channel extends 4.34 miles, and is 393.6 ft wide and 36.08 ft deep.



Sources: Companhia Nacional de Abastecimento (CONAB)
Ministério dos Transportes, Brazil

Major rivers of the Amazonian Basin

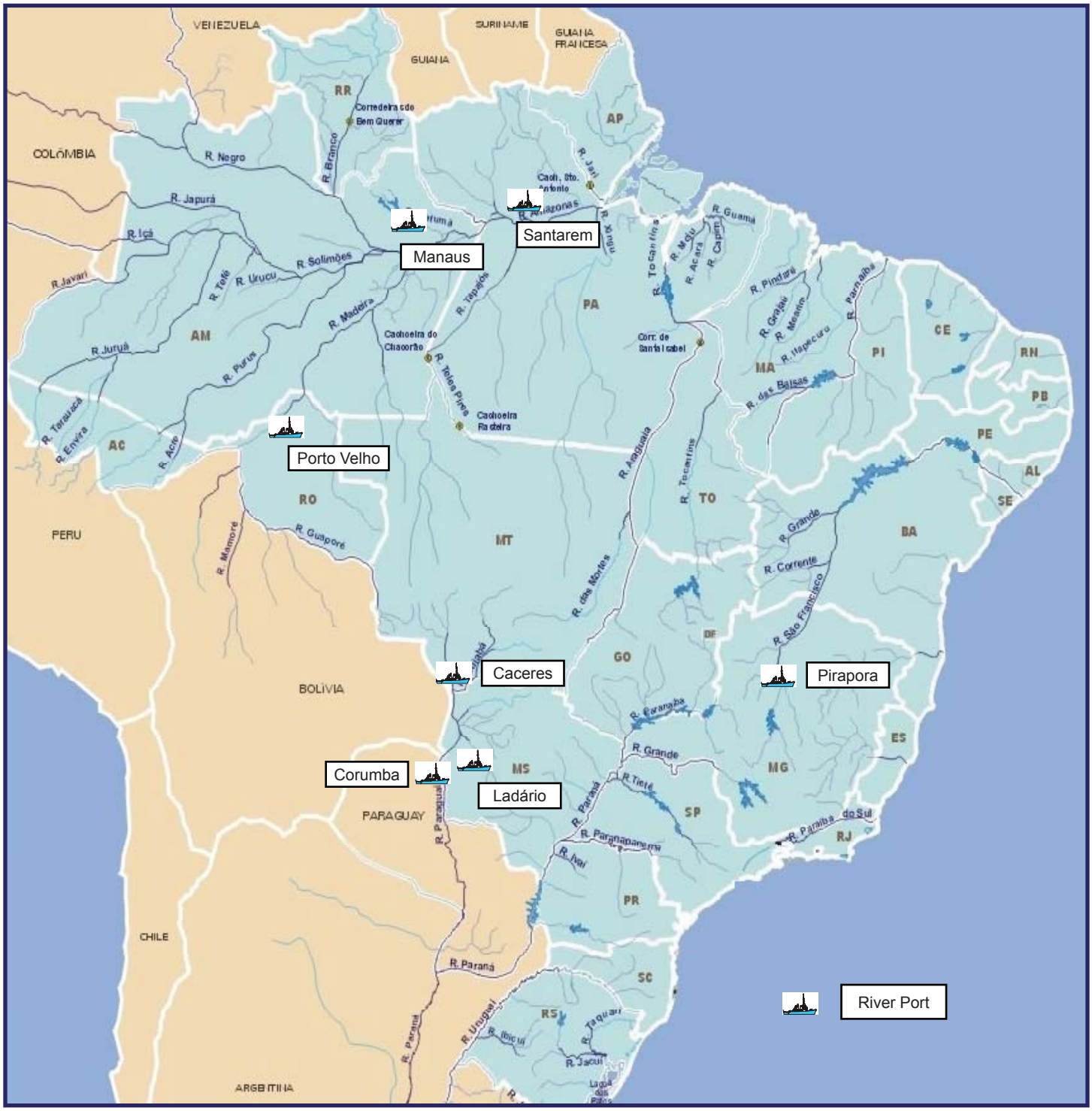
Source: National Agency for Waterway Transportation (ANTAQ)

Brazilian river system

Source: National Agency for Waterway Transportation (ANTAQ)

Brazilian river system

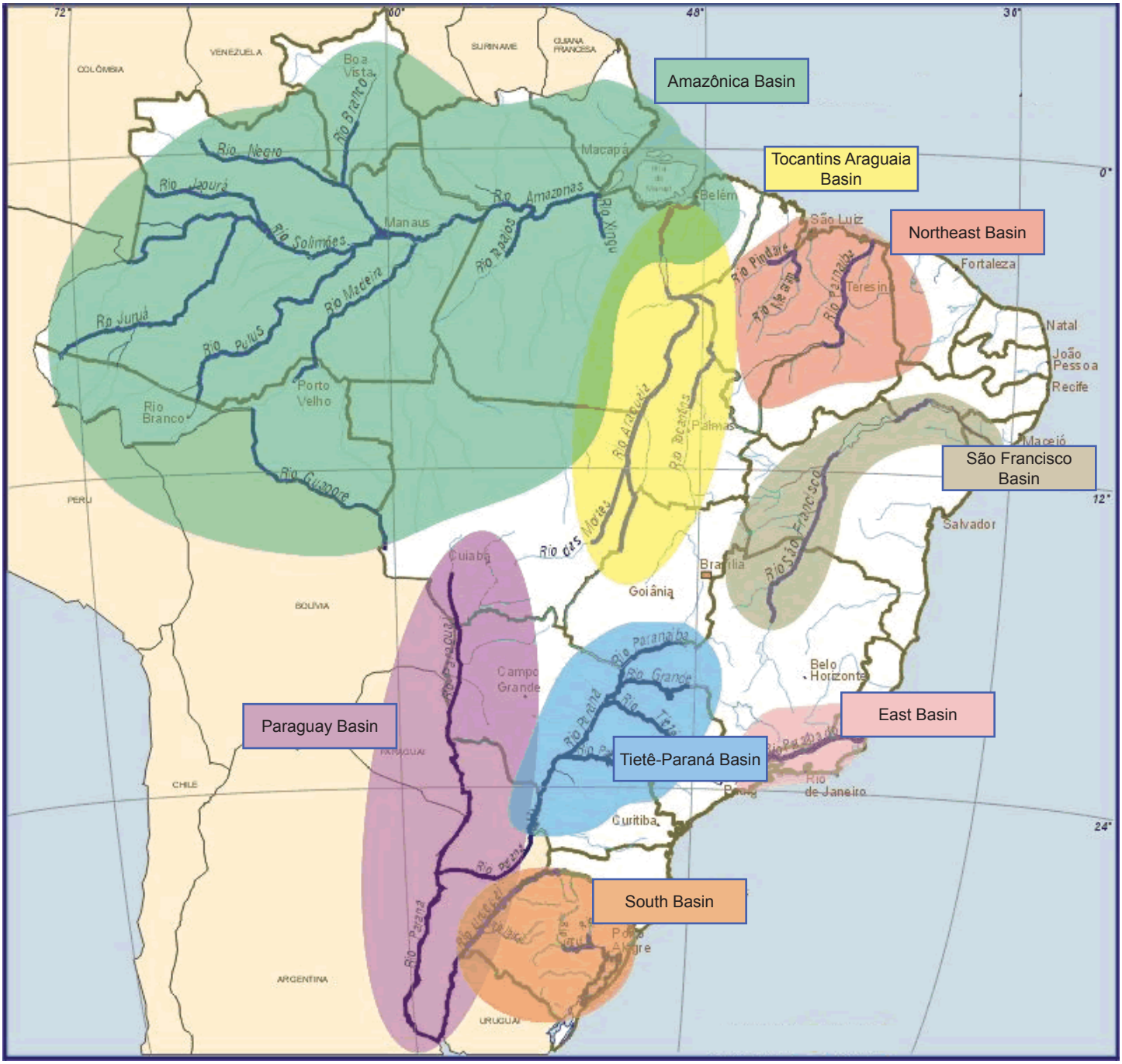
The port of Manaus access channel is 1,640 ft wide and 114.8 ft deep. Porto Velho's access channel depth varies from 8.2 to 57.4 ft. The port of Santarém's access channel is 5,904 ft wide and 49.2 ft deep.



Sources: Ministério dos Transportes, Brazil
Companhia Nacional de Abastecimento (CONAB)

Brazilian river basins

Brazil's river system comprises 8 basins: Amazônica, Nordeste, Tocantins Araguaia, São Franciso, Bacia do Leste, Bacia do Prata, Paraguay, and Sul. The Amazônica and Paraguay Basin account for 72 percent of the total area of the Brazilian basins. The Paraguay Basin serves Argentina, Brazil, Bolivia, Paraguay, and Uruguay. Its navigable extension is comparable with the Mississippi River in the United States and the Rhine River in Europe.



Source: Ministério dos Transportes, Brazil

Brazilian multimodal transportation system

Source: Agência Nacional de Transportes Aquavárious

Major Brazilian highways

Source: Confederação Nacional do Transporte

Brazilian highways condition classification

Source: Confederação Nacional do Transporte

Brazilian public highways

Source: Confederação Nacional do Transporte

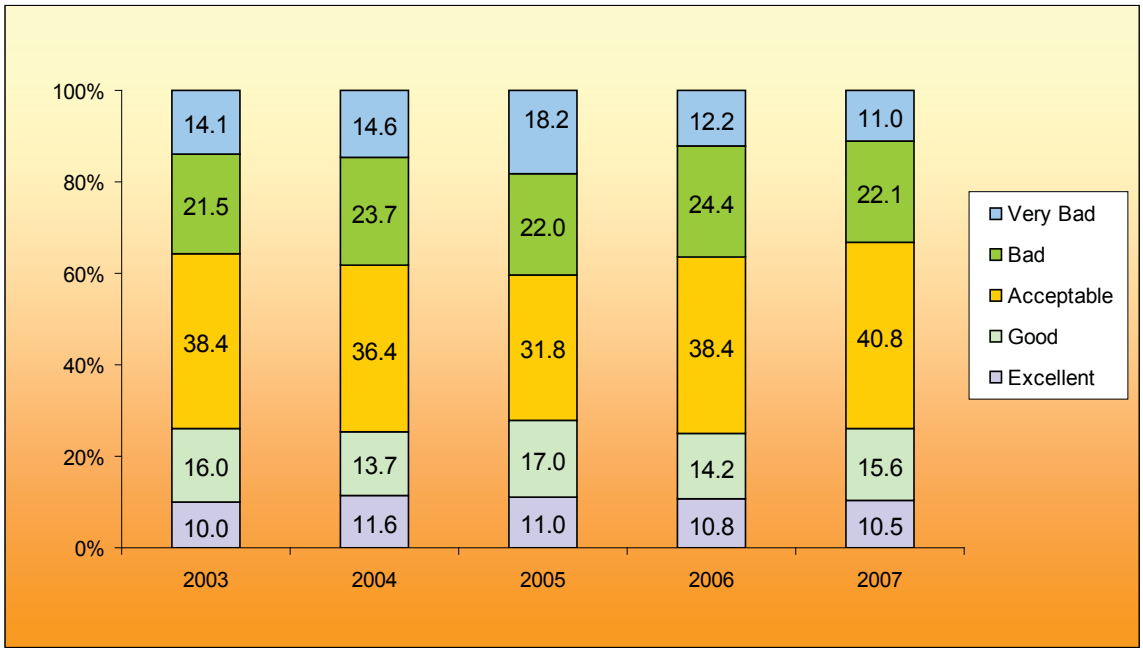
Brazilian private highway conditions

Source: Confederação Nacional do Transporte

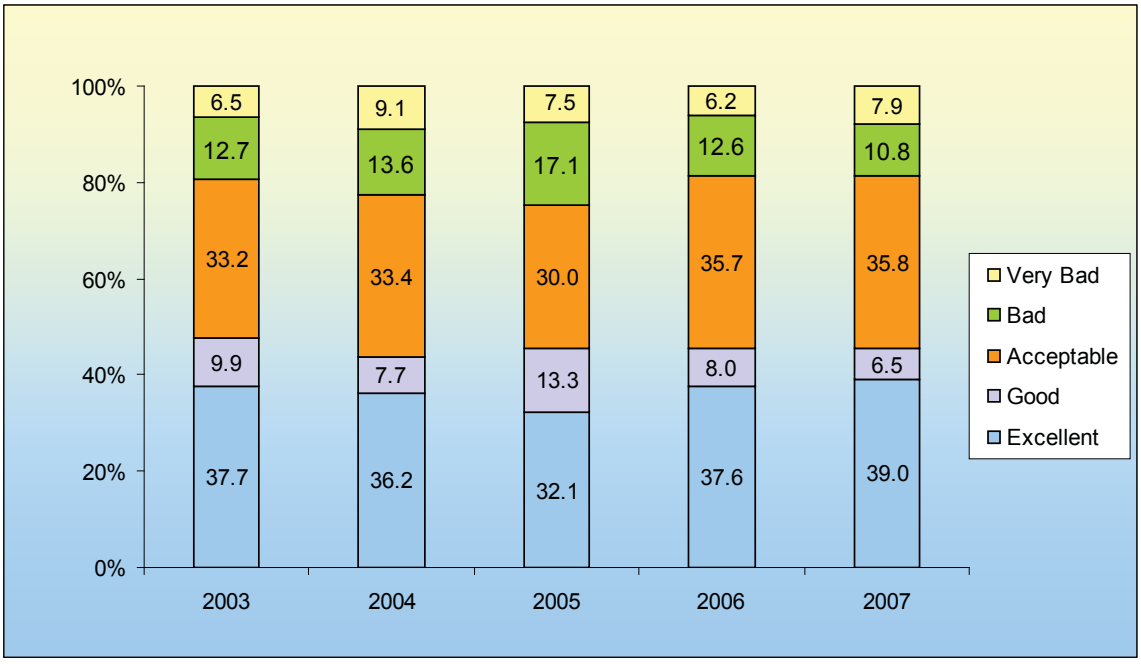
Brazilian highways

The 2007 Confederação Nacional do Transporte (CNT) survey of the highway system shows that more than half of the paved roads ranged from acceptable to very bad and 45.5 percent were in good to excellent condition; 65.4 percent of traffic road signs were deemed inadequate; 42.5 percent of the roads did not have shoulders; and 37.5 percent of the roads did not have speed limit signs.

Brazilian highway conditions
2003-2007

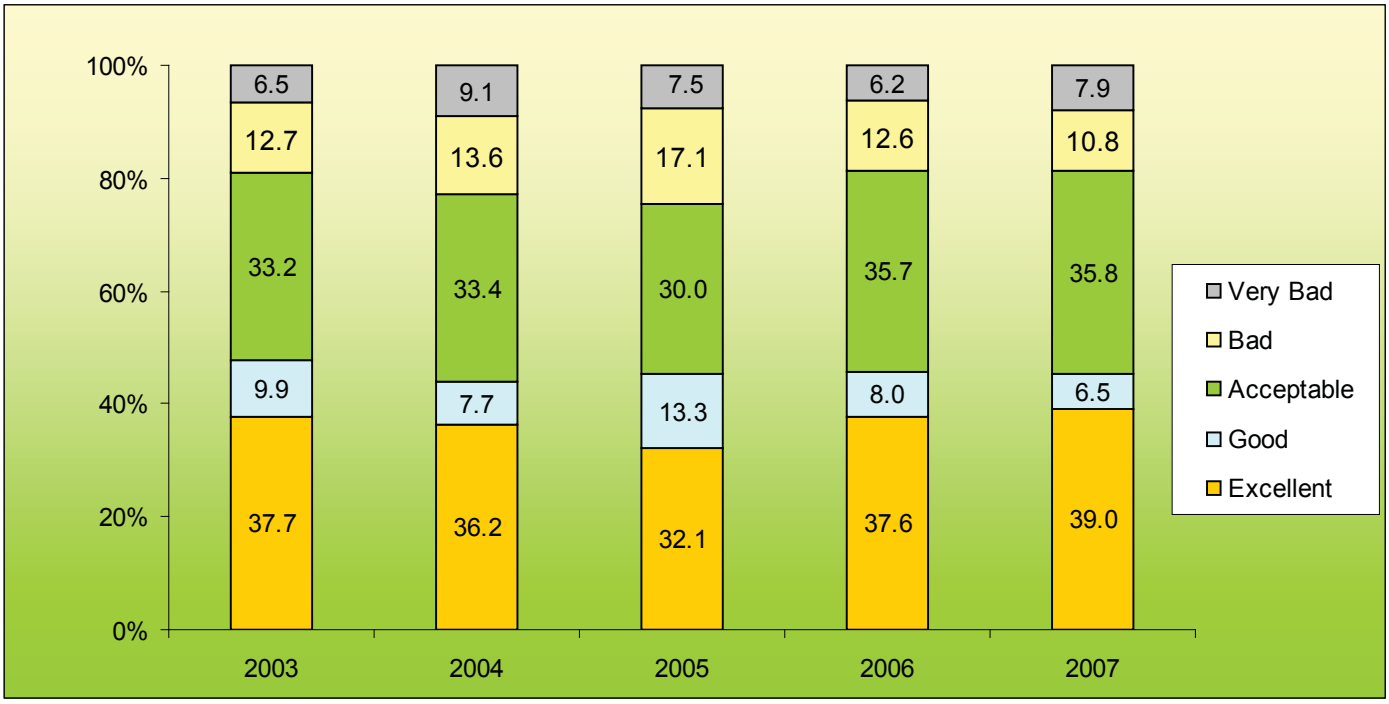


Brazilian paved highway conditions
2003-2007



Source: Confederação National do Transporte

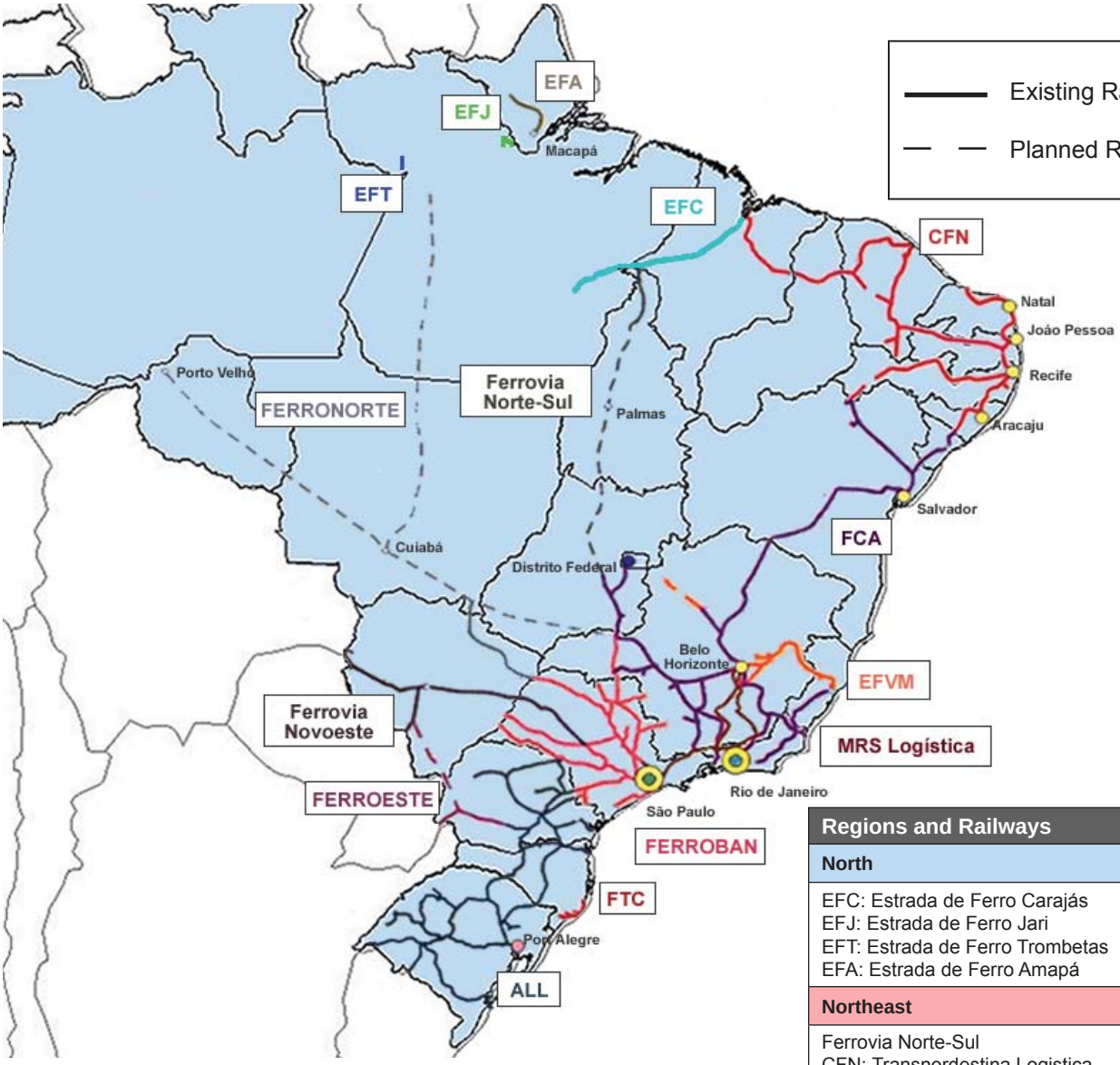
Brazilian road sign conditions
2003-2007



Source: Confederação National do Transporte

Brazilian rail system

The Brazilian railroad system consists of 15 railroads with an extension of 17,861 miles, mostly concentrated in the south, southeast, and northeast. The following 11 railroads are privately operated: EFC, CFN, EFVM, FCA, FERROBAN, FERRONORTE, NOVOESTE, ALL, FTC, MRS, and FERROESTE. FCA and ALL are the largest Brazilian railroads, accounting for 25 and 23 percent, respectively, of total railroads.



Regions and Railways
North
EFC: Estrada de Ferro Carajás EFJ: Estrada de Ferro Jari EFT: Estrada de Ferro Trombetas EFA: Estrada de Ferro Amapá
Northeast
Ferrovia Norte-Sul CFN: Transnordestina Logistica FCA: Ferrovia Centro Atlântica S/A
Center West
FERRONORTE: Ferrovias Norte Brasil S/A Ferrovia Novoeste S/A
Southeast
FERROBAN: Ferrovia Bandeirantes S/A MRS Logistica S/A EFVM: Estrada de Ferro Vitória a Minas
South
ALL: América Latina Logistica do Brasil S/A FTC: Ferrovia Tereza Cristina S/A FERROESTE: Estrada de Ferro Paraná Oeste S/A

Sources: Ministério dos Transportes, Brazil
National Association of Rail Transporters (ANTF)

Brazilian rail system: gauge sizes

Gauge size (distance between two rails) varies by region. There are 3 types of gauge: metric (39”), wide (63”) and mixed (39”-63”). The metric gauge accounts for 65 percent of the total Brazilian railroads, and predominates in the southern region. The wide gauge accounts for 17 percent of total railroads and prevails in the southeast region.

Source: National Association of Rail Transporters (ANTF)

United States: soybean supply and distribution (1,000 metric tons)									
Year*	Area Harvested	Beginning Stocks	Production	Imports	Total Supply	Exports	Crush	Domestic Consumption	Ending Stocks
1996/97	25,637	4,993	64,780	242	70,015	24,110	39,080	42,317	3,588
1997/98	27,968	3,588	73,176	135	76,899	23,760	43,464	47,701	5,438
1998/99	28,507	5,438	74,598	82	80,118	21,898	43,262	48,736	9,484
1999/00	29,318	9,484	72,224	114	81,822	26,537	42,927	47,388	7,897
2000/01	29,303	7,897	75,055	97	83,049	27,103	44,625	49,203	6,743
2001/02	29,532	6,743	78,672	63	85,478	28,948	46,259	50,867	5,663
2002/03	29,339	5,663	75,010	127	80,800	28,423	43,948	47,524	4,853
2003/04	29,330	4,853	66,783	151	71,787	24,128	41,632	44,600	3,059
2004/05	29,930	3,059	85,019	152	88,230	29,860	46,160	51,410	6,960
2005/06	28,834	6,960	83,507	92	90,559	25,579	47,324	52,751	12,229
2006/07	30,190	12,229	87,001	246	99,476	30,386	49,198	53,473	15,617
2007/08	25,959	15,617	72,859	269	88,745	31,598	49,081	51,567	5,580
2008/09	30,206	5,580	80,536	408	86,524	34,292	45,042	49,248	2,984
2009/10**	30,978	2,984	88,723	272	91,979	34,700	45,722	50,487	6,792

*Data based on local Marketing Year (MY). Soybeans are on a September/August MY
**Forecast: July 10, 2009
Source: USDA/Foreign Agricultural Service/Circular Series

Soybean production: world supply and distribution (1,000 metric tons)					
Country*	2005/06	2006/07	2007/08	2008/09	2009/2010**
United States	83,507	87,001	72,859	80,536	88,322
Brazil	57,000	59,000	61,000	57,000	62,000
Argentina	40,500	48,800	46,200	32,000	51,000
China	16,350	15,967	14,000	16,000	15,000
India	7,000	7,690	9,470	9,100	9,000
Paraguay	3,640	5,856	6,900	3,800	5,750
Canada	3,161	3,460	2,700	3,300	3,500
Other	9,512	9,337	8,004	8,986	9,363
Total	**220,670**	**237,111**	**221,133**	**210,722**	**243,935**

*Most countries are on an October/September Marketing Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on an March/February MY.
**Forecast: September 11, 2009
Source: USDA/ Foreign Agricultural Service/Circular Series

Soybean imports: world supply and distribution (1,000 metric tons)					
Country*	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/2010****
China	28,317	28,726	37,816	39,800	38,500
EU-27	13,937	15,291	15,123	12,800	12,400
Japan	3,962	4,094	4,014	3,450	3,950
Mexico	3,667	3,844	3,614	3,100	3,535
Taiwan	2,498	2,436	2,149	1,830	2,250
Thailand	1,473	1,532	1,753	1,500	1,705
Indonesia	1,187	1,309	1,147	1,200	1,600
Turkey	1,078	1,268	1,277	950	1,280
Egypt	776	1,328	1,061	1,200	1,230
Korea, South	1,190	1,231	1,232	1,130	1,200
Other	6,044	8,003	8,971	7,393	7,394
Total	**64,129**	**69,062**	**78,157**	**74,353**	**75,044**

*Most countries are on an October/September Marketing Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on an March/February MY.
**Forecast: September 11, 2009
Source: USDA/ Foreign Agricultural Service/Circular Series

Soybean exports: world supply and distribution (1,000 metric tons)					
Country*	**2005/06**	**2006/07**	**2007/08***	**2008/09**	**2009/2010****
United States	25,579	30,386	31,538	34,836	34,836
Brazil	25,911	23,485	25,364	29,350	24,450
Argentina	7,249	9,559	13,837	5,965	9,700
Paraguay	2,380	4,361	5,400	2,300	3,970
Canada	1,326	1,683	1,753	1,975	2,000
Other	1,359	1,836	1,627	1,898	2,085
Total	**63,804**	**71,310**	**79,519**	**76,324**	**77,041**

*Most countries are on an October/September Marketing Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on an March/February MY.
**Forecast: September 11, 2009
Source: USDA/ Foreign Agricultural Service/Circular Series

Soybean crush: world supply and distribution (1,000 metric tons)					
Country*	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/2010****
United States	47,324	49,198	49,081	45,178	45,994
China	34,500	35,970	39,518	41,035	43,400
Argentina	31,888	33,586	34,607	32,800	35,500
Brazil	28,285	31,109	32,114	31,800	31,600
EU-27	13,670	14,670	14,870	12,500	12,100
India	5,990	6,615	8,170	7,500	8,000
Mexico	3,823	3,900	3,675	3,215	3,615
Japan	2,820	2,925	2,890	2,540	2,750
Taiwan	2,190	2,161	1,965	1,625	1,970
Paraguay	1,181	1,355	1,400	1,500	1,550
Thailand	1,413	1,406	1,514	1,425	1,497
Russia	675	805	1,051	1,400	1,450
Canada	1,497	1,524	1,383	1,286	1,375
Iran	1,254	1,000	1,235	850	1,280
Bolivia	1,843	1,670	1,160	1,260	1,210
Other	6,835	7,765	7,296	7,093	7,721
Total	**185,188**	**195,659**	**201,929**	**193,007**	**201,012**

*Most countries are on an October/September Marketing Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on an March/February MY.
**Forecast: September 11, 2009
Source: USDA/ Foreign Agricultural Service/Circular Series

Soybean ending stocks: world supply and distribution (1,000 metric tons)					
Country*	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/2010****
Argentina	16,473	22,606	21,760	15,235	19,910
Brazil	16,641	18,190	18,902	11,830	14,895
China	4,573	2,700	4,245	8,240	7,590
United States	12,229	15,617	5,580	3,003	5,995
EU-27	733	1,118	814	508	590
Other	2,558	2,654	1,607	1,408	1,548
Total	**53,207**	**62,885**	**52,908**	**40,224**	**50,528**

*Most countries are on an October/September Marketing Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on an March/February MY.
**Forecast: September 11, 2009
Source: USDA/ Foreign Agricultural Service/Circular Series

Quarterly costs of transporting U.S. soybeans to Hamburg, Germany, and Shanghai, China										
	2008					2008				
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
	To Hamburg, Germany									
	Minneapolis, Minnesota --US$/mt--					Davenport, Iowa --US$/mt--				
Truck	12.11	12.38	11.86	9.66	11.50	12.11	12.38	11.86	9.66	11.50
Rail**	26.00	–	–	–	26.00	–	–	–	–	–
Barge[1]	27.59	34.51	38.38	38.51	34.75	28.90	27.75	32.46	32.53	30.41
Ocean[2]	69.83	71.45	52.94	16.40	52.66	69.83	71.45	52.94	16.40	52.66
Total transportation	135.53	118.34	103.18	64.57	105.41	110.84	111.58	97.26	58.59	94.57
Farm Value[3]	396.46	444.48	447.05	358.86	411.71	402.96	449.50	449.50	365.60	416.89
Landed Cost	531.99	562.82	550.23	423.43	517.12	513.80	561.08	546.76	424.19	511.46
Transport % of landed cost	25.5	21.0	18.8	15.25	20.1	21.6	19.9	17.8	13.81	18.3
	To Shanghai, China									
	Minneapolis, Minnesota --US$/mt--					Davenport, Iowa --US$/mt--				
Truck	12.11	12.38	11.86	9.66	11.50	12.11	12.38	11.86	9.66	11.50
Rail**	26.00	–	–	–	26.00	–	–	–	–	–
Barge[1]	27.59	34.51	38.38	38.51	34.75	28.90	27.75	32.46	32.53	30.41
Ocean[2]	104.22	121.97	109.06	29.47	91.18	104.22	121.97	109.06	29.47	91.18
Total transportation	169.92	168.86	159.30	77.64	143.93	145.23	162.10	153.38	71.66	133.09
Farm Value[3]	396.46	444.48	447.05	358.86	411.71	402.96	449.50	449.50	365.60	416.89
Landed Cost	566.38	613.34	606.35	436.50	555.64	548.19	611.60	602.88	437.26	549.98
Transport % of landed cost	30.0	27.5	26.3	17.79	25.4	26.5	26.5	25.4	16.39	23.7

**Rail service is required due to seasonal closure of the Minneapolis segment of the Mississippi River
[1]The Mississippi River closes from Minneapolis to just north of St. Louis from mid-December to late March. The distance by barge between Minneapolis and Davenport to the Port of New Orleans is 1,713 and 1,343 miles, respectively.
[2]The Baltic Exchange; excludes handling charges; [3]USDA/NASS
Source: USDA/AMS

Average quarterly exchange rate										
	1st qtr	2nd qtr	3rd qtr	4th qtr	2005	1st qtr	2nd qtr	3rd qtr	4th qtr	2006
Real per US$	2.6652	2.4818	2.3428	2.2509	**2.4352**	2.1959	2.1852	2.1711	2.1520	**2.1761**
	1st qtr	2nd qtr	3rd qtr	4th qtr	2007	1st qtr	2nd qtr	3rd qtr	4th qtr	2008
Real per US$	2.1082	1.9818	1.9177	1.7857	**1.9484**	1.7365	1.6561	1.6678	2.2779	**1.8346**

Source: Banco Central do Brasil

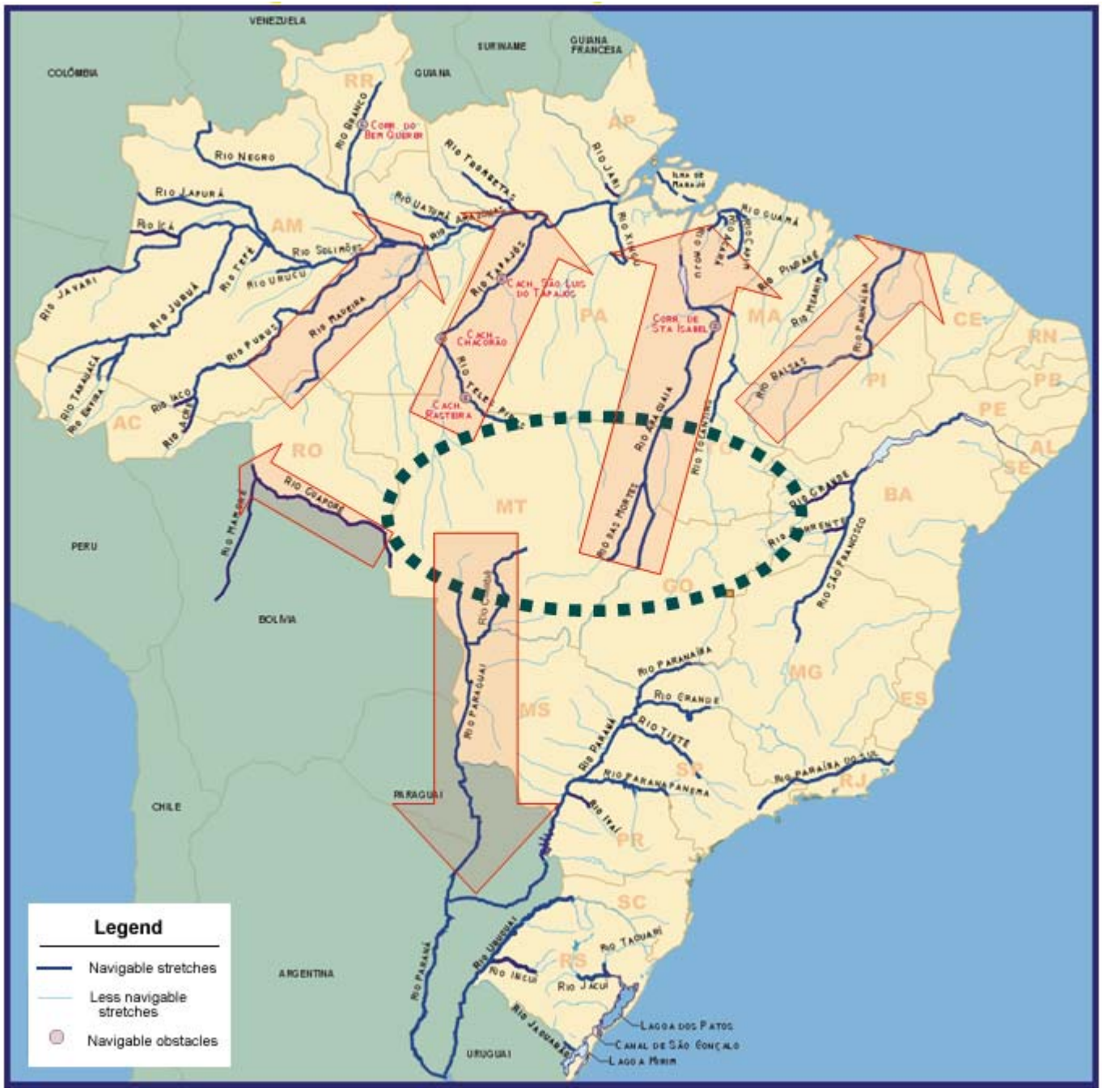
Average cost of transporting U.S. soybeans to Hamburg, Germany, and Shanghai, China										
	2005	2006	2007	2008	% Change 2007-08	2005	2006	2007	2008	% Change 2007-08
	To Hamburg, Germany									
	Minneapolis, Minnesota --US$/mt--					Davenport, Iowa --US$/mt--				
Truck	8.59	9.75	10.09	11.50	13.97	8.59	9.75	10.09	11.50	13.97
Rail**	–	–	–	26.00	–	–	–	–	–	–
Barge[1]	25.74	33.21	29.38	34.75	18.26	21.84	25.59	23.89	30.41	27.28
Ocean[2]	28.61	24.03	58.81	52.66	-10.46	28.61	24.03	58.81	52.66	-10.46
Total transportation[2]	62.93	66.99	98.28	105.41	7.25	59.04	59.38	92.79	94.57	1.92
Farm Value[3]	217.58	200.41	274.79	411.71	49.83	215.65	204.05	285.77	416.89	45.88
Landed Cost	280.51	267.40	373.07	517.12	38.61	274.69	263.43	378.56	511.46	35.11
Transport % of landed cost	22.47	24.94	25.7	20.1	-21.67	21.54	22.49	23.9	18.3	-23.51
	To Shanghai, China									
	Minneapolis, Minnesota --US$/mt--					Davenport, Iowa --US$/mt--				
Truck	8.59	9.75	10.09	11.50	13.97	8.59	9.75	10.09	11.50	13.97
Rail**	–	–	–	26.00	–	–	–	–	–	–
Barge[1]	25.74	33.21	29.38	34.75	18.26	21.84	25.59	23.89	30.41	27.28
Ocean[2]	49.50	41.59	81.36	91.18	12.07	49.50	41.59	81.36	91.18	12.07
Total transportation[2]	83.83	84.54	120.84	143.93	19.11	79.93	76.93	115.35	133.09	15.39
Farm Value[3]	217.58	200.41	274.79	411.71	49.83	215.65	204.07	285.74	416.89	45.90
Landed Cost	301.40	284.95	395.62	555.64	40.45	295.58	281.00	401.09	549.98	37.12
Transport % of landed cost	27.84	29.54	30.1	25.4	-15.53	27.08	27.31	28.3	23.7	-16.29

**Rail service is required due to seasonal closure of the Minneapolis segment of the Mississippi River
[1]The Mississippi River closes from Minneapolis to just north of St. Louis from mid-December to late March. The distance by barge between Minneapolis and Davenport to the Port of New Orleans is 1,713 and 1,343 miles, respectively.
[2]The Baltic Exchange; excludes handling charges; [3]USDA/NASS
Source: USDA/AMS

Selected quarterly Brazilian farm prices (US$/metric ton)*				
Year	**Rio Grande do Sul**	**Mato Grosso**	**Goiás**	**Paraná**
2005				
1st qtr	202.61	145.15	174.70	196.31
2nd qtr	210.19	161.38	179.81	207.04
3rd qtr	214.23	175.08	188.26	222.81
4th qtr	206.36	174.28	184.89	214.81
Average	208.35	163.97	181.92	210.24
2006				
1st qtr	202.56	157.86	180.71	206.88
2nd qtr	198.03	150.72	175.49	194.83
3rd qtr	207.37	161.30	185.73	211.06
4th qtr	233.43	189.65	216.60	242.47
Average	210.34	164.88	189.63	213.81
2007				
1st qtr	249.78	196.22	231.95	251.13
2nd qtr	228.00	198.61	225.49	239.48
3rd qtr	256.59	234.16	267.93	272.70
4th qtr	333.86	306.30	349.22	361.26
Average	267.06	233.82	268.65	281.14
2008				
1st qtr	404.89	349.23	406.90	423.63
2nd qtr	429.72	389.20	401.89	434.42
3rd qtr	435.02	419.80	409.37	435.49
4th qtr	309.01	277.74	274.34	303.68
Average	394.66	358.99	373.13	399.31

Source: Companhia Nacional de Abastecimento (CONAB)

Major river export routes



Source: National Agency for Waterway Transportation (ANTAQ)

Major river system corridors

Sources: Ministério dos Transportes, Brazil
National Agency for Waterway Transportation (ANTAQ)