



Retail Payment Systems in Brazil

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SPB Reform - Background



1st stage: Improvement of financial settlement infrastructure

Focus: Safety (systemic risk reduction)

- Legal and regulatory framework
- Technological infrastructure
- Central counterparties
- Real-Time Gross Settlement (reserve and settlement accounts)

2nd Stage: Payment instruments

Focus: Efficiency and modernization (increase the relative importance of electronic payment instruments)

Potential efficiency gains



- International experience and academic studies on a selected group of countries show that:
 - The cost of an electronic payment is between 1/3 and 1/2 of the cost of a paper-based payment (cash and checks)
 - A complete migration to electronic payment instruments would produce an annual cost reduction up to 3% of GDP
- Being electronic payment cheaper, why do market forces not promote a massive migration to electronic payments?

Answers



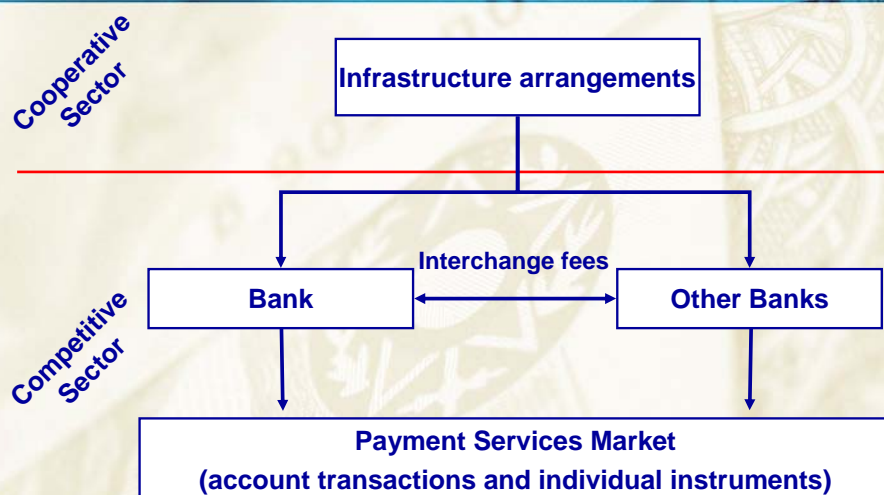
- Price mechanism does not work in the allocation of resources, because every bank-customer relationship is priced as a whole (information asymmetry)
- There are market failures on the electronic payment instruments supply that limit development and innovation (infrastructure as a barrier to entering)

Retail Payment System



- Retail payment systems features
 - Large number of transactions
 - Low value transactions
 - Goods and services acquisition
 - Variety of payment instruments
- Payment Instruments
 - Cash, checks, credit transfers, direct debit, credit and debit cards
- Distribution channels
 - Automated Teller Machines (ATM) networks, Electronic Funds Transfers at the Point of Sale (EFTPOS) networks and internet
- Clearing and settlement infrastructure

How to enhance welfare?



Diagnosis-Report: Importance and Structure



- **Importance:**
 - To serve as a starting point for definition of policies and guidelines on the subject
 - Periodical disclosure of information and statistics about the Brazilian Retail Payment System
- **Structure:**
 - Payment Instruments and distribution channels
 - Clearing and settlement infrastructure
 - Quantitative analysis
 - Fundamental issues on Retail Payment Systems

Diagnosis-Report: Objectives



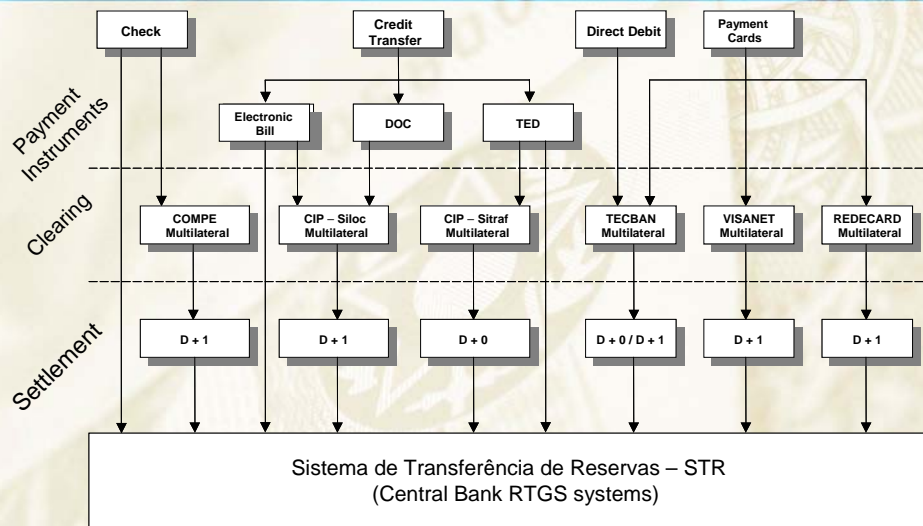
- To obtain a quantitative and qualitative analysis of the current stage of development
- To analyze the international experience
- To identify obstacles to modernization
- To define necessary actions to further modernization

Diagnosis-Report: Methodology

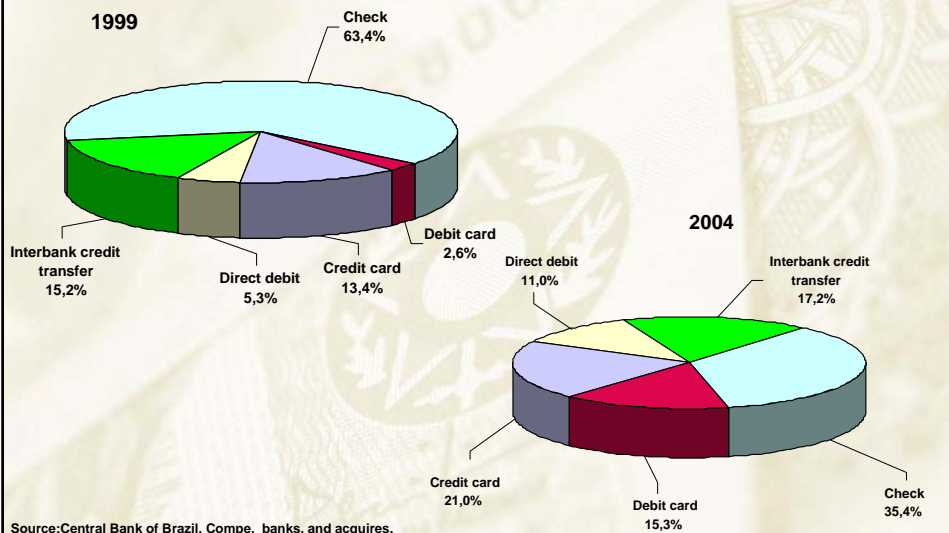


- Adaptation of international studies that made it possible to obtain a detailed analysis of the Brazilian case and a comparison with the international experience
- Interviews and questionnaires to banks, payment service providers, real sector economy representatives and bank associations
- Analysis of the international bibliography about the subject: publications from international financial organizations, central banks and research institutions
- Technical visits to central banks and to retail payment clearing and settlement systems providers in the countries considered to be at the technological “frontier” and with similar information disclosed

Clearing and Settlement Infrastructure

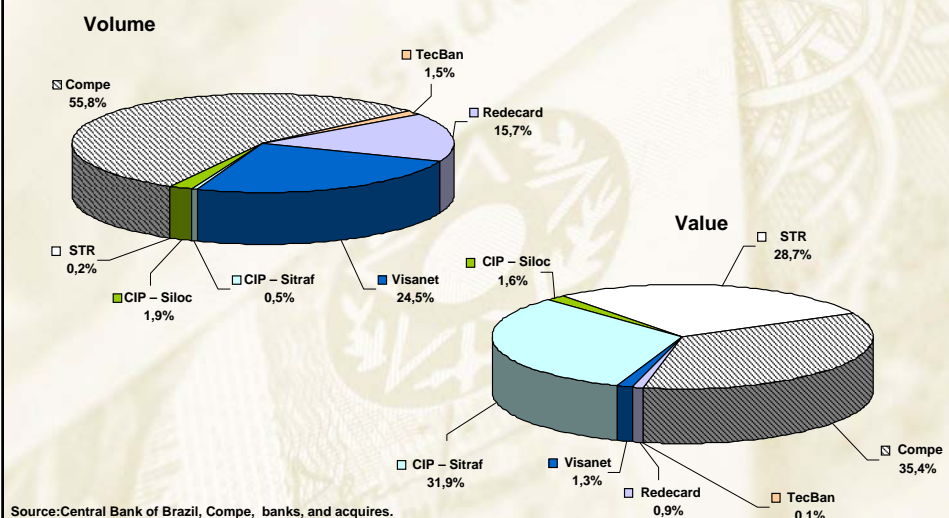


Payment Instruments - Volume



Source: Central Bank of Brazil, Compe, banks, and acquires.

Clearing and Settlement Infrastructure – Transactions - 2004



Source: Central Bank of Brazil, Compe, banks, and acquires.

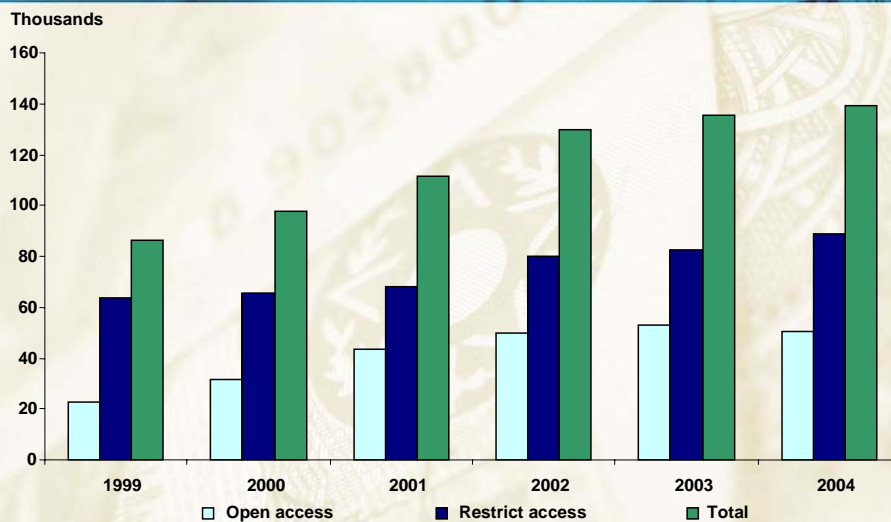
Relative importance of cashless payment instruments



Country	Check			Debit Card/ Credit Card			Credit Transfer			Direct Debit		
	1999	2003	%	1999	2003	%	1999	2003	%	1999	2003	%
Belgium	5,8	1,4	-75,9	28,9	32,8	13,5	51,9	46,7	-10,0	10,2	11,2	9,8
Brazil	62,5	39,4	-36,9	16,5	32,2	95,7	15,6	16,8	7,8	5,5	11,6	111,3
Finland	0,1	...	...	38,4	40,5	5,5	56,8	54,6	-3,9	4,6	...	...
France	40,1	29,7	-25,9	26,1	27,8	6,5	18,4	17,7	-3,8	15,5	17,8	14,8
Germany	3,8	1,0	-73,7	11,0	16,9	53,6	47,2	42,6	-9,7	37,8	39,3	4,0
Italy	25,2	15,6	-38,1	18,0	21,2	17,8	38,0	36,6	-3,7	18,8	22,3	18,6
Japan	8,2	4,3	-47,6	51,9	58,2	12,1	39,9	35,2	-11,8	...	...	...
Netherlands	1,0	0,0	...	27,7	29,3	5,8	41,2	40,4	-1,9	29,3	27,8	-5,1
Portugal	34,1	...	...	47,2	50,6	7,2	6,3	7,7	22,2	11,9	...	...
Spain	10,7	...	...	24,3	22,9	-5,8	14,5	15,2	4,8	50,5	...	...
Sweden	0,3	0,0	...	22,3	26,7	19,7	69,6	65,4	-6,0	7,4	9,9	33,8
Switzerland	0,8	0,4	-50,0	26,0	28,4	9,2	68,4	62,9	-8,0	3,5	5,3	51,4
United Kingdom	28,8	18,6	-35,4	34,3	36,6	6,7	18,1	17,8	-1,7	18,8	20,1	6,9
USA	61,7	45,3	-26,6	31,4	35,2	12,1	4,5	4,8	6,7	2,4	4,1	70,8

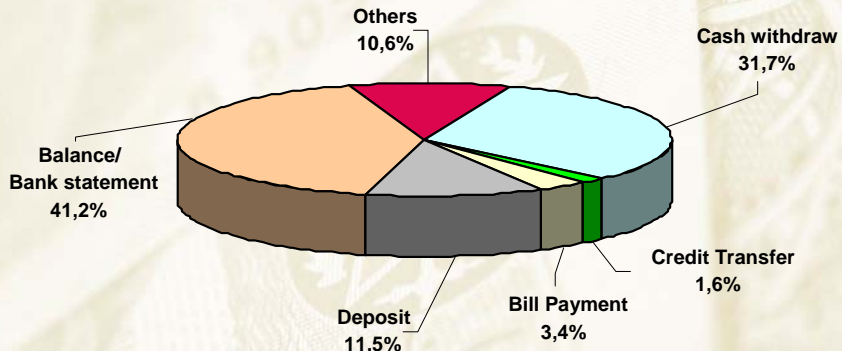
Source: Central Bank of Brazil, banks, credenciadores e administradores de cartões, BIS/CPSS, European Central Bank.

ATM – Number of terminals



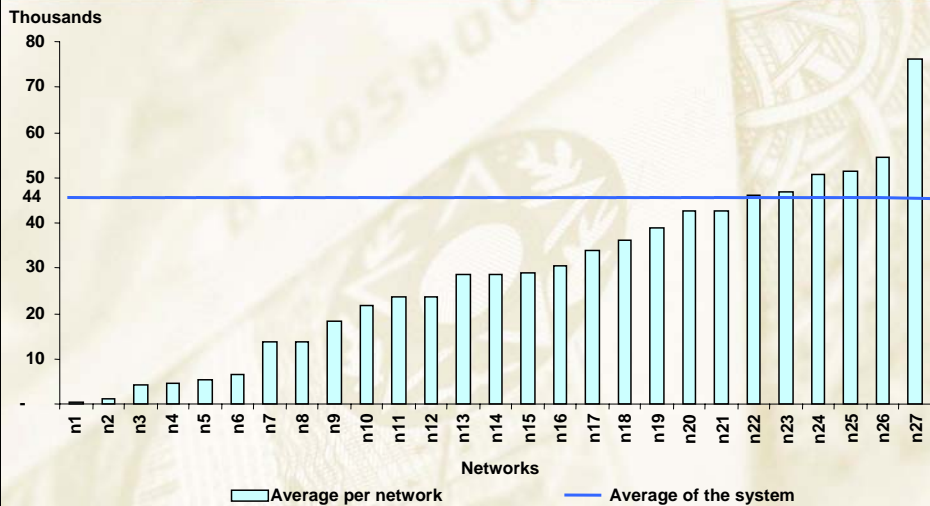
Source: Central Bank of Brazil, banks and ATM networks

ATM – Transactions in 2004



Source: Central Bank of Brazil, banks and ATM networks

ATM – Interoperability Average of transactions per terminal - 2004

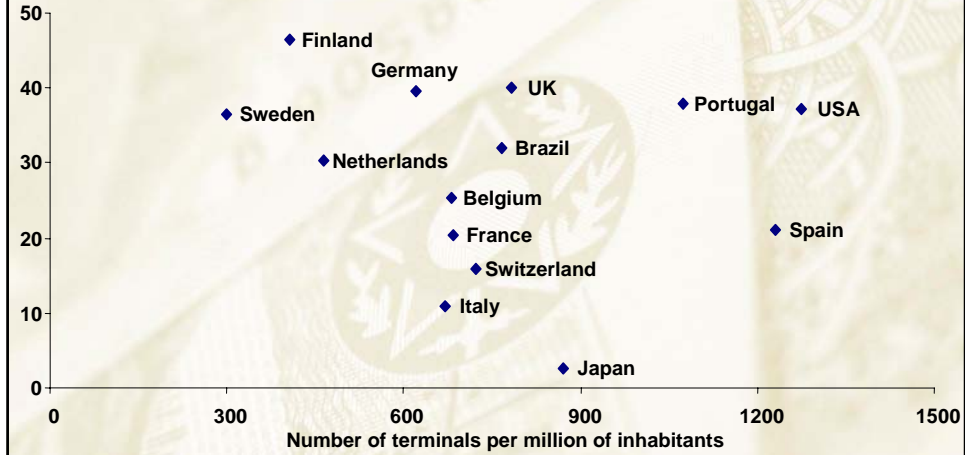


Source: Central Bank of Brazil, banks and ATM networks

ATM – Number of transactions - 2003



Transactions per inhabitant

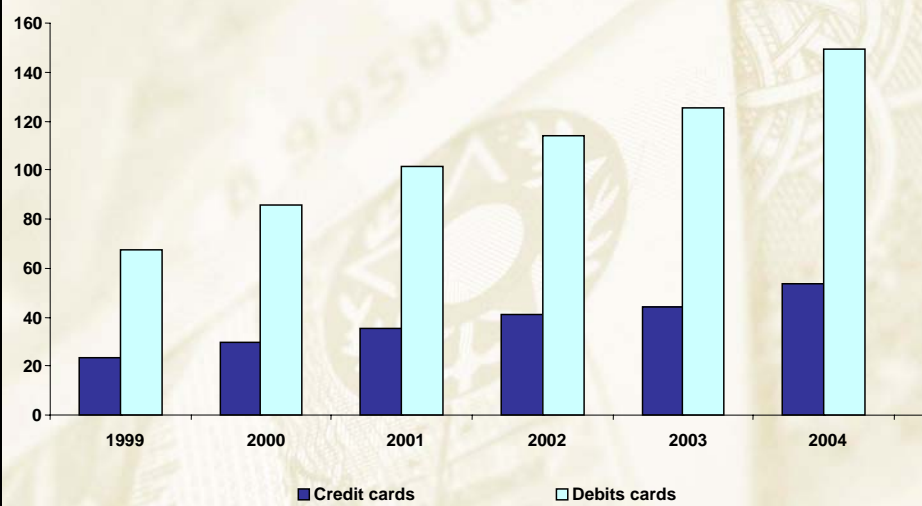


Source: Acquirers, Card Associations, BIS/CPSS, European Central Bank

Payment Cards: debit and credit

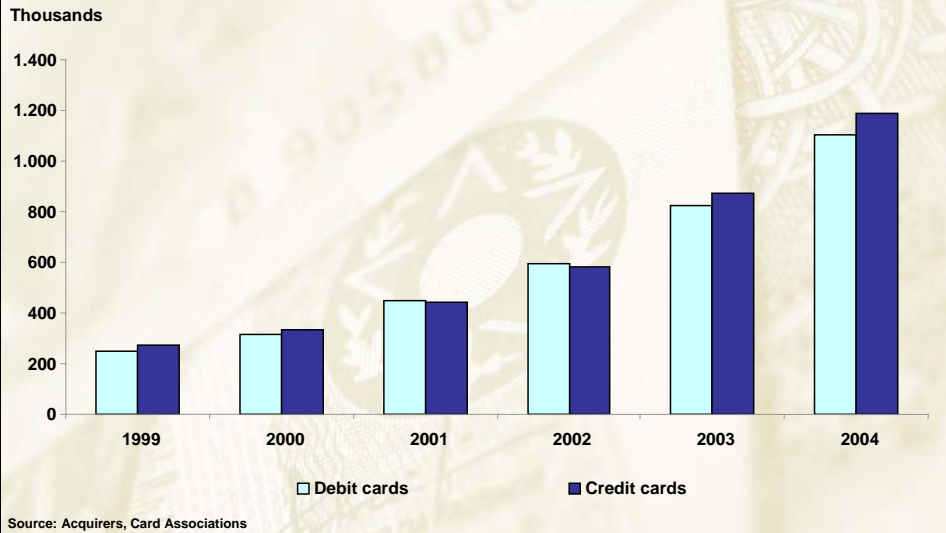


Millions

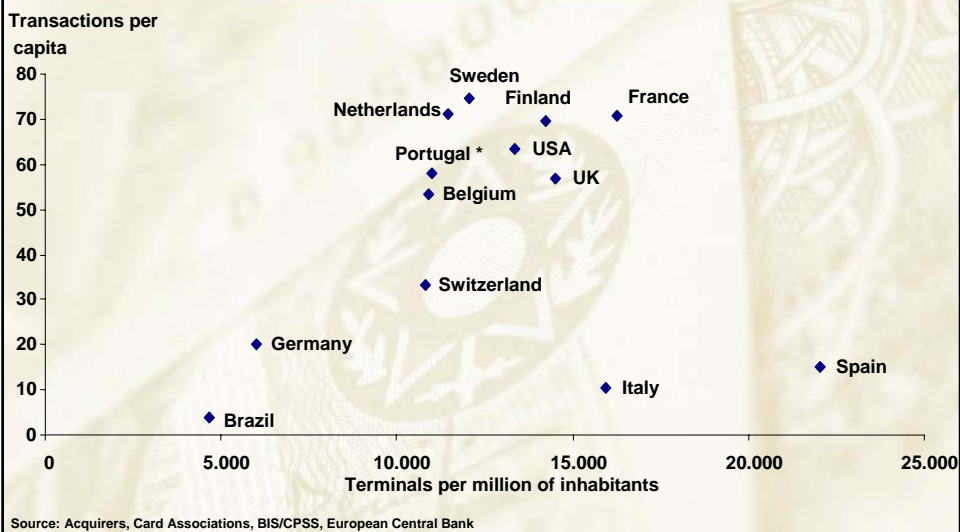


Source: Acquirers, Card Associations

POS - Number of terminals



Debit card transactions International Comparison - 2003



Credit card transactions International Comparison - 2003



Remote Access



Transactions	Volume (millions)			Value (R\$ billions)		
	2001	2004	2001 - 2004 (%)	2001	2004	2001 - 2004 (%)
Total volume:	1.281	3.311	158,5	175	1.881	976
Payment	88	585	566,6	175	1.836	4.511
Credit transfer ^{1/}	33	339	927,8	26	1.099	4.116
Electronic bills and agreements ^{2/}	55	246	349,0	149	737	395
Non-payment:	1.193	2.725	128,4	...	45	-
Balance and bank statement consultings	733	1.475	101,3	-	-	-
Others	460	1.250	171,6	...	45	-

Source: Banks.

^{1/} TED, Doc and inter accounts transfers.

^{2/} Taxes, fees, contributions, etc.

Main Conclusions



- **Barriers to the development of electronic payment instruments**
 - Infrastructure as a competitive factor (barrier to entry) in the payment services supply
 - Settlement infrastructure fragmentation
 - Low level of interoperability on ATM networks
 - Low level of interoperability on POS networks
 - Price system does not work in the allocation of resources (indirect pricing and cross-subsidies)

The Role of Central Bank



- Establish guiding principles: policies, guidelines and objectives
- Foster cooperative and market solutions
- Coordinate expectations and investment decisions
- Act as a catalyst among the involved participants and other public authorities
- Regulation, when necessary

Central Bank Actions



- Coordinate and act as a catalyst of changes
- Promote business governance cooperation on the ATM network and POS network
- Stimulate system investment costs optimization
- Foster cooperation at upstream network and competition at downstream market



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